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Research paper

The colors of the domes in the desert- a review

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Abstract

This paper mainly studies The Colors of the Domes in the desert; the mosque is for Muslims the clearest symbol of faith, a place of prayer and even in social gatherings. In Jordan, this religious building is so widespread within the large towns, small villages and in some cases the margin of the boundless desert areas. The spread of radical mosques throughout the country, from north to south of Jordan, took particular elements of recognition and visibility to differentiate the homogeneity of the constructed building that saturates the urban areas of towns and villages continues to grow. The most common type is the mosque dome, in which the interior of a quadrilateral shape is organized under a single dome in the center. This proposed approaches Methodology the dome over to play an important religious significance, as an image and symbol of the heavens and the divine transcendence, is an important visual indicator, which together enhances the looks to the minaret of the mosque. The symbolic importance of these places of worship is delayed precisely those elements required in the landscape as safe points of reference, linked to Islamic architectural tradition.

Keywords: *Domes in the Desert; Muslims the Clearest Symbol; Boundless Desert Areas.*

1. Introduction

The dome cover is therefore an element of recognition in the landscape and seems to break up the monotony of the flat roofs of the surrounding urban fabric. In the most cases, the dome is topped by a golden crescent, oriented toward east. But the minaret oriented toward Mecca. "A Passage transcendental part of the mosque from the earth surface to pass through the astral dome, at the height of the object is recognized that purely religious in the half moon. A safe incisive character to the domes of mosques in Jordan is given by the strong chromatic treatment of the extrados surfaces. The coloration of the outer surfaces plays a visual role that emphasizes the architectural form. In many cases, the outer shell, full and compact, is treated with a homogeneous monochromatic color determined by the use of different materials, from simple pigmented plaster, with mosaic tiles, the tiles of earthenware or white stone.

This monochrome finish matches with numerous mosques in the Jordanian territory.

The multiplicity of choices of color applied to the domes in Jordan is not purely random but is linked to a specific religious thought and culture, which brings together the architectural space with the territory. L 'integration of physical features and color of the building with the natural landscape and the existing urban fabric is based on' application of colors in warm colors (yellow, gold, red, ocher) and cold colors purely, ranging from green to various shades of blue. Bright colors, saturated and full of meaning that stand apart from the static surface of the white houses of the villages, each color has a symbolic meaning and refers to different pictures of their religious culture of Islam.

2. Materials and methods

Perform the search: The research proposed concerns the representation of the many meanings attributed to the different colors applied on the extrados of the domes of the mosques of the Jordanian territories, thus defining the relationships that exist between the different hues and the territorial context to which they belong.

The color is characteristic of objects, you can't see it in the dark, so it is closely related to light. The beauty of many objects is related to their color: we can remember the beauty of the color of the roses, the beauty of the sunset sky, the beauty of fish and insects ... So the color has a special beauty The color has many different uses in the arts: it is used by itself, that is, for its specific value, is used for its symbolic value, is used to give form to Work.

From the symbolic point of view was used at the time of the dominion of the Church, for example, the blue was the dominant color of the clothes of the Virgin Mary in the eyes of artists and its coat was colored red, The color is used to give meaning to the model and to highlight its nature; its volume in space. Red Herbert says "the goal of using color is to represent reality." Deny John says: "the eye, in fact, is starved of light and color." As Ruskin says that "the beauty of color promotes peace and inner joy".

The color has been used and added generously to the elegant creatures of God and became a wonderful proof of the completeness of God in Islamic color promotes the function of beauty as a principle. The colors used in Islamic art are ever green, blue and gold, while in a more limited way the red, yellow, brown. The domes are decorated externally and internally through tinted windows colorful mosaics.

The green and the blue are the colors of the sky, water and green plain Show the fig 1:

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Fig. 1: Domes of Mosques in Amman City.

The green and the blue are the collars of the sky, water and green plain
These are cool colors, the colors are also give a sense of space and infinity. Matice is one of the post-modern Western artists who were influenced by the beauty of color in Islamic art, after a few trips to the Arab world, particularly in North Africa. The gold has been used generously in Islamic art, is a brilliantly colored magic that makes you feel to escape from the earthly sphere, or to bring it in heaven or in heaven. This is the fundamental objective of the Muslim faith,The color has different meanings, cultural, philosophical, religious, and also to the shape, matter and space.

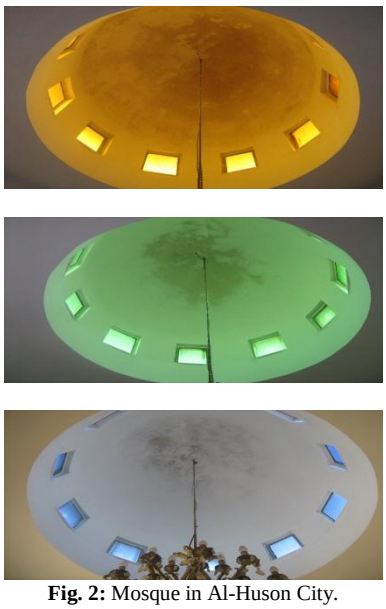


Fig. 2: Mosque in Al-Huson City.

3. The presence of domes in the mosque

The dome represents heaven for the Christians in Syria and Palestine. It is believed this is the reason for the dome of the tomb made Abbasid caliph al-Muntasir by his mother, of Roman origin. In front of the mosque's dome is Mehrab (the apse) to give importance, as it ripresenta the direction of Mecca. The dome, like the minaret, is designed to be viewed from afar, is a point of attraction in the landscape.



Fig. 3: Dome of the Rock in Jerusalem.

The Dome of the Rock in Jerusalem, for example, a profile is authentic recognizable at a distance.



Fig. 4: Dome in Amman City – Mosque of the Collage Scientific Islamic in Al-Abdali.

Building: the geometric purity and harmony. The lower part of the facade is clad in white marble decorated with geometric motifs. The top, however, is tiled and has an area containing diamonds and blue colors in its decor there is no human or animal figure, but only plant motifs. It's an aesthetic that seems to make fun of the usual distinctions between reality and imagination, between representation and decoration, which combines the lively and the unlovely. The Dome of the Rock is the place of al-Miraj, the place of mystical ascension of Muhammad. The mosque of the Alhambra in Andalusia, Spain (711 AD), became famous for its decorations, the dome of the two sisters Sarba is entirely covered with stucco muqarnas, suspended in 16 windows. In a transcript on the walls, a court poet Ibn Zamrak, sings the praise of this masterpiece: "This dome outshines the stars of the sky."

4. The Islamic crescent

The Islamic Crescent is located on the highest point of the minaret to indicate the direction of Mecca. It is also the lunar month of Islamic calendar: the crescent at the beginning of each month, and illuminates the earth is a new moon, a new month. According to the ancient peoples the beginning of a new month brings the good and the light of God on earth and still when you see the new crescent of the prayers are made to wish that the new month is a bearer of good for humanity.
The crescent represents the faith of God that illuminates the hearts of the people, eliminating the darkness of ignorance and destroys evil. The crescent moon also shows the sunrise every day from the East.

5. Islamic decoration

The Arab-Islamic decoration has its own characteristics and its specific forms that differs from other Asian or African or Western decorations.
This decoration has its roots in ancient traditions of Eastern-Arab, but the arrival of Islam had its religious influence to this day. Obviously no one single event, but differs according to the forms and colors and materials used in the territories entered the Islamic sphere. This is because the Islamic world is big and broad and extends from China to the Atlantic.

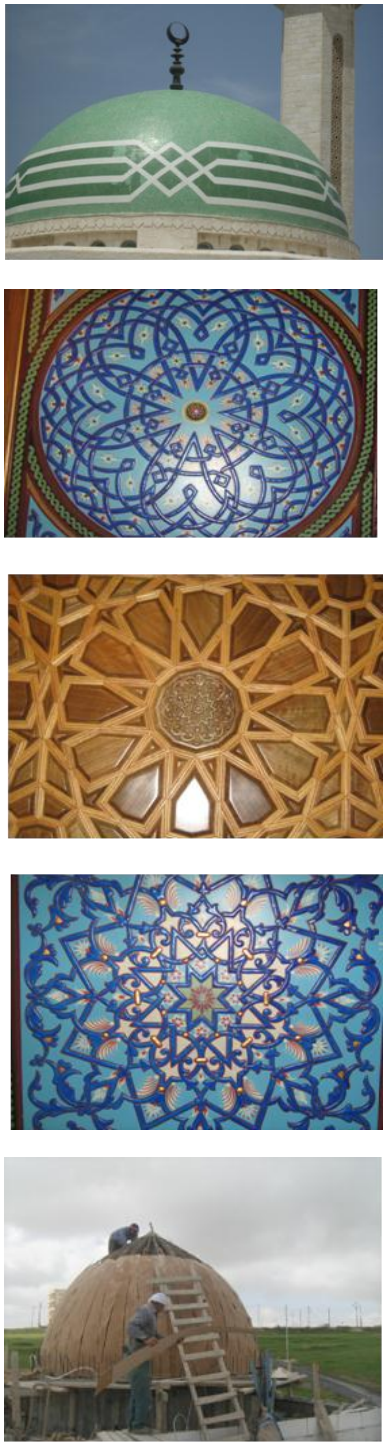


Fig. 5: Domes and Decoration in Some Mosques in Amman City – Jordan.

6. Islamic decoration techniques

One of the main techniques inherited from the Umayyad builders is that concerning the use of stone raw or processed through the stereology, the art of cutting and preparing the stone blocks. The building material was left exposed, and this allowed the use of the natural color of the stone for ornamental purposes.



Fig. 6: Dome in Stone in Amman City.





Fig. 7: Dome of the Mosque Abu Darwesh – Amman.

This technique was used in the architecture Assyrian and Achaemenid, and consisted of alternating dark and light rows of stones, to create a stripe pattern, such as the Abu Darwish Mosque in Amman, Jordan, alternate file or stone with rows of brick, polychrome advantage of the natural materials, for example, Qasr Amra, Umayyad castle in the desert of Jordan.
The meeting between stereotomy polychrome and promotes an exciting blending of architecture and decoration.



Fig. 8: Qaser Amrah (Omayyad Castle in the Desert of Jordan)

Another technique related to ornamental stone building is the sculpture, such as Qasr al -Moush (Umayyad palace of 740 AD), which allows you to empty the material rather than shape it. This technique is constant in the sculptural decoration of the Arab world.
Another technique consists in the ornamental stone walls covered with slabs of marble colors, creating shapes such as squares, diamonds, polygons or circles.



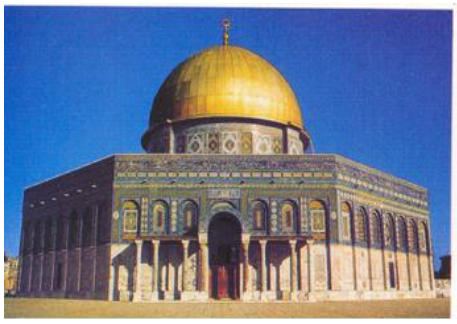


Fig. 9: Rock Mosque in Jerusalem – Palestinian State (Omayyad Architecture).

It was used in ancient Umayyad buildings, such as the Dome of the Rock in Jerusalem and the great



Fig. 10: Umayyad Mosque in Damascus City - Syria

Umayyad Mosque in Damascus or that the Medina in Saudi Arabia.



Fig. 11: Mosque of the Maddina – Saudia Arabia.

This technique tends to cancel the materiality of the building.





Fig. 12: Dome of the Blue Mosque of King Abdallah in Amman City.

7. The mosaic

This technique enjoyed a limited luck in the Arab world of the past, foreign workers were employed by Byzantine and Islamic architecture has been successful, whereas now it uses a lot more, such as the Blue Mosque of King Abdullah in Amman

8. Stucco



Fig. 13: Dome and Decoration in Mosque of Amman City.

This technique was inherited from the Sassanid and builders experienced some success in the Islamic world. The reason for the success of the grout is linked to moisture that allows it to adapt to any type of media and its ephemeral nature, all of which meet the aesthetic and ethical values of Islam.

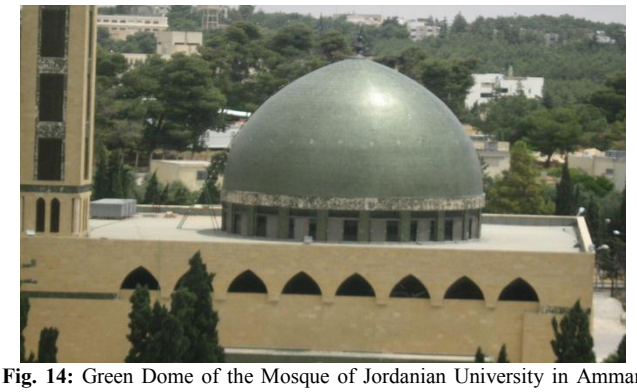


Fig. 14: Green Dome of the Mosque of Jordanian University in Amman City.

The stucco can be polished with the bone to give the brightness of the marble, or can pass on significant parts of the plaster very diluted to accentuate the contrasts between light and shadow, or resort to some special polychrome painted with gold.
The decoration does not cover the wall, but even replacing it, so the same architecture becomes ornament.

9. Ceramics

The art of pottery was used from the beginning of the twelfth century, when it introduced the color in Islamic architecture. It's a touch of turquoise-blue enamel dots ocher brick.
The search for early effects of color gives rise to a fine art of mosaic tiled finish to seize all the visible surfaces. This polychrome, which overlooks the turquoise decor that seems to fulfill one of its highest symbolic functions. Sublimate architectural reality in an image for the celestial lining of the domes, this technique is applied to a change: first replacing the glazed tiles with glazed bricks themselves, better able to resist aggression or rain frost. Then you have the individual elements of the composition is not on the floor, but in boxes corresponding to concave portions of the dome. Each piece of a mosaic made and implementation is raised in its place. The colors used for ceramics are turquoise, cobalt blue, violet, manganese and white. Using hexagonal tiles blue-green and turquoise, with patterns in gold, green, see the mosque Jordanian University in Amman.
gray, mauve, bright red with the use of land with a strong component of iron. With the zellij (glazed earthenware) and the tiles are made colorful geometric designs and proceeding according to a mathematical principle, all the compositions are obtained by match-wise from a large number, but not unlimited standard elements.

10. The Arabic calligraphy on the dome



Fig. 15: Domes Decorated in Arabic Language in Amman City.

He knows his heyday in the tenth and eleventh century and became the visual element that contributes to the stylistic unity to the various architectural products in the Islamic world. The Arabic calligraphy is comparable to the importance of images in the Christian world. It has an ornamental function, but simultaneously serves to convey a sacred message.
The Arabic calligraphy is an art, has had its recognition around the world, is a gift from God, finds its archetype in a light blue writing. Preserve the sanctity graphic in its essence. For the first time it was used in Islamic architecture in a mosaic on the arch of the octagonal Dome of the Rock in Jerusalem.

11. The color in the Islamic religion

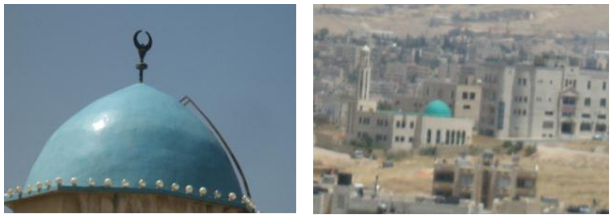


Fig. 16: Simple Dome in Blue Color in Amman City.

Color communicates an important concept in Islam: the light coming from heaven, which is related to the Creator, that is the light of God (Allah noor) goes in the hearts and illuminates the darkness of the soul, the darkness of injustice as opposed the beauty of justice. So the beauty of color is linked to the concept of justice as well as folk traditions in dark colors represent the sadness, misery and injustice while the bright colors represent joy, justice and happiness. The color is also linked to the eye as an instrument that sees the light and color.
In the holy book of Islam, the Koran, nine times in seven verses are cited colors: green, yellow, white, blue, black and red.
Black was quoted in four Quranic verses to describe the infidels and once to describe the beginning of fasting in Ramadan. The color white is nominated in nine verses, symbolizing the divine path, purity, goodness, justice, human feelings and interactions with holiness, symbolizes the character of the Creator in the popular traditions, the flag of God is white it is the color of the sheet in which to wrap the dead and the color of the cloth worn by the faithful on their pilgrimage to Mecca. The color blue is mentioned only once, to represent the color of the sky. The red is appointed once to describe mountains, however, he was named three times to represent the stages of ripeness of the fruit, to describe the Day of Judgement and the suffocating wind, and finally to describe the happiness.



Fig. 17: Yalu Dome of One Mosques in Amman City.

Green is the color most pleasant, is remembered in eight verses, which is the secret of the soul, beauty, trees and vegetation, fruit, birds, butterflies and the earth.
Also in Arabic literature are the use of colors as symbols. The Arab poet Safi Addin Alhili says "our facts are white, green, red are our fields and our battles."Even today the flags of Arab countries have used these colors with their meanings. The gold has been used by Muslim artists with skill and professionalism, but with caution, for fear of reaching the over-use found in Byzantine churches. According to the critic Tenghosin, this color was used "only for finishing and landscaping." Gustave Le Bon, French psychologist and sociologist, said that the colors used by the Arabs in Egypt are the red, blue, yellow, green and gold.
After participating in the restoration of the Alhambra palace in Granada, in Andalusia, the English architect Owen Jones, in a study of mid-nineteenth century on the colors used and the arts, said that, excluding the mosaic covering the lower part of walls, Arab artists have used other colors blue, red and yellow / gold. These colors were distributed with excellent taste: the predominant color is red, but has been used plenty of blue for the outline, in order to balance the effect of the massive presence of red and gold. The colors are separated by white lines or shadows entwined. The green, black and dark purple are seen in the building are actually due to a bad restoration carried out by the Spanish during their presence in the building. The red in the Alhambra Palace is not only a decorative function, but also a philosophical meaning, it has a relationship with the red light, is one of the colors of the rainbow. The light in Islamic philosophy, is always a symbol of God's light The presence of color is the manifestation of God's presence, since the color cannot exist without the light.
This is an important difference between Islam and the artistic taste in the faiths of other peoples and cultures.

12. The characteristics of color

The key features of the colors are:

- The net difference between the colors.
- The color value, ie the degree of darkness or brightness.

- The intensity of color, that is, the degree of purity and the amount of mixing with other colors.

The research paper and studies on artists and painters of the second half of the nineteenth century, one can distinguish warm colors and cool colors, according to the feelings aroused in the observer. The blue is considered a cold color, red and its shades are considered, but warm colors. Schools of Oriental decoration, such as the school of Baghdad in 1237 AD, have pioneered these studies, had already decided by then that the colors have a misleading effect on the eye: the warm colors and the light surface giving it a deeper and morewide of reality, while the cool colors and give a strong effect of the distance. In a description of Cairo while Almaqrisi XI century AD, refers to two images representing two Egyptian singers. The first, on a black background, wearing a white dress and the impression was that the singer was inside the wall. In the second image, however, the singer was dressed in red on a yellow background, and the impression it gave was to get out from the wall. In the classification of cool colors and warm colors, white and black represent a case neutral, so using them you can check the value of the other colors, as can be seen in the play of light and shadow in architectural elements in the movement of the domes , and the arches of the time, in the corner elements, in particular the musharabiya (decorated wooden grilles), and in the reliefs in the various types of Arabic calligraphy. Creativity in the Muslim, the secret of beauty lies in the architectural and artistic movement of the shadow. This is why Islam is considered one of the arts that has exploited very well the light and shade, unlike ancient Egyptian art, in which colors were used without shade, giving the impression of a flat surface. In general, by the nature and characteristics of color, you can control the appearance and beauty, and thus the sense of architectural space of the buildings. The architect may well accentuate the skilled volumes and surfaces of the architectural elements using the natural colors of construction materials.

13. Results and discussions

In the restoration of elements of Islamic architecture is necessary to consider several factors and specificity:

1) Respect the preferences stored in the memory of the Islamic people and not hurt the local ancient cultural heritage, without forgetting to include elements characteristic of the spirit of Islam, like the colors mentioned in the Koran.
2) Avoid giving new features to the construction materials other than natural or embellishing with paints to hide their flaws. This is morally the sincerity of the intentions as opposed to hypocrisy. In this regard, the Frenchman Gustave Le Bon says, on the contrary, in his book "In the Arab civilization," which in Islamic colors are used only to hide the defects.
3) Search more ideal performance for construction materials. This can be achieved taking into account the orientation of the building, and the different effects produced by sunlight on the exposed surfaces differently. For example, in the restoration of the facades of the school of al-Sultan Hassan in Cairo (758H - 1356 AD) was chosen for all the same stone facades, but it has been applied on the facades in the same orientation from which it was extracted in to get the color you had in nature.
4) Choose colors calm, cool for the interior, which hides the effect of natural light, with the aim of creating an atmosphere close to the human being, which gives the soul a sense of calm and confidence. To this end, the blue suit, blue and green, which consists of a psychological effect on the activities of the organic body, such as blood pressure and relaxation of muscles. It is also useful to use the sculpture and bas-reliefs that affect aesthetics through chiaroscuro.
5) Making the final touches using colors taken from the surrounding landscape colors and avoiding strangers.
6) Use different colors but homogeneous in decorative treatment.

We must remember that the position of the color in the science of beauty and psychological analysis, the artistic treatment of the economy are the opposite, where he works with the existing laws of nature, instead of taking care of reality, where the beauty of hand ' object becomes a necessary element to it, and this makes us ask what is the color most beautiful of all colors? The German psychologist Gustav Fechner says "it is true that the red color is nice if you see him on the cheek of a girl, but when we see it on the tip of his nose becomes beautiful", so we feel the beauty of color through their content and their importance.

When we consider the red dawn, we see different from red in the human face. The surrounding nature and image of the sky have their presence in the philosophy of color: the blue has its own importance in its link with the sky and water, which is the center of life ("We made every living thing of water "verse of the Quran), so this is important interrelationship with the spirit of Islam, which comes from the desert, and in accordance with the cool way to reflect the nature of the blue, loved by the people who live in this warm environment. This importance has moved up to the people who inhabit areas with warmer climates or cold, as happened in Central Asia, Caucasus, Turkey and the Balkans and parts of Russia and Poland. We find in blue domes and buildings in several mosques in Tabriz, Iran and Istanbul, and were called "the blue mosque" for the color of the mosaics that decorate. When we see a mountain covered in deep green, looks dark in the shade. Once Iraq was so intense green that someone called him the black earth, the darkness of the green.

Green is regarded by the Islamic point of view the color more dominant among the primary colors (blue, green and red), which are found in the colors of nature. The green comes from a mixture of yellow and blue. The green represents hope, fertility and eternity. These characteristics are related to the color blue represents the past and the future is yellow and red representing the present. We observe that the Green prepares the ground for the colors blue and purple, which describe the sky with the green dome.

The American Ettinghausen believes that the use of color in architecture "is a pure Islamic successful" and adds that "the greatest places in the Islamic regions, which extend from the Atlas to China, is characterized by the presence of desert, dry and warm. This arid area contains some specific characteristics of color and artistic treatments that promote relaxation and visual treat for the traveler who has crossed thousands of kilometers and then immediately see the color of clay, which is represented in the city, seeing the color blue in the domes and in the ceilings of the local mosques, breaks the boredom and win the psychological relaxation. "

We quote the opinion of Iranians Nader Ardalan and two architects Lala Bakhtiar in their book, The sense of unity in the Islamic work on the colors as they called the "homogeneity of the opposite", which has made the treatment in the colors, where we find the tent the color blue in the dome of a mosque can increase the contrast and relaxation with a gradation of yellow and dark yellow color of the environment that reflects the surrounding desert. The contrast and the reflection gives the viewer a gradation of colors most articulate, consistent and deeper.These two architects follow the sophistry in "Islamic traditions of colors that can be inherited as a model for binding and interaction with the will of heaven of God that comes as part of the couple light / dark as permanent and likely not visible in the model of the sky".

The Islamic artists are creative and skilled in complex organization of colors, so they created new compositions of color, who defied the imagination in its beauty, that cheers the eye at the viewer and creates deep feelings, reflections. These colors seem to communicate with each other, even create new relationships built on rules based on the intensity of color and contrast, and the consequence.

The red and orange are the colors of fire and sun, so they are warm colors, while shades of green and growing to the moon, so

I'm cool colors, but the use of four colors on a single surface, shows Therefore the effect of the color of the colors that the artist uses a skill to create them a dynamism and brilliance of color.

14. Conclusions and considerations

Islamic geometry:
The characteristic white marble inlay and red sandstone gives rise to optical phenomena of vibration, due to the fact that the eye constantly hesitates between light and dark settings.
The plot is the most unique system geometrical ornamental Islamic art has developed from the principle of mathematical division of the plan. The intertwining geometric functions as a sort of device that can confuse the eye. The plot has a geometry of his life that goes beyond material reality, is, in truth, an art concept. So what is the meaning to be attributed to the geometric decoration of Islam? It is not easy to give a clear answer to this question, given the intermixing of the various levels of meaning, aesthetic, philosophical or symbolic. It is obvious that this art reflects the development of the mathematical sciences. You can think of with Louis Massignon that the perpetual transformation of geometrical shapes of the plot corresponds to the specific guidelines selected by the mathematicians of the Islamic world. Overcoming the static model greek, Islam has actually invented a mathematical concept dynamic trigonometry. This original approach with a philosophical view which sees the world as an unstable group of atoms, a philosophical atomism, which is itself an adaptation to the religious idea of the transience of the world in front of the eternity of God.
The dynamic shape and fragmentation act of perfect mathematical shapes. The idea of Islamic geometry stems from a higher truth.
Algazali, Persian mystic and philosopher, points out that the geometric perfection of the cells of bees is a tribute to the divine from which it originates. The Qur'anic sura "bees" (Annahal).Considering the ubiquity of the star polygons in this decoration, is a call celestial or astral. The ceiling of the throne room of the Alhambra, where once a wooden supports geometric decoration in which they appear seven levels of star polygons that correspond to the seven celestial spheres in Islamic cosmology that claim the throne of God.
The windows in the domes facilitate the entry of God's light from all angles and gives a strong sense of infinite space, generates an effect of luminosity and vastness.
The holes in the domes covered with sheets of glass with a delicate design with plant motifs are woven deeply into domes, manifests itself with more original submission to the logic of laws architectural ornamentation.



Fig. 18: Dome of Tome of Qurqomas in Cairo City – Egypt (14 A.M).

The muqarnas as an aesthetic form and the product is manifested most original encounter between the laws of construction and ornamentation.Can be made of brick, stone, stucco, plaster or wood covered in majolica. The muqarnas are used not only for ornamental domes, but also covers in half shells dell'Iwan and adorn the portals or soffit of an arch.
The play muqarnas traditionally perceived as an architectural metaphor of the sky, are like a waterfall simoneggia the rotation of the heavens of Islamic cosmology.
The muqarnas present the image of a structure that obeys laws similar to those of geometrical crystallography. According to most philosophers and theologians of Islam, "the universe or the space is eternal and unchanging reality, but instead is a set of atoms whose cohesion depends on the will of God in every moment."
The dome focuses positive energy, promotes a relaxing effect on the human body in terms of psychological and moral, gives strength and resistance against the forces of evil (poison, disease and fatigue).

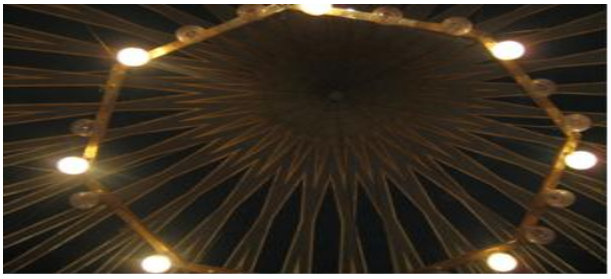


Fig. 19: Interior Dome in the Blue Mosque in Amman City.

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