The architecture of the mosque in Algeria between the identity of Islamic civilization and contemporary developments

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Abstract:
The cultural heritage represents the most important foundation for creating and maintaining identity; “Heritage is what contemporary society inherits and passes on; thus, it does not represent only the past but also the present use of the past” (Laura Di Pietro et al, 2018, p. 97).

Identity and Contemporary are the problems of every civilization. Identity is defined as consisting of “customary practice and of beliefs, values, sanctions, rules, motives and satisfactions associated whit it” (Jensen et al, 2011, p. 286). Life can never be satisfied in the old past, despite its origin and originality separate from his present, and impossible to live and grow outside the womb of his assets without identity; therefore, it was necessary for The genius civilization to live its present depends on its authentic identity in a modern and sophisticated spirit that takes from its past to lead its future.

The research discusses the problem of loss of identity in the designs on the Arab and Islamic architecture and especially on contemporary mosques in Algeria characterized by an architectural weakness on their spatial organization, mihrabs, minarets, domes and others; where non-observance of values and aesthetic design of proportions and dimensions and measurements at simulation Heritage styles which could lead to loss of identity design.

Key Word: Identity, contemporary, mosques, architecture, Algeria.
Therefore the research topic came answer the following question:
- What are the impact of contemporary development on the architectural design of new mosques in Algeria and the respect of the identity?

Importance & problem of the research: Therefore the search problem defined in:
- The need to disclose the impact of the Islamic art in the ideology and philosophy.
- The rare of studies that clearly link between identity and developments in contemporary mosques in Algeria.

Objectives of the research: the research aims to:
- Determine the most important characteristics of Islamic art and architecture.
- Taking of conscience by future generations, of the singularity and the beauty of Islamic art in order to preserve it.
- The discovery of the original aspect of Islamic architecture in order to combine "Authenticity" and "Creativity" when designing new mosques in Algeria.

Research Hypotheses: The research supposed the following:
- The research supposes the Islamic heritage is a permanent source of creativity for the designer, which express our identity.
- The loss of identity and therefore of authenticity is due essentially to the desired transformations caused by the effects of globalization or non-professional workers and accidental damage due to the ravages of time.

Research Methodology:
- Historical research: where the theoretical part of the article explores multiple links between cultural heritage, identity and contemporary developments, authenticity and conceptions. Where this research will be based on a synthesis of the states of knowledge on this particular theme.
- Typological analysis: (The approach developed is to make a detailed reading the different architectural elements that make up the mosque in Algeria).

The analytical basis for the study of mosques architecture in general for the first time, followed an analytical study of some Islamic architecture and art vocabulary in Algerian historical mosques to understand how these elements have evolved with time. Then the analysis of the architectural elements of new projects in Algeria characterized by an architectural poverty and loss Islamic identity, in order to inspire solutions and new creative conceptions.

Main conclusion from the researcher:
Give attention and care for the Islamic arts and its civilization for its substantial influence and significant importance.
Highlight the main features of architectural elements of mosques in Algeria and their characteristics which are representative of culture, history and authenticity.

1. Introduction.

Islamic architecture presents specific features to each architectural style; their main source of inspiration is the precepts of the Islamic religion. The mosque is considered as the main manifestation of Islamic art.
Although Algeria is a Muslim country that presents a variety of architectural styles, cultural diversity and rich heritage, the production of mosques in the post-independence period in is
characterized by a lack of any architectural value that refers to Islamic art. It served to the simple need to have a mosque to pray near the places of residence. It is in this sense that our study will show that the contemporary developments and modernization of the architecture does not mean the abandonment of cultural identity, especially if this identity is manifested through the religious values and the great Islamic heritage.

2. The challenge of Islamic architectural heritage.

Islamic architectural heritage is today in the face of globalization that has generated a new style called "globalizing architecture". This style neglects the aspect of identity in the design of new projects and constructions.

2.1. Identity and how to preserve heritage.

The preservation of heritage is an essential step to build a genius civilization, investing past and authenticity is the basic step to design a creative present and future. Hence, it is necessary to monitor the heritage, and then save monuments with a variety of scientific ways such as maintenance, restoration according to the requirements of each monument. The preservation of heritage does not stop at this points but it should be revived the specific activity of the cultural heritage and build new projects characterized by identity and contemporary in order to guarantee the permanence of Islamic civilization.

<table>
<thead>
<tr>
<th>Kairouan mosque in Tunisia</th>
<th>Ibn Touloun Mosque in Cairo</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Blue Mosque in Turkey</td>
<td>Hassan II mosque in Morocco</td>
</tr>
</tbody>
</table>

The mosque is considered one of the most important monuments of Islamic architecture, but if any change touch in the identity or traditional concept of the mosque and its holy personality, the main function of the building will be lost.

2.2. The compatibility of the Islamic architecture with the contemporary developments.

The genius of Islamic civilization did not stand with passion and nostalgia for the past with the great architectural heritage, which was characterized by impressive works, affected by the previous architecture trends.
But extended to its contemporary present interacting with it and with its intellectual and technological advantages to confirm the importance of authenticity and the necessity of contemporary architectural.

Table 2  The combination of identity and contemporary on mosques.

<table>
<thead>
<tr>
<th>Sheikh Zayed Grand Mosque</th>
<th>Prayer hall with dome</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Sheikh Zayed Grand Mosque" /></td>
<td><img src="image2" alt="Prayer hall with dome" /></td>
</tr>
<tr>
<td>gallery with arches and columns</td>
<td>courtyard</td>
</tr>
</tbody>
</table>

For this reason, the design, models and special features of the mosque, including the dome, the minaret, the mihrab and the mimbar, are reproduced according to the familiar architectural imagery that has been implanted in the minds of individuals as a result of the continuous and harmonious repetition over the centuries.

But this did not prevent the impact of the architectural formation of Islamic civilization in general and the mosque in particular by the technological development in contemporary (materials and techniques of construction), varied in their shapes, sizes and decorative and vegetative elements …. And used huge contracts for entrances and fountains..... So the result was a distinctive feature expressing the deep meaning of Islamic culture through its contemporary architectural appearance.

3. Factors influencing the architecture of the mosque today.

The architecture of mosques around the world has been influenced by different circumstances and factors, it took several trends. These trends were clearly influenced by historical and geographical circumstances (space / time). Today new factors are added; the digital revolution and technological development.

3.1. Contemporary and creativity of Islamic architecture.

The technological development of construction systems and modern building materials has led to the achievement of the values of Islamic architecture through the aesthetic creations of architecture form the late twentieth century.

Some examples of new buildings constructed according the Islamic architecture characteristics. Mosques in more than one country characterized by the authenticity and contemporary.
Designing Mosques is like any architecture which subject to scientific principles that control the construction. The relation between creation and creativity is not new in Islamic architecture. Therefore, it is natural that the Islamic civilization extended to the present and interacted with its intellectual properties and technological data, and influenced by contemporary architectural trends.

So the result was mosques with creative designs combining authenticity and contemporary: the use of concrete technology, geometric abstraction and reduction in the number of architectural elements, using of ventilation spaces and lighting in an innovative way, and Make the outer cover as a sculptural cut.

### 3.2. The digital revolution in architecture and the design of new mosques.

The Islamic civilization has no limit and never stops of creation but always aspired to more than that, and was presented many international competitions for the design of new mosques. To get wonderful ideas, used the most advanced engineering tools available to obtain simulated models for reality using advanced digital technology.

You can easily find on the web sites many designs for mosques that are expected to be completed in the coming years in a number of Arab countries European.
We may find these new and strange forms become familiar in the future and Islamic architecture will continue to be contemporary with its present and authentic with its unique heritage.

Table 4  The digital revolution and future mosques architecture.

<table>
<thead>
<tr>
<th>Mosque of the dome and minarets Istanbul</th>
<th>Çamlıca Republic Mosque in Istanbul</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Pristina Mosque in Kosovo</td>
<td>Mosque of Avenues Mall in Kuwait</td>
</tr>
</tbody>
</table>

4. The characteristic elements of the mosque.
The architectural elements of the Islamic architecture are considerate as distinctive elements of the artistic genius of this architecture that created the Muslim artist and architect and use them in intelligent way. The main components elements of mosque are [1]:

4.1. The prayer hall: it is a covered space and not necessarily enveloped, intended to receive the faithful for the communal prayer. The orientation is the only directive required for the place of prayer which must be oriented to the "qibla".

4.2. The Mihrab: is a niche in the prayer hall brings defining the direction to which faithful must turn toward for praying.

4.3. The gallery: it is colonnaded or arcaded porticoes, it surrounds one or more of the courtyard side and ensure the passage from covered area to open space.

4.4. The courtyard: it is an uncovered area; it is a transient space between the outside and the prayer hall. It allows extension of area of prayer especially in warm periods.

4.5. Minaret: it is a tower used to call faithful to prayer five times a day by a "muezzin" also the minaret seems to have a signaling role so it marks the location of the mosque in the agglomeration and it indicates the presence of Islam in the city.

5. The typology of mosques in Algeria [2].
Algeria is a Muslim country which presents a variety of architectural styles corresponding to the different civilizations present on its territory since the first times of its Islamization until the Ottoman period. This allowed the establishment of an architectural heritage repertory.
5.1. **The prayer hall:** the prayer hall can be classified according to the shape (a square plan, or a rectangular plan), the structure (build on pillars, on columns, on pillars and columns at once) and the position of the naves (with perpendicular naves to the qibla wall, other parallels, and the third case both parallel and perpendicular to the qibla wall), the type of roofing (mosques with flat terraces, others with inclined tile roofs, with a set of domes) [3].

<table>
<thead>
<tr>
<th>The shape</th>
<th>The structure</th>
<th>The position of the naves</th>
<th>The type of roofing</th>
</tr>
</thead>
<tbody>
<tr>
<td>The mosque of Souk El Ghezel in Constantine (rectangular shape).</td>
<td>The great mosque of Tlemcen (on pillars and columns).</td>
<td>The great mosque of Constantine (Perpendicular and parallel naves).</td>
<td>The mosque of Pacha in Oran (Big central dome).</td>
</tr>
</tbody>
</table>

Table 5: The typology of prayer hall of mosques in Algeria.


5.2. **Mihrab (niche):** in Algeria, all prayer halls have only one mihrab arranged in the middle on the qibla wall. However, some mosques have a second mihrab in their courtyard. These mihrabs are either curvilinear shape, polygonal or hexagonal. For the decoration of the mihrab niches of mosques in Algeria can be divided into two categories; niches with half-dome and niches with cupolas [4].

<table>
<thead>
<tr>
<th>Mihrab with curviline niche</th>
<th>Mihrab with polygonal niche</th>
<th>Mihrab with hexagonal niche</th>
</tr>
</thead>
<tbody>
<tr>
<td>The great mosque of Constantine.</td>
<td>Tafessara mosque.</td>
<td>The great mosque of Tlemcen.</td>
</tr>
</tbody>
</table>

Table 6: Niche shapes of the mihrabs of mosques in Algeria.


5.3. **The gallery:** most Algerian mosques have galleries also called *mu’akhkhar* which is composed by a single gallery and *mudjannabat* (lateral galleries). In addition to *mu’akhkhar* and *mudjannabat*, some mosques, present an opposite gallery to *mu’akhkhar*, so that the courtyard is surrounded by galleries on its four sides [5].
Table 7 The galleries of mosques in Algeria.

<table>
<thead>
<tr>
<th>Gallery Type</th>
<th>Mosque Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mu’akhkhar with a single gallery</td>
<td>Mançûra mosque.</td>
</tr>
<tr>
<td>Muqaddabat with perpendicular nave to the qibla wall</td>
<td>Sayyidi l-H’alwî mosque.</td>
</tr>
<tr>
<td>Opposite gallery to mu’akhkhar</td>
<td>Qal’a des Bani H’ammâd mosque.</td>
</tr>
</tbody>
</table>


5.4. The courtyard: for the interior composition of mosques in Algeria, can be classified under two categories; those without courtyard and mosques with it. From where the shape (a square shape, rectangular, semi circle or irregular shape) and the position (the courtyard is in the mihrab axis, arranged on the left or right of the prayer hall) differ from one mosque to another [6].

Table 8 Shape and position of the courtyard of mosques in Algeria.

<table>
<thead>
<tr>
<th>The shape</th>
<th>The position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rectangular courtyard</td>
<td>The courtyard in the mihrab axis</td>
</tr>
<tr>
<td>The great mosque of Algiers</td>
<td>The great mosque of Algiers</td>
</tr>
</tbody>
</table>


5.5. The minaret: mosques in Algeria included a single minaret similar to those in the Maghreb and Andalusia. These minarets are of medium and small size, they take several arrangements in relation to the courtyard and the prayer hall. They are characterized by a formal and decorative diversity but overall we notice the dominance of quadrangular minarets [7].
Table 9 Shape and position of minaret of mosques in Algeria.

<table>
<thead>
<tr>
<th>The shape</th>
<th>The position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quadrangular minaret</td>
<td>minaret placed at the bottom of the courtyard and approximately in the mihrab axis</td>
</tr>
<tr>
<td>The great mosque of Tlemcen.</td>
<td>The great mosque of Tlemcen.</td>
</tr>
</tbody>
</table>


6. The construction of mosques in Algeria after independence [8].

The period after independence is characterized by the absence of a legal framework apt to allow the production of mosques. It was for society; to build first a place of worship using the recovery materials, on a vacant lot, in the city, after that, ask for approval.

The new mosques characterized on their architectural forms by the miss of originality, beauty and reference to Islamic art.

6.1. Types of mosques.

According to Ahmed Rouadjia [9]; there were in Algeria after the independence some types of mosques that are distinguished not by their legal status, but by their function assigned to them by their spiritual and financial promoters.

6.1.1. Popular mosques (massajid Ash-Sha’b): are all the worship places that emerged the wasteland, riverside or spaces unfit for the construction of such buildings. Furthermore, it is because they have not received approval from the authorities to be built at these locations. These mosques are called by their promoters "Popular mosques", and by the state "anarchic mosques".

6.1.2. Free mosques (massajid hurra): are mosques built at the initiative of the fundamentalists, they are revealed to be real ribats. These mosques work, in terms of ideological constraint, they aim an open fight against local potentates for the resurgence of the first community of the Prophet.

6.1.3. State mosques: the population calls "state mosques" all those built in ottoman period. It also includes in this section all places of worship achieved after independence by the initiative of the government, so the churches converted into mosques, and who’s financing and management report directly to the Ministry of Religious Affairs.

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The term "ribât" refers to an establishment, both military and religious, that seems to be quite specifically Muslim. 

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6.2. The architectural typology of mosques [10].

What characterizes the majority of the new mosques built in Algeria; in terms of architectural forms, it is the absence of unity and originality. This fact is perceptible in their external appearance as through the spatial scheme, which does not refer to any of the filiations of Islamic art.

6.2.1. Their external appearance.

Except state mosques, which are masterpieces of Islamic art, all the new mosques built in Algeria by the religious committees belong to an hybrid architectural style, where dominates the important element for the prayer hall that be consisting of the mihrab placed on the qibla wall. This choice reflects the reduction of spaces traditionally attached to the mosque: gardens and courtyard.

Externally, almost all of these mosques present itself as a monolithic block which does not refer to any Islamic art repertory. Only some symbols (dome, minaret) distinguish them from the buildings that frame them.

In addition, the choice of places where these mosques are located, underline in a bad way that their promoters were not attentive to search the most suitable location adapted to the spirit of Islam, but rather, to fill available places.

<table>
<thead>
<tr>
<th>Table 10 Emir Abdelkader mosque in Constantine (State mosque).</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Emir Abdelkader mosque</strong></td>
</tr>
<tr>
<td><img src="image1" alt="Emir Abdelkader mosque" /></td>
</tr>
<tr>
<td><img src="image3" alt="gallery with arches and columns" /></td>
</tr>
</tbody>
</table>

Table 11 External appearance of mosques in Algeria after independence.

<table>
<thead>
<tr>
<th>Mosque Name</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abi Ayoub Al Ansari</td>
<td>(Sidi Mebrouk)</td>
</tr>
<tr>
<td>El Nour</td>
<td>(El Khroub)</td>
</tr>
<tr>
<td>Saâd Ibn Abi Ouakkas</td>
<td>(Zouaghi)</td>
</tr>
</tbody>
</table>


6.2.2. Their interior aspect.

The decoration of almost all these mosques is absent. The walls are bare, except the walls surrounding some mihrabs, paneled with wood, and sometimes marble. These mosques do not have neither arcades nor galleries surrounding. And as for the supports of these buildings, they are reduced to concrete pillars always paint of the same color, green or white. Columns covered with marble, are very rare and exist only in a few private mosques whose promoters were able to challenge chronic shortages.

Table 12 Interior aspect of mosques in Algeria after independence.

<table>
<thead>
<tr>
<th>Aspect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ablution room with bare walls.</td>
</tr>
<tr>
<td>Prayer hall supported by concrete pillars and walls covered with mosaic strange to Islamic art.</td>
</tr>
</tbody>
</table>


7. The Loss of identity in contemporary mosques in Algeria.

Almost the mosques in Algeria, during the French colonization, have known all kinds of transformations from 1830 to 1962. The few mosques that escaped the destruction, have, in turn, undergone architectural transformations by adding some architectural elements. Also, after independence the mosque has undergone deep and important changes in its design. We assume that this is due to the social and cultural rupture, which due in the first place to French colonization. The artistic creation does not follow the same process and the latitude has been given to western influences to infiltrate in the local art. Today, in Algeria, the design of contemporary mosques is not the result of a design inspired by local cultures or history in its authenticity, but just a juxtaposition of elements taken here and there without taking into account the history and the environment. Therefore the value of the mosque is limited to the function of a prayer place.
8. Research results.
- The Islamic architecture was affected by previous architecture of other dynasty and interacted with its heritage.
- Architecture is one of the most important arts preserving Islamic heritage and source for contemporary and future projects.
- Islamic architecture interacted with contemporary architectural trends and the innovations of international architectural geniuses.
- The Islamic architecture has improved the use of the digital and technological revolution in the design of new mosques projects.

9. Conclusion.
The Islamic architectural heritage is a Cultural and civilizational richness that we must protected, and we work to complete its development, to become more appropriate with the conditions of our time.
Because architecture is the pot of civilization. It represents the cultural identity, the creative and aesthetic level of the human being, it is necessary to keep on the authenticity. Islamic architecture has been able to carry authentic features that are consistent with human requirements traditions and environment.
The modernization of architecture remains linked to the authenticity. The architecture is more expressive of identity, and modernization of the architecture does not mean the abandonment of cultural identity, especially if this identity is manifested through the religious values and the great Islamic heritage.

10. References.