

THE INFLUENCE OF THE WESTERN ARCHITECTURAL LANGUAGE ON THE ARCHITECTURE OF ISLAMIC SOCIETIES

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ABSTRACT

In its general context, the language of architecture represents cultural connotations and symbols that originate from customs, traditions, cultural and spiritual values, and environmental influences, which does not prevent the continuation of its inheritance or the creation of new connotations and symbols that are consistent with the development taking place in society's culture and modern means of technology. The Arab-Islamic civilization called for most of the values and principles advocated by Western architectural thoughts through its theories and trends, while Western architectural thought has dealt with these architectural values and principles from a material perspective only, and did not take into account the human values achieved by Islamic architecture, which dealt with architecture from a balanced perspective, because it is not just a structural formation as much as it is a social and cultural content for humans, and that is what makes Islamic architecture applicable in every time and place. We find similarities as well as differences between the theories of Western thoughts and the concepts of Islamic thoughts, and by reviewing some of the principles of the first Western architectural language schools and reviewing their architectural models and comparing them to the architecture of Islamic societies in the ancient Islamic eras, to gain a set of similarities and differences between them, which could be the beginning of a change and a development of architecture that is based on the integration of the languages principles of Western and Islamic architecture. Western architectural language influenced and integrated with the architecture of Islamic societies through some new architectural trends such as the trend of Abstractionism or the trend of Symbolism, which are trends that try to integrate with local architecture by dealing with the building by its content, as simple forms, shapes, and plain surfaces in order to achieve modern and simple architecture. While Conceptualism trend characterized an attempt to create dazzling iconic models in the midst of urban contexts through a new and different design concepts and not following the traditional methods that are followed when building any mosque or Islamic center, but rather reducing the identity of the building to become a symbol of local or international architecture. Also Deconstructivism trend often creates impressive buildings, even if they are criticized, this trend is concerned with dismantling the architectural fabric of the mosque and reformulating it in forms that differ from its inherited and conventional characteristics, thus models of buildings appear with dynamic coverings and surfaces overlapping without being obligated to regular or formal design while maintaining content and function. The main goal: Trying to reach and benefit from the similarities and differences of the Western experience in a way that does not conflict with the Islamic ideological and intellectual approach, and working to develop a modern architectural language that is inspired by the Islamic architectural heritage and integrated with the Western concepts..

KEYWORDS: Architectural Language, Western thoughts, Architecture of Islamic Societies, Contemporary Trends.

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تأثير لغة العمارة الغربية على عمارة المجتمعات الإسلامية

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الملخص

تمثل لغة العمارة في سياقها العام دلالات ورموز ثقافية منبعها العادات والتقاليد والقيم الثقافية والروحية والمؤثرات البيئية، والتي لا يمنع الاستمرار في توارثها أو استحداث دلالات ورموز جديدة تنسجم مع التطور الحاصل في ثقافة المجتمع ووسائل التقنية الحديثة. دعت الحضارة العربية الإسلامية إلى معظم القيم والمبادئ التي نادى بها الفكر المعماري الغربي من خلال نظرياته واتجاهاته، مع الفارق أن الفكر المعماري الغربي قد تعامل مع تلك القيم والمبادئ المعمارية من منظور مادي فقط، ولم يراعي القيم الإنسانية التي حققتها العمارة الإسلام والتي تعاملت مع الحيز المعماري من منظور متوازن، وقد بنيت الحضارة الإسلامية على مبدأ الوسطية والمضمون فهما المحوران الرئيسيان الذي تبنى عليه النظرية المعمارية. فنجد أوجه التشابه وكذلك للاختلاف بين نظريات الفكر الغربي ومفاهيم الفكر الإسلامي، ومن خلال استعراض بعض مبادئ المدارس الغربية الفكرية الأولى للغة العمارة ونماذج معمارية ممثلة لها ومقارنتها بعمارة المجتمعات الإسلامية في العصور الإسلامية القديمة للعمارة سنصل لمجموعة من المتشابهات والاختلافات بينهما مما يصلح ان يكون بداية لتغيير وتطور العمارة على أساس تكامل مبادئ لغتي العمارة الغربية والإسلامية. فيظهر تأثير وتكامل لغة العمارة الغربية مع عمارة المجتمعات الإسلامية من خلال بعض الاتجاهات المعمارية الجديدة ، كاتجاه التجريد أو اتجاه الرمزية وهي اتجاهات تحاول التوائم مع العمارة المحلية بالنظر إلى البناء المعماري من حيث المضمون، كتكوينات وظيفية بسيطة للكثل والأشكال والمساحات من أجل الوصول لعمارة حديثة وبسيطة، بينما نجد الاتجاه الفلسفي الفكري يتميز بمحاولة خلق نماذج أيقونية مبهرة في وسط السياقات العمرانية من خلال فكرة وتناول مختلف لتصميم المبنى مع عدم اتباع للأساليب التقليدية التي يتم إتباعها عند بناء أي مسجد أو مركز إسلامي بل ويختزل هوية المبنى ليصبح رمز من رموز العمارة المحلية أو العالمية، وكذلك اتجاه التفكيك وإعادة التركيب الذي يخلق في كثير من الأحيان مباني مبهرة وإن كانت منتقدة فيهم هذا الاتجاه بتفكيك البنية المعمارية للمسجد وإعادة صياغتها بأشكال تختلف عن خصائصها المتوارثة بل والمتعارف عليها أيضا، فتظهر نماذج لمباني ذات تغطيات وأسطح ديناميكية الحركة متراكبة، متداخلة دون الالتزام بأسس تصميم معتادة أو توازن شكلي مع المحافظة على المضمون والوظيفة

الهدف الرئيسي : محاولة الوصول والاستفادة من أوجه التلاقح والاختلاف للتجربة الغربية بما لا يتعارض مع المنهج الفكري العقائدي الإسلامي، والعمل على تطوير لغة معمارية حديثة تستلهم التراث المعماري الإسلامي وتتكامل مع الفكر الغربي.

الكلمات المفتاحية : لغة العمارة الغربية، عمارة المجتمعات الإسلامية، مدارس فكرية، اتجاهات معاصرة.

1.INTRODUCTION

The Arab-Islamic civilization called for most of the values and principles advocated by Western architectural thoughts through its theories and trends, while Western architectural thought has dealt with these architectural values and principles from a material perspective only, and did not take into account the human values achieved by Islamic architecture, which dealt with architecture from a balanced perspective, because it is not just a structural formation as much as it is a social and cultural content for humans, and that is what makes Islamic architecture applicable in every time and place.

The trends of the pioneers of Western architecture are different, some of them embrace functionalism and structural rules, some of them embrace organic and integration with the natural environment, some of them embrace spatial and formative values, some of them embrace simplification, some of them tend to coarseness in expression, some of them rely on softness in lines and spaces, and some of them explore the possibilities of the past in shaping the architecture of the present.

Content: the content is the main axis on which the architectural theory is built within the framework of the Islamic perspective, which is then supplemented by the formative values associated with the natural, cultural and heritage environment of the place, and it does not differ depending on the place and time, unlike the form that changes with the change of place and time. The content is the fixed Islamic approach, which differs significantly from the Western approach, which is changing due to the change of cultural, intellectual or environmental backgrounds throughout the history of architectural theory in the West.

Mediocrity: Islamic civilization was built on the principle of moderation, moderation as an Islamic approach is related to all aspects of human life, it is associated with the movement of daily life. Mediocrity is manifested in the homogeneity of repetitive and different forms in a single architectural composition, in the color and texture of building materials, and between the extravagance of complex architectural contrivances and the absolute abstraction of forms.

2. The Similarities between Traditional Arab Architecture and Modern Western Architecture

Western architects and planners transferred from the East many authentic architectural elements, bases and multiple different configurations, then they modified them and used various materials in their creation and attributed them to themselves and called them modern world architecture, contemporary architecture or architecture suitable for hot regions, for example they issued [1]:

- Authentic Arabic-Islamic Mashrabiya in the name of Colistra: and they were in units of different sizes commensurate with the openings to be covered.
- Internal Courts in the name of Pathio: it is oriental origin, an explicit response to the requirements of the Eastern climate.
- Water fountains: the square shaped that turns into an octagon, which is authentic oriental, also stemming from the climatic conditions and from customs and traditions.
- Free design of facades: it is one of the design values in the architecture of the Islamic eras, the contrast between solid and void surfaces (openings), which gave most openings a longitudinal shape that created arches to cover large openings.
- Wind Catchers(Malkaf) in the name of natural air conditioning.
- Roof garden: it used to be found in Arab-Islamic residences, which are now considered one of the most important aspects of modern architecture in the world.
- The Shakma or Takhtboush in the name of verandah or terrace: it is a design solution to connect the internal and external architectural spaces. The Takhtboush is a covered outdoor floor area used for seating. its idea is based on an open summer seating area in both directions[2].
- Al-Buwayk in the name of Arcades: it is one of the authentic Arab architectural elements, which is the allocation of a large area of the ground floor raised on pillars to protect passers-by and visitors to the building from the sun, heat and rain, and has been exported to the East under the name of the residential buildings raised on pillars.
- External section line: it appears especially in Islamic residential buildings, and aims for more than one value: it increases the use of the upper space to compensate the lack of empty spaces available in ground floor /shades the sides of the building /having an environmental effect[3].

3. Some Theories of Western Thoughts and Their Inspiration from the Concepts of Islamic Thoughts:

The architecture of the twentieth century is the product of many events that occurred at the end of the nineteenth century, the architecture of the twentieth century appeared that changed the face of civilization. "Wright", "Le Corbusier", "Gropius" and "Mies van drohe" were the first pioneers who formed the first features of modern Western schools of architectural thoughts (Organic, Functional, Abstract, Expressionist and Advanced Technical)[4].

3.1 The Organic School and Islamic design thoughts:

Organic architecture is a philosophy that seeks for compatibility and harmony between nature and architecture. This is achieved through design approaches that aim to be sympathetic and well-integrated with a site, so buildings, furnishings, and surroundings become part of a unified, interrelated composition[5].

The term was defined by the architect Frank Lloyd Wright. It is translated into the all-inclusive nature of Wright's design process. Materials, motifs, and basic ordering principles continue to repeat themselves throughout the building as a whole, The idea of organic architecture refers not

only to the buildings' literal relationship to the natural surroundings, but how the buildings' design is carefully thought about as if it were a unified organism[6].

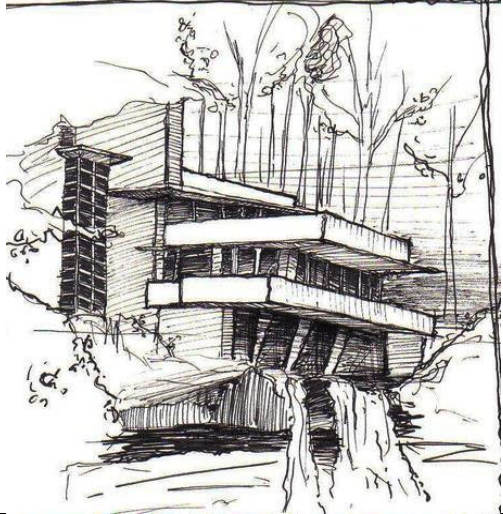
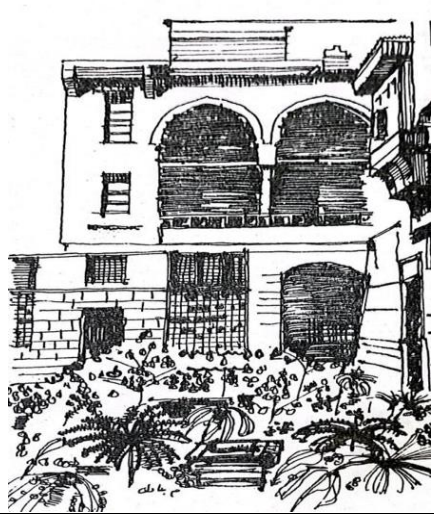
The goals of the organic school and its most important standards:

- 1- Organic unity: The principle of unity means that its parts are connected to each other to form a single whole, and achieving it is one of the main requirements for any organic building, and is even considered one of the most important principles for its success.
- 2- Simplicity: Simplicity and repose are qualities that measure the true value of any work. From this, Wright saw the need to simplify the design of a structure, reducing the number of distinct rooms and rethinking them as open spaces, including even those to be contained within a single room. Windows and doors should be treated as part of the ornamentation of a structure, and even furnishings be made a part of the structural whole. In true democratic fashion, the style of a building should respond to the unique personality of the individual with which it is associated.
- 3- Continuity: it means the integration between the building and the surrounding external environment.
- 4- Symmetry and Balance: it is the characteristics of achieving design aesthetics and may be symmetrical or asymmetric equilibrium.
- 5- Rhythm: it is the organizing tool for all natural forms and art forms since ancient times until now.
- 6- Compatibility: a building should appear to grow easily from its site, and be shaped as if it was itself created by nature for and from that landscape.
- 7- Flexibility: it is the ability of an organic building to adapt to changes, the most important manifestations of which are replacement and renewal, the ability to adopt modern technology when it is available, and the ability to accept additions and subtractions without deformation of the overall shape or interruption of the basic function of the building[7].

We can say that organic design forms a creative integrated system. It is noted that the Western organic school's motives are to emphasize the nature of the work first and its connection to the functional aspect secondly. As for the beliefs on which the motives of this work are built, they are represented by the human sense and the influence of nature. That is, they are formative goals linked to the desires of the architect along with their functional suitability. While in Islamic architecture, the principles of organic theory were applied spontaneously, as Islam directed thoughts to contemplating the creation of the universe and nature and taking into consideration the verses that make up the cosmic architecture. The architect was keen to connect the building with the nature around it to help the Muslim to contemplate, which is the means to increase his closeness to God.

Table 1. Comparison between the principles of Organic School and those inspired from the Islamic perspective:

Western Principles Organic School	Principles inspired from the Islamic perspective
1- Integration of function with form without any decorative additions of nonfunctional reasons.	1- Integration of function with form, although this was sometimes overlooked by exaggeration in decoration.
2-Integration of the building with nature externally.	2-Integration of the building with nature internally.
3-Using natural building materials in its natural form to emphasize the connection with the environment.	3-using local environmental building materials in its natural form to emphasize harmony between the building and nature
4-The human scale is the basis for determining the proportions of building dimensions.	4-Appling the human scale standards in all elements directly related to human use
5-The building design is centralized around vertical circulation elements and services while	5- the building design is centralized around a central space, such as a courtyard or a hall

<p>combining the building with the environment around it.</p>	<p>Encountering with the environment through this courtyard.</p>
<p>6- Spatial continuity is created by linking the inside of the building to the outside through Glass facades and the extension of internal elements to the outside.</p>	<p>6- Spatial continuity is created by designing a central courtyard representing the outside environment and in the same time it is an extension to the inner building spaces.</p>
	
<p>Waterfalls Villa (Frank Lloyd Wright), showing the extent to which the building is connected to the nature around it, as if it grew from it, and it also shows the extension of the internal elements to the outside.</p>	<p>Courtyard in the house of Gamal El-Deen El-Thahabi, showing the building's connection to nature, and showing the spatial continuity with the external space in the courtyard through the takhtboush, seat, and mashrabiya</p>

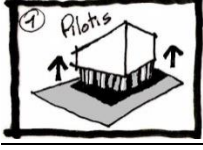
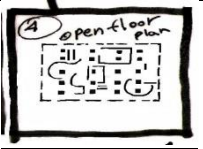

3.2 The Functional School and Islamic design thoughts:

functionalism is the principle that buildings should be designed based solely on their purpose and function, It is one of the modern theories that appeared in Europe and America as a result of the scientific development that occurred at the beginning of the twentieth century. It freed architects from imitation and quotation and freed buildings from decoration. Le Corbusier is considered one of the pioneers of the functional school, and its design thought was based on:

The first rule: based on the principle of "form must reflect function", or "form must express function", the different elements used in the building should have its own expression.

The second rule: it is based on imitating the forms of machines in buildings, and that buildings should be designed as machines are designed with science, logic, accuracy and calculation, and everything should exist for a reason and in a required quantity and perform its own work[8].

Table 2. The goals of the Functional School and its most important 5 standard points :

<p>1-Pilotis: a grid of slim reinforced concrete pylons that assume the structural weight of a building. They are the foundations for aesthetic agility, allowing for free ground floor circulation to prevent surface dampness, as well as enabling the garden to extend beneath the residence[</p>	
<p>2-Free design of the ground plan: commonly considered the focal point of the Five Points, with its construction dictating new architectural frameworks. The absence of load-bearing partition walls affords greater flexibility in design and use of living spaces; the house is unrestrained in its internal use.</p>	
<p>3-Free design of the facade: separated exterior of the building is free from conventional structural restriction, allowing the facade to be unrestrained, lighter, more open.</p>	



<p>4-Horizontal window: ribboned windows run alongside the facade’s length, lighting rooms equally, while increasing sense of space and seclusion. As well as provide interior spaces with better light and view of the surroundings.</p>	
<p>5-Roof garden: flat roofs with garden terraces serve both harmonic and domestic utility, providing natural layers of insulation to the concrete roof and creating space[9].</p>	

Table 3. Comparison between the principles of Functional School and those inspired from the Islamic perspective:

Western Principles (Functional School)	Principles inspired from the Islamic perspective
<p>1-the building fulfills its function perfectly, that is, the finished product becomes completely identical in function and utility.</p>	<p>1-The building, with all its elements, fulfills the purpose for which it was created. The needs (functional and social) are translated into architectural composition.</p>
<p>2-the house is a machine to live in, and the building is considered successful and also achieving aesthetics aspects if it satisfies its function perfectly.</p>	<p>2-The house is the quietness or the space in which a person feels calm, comfortable and safe. so the building satisfies functional requirements besides being a social content.</p>
<p>3- Continuity of public spaces by raising the building on columns, the continuity between interior and exterior is a result of the free design of the facades which became a cover for the use of the structural system[10].</p>	<p>3- Continuity between the interior and the exterior without violating the principle of privacy, through several architectural treatments such as Mashrabiyyas with wide openings in the upper parts and small openings at the bottom.</p>
<p>4-Roof garden to increase functional purposes by reducing heat and use of energy, and providing shades.</p>	<p>4-Encouraging roof gardens to increase the connection with nature and domestic purposes in addition to the presence of ground gardens.</p>
<p>5-Obtaining the best proportions for the facades. The concrete structure allowed the presence of free facades.</p>	<p>5-No constrains for the formation of facades, since the form was associated with the functional purpose of space, regarding local character used.</p>
<p>6-Using standardization, design module, and prefabricated systems.</p>	<p>6- Islamic architecture had the freedom to form due to the requirements of the building’s function[11]</p>
<p>Villa Savoy, showing the use of free plan and the application of the five points of the functional school of “Le Corbusier” to emphasize the independence of the building.</p>	<p>Al-Suhaimi House, showing the use of the free plan, which is related to functional concept associated with the use of the Islamic hall, and the building’s compatibility with nature.</p>

3.3 The Abstract/Bauhaus School and Islamic design thoughts:

The main features of Bauhaus design are functional designs that are streamlined without excessive decoration or ornamentation, simple color schemes, asymmetry of building designs, and the use of industrial materials.

The intellectual framework of the theory is based on the fact that the form is a mental, geometric, industrial construct with abstract geometric forms. The form of the buildings came as an abstraction of cubic geometric forms based on flat surfaces devoid of decoration. Thus, the form was separated from the local environment, and also created a rigid architecture with no soul bases on structure, while in Islamic architecture the concept of abstraction aims for simplicity and non-excessiveness. Mies van der Rohe is considered one of the pioneers of this thought and the owner of the famous saying, “Less is more.” He is considered the pioneer of minimalism. His architectural works were distinguished by showing the structural elements in forming architectural spaces/with precise structural details, simplicity, and clarity, in addition to transparency and openness[12].

The goals of the Abstract/Bauhaus School and its most important points :

1-Truth to materials: Materials should be used in the most honest way possible to reflect the true nature of objects and buildings, using basic materials like steel, concrete, and glass unmodified and exposed, emphasizing beauty in their functionality.

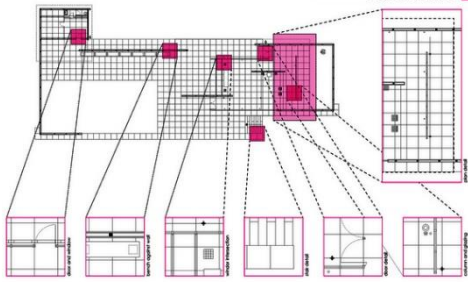
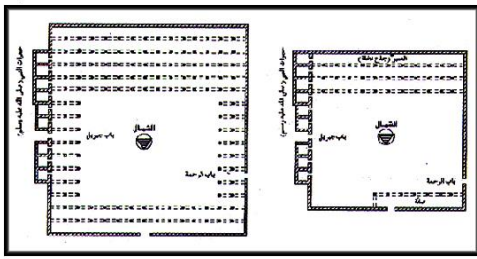
2-Emphasis on technology: Following the principle of combining arts and crafts, embracing modern technologies, merging art and design with mass production.

3-Function follows form: An object’s design should be based on its intended function to serve its purpose perfectly, designs are straightforward and functional made of simple, geometric shapes, clean lines, primary colors, and with little to no embellishment.

4-Simplicity and minimalism: Aesthetics is based on simplicity, clarity, balanced visual composition, rationality, and functionality. Ornamentation was allowed only if it followed on from function[13].

Table 4. Comparison between the principles of Abstract/Bauhaus School and those inspired from the Islamic perspective:

Western Principles (Abstract/Bauhaus School)	Principles inspired from the Islamic perspective
1- The use of abstract cubic geometric shapes, where the building was stripped of any projection and the use of plans with clear geometric shapes, whether square or rectangular.	1-In the early eras of the Islamic Architecture, the mass was merely a solid object with three dimensions with well-studied relationships and geometric plans, characterized by simplicity and distant from artificial decorations[14].
2- Separating the form from the surrounding environment and ignoring the local character and the dominance of the international style, this led to transform architecture from distinct buildings that express society and environment to similar, rigid, inflexible buildings.	2-Islamic architecture embraced the inheritances of previous civilizations and factors of creativity, and combined them with Islamic thoughts, which created a unity of essence with differences in details depending on the local character[15].
3-Using of modern technology and the trend towards skyscrapers, led to a complete separation between the interior and the exterior.	3-The horizontal expansion in general helped facilitate permanent communication between the interior and the exterior.
4-the main goal in the design process has become the matter aspect, while community architecture has become simple, regardless social and human aspects[16].	4-Islamic architecture combined the matter and the human aspects, helped by the freedom of architectural formations, which in turn helped to impart flexibility and contrast.

	 <p style="text-align: center;">تصور لمسجد الرسول صلى الله عليه وسلم</p>
<p>Mies van der Rohe, the German pavilion, Barcelona Exhibition, Spain. It shows the theory of universal space and the principle of less is more, which appears in simple and abstract treatments, steel structural covered with glass</p>	<p>Early Prophet's Mosque, shows simplicity, lack of affectation, and devoid artificial decorations. Using a universal space as a prayer hall, and in addition a school, parliament, and other activities.</p>

3.4 The Expressionist School and Islamic design thoughts:

It was an architectural movement in Europe during the first decades of the 20th century in parallel with the expressionist visual and performing arts that especially developed and dominated in Germany.

Expressionist architecture took advantage of the many characteristics associated with the movement's other works of art, including distortion of form, themes of romanticism, expression of inner experience and the conception of architecture as a work of art, among others[17].

The goals of the Expressionist School and its most important points :

- 1-Absolute self-expression of the architect through freedom from the constraints of practical determinants and the distortion of form to create an emotional effect.
- 2-Emphasis of symbolic or stylistic expression over realism.
- 3-An attempt to achieve new and original designs with natural themes such as mountains, lightning, rock formations, caves, and hybrid solutions, irreducible to a single concept.
- 4- Interest in curved and twisted shapes to obtain organic connections between the architecture and the surrounding environment
- 5-Conception of architecture as a work of art.

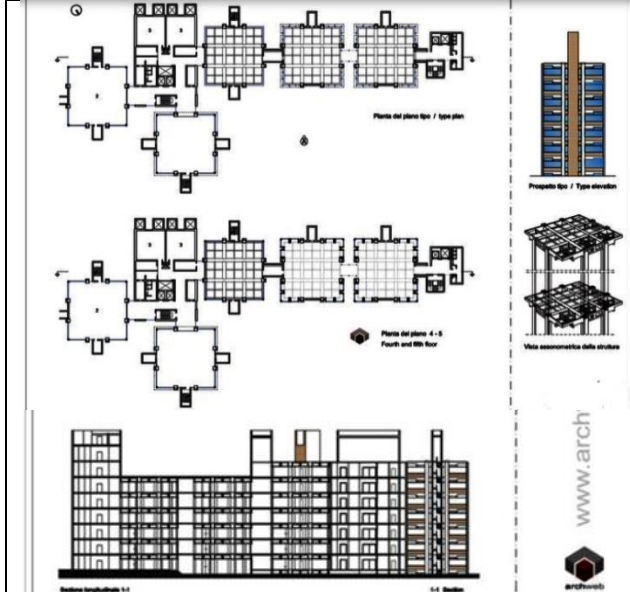
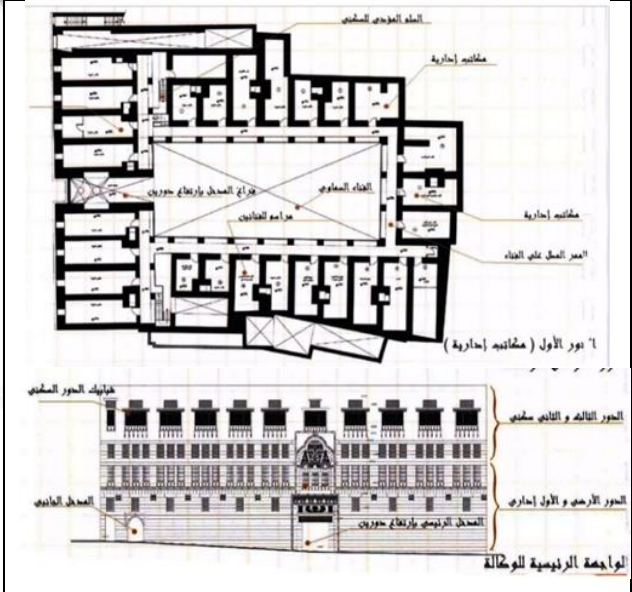
The expressionist trend in western architecture was more inclined to the characteristics of the formation than to the functional characteristics of the building elements, because treatments of the vocabulary of architectural work revolved around "functioning form, not forming function," which are two concepts whose space between them is almost equivalent to the space between functional expression and sculptural expression in the spontaneity of each.

Therefore it is far from Islamic thoughts of architecture.

Islam has called for architecture to express its elements and move away from the apparent Aesthetics that was recently applied in the architecture of Islamic societies, and thus Islamic architecture achieved this expressive thoughts spontaneously.

Table 5. Comparison between the principles of Expressionist School and those inspired from the Islamic perspective:

Western Principles (Expressionist School)	Principles inspired from the Islamic perspective
<p>1-Architecture expresses the nature of the era in all its possibilities, so architectural expression was the result of the wildness of technological development, new and strange transformations in dealing with new building materials[18].</p>	<p>1-Buildings expressed their potential not only on a physical level, but also on spiritual meanings, so they were reflected on his architectural and structural formations.</p>
<p>2-Using morphological treatments for the architectural vocabulary more than the</p>	<p>2-The form was associated with the functional purpose of the space, with the rarity of using</p>

<p>functional characteristics, emphasizing the independence of the basic geometrical shapes, the contrast between the rough solid facades of some blocks and the smooth glass of some facades of other blocks.</p>	<p>artificial apparent formations, many colors or strange surfaces, but rather focusing on the real aesthetics of Islamic thoughts that clarified the distinctive character of Islamic architecture.</p>
<p>3-The Expressionist school called for clarity and frankness, and for building materials to be natural.</p>	<p>3- Islamic architecture truly expressed the properties of building materials and their connection to the local environment.</p>
 <p>Architectural drawings of the Richards Medical Research Building, University of Pennsylvania, 1975, by Louis Kahn. The drawings include floor plans for various levels (e.g., 'Plans of plane type / type plan', 'Plans of plane 4-8 Fourth and fifth floor') and a perspective view of the building's facade. The building is characterized by its massive, solid forms and the use of different materials like brick and stone.</p>	 <p>Architectural drawings of Al-Ghuri Wekallah. The drawings include a detailed floor plan with Arabic labels for various rooms and sections (e.g., 'مخاض إدارية', 'القاعة المعاصري', 'مخاض إدارية', 'المرمق على القاعة', '7 دور الأول (مخاض إدارية)', 'قاعات الدور السفلي', 'الدور الثالث و الثاني سفلي', 'الدور الأرضي و الأول إداري', 'المخاض القديم', 'الواجهة الرئيسية للوكالة'). It also shows a perspective view of the building's facade, which features a mix of traditional Islamic architectural elements and modern forms.</p>
<p>Richards Medical Research Building, University of Pennsylvania, 1975, Louis Kahn, showing the Use of morphological treatments for the architectural vocabulary.</p>	<p>Al-Ghuri Wekallah, where the form was associated with the functional purpose of the spaces, the primary concern was not with morphological treatments, but with clarity and frankness.</p>

4. Futuristic Trends: Western Architectural influence on the Architecture of Islamic Societies:

Modern architectural trends appeared at the end of the eighteenth century and the beginning of the twentieth century as a result of many social, political and economic factors, such as the French revolution, the first and second world wars, and the industrial revolution, in addition to the development of technology and the emergence of new construction materials such as steel and reinforced concrete, which influenced architectural thoughts as well as the architecture of Islamic societies[19].

These factors had the greatest impact on the emergence of many architectural trends, which subsequently influenced architectural thoughts. The western architectural trends have influenced the Arabian architect in many ways among them are books, magazines, architectural educational courses which have a lot of western theories, and the study of Arabian architects in western architectural schools, thus the Islamic architecture has been influenced by these theories and its effect has been seen in Islamic environment, especially the mosque architecture as it affects the relationship between the form and the essence of mosque.

Since we find some expressive ideas about “Modern Architecture” for example, the trend of “Abstract Expressionism” in the proposal for the Al-Kitab Mosque in Riyadh, “The Post-Modernism“ trend came to show many architectural trends that focus on the direct revival of heritage regarding the technological development, to represent the intellectual foundation of many mosques, that was shown in the proposal of White Rose Mosque Tirana, Albania by the architect Festim Toshi, Cologne Central Mosque by the architects Gottfried and Paul Böhm, and Sherefudin's White Mosque, Visoko, Bosnia and Herzegovina by the architect Zalato Oghlin The new relation

between the form and the essence of the mosque helped the presence of many Islamic centers combining Western and Islamic languages **Fig.1** [20].

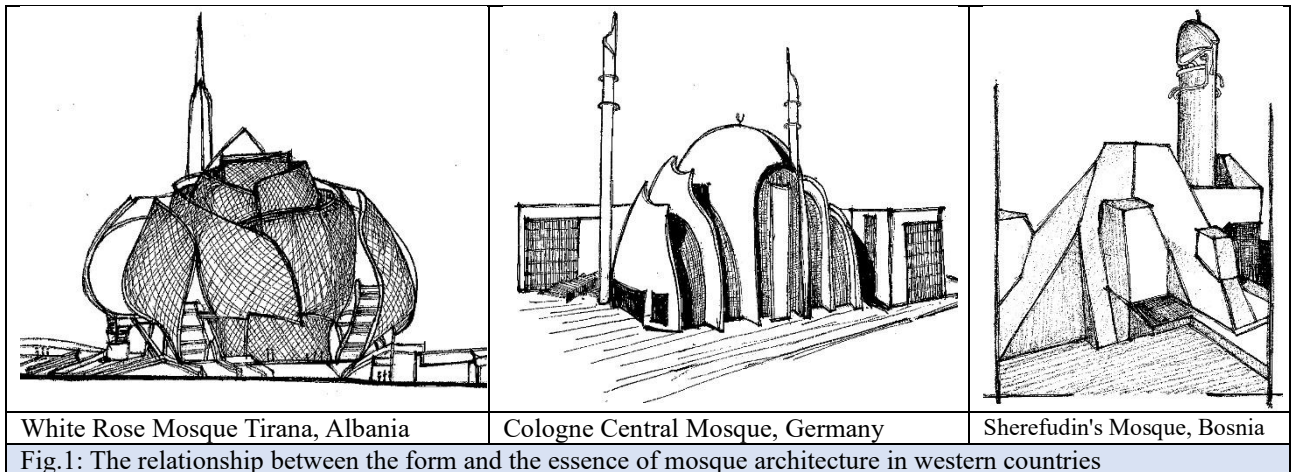


Fig.1: The relationship between the form and the essence of mosque architecture in western countries

Future trends appeared in Islamic societies showing the influence of the western language on the Islamic architecture and we will discuss four of them: [21].

- 1-Simplicity / Abstractionism Trend.
- 2-Symbolism Trend.
- 3- Conceptualism Trend.
- 4- Deconstructivism Trend.

4.1 Simplicity / Abstractionism Trend:

Simplicity is an often-overlooked system quality. Other qualities like performance, scalability, and monitorability are priorities of architectural design. However, designing simple solutions is often a foundation to providing all other system qualities. It's the most efficient, subsequently, successful over their lifetime.

It searches for content basically, using simple and abstract functional formations of forms in a simple or advanced techniques. They express ideas and visions that represent Islamic thoughts through the exploitation of spatial formations.

- **Halide Edip Adivar Mosque Proposal, Turkey:**

Architect: Manço Architects, Size: 500,000 sqft - 1,000,000 sqft, Year: 2012

The Islamic Center building was designed in a complex of mosques and supplementary buildings with various functions, It used to be a prominent public space in the Ottoman city.

The mosque is shifted to the site border, in order to maximize the open space to pray on, remaining spaces besides the mosque were placed around it to form a courtyard opening up to Halide Edip Adivar Street while providing isolation from the traffic noise[22].

The mosque was shaped with a contemporary attitude independent of formalistic clichés of classical Ottoman architecture predominant in Turkey, the “rectangular plan” that is one of the few common aspects of Islamic architecture based on the rule of lining up towards Mecca during prayer, and the “single large inner volume” in Ottoman architecture were the two classical principles followed, the side façades of the mosque were separated from the ground and the mihrab with a narrow glass strip, in order to emphasize the continuity of the praying lines inside and outside, a steel frame covered with glass, insulation layers and prefabricated façade panels is proposed so that the mosque represents contemporary design and building techniques[23].

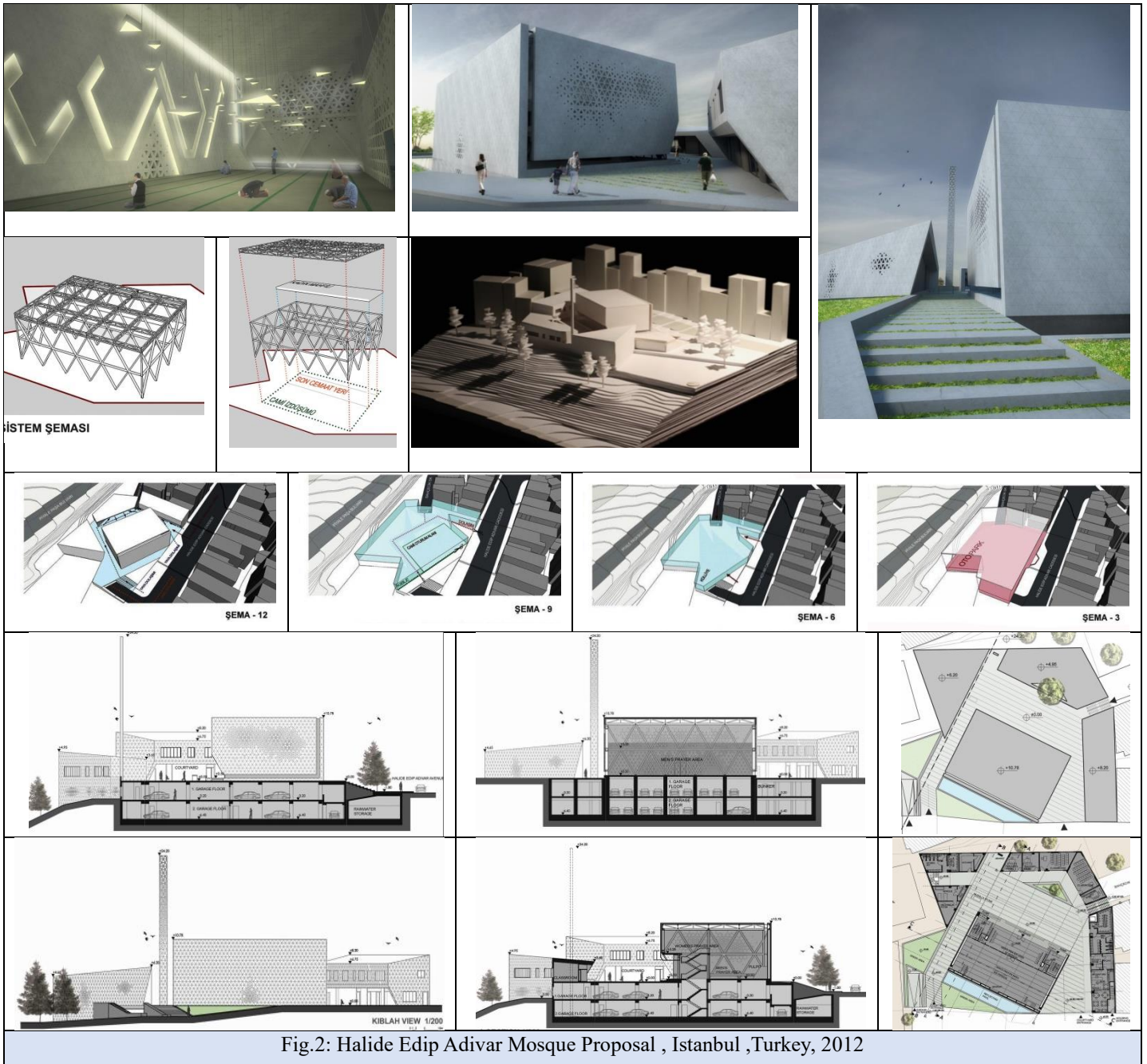


Fig.2: Halide Edip Adivar Mosque Proposal , Istanbul , Turkey, 2012

A simplified reinterpretation of geometric ornaments of Islamic art was achieved by using equal triangle panels sized according to the steel structure. Daylight was allowed inside through holes opened on those panels. **Fig.2**

▪ **Yasamkent Mosque, Ankara, Turkey:**

Architect: A Tasarım Mimarlık + Ali Osman Ozturk, Area: 2685 m², Year: 2015

Yasamkent mosque represents a research towards creating a sense of consciousness and a peaceful continuity between traditional and modern values of cultural accumulation. Located in a relatively small plot within the new development area of Ankara, which also gives its name to the complex, Yasamkent mosque is the search for balance between open and closed areas, modesty and expression, identity and convention as well as modernity and tradition[24].

The building is an outcome of topography where the natural level difference is used to reorganize programmatic differences and creating a hierarchy between public and private entrances. The composition is based upon freestanding parallel walls not only defining the essence of interior

space but also creating a transitory medium for exterior and interior spaces. As a powerful traditional element, the walls are major expressions of architectural language[25].

The courtyard is a significant traditional element, which unifies and separates the main praying area from a library and less public areas. It is utilized as an instrument to integrate exterior and interior as well as soft and hard landscape. In the main praying hall, a modest concrete dome not only used as a reference of tradition but also it upgrades the interior scale and provides significant mystique light quality. **Fig.3**

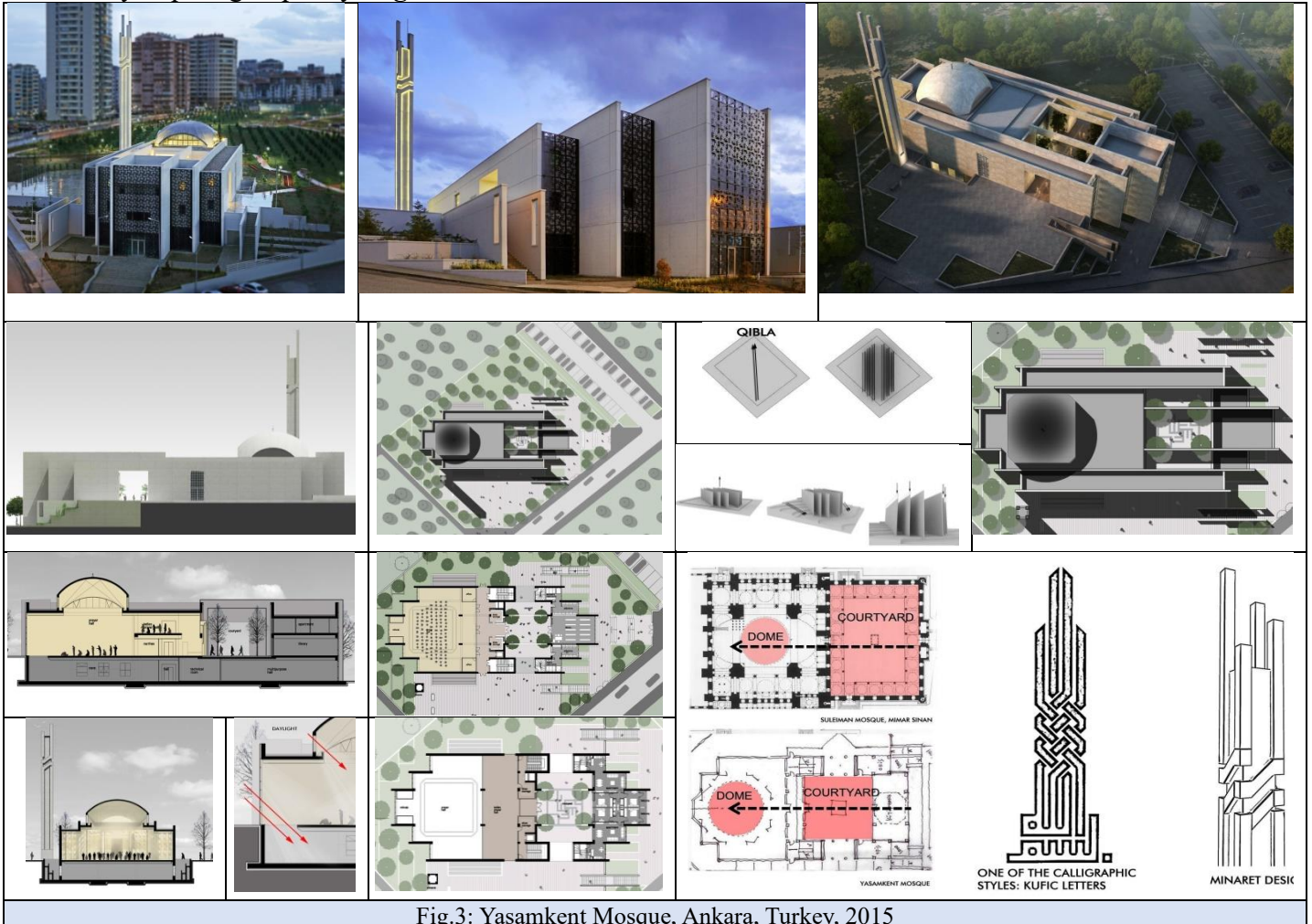


Fig.3: Yasamkent Mosque, Ankara, Turkey, 2015

The use of abstract and solid geometries, modest simplicity and minimalist architectural attitude directly refers to a contemporary architectural language whereas abstract Kufic expression of the minaret, as well as the abstract motives of fences, refer to familiar traditional elements. With all these characteristics Yasamkent mosque must be seen as a challenge towards blurring the significant and ideological differences and popular architectural contradictions between traditional and modern.

4.2 Symbolism Trend:

Symbolism in architectural form has been used since antiquity as a way of transmitting certain sacred information in an associative way, Modern architecture partially used the traditional methods of symbolism and are more characterized by the use of associations, metaphors and direct imitation. All techniques are illustrated by the existing architectural objects, classical and modern, The symbolic decision of the architectural forms has long been considered the prerogative of the past, classical and ancient architecture. However, modern architectural projects and buildings demonstrate a new stage of architectural symbolism, using both classical techniques and finding a completely new modern symbolic language[26].

This trend is characterized as a development of what emerged from post-modern trends in architecture, as well as in contemporary architecture. It attempts to harmonize simplicity with local architecture in order to achieve modern and simple architecture. It also attempts to balance achieving human needs and taking advantage of available resources in the design of architectural buildings. Especially those of an Islamic nature and its basic elements, it is an attempt to formulate the traditional elements of the architecture of Islamic societies in a symbolic way.

▪ **Central Mosque of Prishtina Proposal, Kosovo:**

Architect: Slovenian firm SADAR+VUGA, Area: 41.803 m², Year: 2013

Firm SADAR+VUGA was one of the two teams awarded second prize with their project. The proposal is related to the architectural significance of the old Sultan Muhammad II Mosque in Pristina, which was a design 'prototype'. Main architectural characteristics as well as the impressive proportions of the old Mosque, was studied and interpreted into a new fresh dynamic, yet balanced development of the mosque's volume and massing in its surroundings.

Three slightly rotated massive belts and a circular dome make up the mosque. There is spacing between the belts, as well as between the dome and the upper belt allowing diffuse daylight to flood into the interior of the dome. It seems as if the three belts and the dome would be suspended by the warm daylight, which creates a very specific atmosphere inside the Mosque.

Light spills in from above, from all sides, from the floor to the base of the dome. Two sets of narrow windows on the lower belt allows sunrays to penetrate the mosque. The Mosque rises above a high podium, which, due to the height difference of the terrain, is partly buried[27]. **Fig.4**

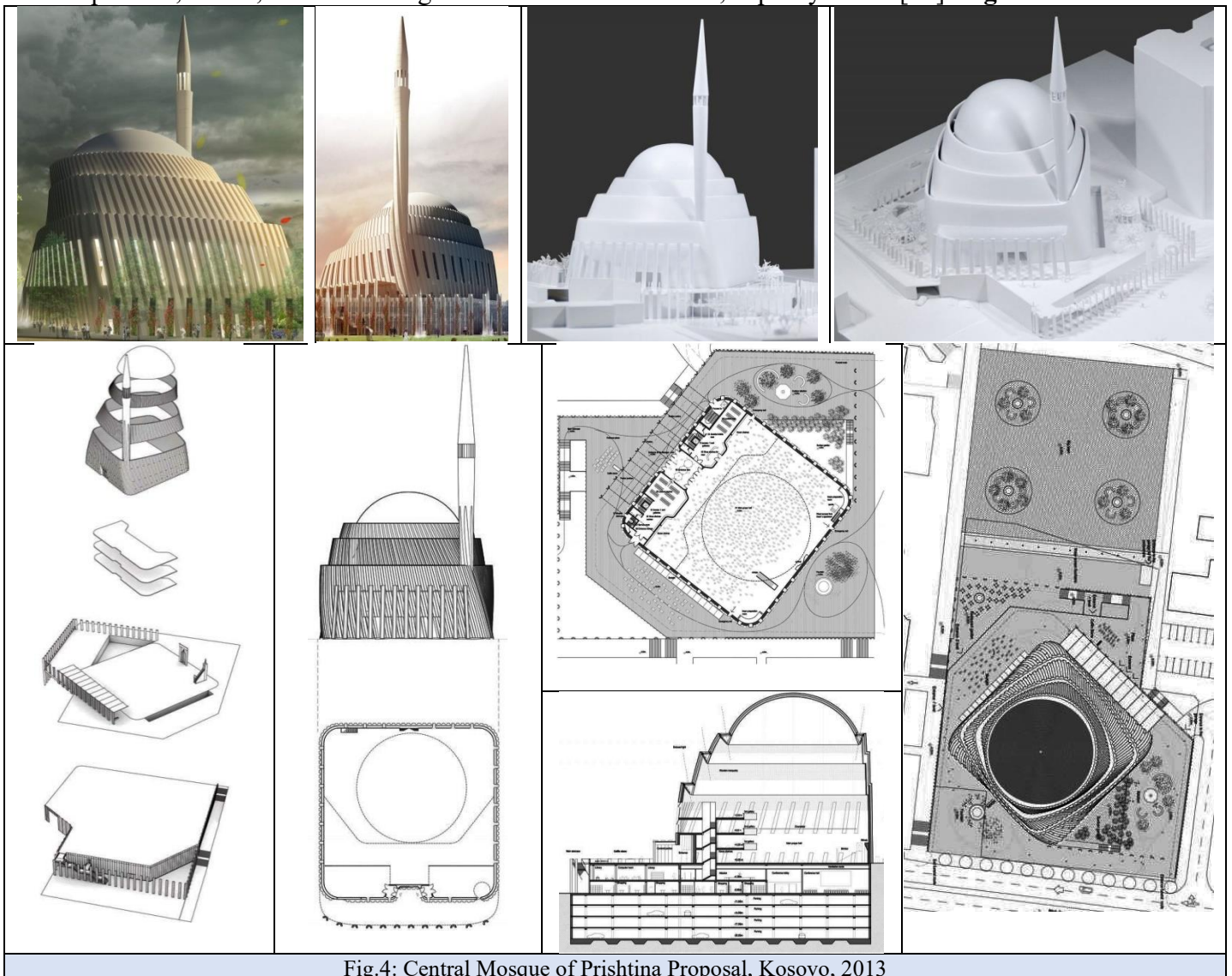


Fig.4: Central Mosque of Prishtina Proposal, Kosovo, 2013

▪ **Central Mosque of Prishtina Proposal, Kosovo:**

Architect: X-Plan Studio, Area: 41.803 m², Year: 2013

Goal of project: Create a fluid space that serves Muslims/ Bring a unique ensemble and turn it into the symbol of the city, to the role of faith, function and the architectural language used/ make the mosque, the epicenter of the Muslim community in Kosovo.

Mosque is an object of worship, created of human needs to be closer to God. The architectural development recognizes different stages of evolution, however, the characteristics of its traditional elements are strong and used nowadays.

In a quick look at the city of Prishtina, we see that there are a substantial number of mosques, all built with a spirit based on traditional Ottoman architectural heritage. The mosque idea was a result of the current perception, traditional mosque and its elements, adapting the contemporary architecture. The strong modern intervention provides the individual with a great view, showing once again the undivided "old -new" which live together bringing in our eyes the modern mosque in the traditional style. Designer created an ensemble that will become one of the most popular, not only for believers, but also for visitors from the local community, inside and outside the mosque[28].

The purpose is to turn the ensemble into the symbol of the city, that is why the architecture language is selected carefully, adapting the modern development, but also respecting the religious symbolism. **Fig.5**

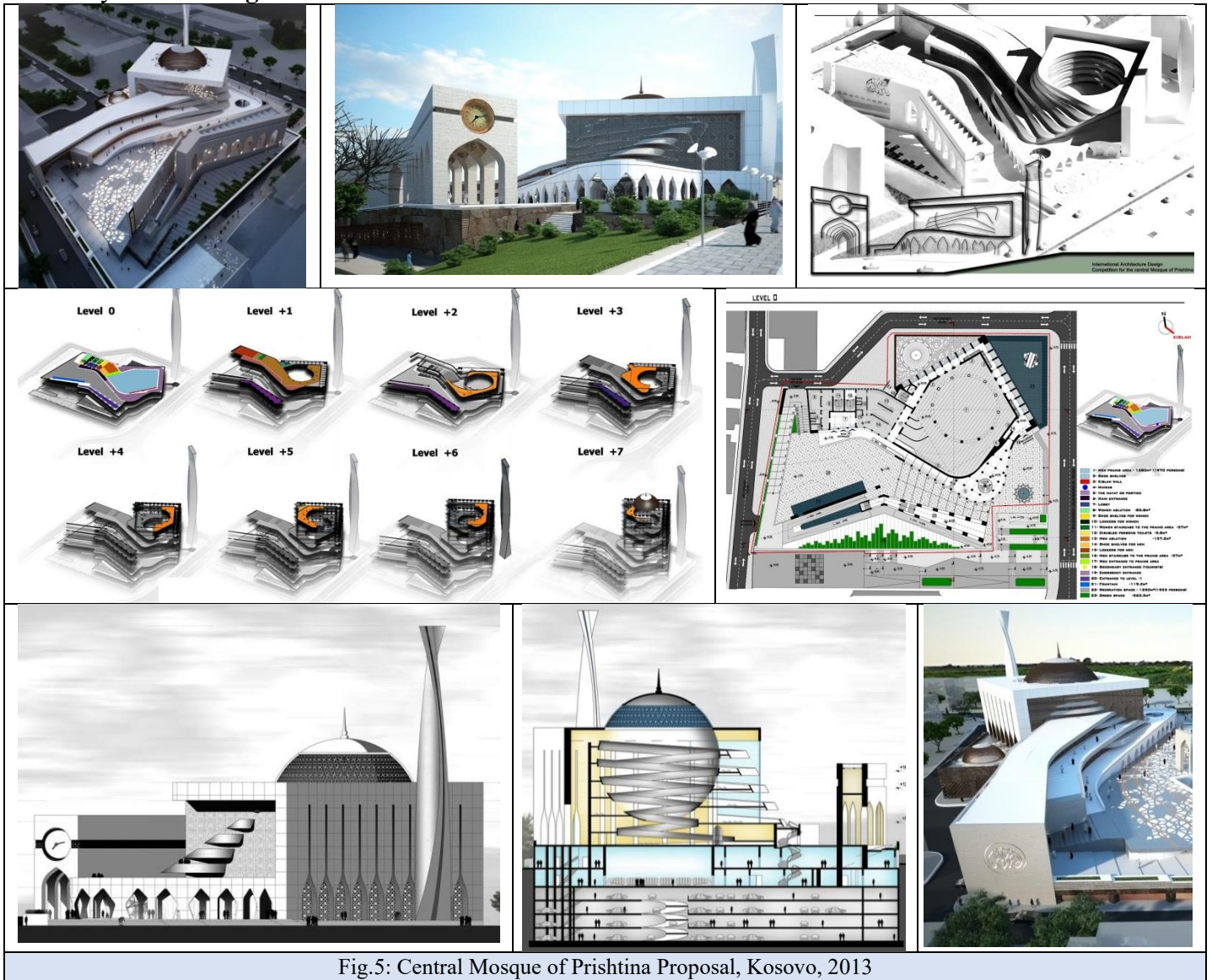


Fig.5: Central Mosque of Prishtina Proposal, Kosovo, 2013

4.3 Conceptualism Trend:

It is an architecture that utilizes conceptualism, characterized by an introduction of ideas or concepts outside the architecture often as a means of expanding the discipline of architecture. This produces an essentially different kind of buildings than had produced by the widely “architect as a master-builder” model, in which craft and construction are the guiding principles.

This trend is characterized by an attempt to create dazzling iconic models in the midst of urban contexts to be specific signs and symbols, and it relies on presenting new combined formulations of elements that are characterized by integration and harmony among them. It does not follow a specific architectural style or any of the known architectural trends.

It does not follow the traditional methods that are followed when designing any mosque or Islamic center, but rather reduces the identity of the building and strips it of its elements and its traditional recognized form, and completely distances itself from the symbols, shapes and decorations associated with the architecture of the Islamic eras in order to be transformed into a distinctive icon in the urban context to become a symbol of local or global architecture.

- **Sancaklar Mosque, Istanbul, Turkey:**

Architect: EAA - Emre Arolat Architecture, Area: 700m², Year: 2012

It aims to address the fundamental issues of designing a mosque by distancing itself from the current architectural discussions based on form and focusing solely on the essence of religious space. The project site is located in a prairie landscape that is separated from the surrounding suburban gated communities by a busy highway. The high walls surrounding the park on the upper courtyard of the mosque depict a clear boundary between the chaotic outer world and the serene atmosphere of the public park. The long canopy stretching out from the park becomes the only architectural element visible from the outside. The building is located below this canopy and can be accessed from a path from the upper courtyard through the park. The building blends in completely with the topography and the outside world is left behind as one moves through the landscape, down the hill, and in between the walls to enter the mosque[29].

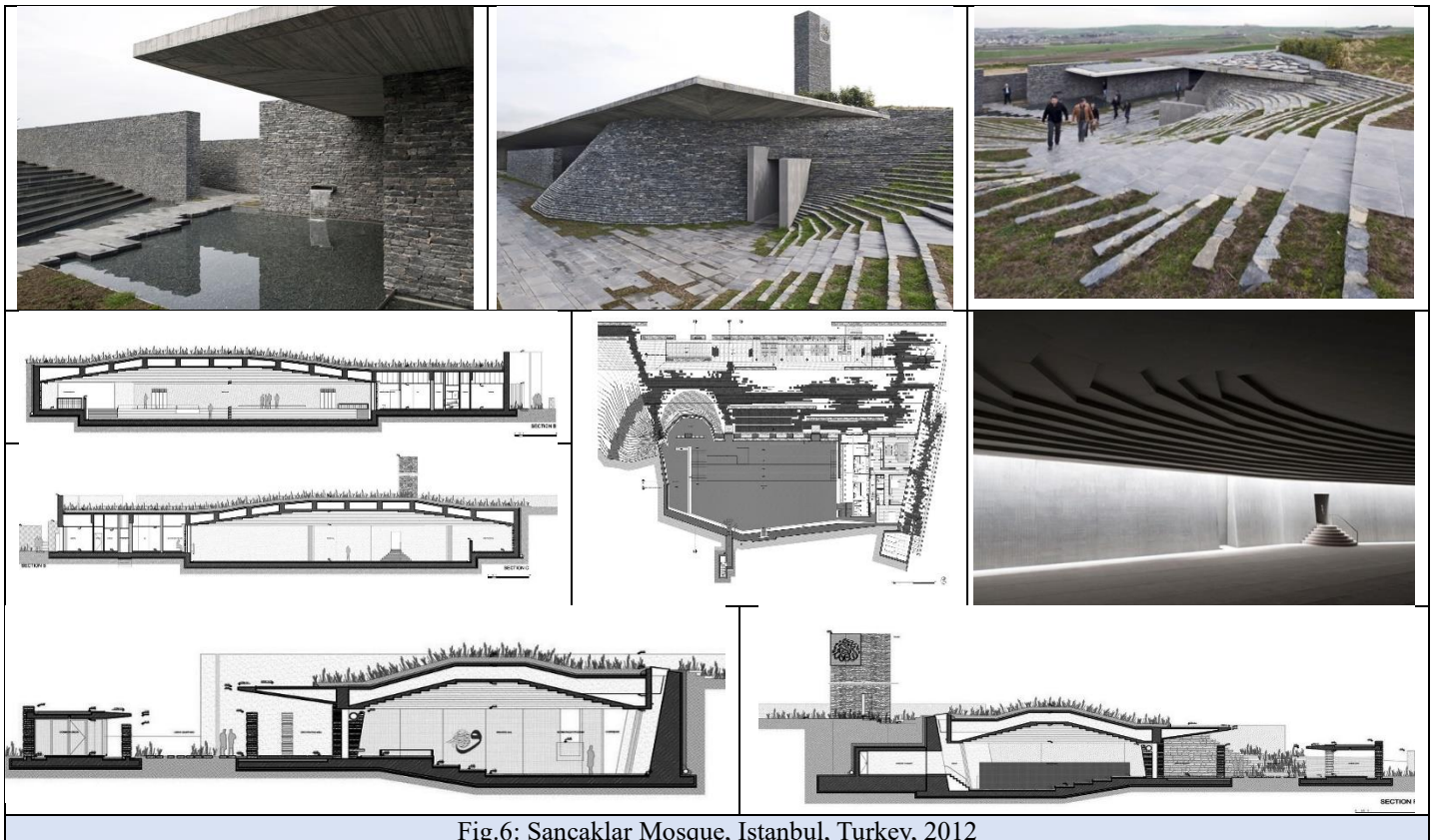


Fig.6: Sancaklar Mosque, Istanbul, Turkey, 2012

The interior of the mosque, a simple cave-like space, becomes a dramatic and awe-inspiring place to pray and be alone with God. The slits and fractures along the Qiblah wall enhance the directionality of the prayer space and allows daylight to filter into the prayer hall.

The project constantly plays off of the tension between man-made and natural. The contrast between the natural stone stairs following the natural slope of the landscape and the thin reinforced concrete slab spanning over 6 meters to form the canopy helps enhance this dual relationship[30]

Fig.6

▪ **A Mosque For All & Cultural Center Proposal, Tirana, Albania:**

Architect: BIG, Martha Schwartz Landscape, Buro Happold, Speirs & Major, Lutzenberger & Lutzenberger, Size: 27,000 sqm, Year: 2011

It is the winning project of the international design competition for a new cultural complex, consisting of a Mosque, an Islamic Center, and a Museum of Religious Harmony.

The Scanderbeg square is the site of the new cultural complex. Albania is the crossroads of three major religions: Orthodox Christianity; Catholicism; and Islam. With the recent completion of two new churches, all three religions will now have new places of worship in the heart of Tirana.

The buildings' forms emerge from two intersecting axes and formal requirements: the city grid of Tirana which calls for the proper framing of the square and a coherent urban identity, and orientation of the Mosque's main wall towards Mecca. The project incorporates Tirana's grid by maintaining the street wall and eaves line, yet rotates the ground floor so both the Mosque and the plaza face the holy city of Islam. This transformation also opens up a series of plazas—two minor ones on the sides of the Mosque and a major plaza with a minaret in front—which are semi-covered and serve as an urban extension of the place of worship. By turning the mosque inside out and bringing the program and qualities of the Mosque to a public arena, the religion becomes inclusive and inviting, and the cool shaded urban space can be shared by all.

The alignment towards Mecca solves the dilemma inherent in the master plan – in its triangular layout the mosque was somehow tugged in the corner – now it sits at the end of the plaza – framed by its two neighbors[31].

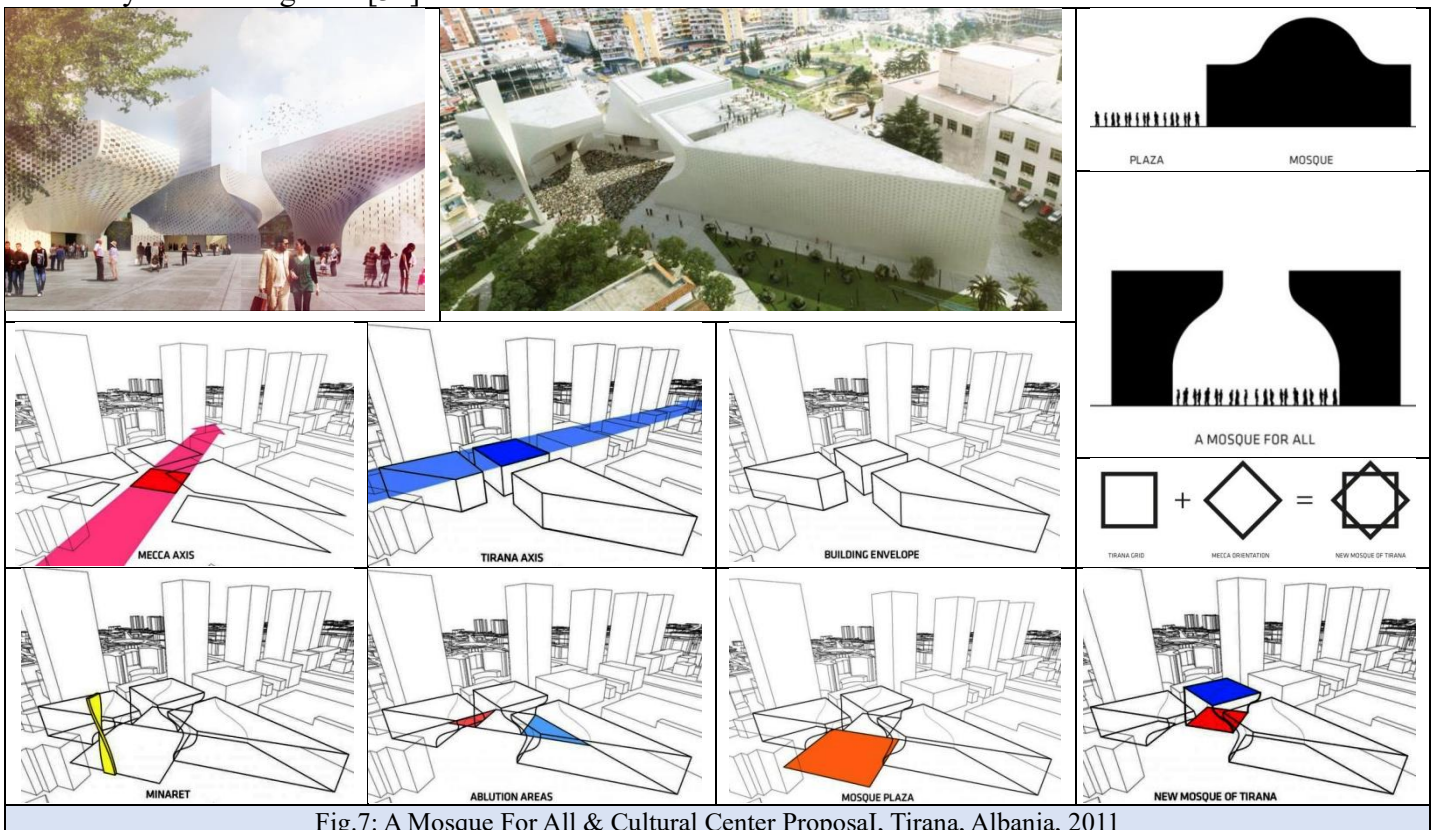


Fig.7: A Mosque For All & Cultural Center Proposal, Tirana, Albania, 2011

With the construction of the New Mosque of Tirana, The Islamic Center and The Museum of Religious Harmony – Tirana will reestablish the equilibrium by adding a mosque to the newly completed Orthodox and Catholic Cathedrals – making Tirana an example for the rest of the world as a global capital of religious harmony. **Fig.7**

4. 4 Deconstructivism Trend:

Deconstructivist projects and buildings initially seem to be fragmented and lack any visual logic; however, they are unified under the principles and concepts of deconstruction philosophy.

The “transfer” of the concepts of deconstruction to architecture was not direct and literal; some concepts were modified and renamed to suit architecture. Moreover, iconic deconstructivist architects were not committed to all concepts of this philosophy; they were known to focus on one or two concepts in deconstruction and make them fundamental principles of their personal styles in architecture. Peter Eisenman focused on the concepts of presentness and trace, Daniel Libeskind concentrated on the concept of absence, and Frank Gehry focused on binary oppositions and free play.

Finally, a deconstructivist architect is not as free as a reader or a philosopher; not all that one can do or apply in language and philosophy can be done and applied in architecture.

It is true that deconstructivist architecture was founded on the ideas of deconstruction that have influenced some architects, particularly theorists. Deconstructivist architecture spurred them to forsake old forms and challenge the common classical taste by building distinctive and unconventional architecture. However, recent developments such as advanced technologies and architectural software programs, have promoted deconstructivism and allowed many architects to unleash their creativity. As a result, many architects have constructed some sophisticated and unconventional buildings that were attributed to deconstructivism although their creators did not actually believe in deconstruction[32].

Consequently, the architecture of Islamic societies was also affected. These trends, for example, concerned themselves with dismantling the architectural structure of the mosque and reformulating it in forms that differed from its inheritance and even conventional characteristics. Some models of mosque buildings appeared with many deviations, twists and dissonances, with dynamic surfaces. This approach assumes that the traditional structural constants changed as societies changed, so the formations that were characterized by stability, solidity, and traditionalism were transformed into flexibility in masses and formation fluidity.

- **The Qatar Faculty of Islamic Studies, Doha, Qatar:**

Architect: Mangera Yvars Architects, Area: 12 km², Year: 2015



THE INFLUENCE OF THE WESTERN ARCHITECTURAL LANGUAGE ON THE ARCHITECTURE OF ISLAMIC SOCIETIES

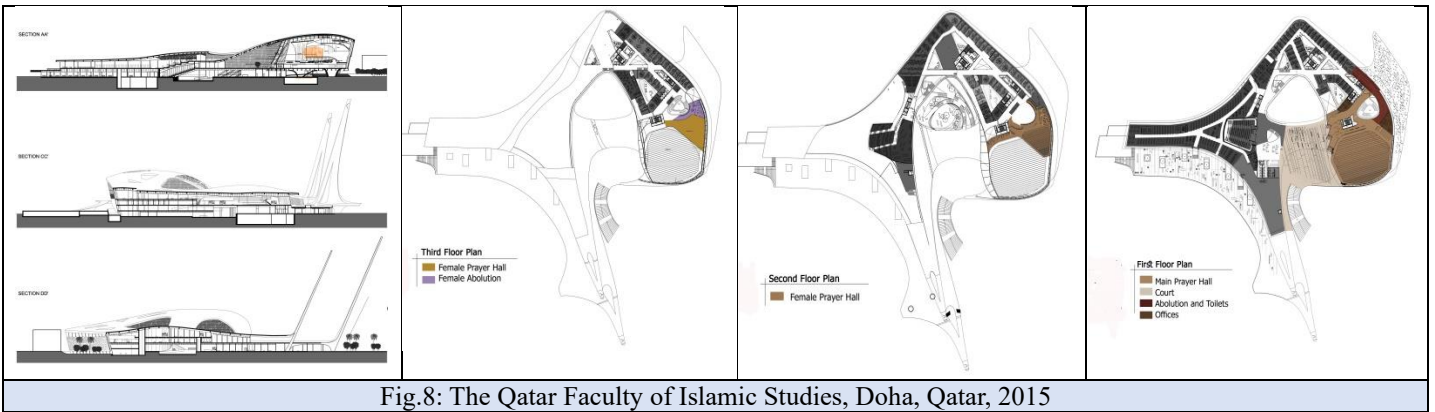


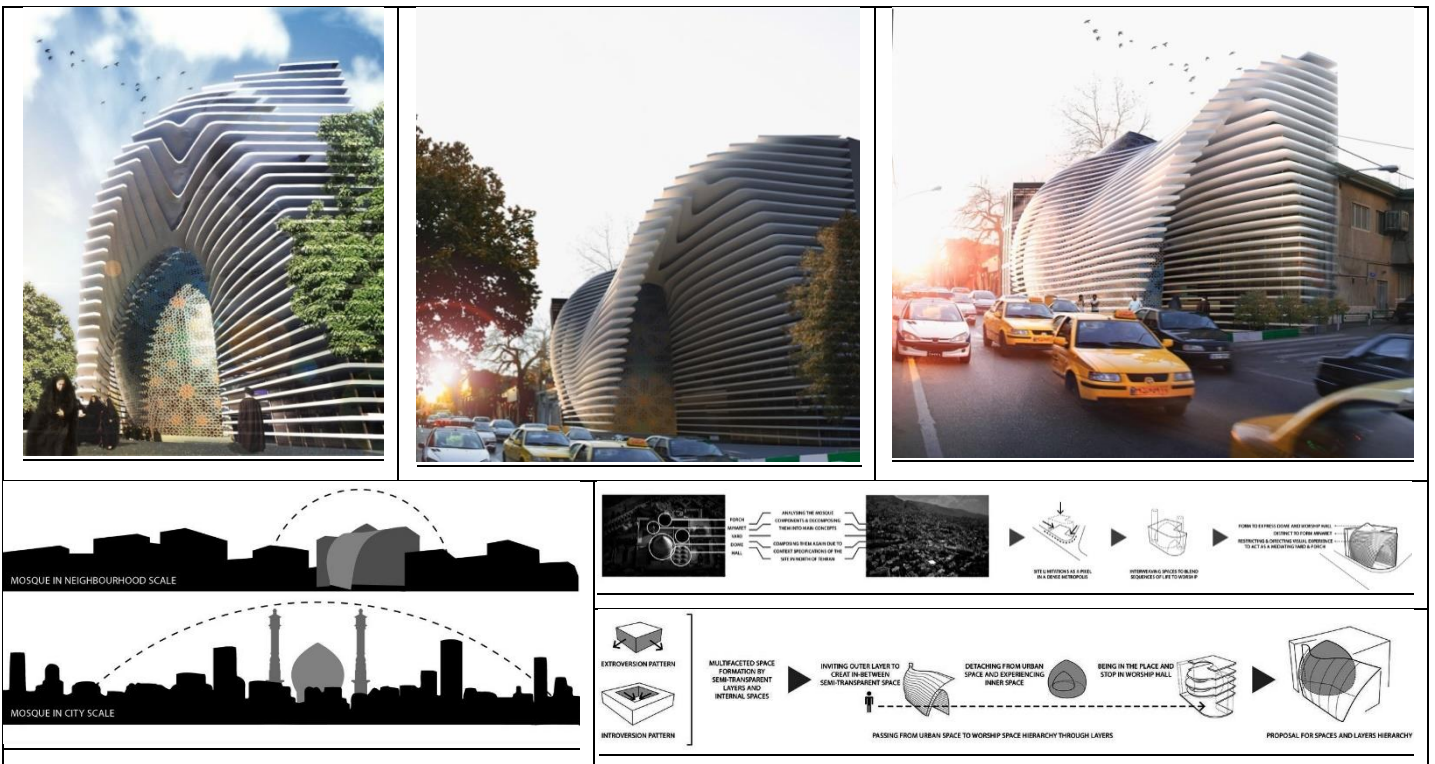
Fig.8: The Qatar Faculty of Islamic Studies, Doha, Qatar, 2015

A landmark co-educational assembly of international leading universities, enriching the dialogue between Islamic education and faith, set against both the complexities and the opportunities of modernity. The project is one of the masterpieces of Mangera Yvar’s architectural philosophy of “architecture as landscape”. It represents the five pillars of Islam therefore it is located on five main structural pillars, It is considered the first contemporary design for a mosque building in the region and has already become a source of inspiration for many future projects in Dubai and other booming cities in the region[33].

The main design aspect based on the concepts of enlightenment and knowledge, and expressed these two concepts with two bands linked together to form the blocks of the building until they end up rising to the sky in the direction of the Qiblah as a symbol of the two minarets of the mosque at a height of up to 90m. **Fig.8**

▪ **Mosque (Amir Al-Momenin) Proposal, Tehran, Iran:**

Architect: CAAT Studio, Mahdi Kamboozia, Rasha Kiani, Area: 559.23 Sqm, Year: 2013



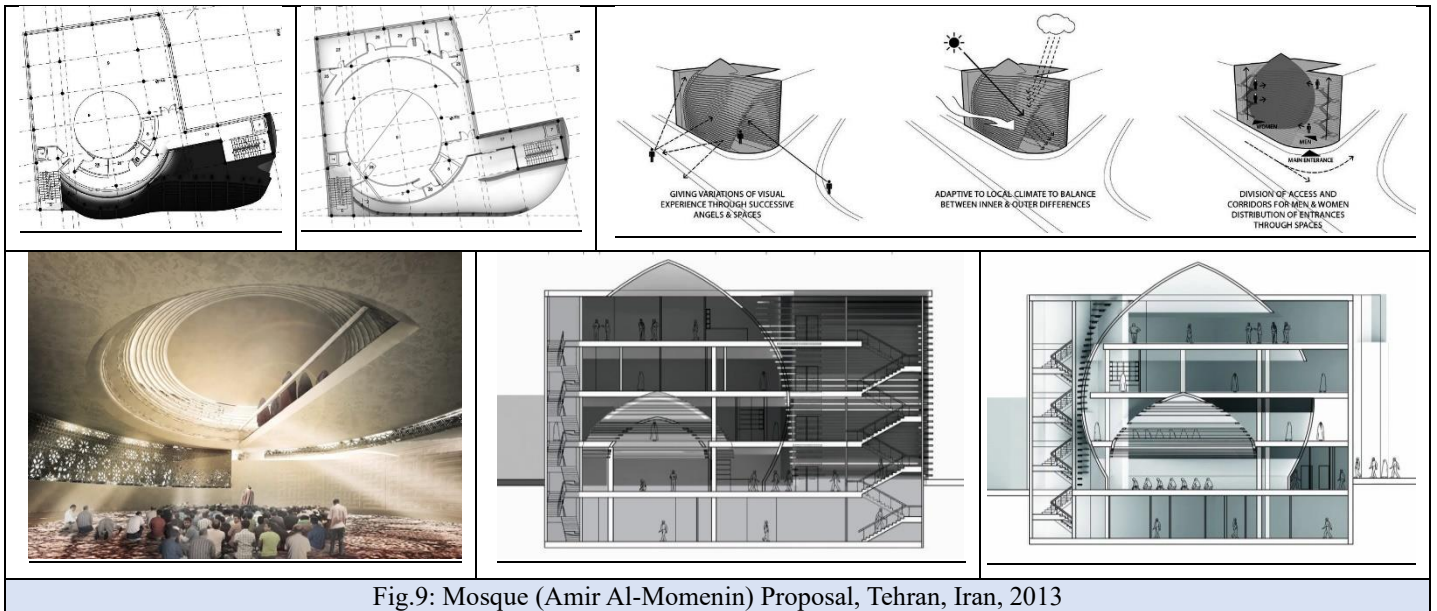


Fig.9: Mosque (Amir Al-Momenin) Proposal, Tehran, Iran, 2013

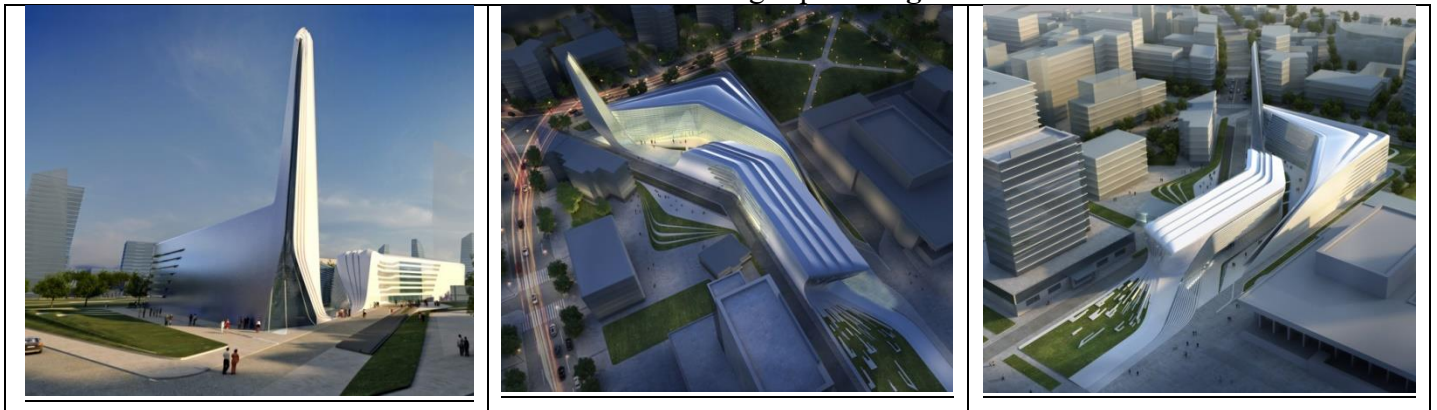
The integrated entity of the proposal plays its role as a religious and cultural center in the region scale while communicating with the environment. The project unveiled one of the basic aspects of Iranian architecture as “hierarchy” quality of space organization. This way of layering spaces that makes sequences of conquering the space can be traced in different older buildings, especially in religious buildings. In accordance to the contemporary metropolitan urban block with a dense building blocks where the mosque located in, and the region that mosque works within, guided the design team to a new perspective that shaped the proposal in relevance to traditional and modern life style[34]. **Fig.9**

▪ **Mosque And Museum of religious Harmony Proposal, Tirana, Albania:**

Architect: Zaha Hadid Architects, Year: 2011

The complex envisioned by Zaha Hadid Architects takes the form of two masses wrapping around the perimeter of the site, gradually increasing in height from the museum to the mosque, culminating in a minaret. This arrangement creates a courtyard, a "valley intimate, private garden of the life of art, meditation and Citizenship", which also gives access to both the mosque and museum[35].

The project, with its aerodynamic shape, curvy, bears the unmistakable stamp of his famous designer aesthetic. In fact, Hadid, even makes one of his previous design concepts, the "urban carpet". Used in the Cincinnati Contemporary Arts Center, is used here in a larger scale, as the west front of the museum that folds outward Scanderbeg Square. **Fig.10**



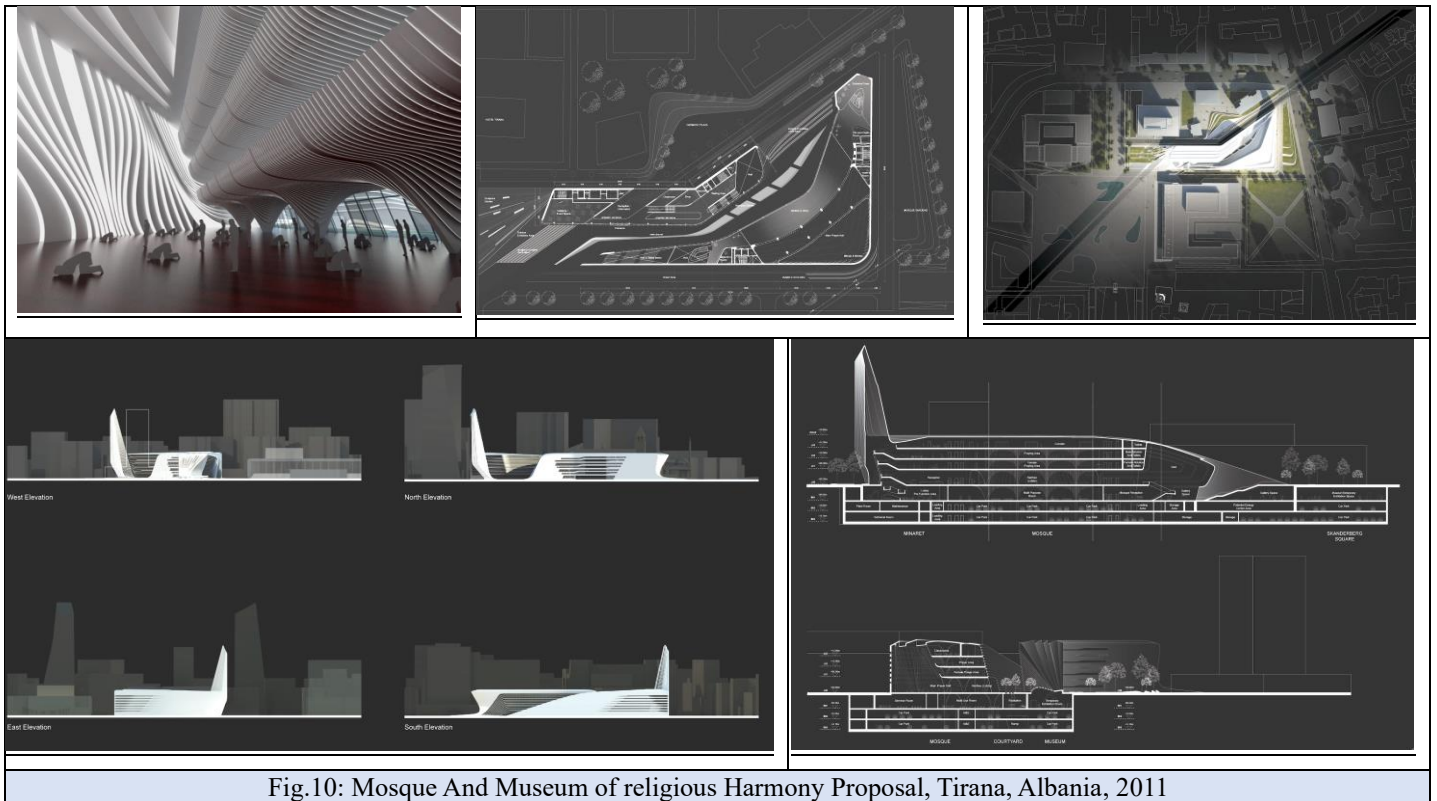


Fig.10: Mosque And Museum of religious Harmony Proposal, Tirana, Albania, 2011

5. Conclusions:

1- Islamic architecture is an architecture of content that translates into forms. It was not an architecture with a single prototype throughout the ages, but it changed by changing of era, environment and technology, accommodating all civilizations and cultures that were involved with it, confirming that it is a universal architecture valid for every time and place.

2- The language of architecture, in its general context, represents cultural connotations and symbols that originate from customs, traditions, cultural and spiritual values, and environmental influences, which do not prevent the continuation of their inheritance or the creation of new connotations and symbols that are consistent with the development of society's culture and modern means of technology.

3- The necessity of integrating aspects of similarities and differences of Western and Islamic architecture experience in a way that does not conflict with the Islamic ideological and intellectual approach, and working to develop a modern architectural language that is inspired by the Islamic architectural heritage, regarding the western concepts.

4- There are a set of similar characteristics between Western Architectural language and the Architecture of Islamic societies, such as:

- Linking form with functional purpose.
- The human scale is the basis for determining the proportions of building dimensions
- Centralizing the building's design around a central void
- Relying on a design module and using a simple cubic geometric shapes
- Achieving compatibility between form and content

5- The new contemporary models of the architecture of Islamic societies inspired by the modern trends of Western architecture put forward new concepts of innovation and creativity, and also employed the formal elements and vocabulary known to Islamic architecture in a way that does not contradict the function of the building.

6- Modern trends in architecture have been able to liberate the symbolic connotations of some basic elements to express freely and in forms that would develop the architecture of Islamic

societies and achieve interactive designs that are compatible with the western architectural language.

7-The ability to come up with a new, distinct and timeless architecture requires familiarity with the rules for forming its vocabulary and architectural elements, which in turn leads us to understand the rules that govern the architecture of peoples with their various cultures and the principles and standards that shaped the difference in architecture, diversity, styles and details.

8-Architects must liberate their imagination by contemplating individual models of Islamic architecture and avoiding the preserved models that are built today. The contemporary architect must also search for fixed architectural values in the Islamic approach and in the experiences of previous nations throughout the ages through a new reading of the architectural heritage, which leads to the development of contemporary Islamic architecture.

6. References:

- [1] Tawfik A. Abd.El Jawad, "The history of architecture and Islamic arts", third edition, Angelo Egyptian library, Egypt, 2010, p.233-235.
- [2] Eman, M. Attia, "The Islamic content in architecture concepts (towards a theory in Islamic architecture)", PhD. Thesis, Faculty of Engineering, Cairo University, 1993, p.208.
- [3] Alam Al-Bena'a magazine, Volume.(113), article:" Arab-Islamic architecture, its past and future" Taleeb Hamid Talab, Faculty of Engineering, Baghdad, 1990, p.1-8.
- [4] Amany A. Khadr, "A comparative study of some theories of Western thoughts and their inspiration from the concepts of Islamic thoughts in interior design," PhD thesis, Faculty of Engineering, International Design Journal, Volume(3), Topic(4), 2016, p.235.
- [5] https://en.wikipedia.org/wiki/Organic_architecture.
- [6] Wright, Frank Lloyd, "The Architecture of Democracy: An Organic Architecture:", 1970, Lund Humphries, London.
- [7] Thomson, Iain, "Frank Lloyd Wright: A Visual Encyclopedia:", 1997, Thunder Bay Press, California, United States.
- [8] le Corbusier translated by: John Goodman, introduction by: Jean-louis cohen "Towards A New Architecture:", 2007, Dover Publications Inc, United States.
- [9] Sekler, Eduard F., Curtis, William "Le Corbusier at Work: The Genesis of the Carpenter Center for Visual Arts", 1978, Harvard University Press, United States.
- [10] Courland Robert, Smith Dennis, "Concrete Planet: The Strange and Fascinating Story of the World's Most Common Man-Made Material:", 2012, Prometheus, United States, p326.
- [11] Abdel Baqi Ibrahim, "Integrating Cultural Values in the Building of Contemporary Islamic City," CPAS, Egypt, 1982.
- [12] Zimmerman, Claire, Gossel, Peter "Mies Van Der Rohe: 1886-1969: the Structure of Space", 2015, Taschen America Llc, United States.
- [13] Edgar, stach, "Mies van der Rohe: Space - Material - Detail", 2017, Birkhäuser Architecture, Switzerland
- [14] Mohammed Elias Abdul Ghani, "The History of the Prophet's Mosque - Medina," Cataloging of the king Fahd national Library, Medina, Saudi Arabia, 1996, p. 38-41.
- [15] Ahmed Abdel Razzaq Ahmed, "Islamic architecture in Egypt from the arab Conquest until the end of the Mamluk era," Dar Al-Fikr Al-Arabi, Cairo, 2012, p. 25-73.
- [16] Blaser, Werner, "Mies Van Der Rohe: The Art of Structure", (1994), Watson-Guptill, United States.
- [17] https://en.wikipedia.org/wiki/Expressionist_architecture.
- [18] Abdel Baqi Ibrahim, "The Islamic Perspective of Architectural Theory", CPAS, Cairo, Egypt, 1982.
- [19] Muhammad Ibrahim Al-Balqasi, Samah Azmi, "The impact of western architectural trends on contemporary mosque architecture," First International Conference on Mosque Architecture, Faculty of Architecture and Planning, University of Dammam, Saudi Arabia, 2016, p. 145.

- [20] Dina Rashad M. Nassar, "The Impact of Technological Advancement on the Current Mosque Design (A Debate between Traditional Islamic Styles and Modern Architectural Trends)," Master's thesis, Faculty of Engineering, Al-Azhar University, 2019, p. 117.
- [21] Jalal M. Obada, "The Mosque of the Future: Designing for Spirituality and Reverence between Authenticity, Imagination and Innovation," First International Conference on Mosque Architecture, Faculty of Architecture and Planning, University of Dammam, Saudi Arabia, 2016, p. 12, 13.
- [22] <https://architizer.com/projects/halide-edip-adivar-mosque>.
- [23] <https://www.designboom.com/readers/manco-architects-halide-edip-adivar-mosque>.
- [24] https://worldarchitecture.org/architecture-projects/nccc/yasamkent_mosque-project-pages.html
- [25] <https://www.archdaily.com/901933/yasamkent-mosque-a-tasarim-mimarlik-plus-ali-osman-ozturk>.
- [26] E. Astakhova, "Architectural symbolism in tradition and modernity:", (2020), IOP Conference Series: Materials Science and Engineering, Academy of Architecture and Arts of the Southern Federal University, Russia, p.1-6
- [27] <https://www.archdaily.com/443158/sadar-vuga-shares-second-in-central-mosque-of-prishtina-competition>.
- [28] <http://xplanstudio.blogspot.com/2013/04/competition-central-mosque-of-prishtina.html>.
- [29] <https://www.dezeen.com/2015/04/06/sancaklar-mosque-emre-arolat-architects-istanbul-concrete-stone-terraced-landscaping>.
- [30] <https://www.archdaily.com/516205/sancaklar-mosque-emre-arolat-architects>.
- [31] <https://www.archdaily.com/132808/big-wins-the-competition-to-design-a-major-cultural-center-in-albania/story5ablution>
- [32] Aida Hoteit, "Deconstructivism: Translation From Philosophy to Architecture", Ph.D., Department of Architecture, Institute of Fine Arts, Lebanese University, Lebanon, 2015, p.1,2.
- [33] <https://www.architectural-review.com/buildings/the-qatar-faculty-of-islamic-studies-by-mangera-yvars-is-a-process-of-continuous-learning-and-enlightenment/10017755.article>.
- [34] <https://www.archdaily.com/324909/mosque-amir-al-momenin-proposal-caat-architecture-studio>.
- [35] <http://erginbirinci.blogspot.com/2012/03/mosque-and-museum-of-religious-harmony.html>.