

Sacralization and Contemporary Use:

An Exploration of Sacred Architecture in The Arab Maghreb

إعادة التقديس والاستخدام المعاصر

استكشاف العمارة المقدسة في المغرب العربي

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Abstract :

This research explores the dynamic interaction between resacralization and the contemporary use of sacred monumental architecture in some countries of the Arab Maghreb. It highlights the challenges involved and offers some viable solutions. It focuses on the evolution of some mosques, churches, and synagogues...as they transform into vibrant community centers, museums, or places of culture while maintaining sacredness.

This study addresses the architectural ideas, strategies, and techniques used to preserve the spiritual identity of these structures on the one hand, and ways to adapt to new social functions on the other hand. It critically explores the challenges of preserving the sacred essence during modernization, addressing aspects such as material preservation, spatial reconfiguration, and the integration of modern amenities. Through a Detailed analysis of case studies, this paper highlights how heritage preservation can be balanced with the regenerative needs of urban communities through innovative architectural interventions. Ultimately, these sacred places contribute to strengthening social cohesion and the continuity of cultural identity, which contributes to connecting the past with the present in an integrated manner.

Keywords: resacralization, contemporary use, sacred architecture, cultural adaptation, heritage conservation, social functionality, community spaces, architectural transformation, cultural identity...

خلاصة البحث

يستكشف هذا البحث التفاعل الديناميكي بين إعادة التقديس والاستخدام المعاصر للعمارة الأثرية المقدسة في بعض بلدان المغرب العربي. وهو يسلط الضوء على التحديات التي ينطوي عليها الأمر ويقدم بعض الحلول القابلة للتطبيق. ويركز على تطوير بعض المساجد والكنائس والمعابد اليهودية حيث تتحول إلى مراكز مجتمعية نابضة بالحياة، أو متاحف، أو أماكن ثقافة مع الحفاظ على القداسة... إذ تتناول هذه الدراسة الأفكار والاستراتيجيات والتقنيات المعمارية المستخدمة للحفاظ على الهوية الروحية لهذه الهياكل من ناحية وطرق التكيف مع الوظائف الاجتماعية الجديدة من ناحية أخرى. وهو يستكشف بشكل نقدي تحديات الحفاظ على الجوهر المقدس أثناء التحديث، ويتناول جوانب مثل الحفاظ على المواد، وإعادة التشكيل المكاني، وتكامل وسائل الراحة الحديثة. فمن خلال تحليل معمق لدراسات الحالة، تسلط هذه الورقة الضوء على كيفية تحقيق التوازن بين الحفاظ على التراث والاحتياجات المتجددة للمجتمعات الحضرية من خلال تدخلات معمارية مبتكرة. في النهاية، تساهم هذه الأماكن المقدسة في تعزيز التماسك الاجتماعي واستمرارية الهوية الثقافية، مما يساهم في ربط الماضي بالحاضر بشكل متكامل.

الكلمات المفتاحية: إعادة التقديس، الاستخدام المعاصر، العمارة المقدسة، التكيف الثقافي، الحفاظ على التراث، الوظيفة الاجتماعية، المساحات المجتمعية، التحول المعماري، الهوية الثقافية...

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1. Introduction :

Sacred architecture is a profound reflection of identity, connecting communities to their spiritual heritage through space, form and symbolism. The process of resacralization involves reviving both the spiritual and architectural significance of spaces. This revitalization not only restores these places physically but also reintegrates them into the everyday lives of communities.

In the context of the Maghreb, the rich legacy of sacred architecture in Tunisia, Morocco and Algeria offers unique insights into the ways in which these spaces have been sanctified, transformed and adapted to contemporary use. This is what we will discover in this research. In addition, these countries, with a long history and architectural tradition, are home to famous sacred structures. These sacred spaces embody the complex relationship between faith, identity and architectural expression.

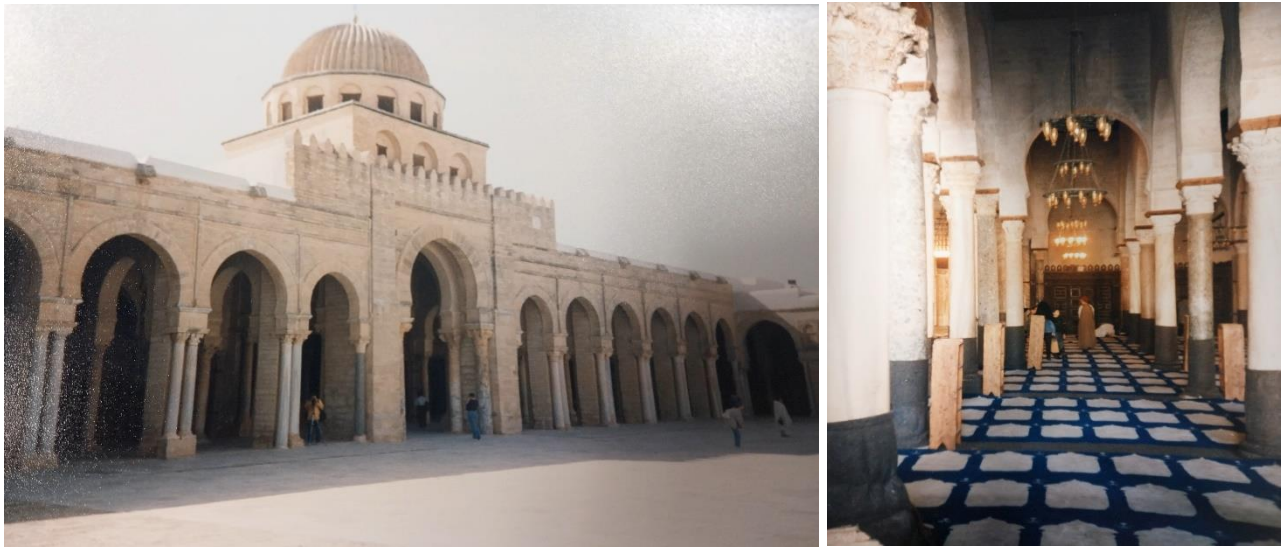


Photo 1 : The Great Mosque of Kairouan

These sacred buildings represent monumental markers of the cultural identity of their communities. They not only serve religious functions but also stand as symbols of resilience and continuity, reflecting the enduring values of the Arab Maghreb societies.

The thoughtful incorporation of sacred spaces into the urban landscape fosters social cohesion, reflecting architect Richard Rogers' vision of well-designed environments that unite and strengthen communities (1).

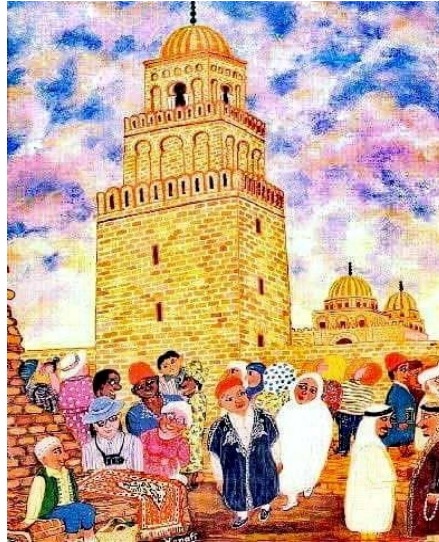


Photo 2 : A Vibrant Depiction of the Great Mosque of Okba Ibn Nafa in Kairouan

Preserving these sacred sites presents both challenges and opportunities. The balance between maintaining historical authenticity and adapting to contemporary needs is crucial. This delicate balance is vital to ensure that these sites maintain their historical and spiritual significance while also serving the needs of modern communities.

The resacralization of these spaces reflects not only spiritual practices but also broader societal dynamics. As the Maghreb countries embrace modernization, many questions arise about the contemporary roles and preservation of these sacred structures. **What architectural approaches are adopted to preserve this sacred architecture? What are the manifestations of new societal functions? What challenges and opportunities arise in re-sanctifying these spaces and adapting them to new functions without compromising their sacred essence?**

By highlighting the crucial role played by sacred architecture, this work aims to contribute to the ongoing dialogue about sacred places, recognizing their enduring power to connect people and inspire future generations.

2. Methodology :

The methodology of this study is based on research examining the dynamic interaction between sacred architecture and contemporary social functions in the Arab Maghreb region.

In the first part, the research begins with a comprehensive theoretical framework that identifies key concepts such as sacred architecture, sanctification, and resacralization, while exploring the emerging social functions of these spaces in contemporary society. These concepts will later help us understand the critical analytical part of this research.

In the second part, case studies were selected based on their historical importance and their transformation into community-oriented spaces. First there is an overview of each site, highlighting its architectural importance to the region. This section examines how these sacred places have adapted to meet modern needs while maintaining their historical and spiritual identities.

Through a critical synthesis of the findings, the research ultimately aims to illustrate how innovative architectural interventions can harmonize heritage conservation with contemporary requirements, thereby enriching the cultural and social fabric of the urban communities they serve.

3. Theoretical part :

A. Sacred Architecture :

a. Definition :

Sacred architecture refers to the design and construction of spaces intended for religious or spiritual activities. These structures often carry symbolic meaning and represent spiritual concepts. Sacred architecture encompasses a wide range of religious buildings, such as temples, mosques, churches and synagogues.

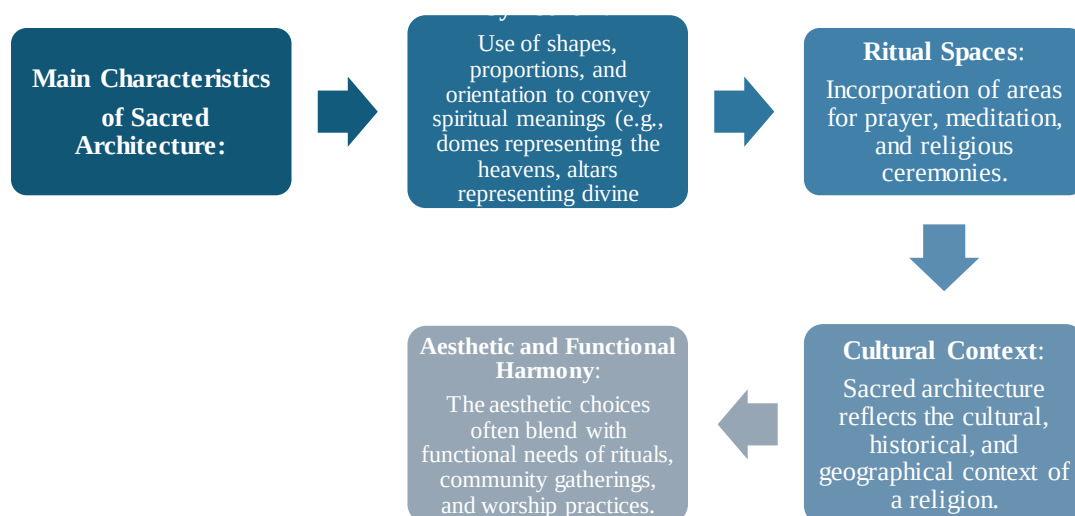


Chart 1: Main characteristics of sacred architecture

There is a rich body of books on sacred architecture that explore its historical significance, design principles and cultural influence across different religious traditions.

Books on Sacred Architecture:	
"The Architecture of the Sacred: Space, Ritual, and Experience from Classical Greece to Byzantium" by Bonna D. Wescoat and Robert G. Ousterhout	• This book explores sacred spaces in ancient Greece and Byzantium, examining the architectural elements that contributed to religious rituals and the experience of the divine.
"Sacred Architecture" by A.T. Mann	• A global exploration of sacred architecture from ancient to modern times, focusing on symbolism, design, and the spiritual meaning behind architectural forms.
"The Sacred Architecture of Islam" by Renata Holod and Hasan-Uddin Khan	• This book delves into Islamic religious buildings, such as mosques and madrasas, providing insight into the cultural and spiritual contexts that shaped their design.
"Temples of the Earthbound Gods: Stadiums in the Cultural Landscapes of Rio de Janeiro and Buenos Aires" by Christopher Thomas Gaffney	• This book examines how stadiums in South American cities have taken on quasi-religious significance, blending secular and sacred architectural ideas.

Figure 2: Books on sacred architecture

b. Sacralisation and resacralization :

1. Sacralization:

Sacralisation refers to the process by which an object, place or practice is transformed into something sacred. This transformation often involves religious, cultural, or symbolic practices. In the context of architecture, reverence is often applied to buildings or sites that become religious symbols or centers of worship. Religious historian Mircea Eliade also discusses this concept, noting that sacred places are often viewed as points of contact between the human and the divine (2).

2. Resacralization:

Resacralization is the process of restoring or reestablishing the sacred status of an object, space, or practice that has previously been desacralized or secularized. This transformation typically occurs when a religious or cultural community seeks to reinvest a site or tradition with spiritual significance after its sacred character has diminished due to social, political, or cultural changes.

Architect and theologian Richard Kieckhefer highlights the resacralization of religious buildings in urban areas, emphasizing the pivotal role of architecture in converting previously secular or abandoned structures back into sacred spaces (3).

c. Emerging Social Functions :

Sacred places today not only serve religious purposes but also play important social functions within societies. However, in modern society, their role has expanded significantly. Social functions found in sacred places today include community gatherings, cultural events, educational programs, and charitable activities.

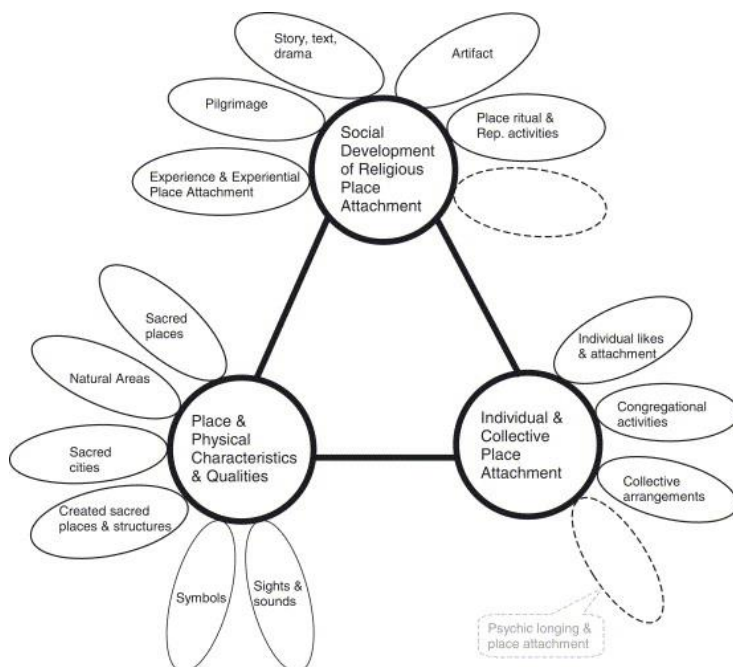


Photo 3 : Social functions in sacred places



Photo 4 : The Zitouna Mosque in Tunis

In the Arab Maghreb, several religious institutions have expanded their roles to include seminars, workshops, and classes on topics beyond traditional theology, focusing on personal development.

For instance, the Zitouna Mosque in Tunis offers workshops on leadership and youth empowerment, while the Hassan II Mosque in Casablanca hosts seminars on environmental awareness, science, and social cohesion. These institutions blend religious teachings with contemporary personal and community development.

B. Religious Structures: Mosques, Churches, and Synagogues :

a. Overview and Definitions :

- A mosque is a place of worship for the Muslim community, where they gather for communal prayer, religious education, and social activities. Mosques today are not only important as places of prayer, but they also function as community centres, promoting social cohesion and education within the Muslim community. The term “mosque” is derived from the Arabic word “masjid,” which means “a place of prostration.”

Figure 3: Characteristics of a Mosque

Characteristics of a Mosque

Architecture: Mosques often feature distinctive architectural elements, including domes, minarets, complex geometric designs, Arabic calligraphy, and Arabic ornamentation.

Prayer Hall: The main area for congregational prayer. This hall may be decorated with decorative elements, and may contain carpets for worshipers.

Minbar: The pulpit from which the imam prays the Friday prayer.

Mihrab: A niche in the wall that indicates the direction of Mecca and serves as a prayer place.

Courtyard: Many mosques have open courtyards that provide additional space for worshipers, and often contain fountains for ablution before prayer.

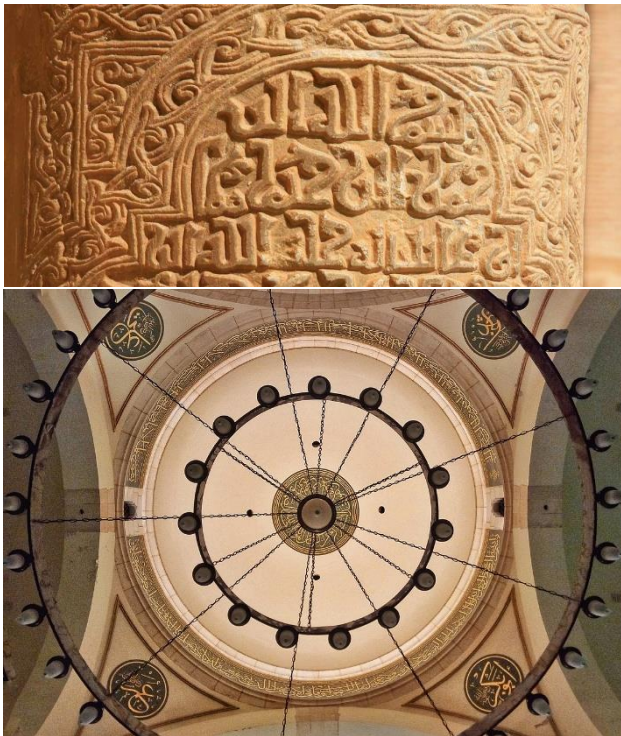


Photo 5 : The Ketchaoua Mosque dome



Photo 6 : Hassan II Mosque's minaret

- A synagogue is a Jewish house of worship where the community gathers for prayer, religious services, study, and community activities. It usually included a sanctuary with a sarcophagus containing the scrolls of the Torah, the sacred texts of Judaism.



Photo 7 : the Ghriba synagogue in Djerba

General architectural composition of a synagogue :

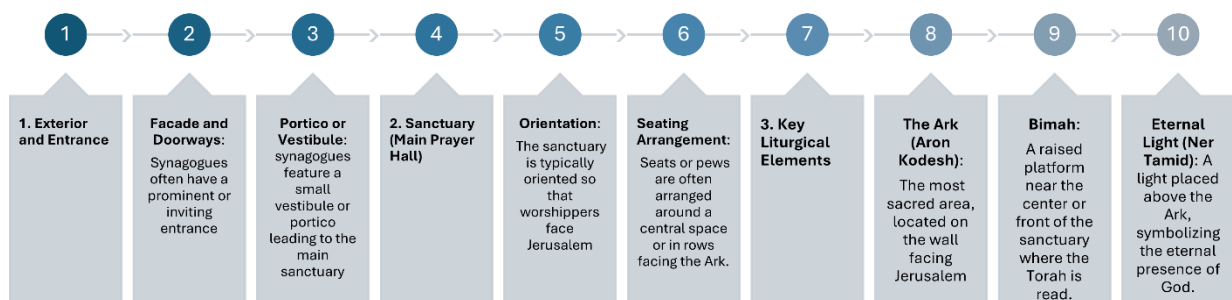


Figure 4 : General architectural composition

- A church is a building for Christian worship, typically featuring a nave, altar, and sometimes a steeple or bell tower. It serves as a place for prayer, worship, and sacraments. Churches often function as community centers for social, cultural, and spiritual activities.

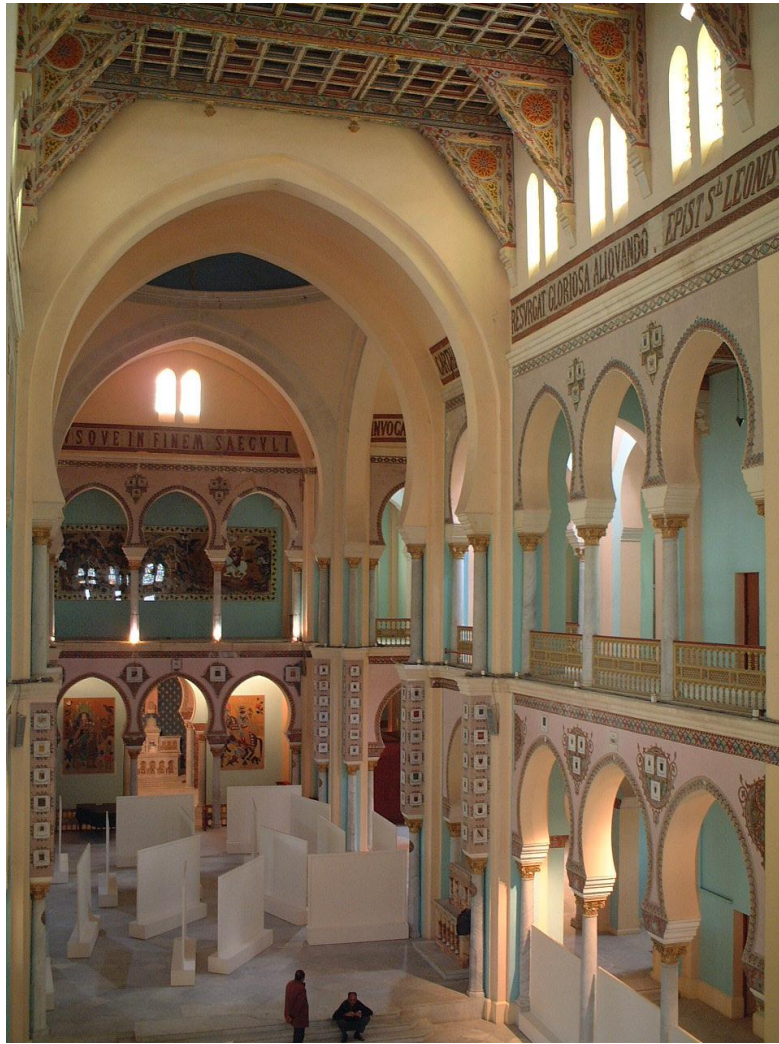


Photo 8 : Saint Louis Cathedral, Tunisia

b. The Significance of Sacred Architecture :

The importance of sacred architecture lies in its ability to embody and reflect the spiritual beliefs, cultural values and religious practices of a society. Sacred buildings, such as churches, mosques and synagogues, are designed to create a space for worship and contemplation. Their architectural features often symbolize spiritual concepts, with elements such as domes, towers, sculptures or sacred texts.

Ces structures détiennent une énorme valeur historique et culturelle, préservant les traditions artistiques et architecturales de leur époque. Aujourd'hui, ils sont considérés comme des points focaux d'interaction sociale et de patrimoine culturel. En comblant le fossé entre passé et présent, ces bâtiments reflètent non seulement la dévotion religieuse, mais renforcent également les liens sociaux et maintiennent la continuité des pratiques culturelles à travers les générations.

3. Sacred Architecture in the Arab Maghreb :

A. Historical Context and Contemporary Adaptations

a) Architectural Transformations in Sacred Projects :

1. Case Study: Great Mosque of Kairouan :

i. Introduction to the Great Mosque of Kairouan :

The Great Mosque of Kairouan, also known as the Uqba Mosque, stands as one of Tunisia's most significant architectural and cultural landmarks. Founded in 670 AD by the Arab leader Uqba bin Nafi following the conquest of North Africa, this mosque holds a vital place in Islamic heritage.

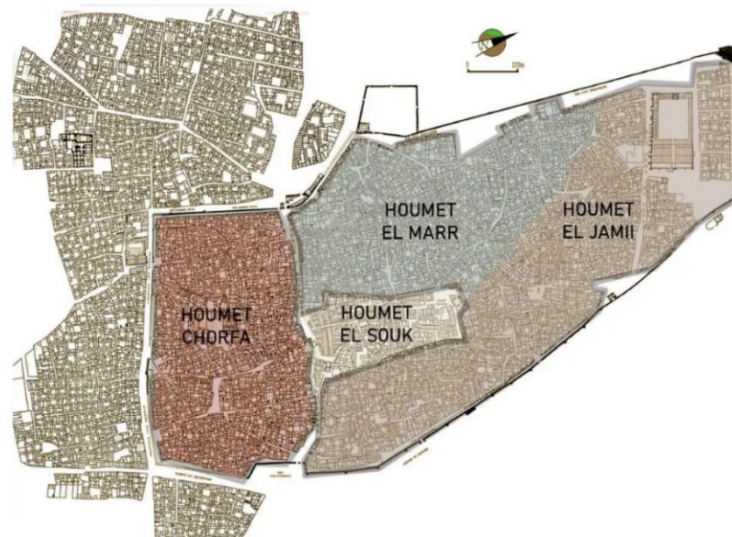


Photo 9 : the location Great Mosque of Kairouan



Photo 10 : the overview of the Great Mosque of Kairouan

It is considered one of the oldest houses of worship in the Islamic world, served as a model for later mosques throughout the Maghreb region and is considered the fourth holiest site in Islam, after Mecca, Medina and Jerusalem. The mosque is located in the city of Kairouan - a UNESCO World Heritage Site - and extends over an area of 9,000 square meters, and embodies the spiritual and architectural greatness of its era. By delving deeper into its architectural elements and cultural importance, this study will address the most prominent preservation strategies and challenges that the mosque currently faces.



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Photo 11 : the Great Mosque of Kairouan

The mosque is located in the northeast of the city of Kairouan, and the location of the mosque originally corresponded to the heart of the urban fabric created by Uqba ibn Nafi. The mosque was not only a pivotal center of Islamic worship, but also an important center for learning Islamic thought and secular sciences. But as the city began to decline from the middle of the eleventh century, the center of intellectual thought moved to the University of Zaytouna in Tunisia.

ii. Architectural Origins and Layout :

In the 7th century AD, North Africa presented formidable challenges for establishing a new city. The region was dominated by the Byzantines, and its indigenous Berber population was not easily persuaded to accept centralized Islamic governance. Additionally, Middle Eastern merchants had to be drawn to relocate to this new frontier. In 670 AD, the influential military leader Sidi Uqba founded the Kairouan Mosque, a significant milestone that symbolized the emergence of Kairouan as a cosmopolitan hub under Islamic authority. This strategic addition not only marked Kairouan's future as a center of Islamic influence but also asserted its unique role in the region's complex cultural and political landscape. To uncover the architectural origins of this mosque, it is essential to delve into its historical evolution.

Year(s)	Leader/Authority	Description of Development
690	Uqba ibn Nafi	Original construction of the mosque under the Arab leader and founder of Kairouan.
703	Hassan bin al-Numan	Rebuilt after destruction during the Berber occupation of Kairouan.
724-728	Hisham bin Abdul Malik	First major expansion: mosque demolished and rebuilt (except for the mihrab); construction of the minaret initiated under the order of the Umayyad Caliph.
774	Yazid ibn Hatim	Reconstructed with modifications and decorations under the Abbasid governor.
836	Prince Ziyadat Allah I	Rebuilt, giving the mosque its current architectural form; ribbed dome added over the mihrab.
862-863	Emir Abu Ibrahim	Expanded prayer hall by adding three porticoes to the north; dome added over the portico preceding the prayer hall.
875	Emir Ibrahim II	Added three arcades, reducing the courtyard size; additional double arcades on the remaining three sides of the courtyard.
1025	Zirid Dynasty	Partial restoration work conducted.
1293-1294	Hafsid Dynasty	Additional restoration and modifications.
1618	Muradid Dynasty	Further restorations and renovations.
Late 19th - Early 20th Century	Various authorities	More restorations to preserve the structure.
1967-1972	National Institute of Monuments and Arts	Comprehensive restoration over five years, culminating in the mosque's official reopening during the Prophet's birthday celebration in 1972.

Tableau 1 : the historical evolution of the Great Mosque of Kairouan

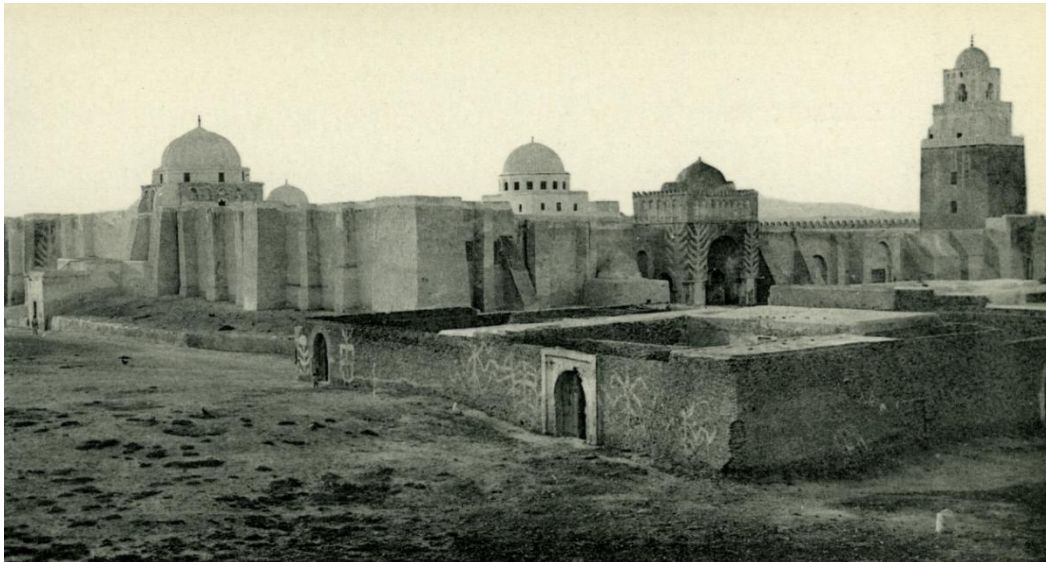


Photo 12 : A view of the Great Mosque of Kairouan in the early 20th century

iii. Contemporary Adaptations and Functional Transformation

The Mosque of Kairouan, has undergone significant evolution in its functions and architectural features. Initially established as a center for prayer and community gathering, it served as a vital religious and educational hub in the Islamic world, attracting scholars and pilgrims. Over the centuries, its role expanded beyond spiritual practices to include social, cultural, and political dimensions, becoming a symbol of Islamic identity and heritage in North Africa.



Photo 13 : Kairouan Mosque: Bridging Tourism and Cultural Heritage

The mosque's architecture evolved in response to various influences, incorporating elements from different periods and styles, including the Aghlabid, Ottoman, and modern influences.

Renovations and expansions have added new prayer halls, courtyards, and decorative features, reflecting the changing needs of the community and the mosque's status as a UNESCO World Heritage site. Today, while it continues to serve as a place of worship, the Mosque of Kairouan also functions as a significant tourist attraction and a center for cultural events, exemplifying the dynamic interplay between tradition and modernity in sacred architecture. **What are the most important solutions adopted today to meet new community needs?**

- Balancing Preservation and Modern Adaptation :

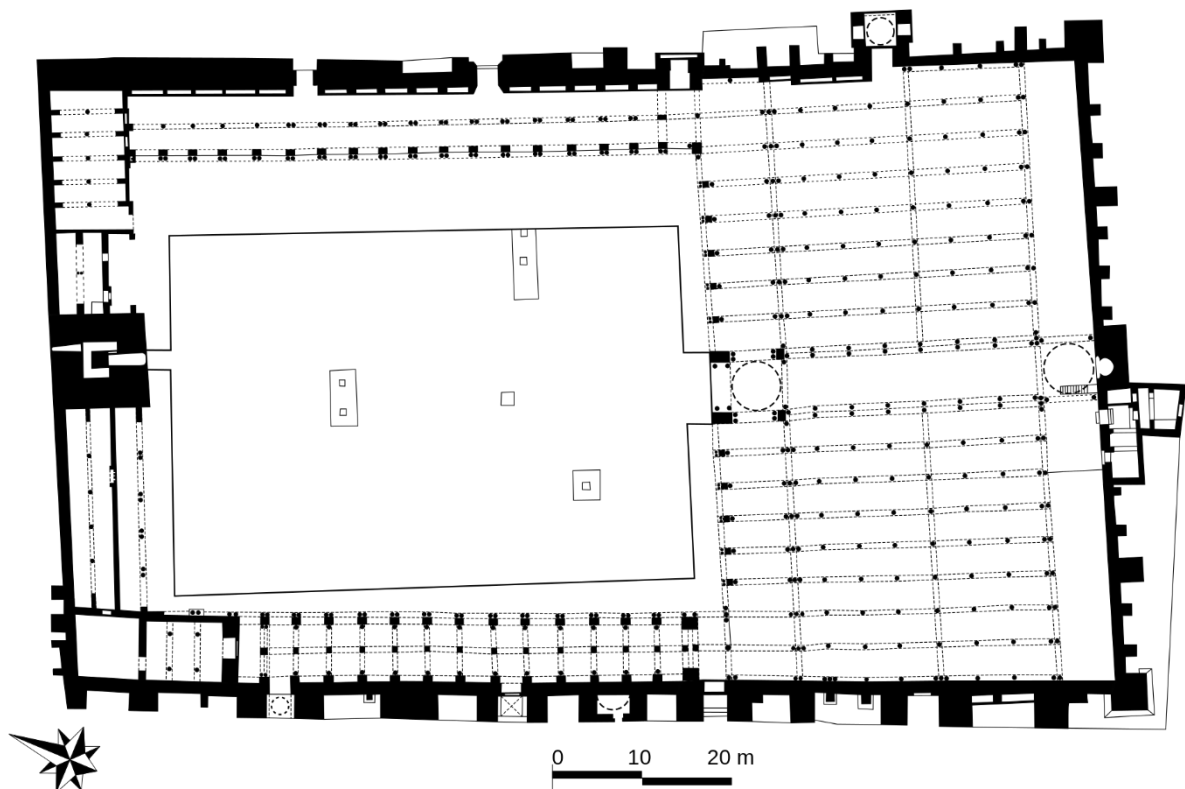


Photo 14 : the plan of the Great Mosque of Kairouan

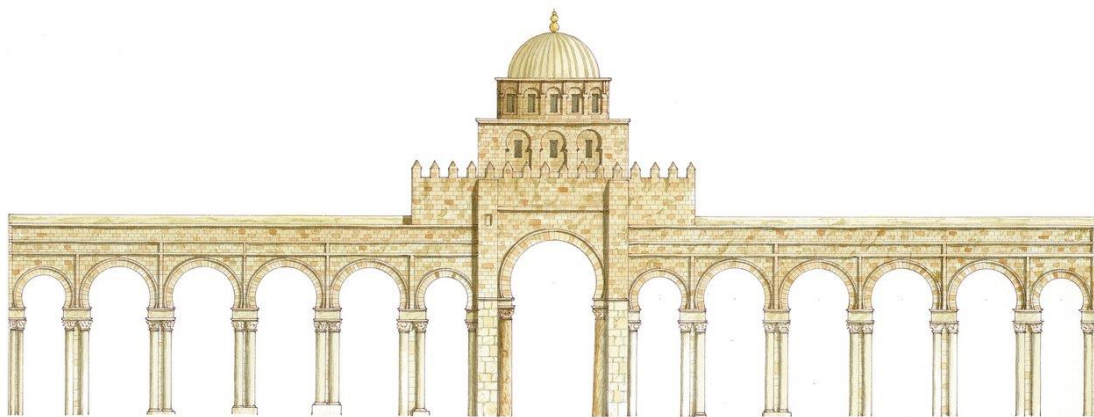


Photo 15 : the façade of the Great Mosque of Kairouan

The historical architectural design of the Kairouan Mosque is considered unique. This design has maintained its architectural identity for centuries. It features rows of columns supporting the flat roof. In the middle is a spacious courtyard.

The Kairouan Mosque has been restored several times, and great efforts have been made to preserve its structural integrity by carefully preserving original elements such as its famous minaret and thick stone walls.

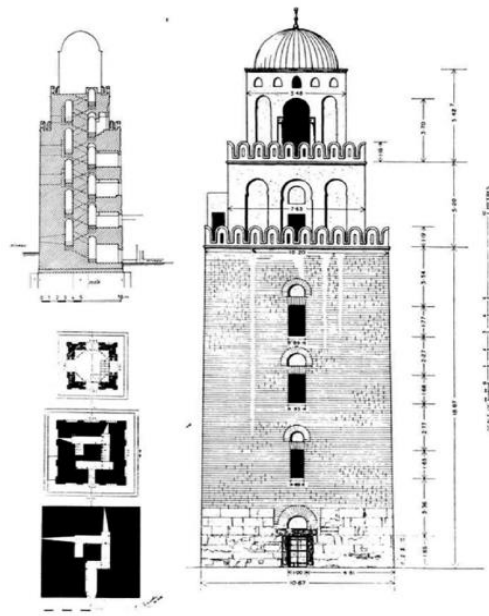


Photo 16 : the minaret of Mosque of kairouan

Designed to withstand the dry climate and seismic activity, these features reflect the mosque's historic durability and advanced construction techniques of its time. One of the solutions adopted in the adaptive restoration process is to enhance old materials to increase their ability to withstand modern environmental challenges, such as air pollution, changing weather patterns, and pressures resulting from increased tourism. By using compatible materials and techniques that respect the original architecture of the mosque, such a restoration can be seen as an example of preserving its authenticity while ensuring that it remains a safe structure adapted to the new functions.



Photo 17 : the courtyard of the Great Mosque of Kairouan

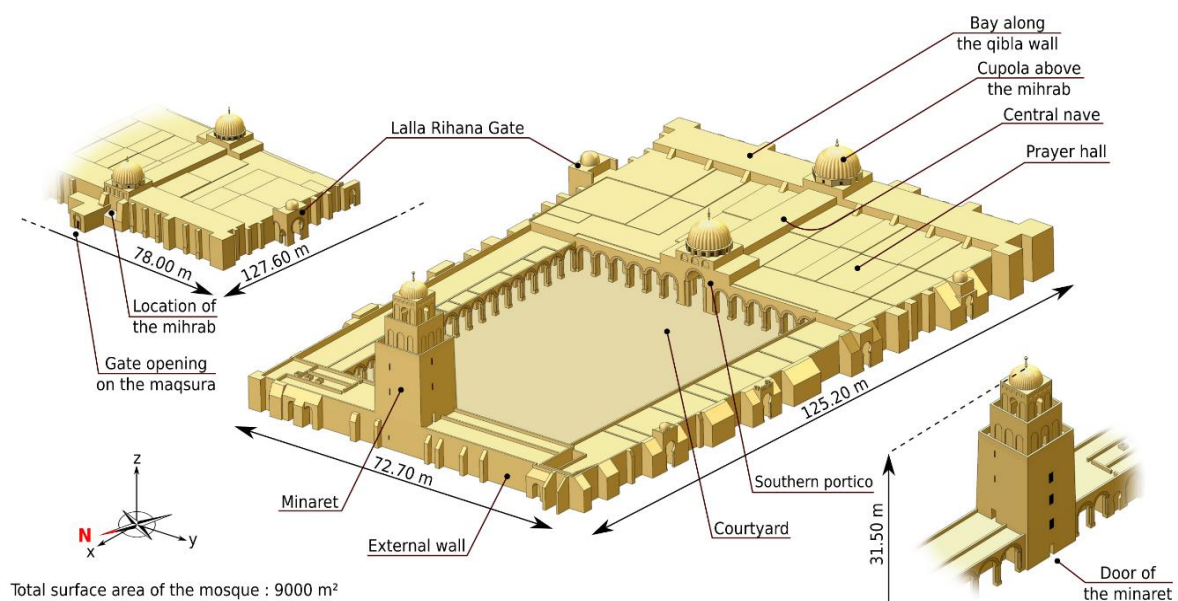


Photo 18 : the 3d of the Great Mosque of Kairouan

These updates are integrated seamlessly, ensuring they blend into the original build without compromising their authenticity. By respecting the mosque's historic design while enhancing accessibility, these modifications make the mosque more inclusive for all visitors, allowing more people to appreciate its cultural and religious significance.

- Integration of Modern Materials in Restoration Efforts :

To effectively counter the wear and tear resulting from centuries of natural aging, the Kairouan Mosque was restored. Contemporary materials were carefully incorporated to preserve the architectural authenticity of the mosque. Priority is given to materials that closely match the original stone, brick and woodwork of the mosque.



Photo 19 : the 3d of the Great Mosque of Kairouan

The goal was for any new additions to blend seamlessly with the historical elements. This is done by selecting durable materials that are compatible with traditional construction techniques, which maintains the integrity of the mosque's aesthetic and structural design.

This delicate balance between old and new maintains the visual cohesion of the mosque, allowing it to withstand environmental pressures without compromising its historical character.

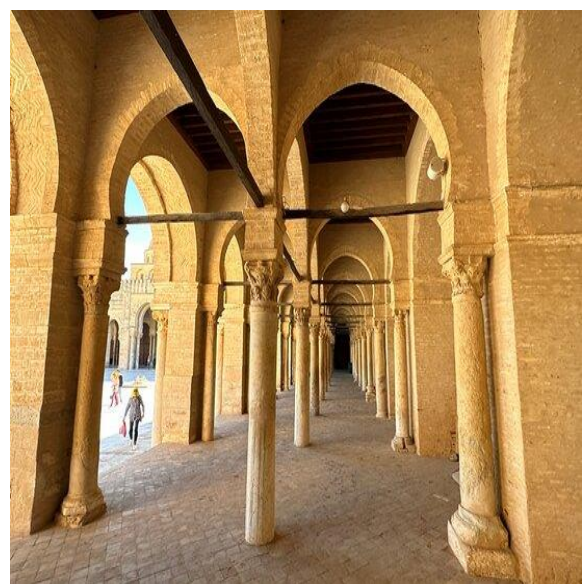


Photo 20 : the gallery of the Great Mosque of Kairouan



Photo 21 : the 3d of the Great Mosque of Kairouan

- Architectural Symbolism in Modern Contexts :

There are strict rules that ensure that any new developments in the vicinity respect the historical and architectural integrity of the mosque and maintain a harmonious visual and spatial relationship between the ancient and modern structures.

This careful strategic planning helps the mosque to integrate seamlessly into the evolving urban fabric, allowing it to serve as a living religious site and a historical monument that enriches Kairouan's identity in the modern era. Through these efforts, the mosque stands resilient to the pressures and challenges of urban change, preserving its heritage while remaining a vital part of the city's cultural landscape.

- Enhancing Visitor Experience through Modern Interpretation :

The visitor experience at the Kairouan Mosque is enhanced by modern interpretive tools that respect the integrity of this ancient structure. Information panels and digital guides now provide visitors with an in-depth look at the mosque's rich history, architecture and cultural significance. These additions provide context around the unique features of the mosque—such as the famous minaret, hypostyle hall, and intricate mihrab—without altering or disrupting the physical space.

By guiding visitors through its historical narrative, these interpretive tools foster a deeper appreciation of the mosque's role in Islamic architecture and Tunisian heritage. This thoughtful approach allows local and international visitors to meaningfully connect with the mosque's heritage, enhancing their experience without compromising the historical authenticity of the site. Seminars and celebrations in the mosque also extended to the holidays and the birth of the Prophet, allowing visitors to get to know and feel more about the holiness of the place.



Photo 22 : The Celebration of the Prophet's Birth

This research explores the enduring distinction between ancient and contemporary instruments used in the Kairouan Mosque today. These interventions maintain the mosque's functionality and cultural significance while respecting the needs of worshippers and tourists alike.

Aspect	New Functions	Adaptive Solutions
Historical and Religious Significance	Continues to serve as a major religious site for prayers and community gatherings.	Preservation of original functions while adapting to modern needs, maintaining its role as a center of worship.
Architectural Integrity	Parts of the mosque have been restored to preserve the original structure.	Restoration efforts focused on maintaining the authenticity of the mosque while integrating modern techniques for preservation.
Use of Space	New prayer areas and facilities are integrated for larger crowds, especially during festivals.	Expansion of prayer spaces with minimal intervention, using contemporary materials that blend with the original architecture.
Tourism and Cultural Events	The mosque has become a key site for cultural tourism and educational visits.	Creation of dedicated spaces for tourists and cultural programs while safeguarding sacred areas for worship.
Community and Social Functions	Hosting educational programs, exhibitions, and interfaith dialogues.	Adaptive use of courtyard and annexes for educational events without disrupting sacred rituals.
Technology Integration	Digital displays for visitor information and virtual tours.	Subtle incorporation of modern technologies like lighting and audio systems to enhance the visitor experience without altering the historical setting.
Maintenance and Conservation	Implementation of sustainable practices for maintaining the mosque and surrounding environment.	Use of advanced conservation techniques, such as climate control and non-invasive materials, to ensure the longevity of the structure.
Accessibility	Improved access for people with disabilities.	Installation of ramps and elevators in a way that does not detract from the mosque's historical value.
Environmental Impact	Eco-friendly initiatives, such as water conservation systems and energy-efficient lighting.	Introduction of environmentally sustainable solutions, like solar panels and efficient water management systems.
Interfaith and Global Identity	Hosting international religious and academic conferences.	Creation of spaces that foster interfaith dialogue while respecting the mosque's Islamic identity.

Tableau 2 : the mosque's functionality and cultural significance

Balancing historical preservation with modern use is a complex yet vital task in architecture and urban planning. It involves respecting and conserving the cultural, historical, and aesthetic values of heritage sites while adapting them to meet contemporary needs. Successful preservation balances these dual purposes, ensuring that historical structures continue to serve communities in meaningful ways without compromising their integrity. Challenges arise when modernization threatens to overshadow or undermine historical aspects, but innovative design

solutions can bridge the gap. By integrating new functions sensitively, architects can enhance both the longevity and relevance of historical sites, allowing them to contribute to modern urban landscapes while honoring their past.

b) Material Preservation and Spatial Sacralization :

1. Case Study: Ketchaoua Mosque, Algeria :

i. Introduction to the Ketchaoua Mosque :

The Ketchawa Mosque is considered a prominent religious and historical landmark. It is located in the heart of the city of Algiers and was initially built in the early seventeenth century. It is a UNESCO World Heritage Site. The mosque was originally built as a Turkish Ottoman mosque and was later converted into a cathedral during the French colonial period before being returned to its original purpose as a mosque after Algeria's independence in 1962.

The mosque reflects the complex layers of history that shaped its identity, blending Ottoman, Moorish and colonial architectural influences. Its central location, within the Kasbah of Algiers, makes it a prime site of spiritual significance for both local communities and visitors.

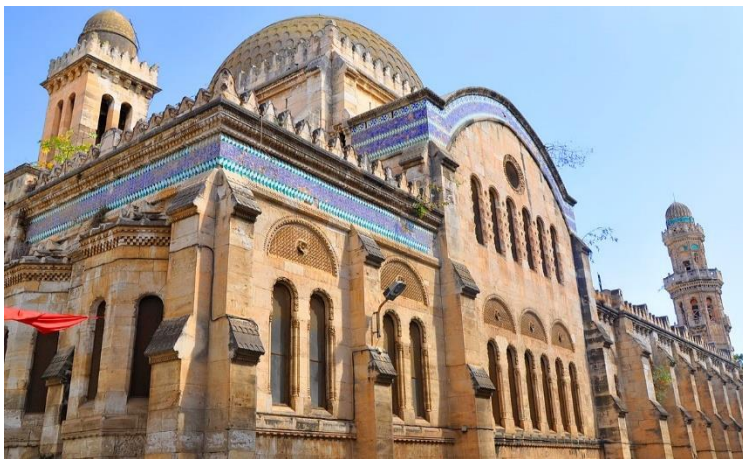


Photo 23 : the Ketchaoua Mosque

To reveal the architectural origins of this mosque, it is necessary to delve into its historical development. The Ketchawa Mosque in Algiers witnessed great architectural development. Originally built in the early 17th century under Ottoman rule, the mosque's design showed classic Ottoman architectural features, including grand arches, domes and an ornate minaret, which emphasized its role as a prominent Islamic place of worship. The mosque's initial design included a spacious prayer hall and a complex entrance surrounded by arches, blending Ottoman aesthetics with local architectural elements.

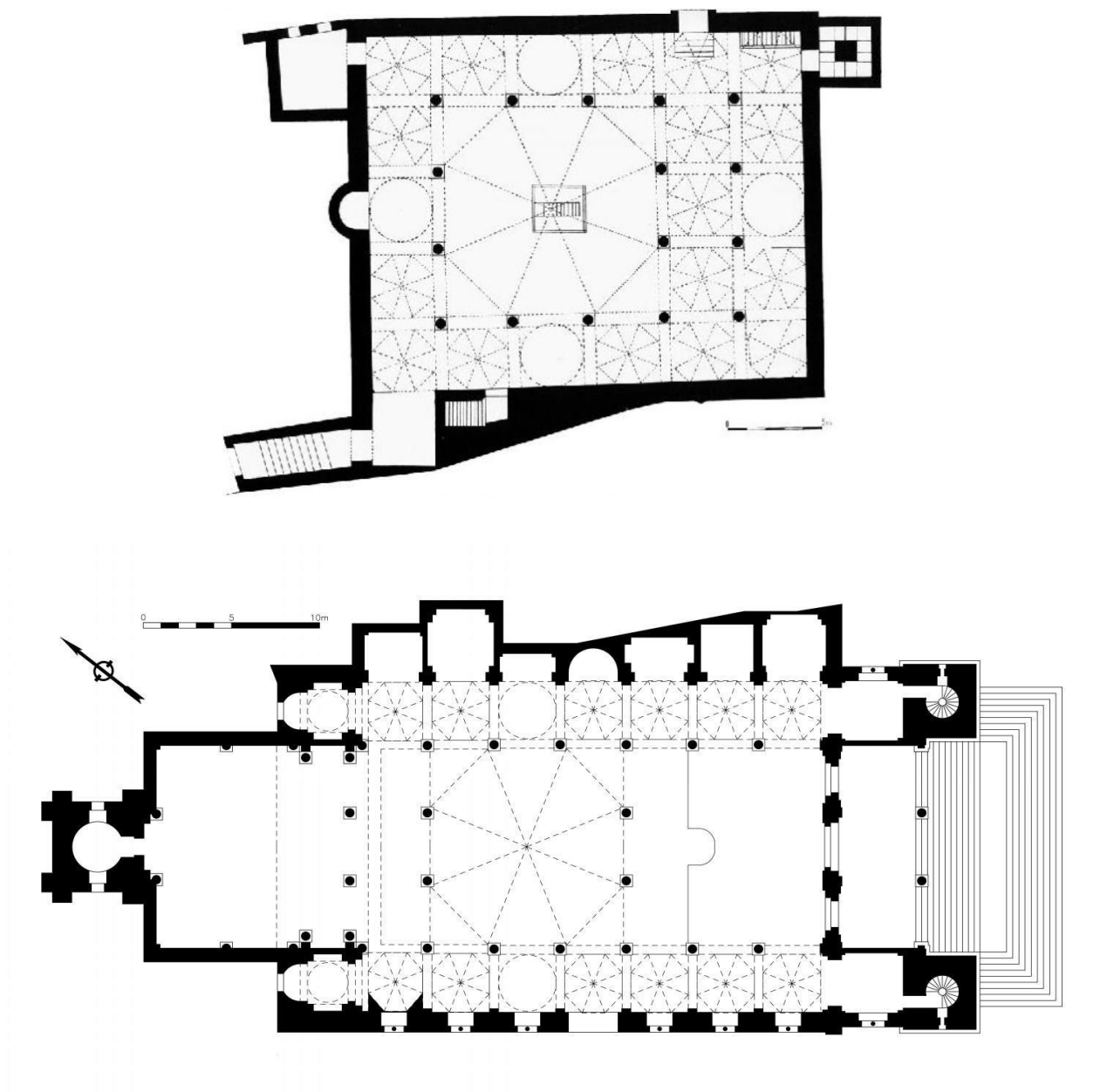


Photo 24 : Plan of the Mosque Before 1932 – and Plan of the Mosque after 1932 – French colonial period

During French colonial rule in the 19th century, the mosque was converted into Saint Philip's Cathedral, radically changing its structure. The French architects added elements such as the central nave and Christian icons, erasing much of the Islamic character of the mosque. The building was adapted to suit European church design, marking a major shift from its original sacred Islamic identity to a Christian place of worship, reflecting the colonial agenda of cultural assimilation.



Photo 25 : general view of the cathedral

After Algeria gained independence in 1962, the monument was restored to its original integrity as a mosque. Efforts were made to reverse many of the colonies, so that they appear on the final documents to present the traditional Islamic elements that were completed.

Recent restorations have focused on preserving materials and reviving Islamic architectural details, symbolizing resilience and cultural reform. Today, the Ketchaoua Mosque stands as a testament to Algeria's architectural heritage, embodying the enduring identity of Islamic art and the region's multi-layered history of transformation.

ii. Architectural Origins and Layout :

The design of the mosque includes a large central prayer hall, surrounded by an elegant courtyard with a fountain, a common feature of Islamic holy sites. The exterior of the mosque is decorated with intricate arabesque designs and arches reflecting traditional Ottoman influences. The minaret, a distinctive element of Islamic architecture, rises above the structure to direct worshipers to the place of prayer. Inside, the mosque is divided into several spaces designated for different functions and includes elements that enhance the sense of calm and emphasize spirituality.



Photo 26 : the minaret of the mosque

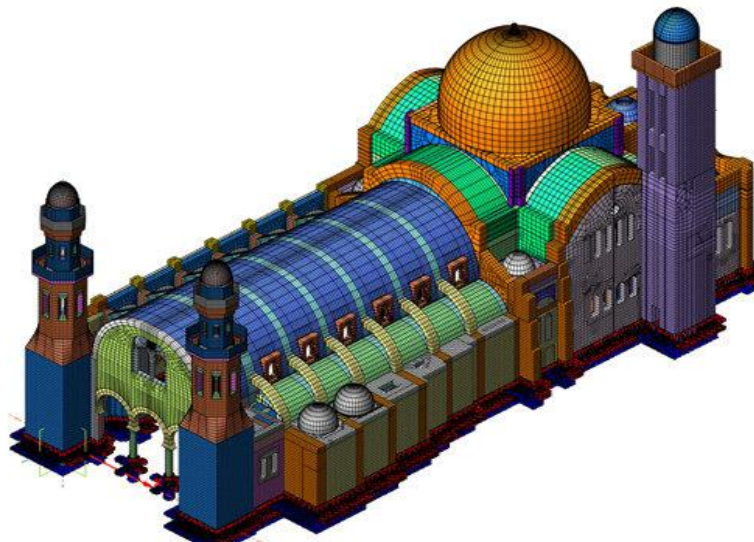


Photo 27 : the 3d of the mosque

The architectural style of the Ketchaoua Mosque is characterized by a mixture of Roman-Byzantine and Turkish-Arabic influences, reflecting the multi-layered cultural history of the city of Algiers.

The mosque's fusion of diverse elements from different architectural traditions serves as a physical representation of the region's rich and multicultural heritage.

Romano-Byzantine Influence: It is distinguished by the rectangular building design, which is considered a model of Byzantine architecture. It also features a large central dome, which not only emphasizes the grandeur of the structure but also reflects the Byzantine approach to spatial organization in religious buildings. The interior decoration was enriched with intricate mosaics, showing the Roman-Byzantine emphasis on detailed ornamental art within holy sites.

Turkish-Arabic Influence: The mosque also incorporates elements of Turkish and Arabic architectural traditions. This is evident in the extensive use of arches throughout the building, as well as large carved wooden doors, which are characteristic features of Ottoman and Arab Islamic architecture. The inclusion of ceramics, such as tiles and ceramics, also reflects the traditional materials typically used in Islamic construction.

iii. Material Preservation and Spatial Sacralization :

The mosque went through several stages of restoration, especially after the French colonial period, when many of its original features were changed or destroyed. Restoration efforts focus on the meticulous restoration of stone, wood and tile mosaics, ensuring that the materials used reflect the authentic craftsmanship of the original design. Spatial sanctification, or the transformation of space into a sacred environment, is enhanced by these material choices. The use of traditional materials, such as local stone and hand-carved wood, reinforces the connection between space and the divine. The carefully preserved architecture serves not only as a religious site, but also as a testament to the survival of sacred sites throughout history, preserving their importance for future generations.

This mosque is a wonderful example of architectural adaptation across different historical periods. Today, the mosque is also a heritage site and cultural landmark, attracting worshipers and tourists alike. The table summarizes the main functional changes and adaptive solutions applied at each stage, explaining how the Ketchawa Mosque was preserved and adapted to serve different roles while retaining its historical and architectural essence.

New Function	Adaptation Solution
Cathedral (during French colonial era)	Altered interior layout to fit a Christian worship setting, adding a nave and altar, and removing Islamic elements.
Restored Mosque (post-independence)	Removed colonial additions and restored Ottoman-Islamic architectural features, including the prayer hall and mihrab.
Heritage and Tourist Site	Enhanced structural stability for visitor safety, preserved historical materials, and added guided pathways.
Cultural Symbol and Community Center	Integrated lighting and accessibility improvements to accommodate community events and gatherings.

Table 3 : the new functions and adaptation Solutions

B. Social and Cultural Impacts :

1. Case Study: Ghriba Synagogue :
 - i. Introduction to the Synagogue :



Photo 28 : general view of Ghriba Synagogue

The Ghriba Synagogue is a Tunisian Jewish synagogue that constitutes one of the main identity markers for the Jews of Djerba, Tunisia. The construction of this synagogue in the Riyadh region

of the Houmt Souk delegation, according to a plaque found there, dates back to the year 585 BC, making it the oldest Jewish synagogue in Africa and one of the oldest in the world.



Photo 29 : general view of the synagogue

Djerba, island in southeastern Tunisia, in the Gulf of Gabes, arm of the Mediterranean Sea. The island measures approximately 30 km wide and 25 km long with an area of 510 km², for a population estimated at 139,517 inhabitants in 2004. The town of Houmt-Souk, located on the northern coast, is the administrative and business center. In Greek mythology, the island was the home of the lotus eaters. It was a possession. Roman, then it was taken successively by the Arabs (in 655), the Normans of Sicily, the Spanish and the Turks. In 1881, Djerba, like Tunisia, was occupied by France.

The Ghriba Synagogue on the island of Djerba in Tunisia is a shrine jointly attended by Jews and Muslims. This “sharing” is a long-standing phenomenon witnessed throughout the Maghreb, but has largely declined elsewhere as a result of the gradual migration of Jews to Europe and Israel in the mid-twentieth century. The famous Ghriba Synagogue, near Riyadh, is the object of an annual pilgrimage visited by believers from all over the world. One of the oldest Torahs in the world is kept in this synagogue .

ii. Architectural Origins and Layout :

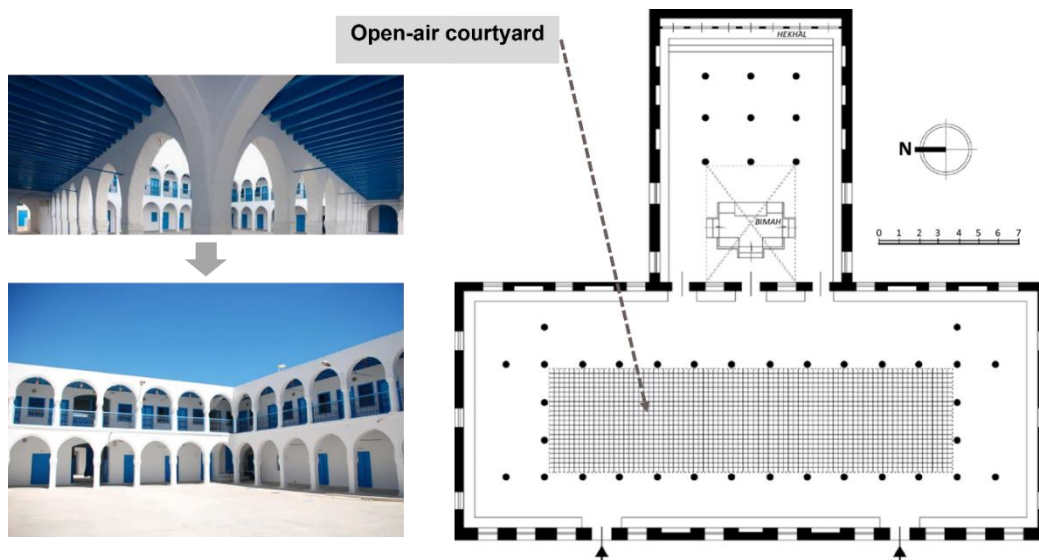
The Ghriba Synagogue, as seen today, primarily dates back to the 19th century, with notable renovations in the 1920s and 1930s. Its architectural design and decoration blend essential synagogue elements with the distinct characteristics of local Tunisian architecture, embodying the dual identity of the Djerban Jewish community—both Jewish and Tunisian. Djerban architecture is typically marked by simple, modest exteriors with minimal ornamentation and whitewashed walls, a practical adaptation to Tunisia's hot climate. With its white walls reflecting the sun, the Ghriba Synagogue harmonizes seamlessly with the surrounding Djerban landscape, reflecting the architectural traditions of the island.



Photo 30 : General view of the entrance of ghriba

The Ghriba Synagogue follows a layout similar to that of many mosques, with a prayer hall adjacent to an open courtyard. This design, common in mosque architecture across Tunisia, allows worshippers to gather in an open-air space before entering the main area for worship. Over time, however, the Ghriba's layout was modified, and the open courtyard was replaced with a covered hall. This change was likely made to better accommodate the large number of pilgrims who visit the synagogue each year during the annual pilgrimage, ensuring a comfortable and sheltered space for their gatherings.

Photo 31 : General view of the plan of ghriba



The architecture of Ghriba Synagogue reflects a unique blend of traditional Jewish design elements and local Tunisian influences, making it a distinctive example of North African sacred architecture. The design, which originally contained a prayer hall and an open courtyard, reflects common features found in Islamic architecture throughout the region, particularly the spatial arrangement seen in Tunisian mosques. This courtyard, which was later covered to accommodate large numbers of pilgrims, highlights the adaptability of the synagogue and its importance as a pilgrimage site.

The interior decoration features intricate tilework and wood carvings, typical of Tunisian craftsmanship, which adorn the walls and enhance the sacred atmosphere. The whitewashed walls, a hallmark of Djerban architecture, help to reflect sunlight and keep the structure cool, while the simple, modest exterior preserves a sense of humility and harmony with the surrounding landscape.

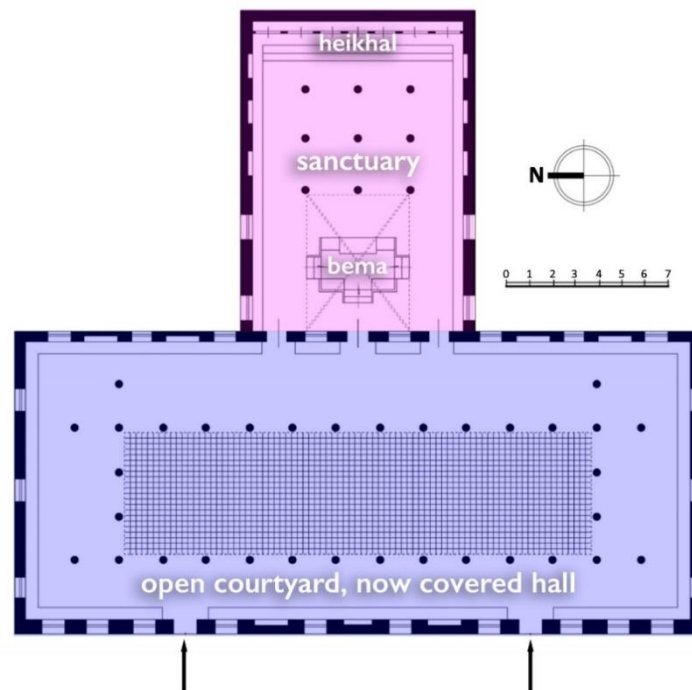


Photo 32 : the composition of the plan

Altogether, the Ghriba Synagogue's architecture serves as a testament to the enduring cultural and religious identity of the Jewish community in Tunisia, seamlessly blending local and religious architectural traditions.

In the Ghriba Synagogue, 155 marble columns with gilded capitals elegantly support intricate balustrades and wooden ceilings. These wooden ceiling panels, imported from Italy, the Netherlands, and Russia, are adorned with exquisitely carved, painted, and gilded arabesques, showcasing the artistry of craftsmen from Aleppo and Venice. This fusion of materials and techniques from diverse regions highlights the synagogue's unique cultural and artistic heritage, blending influences from Europe and the Middle East in a visually stunning, sacred space.



Photo 33 : General decoration of ghriba

The Ghriba Synagogue's beauty is enhanced by its 284 stained glass windows, crafted by the renowned artist Édouard Didron. These intricate windows are adorned with delicate arabesques, showcasing a fusion of Jewish and Islamic art influences.

The glass allows natural light to filter into the space, casting hues of blue, yellow, and green across the interior. This interplay of colors creates a serene and almost mystical ambiance, highlighting the synagogue's architectural elegance and making each visit a visually captivating experience. The stained glass windows are not only decorative but are also symbolic, as they reflect the layered history and cultural depth of the synagogue, linking the community's rich past with its present-day function as a place of worship and heritage.

iii. Social and cultural impacts :

Today, the synagogue has undergone various adaptations to preserve its historical and spiritual significance while meeting the needs of the modern community. As a living space of

worship, the Ghriba Synagogue continues to be a focal point for Jewish heritage, attracting pilgrims and tourists from around the globe, especially during the annual pilgrimage of Lag BaOmer. Modern adaptations have included the installation of advanced security systems to ensure the safety of visitors, given the synagogue's prominence in Jewish history.



Photo 34 : The interior of the Ghriba

Preserving its architectural integrity, with its stunning mosaic tiles, intricate woodwork and iconic dome, has been a priority, combining traditional restoration techniques with contemporary methods. The synagogue also plays a central role in the social and cultural activities of the local Jewish community, retaining its function as both a place of religious practice and a symbol of interfaith dialogue in the region. Despite the challenges of balancing heritage conservation and modern demands, the Ghriba Synagogue remains a testament to the resilience and adaptability of sacred architecture in preserving cultural identity.



Photo 35 : The quality of the space

2. Case Study: Saint Louis Cathedral

i. Introduction to the cathedral :

The Saint Louis Cathedral, situated at the historic site of Carthage in Tunisia, is a former Catholic church built between 1884 and 1890 during the French protectorate. Once holding primacy over all of Africa, the cathedral has undergone a significant transformation. Since 1993, it has been known as the "Acropolium" and no longer serves as a place of worship. Instead, it now functions as a cultural venue, hosting public events and concerts showcasing Tunisian and classical music.

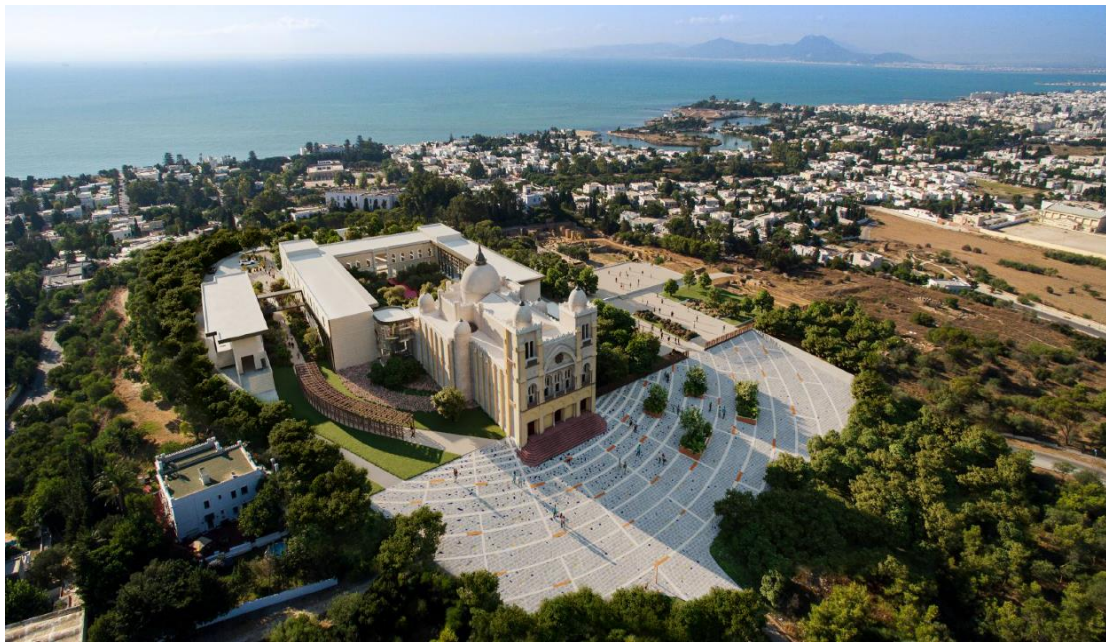


Photo 36 : General view of the cathedral

The Ghriba Synagogue, located on the island of Djerba in Tunisia, holds immense cultural and historical significance. While it is no longer used for regular worship, the synagogue has embraced a new role as a venue for public events. It frequently hosts concerts featuring Tunisian music and classical performances, preserving its legacy as a space that brings people together



Photo 37 : The facades

to celebrate art and culture. The cathedral sits on the peak of Byrsa Hill, near the ruins of the ancient Punic and then Roman city in the site of Carthage.

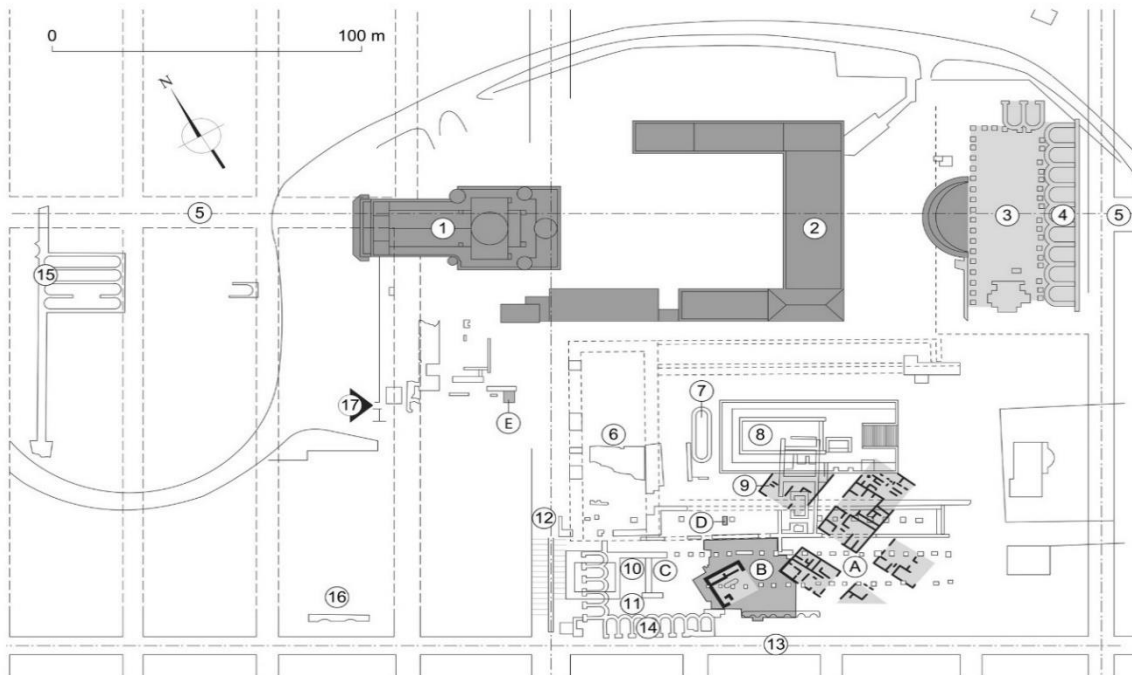


Photo 38 : The Mass plan

The history of the Saint Louis Cathedral in Tunisia is deeply tied to the legacy of Carthage and the French protectorate. Hussein II Bey granted permission to the French Consul General to construct a cathedral on the historic site of ancient Carthage. Jules, the consul's son, was tasked with determining the location and acquiring the necessary land. After thorough evaluation, he selected the Byrsa Hill as the ideal site for the cathedral.

The project received the approval of Louis-Philippe I, and construction began in 1884. The cathedral was officially dedicated on May 15, 1890. Under the



Photo 39 : The composition of the Mass plan

French protectorate, it gained the prestigious status of "Primate of Africa" when the title was restored to Cardinal Lavigerie, who simultaneously held the archdioceses of Algiers and Carthage. This monumental structure stands as a symbol of the religious and cultural heritage of the region.

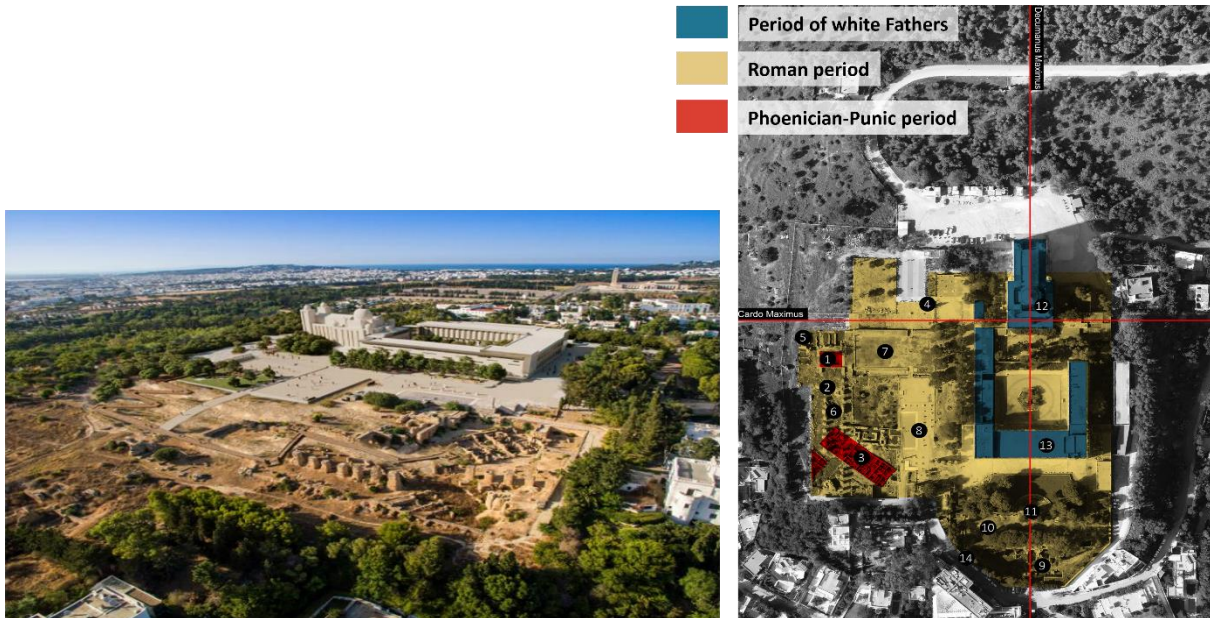


Photo 40 : The different periods of construction

ii. Architectural Origins and Layout :

The building of modest proportions with an architecture that combines Gothic and Byzantine styles. The building, according to the plans of Abbot Joseph Pougnet (1829-1892), is of Byzantine-Moorish style in the shape of a Latin cross (65 by 30 meters).



Photo 41 : The interior views

The cathedral features two side aisles, elegantly separated by graceful horseshoe arches. A striking ensemble of 174 marble columns, each crowned with gilded capitals, provides robust

support for the balustrades and intricately detailed ceilings. These ceilings, crafted from wooden panels imported from Hungary, Holland, and Russia, are beautifully adorned with arabesques. Each arabesque has been meticulously sculpted, painted, and gilded by skilled artisans from Aleppo and Venice, lending the space a rich, cross-cultural artistry that highlights the fusion of European and Middle Eastern craftsmanship.

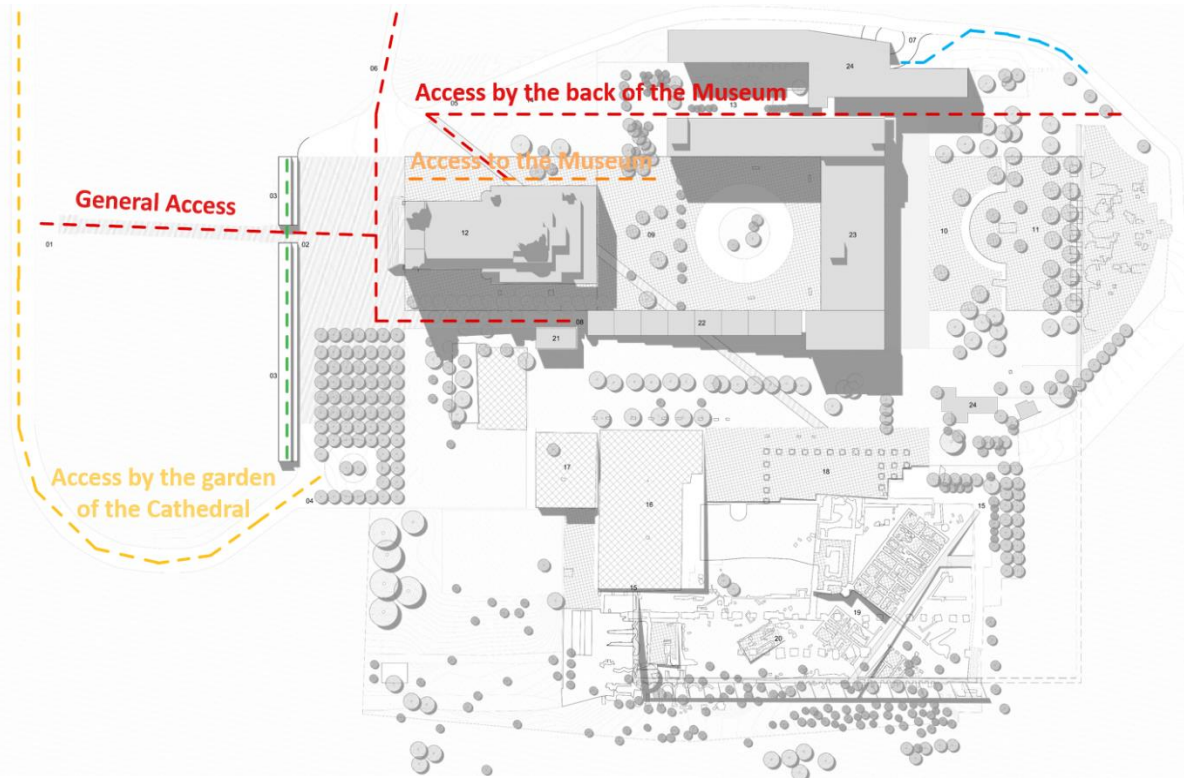


Photo 42 : The accessibility

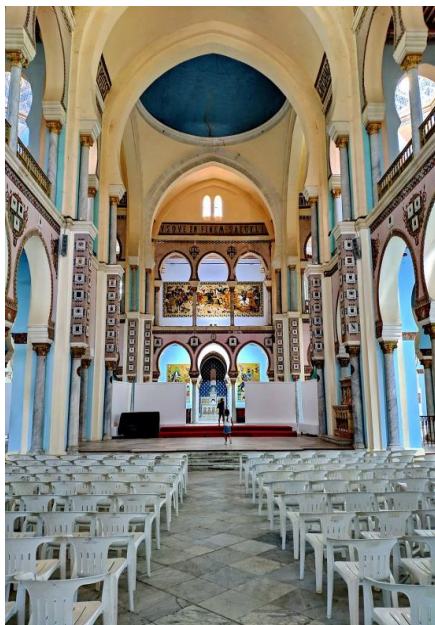


Photo 43 : The quality of the space

Today, the Cathedral of Saint-Louis de Tunisie has become a vibrant cultural center, exhibiting a unique blend of historical significance and modern purpose. Originally a Catholic church built in honor of Saint Louis, the cathedral has been converted to host a variety of social and cultural events, from art exhibitions and concerts to conferences and cultural festivals. This transformation has enriched the local community, transforming the space into a symbol of intercultural dialogue and inclusion. By hosting events celebrating Tunisia's diverse heritage and contemporary arts, the cathedral fosters a sense of unity and cultural pride. This redevelopment also attracts both locals and international visitors, boosting tourism and contributing to the local economy. The new functions of the cathedral preserve its historical essence while allowing it to serve as a bridge between the past and the present, reflecting the values of preservation and cultural adaptation in modern Tunisia.

5. Conclusion :

By examining the sacred architecture of the Arab Maghreb, this study highlights how mosques, churches, and synagogues constitute profound symbols of cultural identity, history, and evolving social function. Through case studies of remarkable sites – such as the Great Mosque of Kairouan, the Ketchaoua Mosque, the Ghriba Synagogue and the Saint Louis Cathedral – the analysis demonstrates the balance between the preservation of materials and their adaptation to contemporary use . These structures reveal the complexity of preserving sacred spaces while allowing them to resonate with modern communities.

This dual focus on preserving heritage and adopting new functions reflects the resilience of sacred architecture to retain its historical and spiritual significance in a rapidly changing world. However, questions remain as to how the sacred architecture of the Arab Maghreb can be further adapted to contemporary needs without compromising historical integrity. Additionally, what role could local communities play in influencing decisions regarding these religious sites? And as these structures take on new social functions, what impact might this have on their spiritual meaning and the community identity they embody? Exploring sustainable methods of preserving materials, particularly in response to environmental challenges, also raises relevant questions about the longevity of these spaces.

Enfin, la question se pose de savoir comment l'intégration de diverses influences culturelles et artistiques affecte la perception des espaces sacrés au sein des sociétés multiculturelles. Ces investigations invitent à des recherches plus approfondies sur la relation dynamique entre la préservation, la fonction sociale et l'identité culturelle dans l'architecture sacrée, ouvrant des voies précieuses pour des études futures.

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- **Photo 42 :** Musée national de Carthage, Musée national de Carthage — Christophe Hutin Architecture
- **Photo 43 :** HISTOIRE - Cathédrale Saint-Louis de Carthage, HISTOIRE - Cathédrale Saint-Louis de Carthage

▪ ***Figures :***

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- **Figure 4 :** General architectural composition, , made by the author

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- **Table 2 :** the mosque's functionality and cultural significance