



The First Restoration of al-Aqsa Mosque under the Supervision of the Supreme Muslim Council (1922–1925): A Study of the Role of the Architect Ahmad Kamal al-Din

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Abstract

The study examines how the collapse of the Ottoman Empire—the entity traditionally responsible for safeguarding Islamic holy sites—precipitated severe post-World War I political and economic challenges that directly hindered restoration efforts at Al-Aqsa Mosque. This historical reality raises critical questions regarding how these destabilizing conditions influenced the selection of architects, shaped project management, and complicated the procurement of the funding necessary to execute the restorations in accordance with required engineering standards. Within this analytical framework, the study posits that, although the Supreme Islamic Council entrusted the Jerusalemite engineer Rushdi Al-Imam Al-Husseini with supervising the restoration of Al-Aqsa Mosque architect, it was, however, suggested to the Council to summon the architect Ahmed Kamal El-Din from Turkey to carry out this task. The research study aims to uncover the underlying reasons behind this preference. The study posits that Ahmad Kamal al-Din visited Jerusalem during the late Ottoman era, between 1910 and 1912, to evaluate the structural integrity of the monuments

for restoration purposes, a pre-war survey that demonstrates the Ottoman Empire had actively planned maintenance operations at Al-Aqsa Mosque prior to its eventual defeat. Ultimately, this early site visit provided Ahmad Kamal al-Din with precise, firsthand knowledge of the extent of the structural damage and fissures, which later enabled him to contribute effectively to the restoration project once the Supreme Muslim Council assumed institutional oversight.

Keywords: Jerusalem, Al-Aqsa Mosque Restoration, Supreme Islamic Council, architect Ahmed Kamal El-Din.

Introduction

Al-Aqsa Mosque is revered in Islam as “the first of the two Qibla’s and the third of the two Holy Sanctuaries”, a sacred site whose surroundings are a marvel divinely blessed by God Almighty. Spanning an area of 144 dunams, the mosque complex encompasses numerous prominent architectural landmarks that reflect its deep religious and historical significance. This immense sanctity prompted Caliph Omar bin Al-Khattab to open and visit Jerusalem, where he issued the Assurance of Omar (*Al-Uhda al-Umariyya*) to its inhabitants and subsequently proceeded to the site of Al-Aqsa Mosque to order the construction of a modest house of worship modeled after early Islamic mosques, thereby symbolizing the spiritual bond of Muslims to this location. With the rise of Umayyad rule, the sanctuary underwent a monumental architectural transformation that included the construction of Al-Qibli Mosque and the Dome of the Rock, alongside the Domes of the Chain and Ascension, as well as reconstructed perimeter walls and monumental gates. This grand enterprise reached completion under the oversight of Al-Walid bin Abdul Malik, whose final structural touches established Al-Aqsa Mosque as one of the most prominent religious and architectural icons in Bilad al-Sham.

Throughout Islamic history, the mosque received exceptional care from successive caliphs and sultans, undergoing numerous restoration campaigns necessitated by natural disasters and warfare. Following the defeat of the Ottoman Empire in World War I, the responsibility for safeguarding the sanctuary transitioned to the local community, culminating in the 1922 establishment of the Supreme Muslim Council, which was specifically tasked with preserving Islamic antiquities and historic buildings throughout Palestine in general and the city of Jerusalem in particular.

Consequently, the Supreme Muslim Council commissioned the Jerusalemite engineer Rushdi al-Imam al-Husseini to evaluate the structural integrity of Al-Aqsa Mosque, determine the extent of its structural damage and fissures, submit the necessary technical recommendations, and estimate the total cost of the restoration. However, Husseini proposed securing the expertise of the Turkish architect Ahmad Kamal al-Din to spearhead this undertaking, a recommendation that raises critical questions regarding the underlying motives behind this selection and the exact nature of his



role, particularly given the severe political and economic adversities that hindered post-Ottoman restoration efforts and the steep challenges associated with securing the fiscal capital required to complete the project in accordance with required engineering standards.

Accordingly, this study addresses a sequence of pivotal research questions: Who was the architect Ahmad Kamal al-Din, and what was the precise nature of his role within the Al-Aqsa Mosque restoration project? What specific engineering designs and projects did he propose, and did his proposals receive the official endorsement and backing of the Supreme Muslim Council? Furthermore, did he ultimately succeed in executing his mission, and was his involvement confined strictly to engineering oversight, or did it extend to soliciting funding from across the wider Islamic world? Finally, was his labor performed on a voluntary basis or compensated via a salary, was he the sole Turkish architect operating within the technical restoration staff, and how have architectural specialists subsequently evaluated his contributions to this landmark project?

The significance of this study lies in its examination of a pivotal transitional phase in the restoration history of Al-Aqsa Mosque—specifically, the post-Ottoman era under the oversight of the Supreme Muslim Council, which witnessed a fundamental shift in the administrative mechanisms governing Islamic holy sites. To construct a comprehensive overview of this primary restoration phase and the precise conditions under which it was executed, this study relies on a diverse array of primary source materials. These include the official archival records of the Supreme Muslim Council preserved at the Foundation for the Revival of Islamic Heritage and Research and the Al-Aqsa Mosque Library in Jerusalem, alongside the Turkish Engineering Archive, contemporary Palestinian newspapers, and the published documentation of British engineer Ernest Richmond, who served as the Director of Antiquities for the Government of Palestine.

First: The birth and upbringing of Ahmed Kamal El-Din

Ahmed Kamal El-Din, known as Kemalettin Bey or Mimar Kemalettin, was born in Istanbul in 1870 to a middle-class Ottoman family (Balci, 2022, pp. 173–174). His father, Ali Bey, served as an officer in the Ottoman Navy, which underwent substantial modernization during the reign of Sultan Abdülaziz to emerge as a premier naval power of the era. His mother, Sadberk Hanim, exerted a profound influence on his early upbringing due to his father's perennial deployments across various ports of the Ottoman Empire. Kamal al-Din received his primary education at the İbrahim Ağa School (İlhan & Selim, 1997). In 1880, his father's military reassignment brought the family to Crete, where he enrolled in a private academy established for the children of military officers at the Souda shipyard naval command headquarters, studying French, philosophy, geography, and mathematics. His mathematics instructor,

Mehmet Nihad, played a decisive role in shaping his academic trajectory by fostering an aptitude for the discipline that ultimately guided Kamal al-Din toward the field of engineering (Yavuz, 2015). Upon returning to Istanbul, he completed his secondary education at the Şemsülmaarif School (Yavuz, 2015).

In 1887, Ahmad Kamal al-Din enrolled in the School of Civil Engineering (*Hendese-i Mülkiye*), an institution established just three years prior in 1884. During this period, the German architect August Jachmund was appointed to the faculty to teach architectural design, while concurrently being commissioned by the Rumeli Railway Company to design the Sirkeci Railway Station (Yavuz, 1981, p. 59). Construction on the station commenced in 1888 and concluded in 1890, a milestone project that elevated the professional stature of both Jachmund and his student, Ahmad Kamal al-Din, within architectural circles. Following his graduation from the institute in 1891, Ahmad Kamal al-Din was appointed as Jachmund's teaching assistant, a role he maintained for the subsequent four years (Kartal & Kartal, 2020, p. 324).

Ahmad Kamal al-Din later established a private practice outside the academy, where he executed his earliest architectural designs. The stylistic composition of the structures he designed during this period was deeply influenced by the Sirkeci Station project, an aesthetic lineage clearly visible in buildings such as the Edirne Railway Station, the Imperial Ministry of Endowments (*Evkaf-ı Hümayûn Nezâreti*), and the Ministry of War (*Seraskerat*) building in Istanbul (Yavuz, 1981, p. 58). He subsequently traveled to Germany to pursue advanced architectural studies on a fellowship recommended by his mentor, Dr. Jachmund, after which he returned to Istanbul in 1900 to work within governmental architectural departments for two years (Yavuz, 1981, pp. 55–56).

The era in which architect Ahmad Kamal al-Din achieved prominence is defined as the First National Architectural Period, an influential architectural movement whose activity spanned the twilight years of the Ottoman Empire and the formative years of the early Turkish Republic, generally between 1908 and 1930. In historiographical discourse, this movement is recognized under several alternative designations, including the National Architectural Style, National Architecture, the Neo-Classical Style, the National Architectural Renaissance, the Turkish Neo-Classical Style, the Ankara Style, the National Ottoman Renaissance, and National Constitutional Architecture (Balcı, 2022, p. 170).

The emergence of this novel architectural trajectory was closely tied to the arrival of several European-trained architects in the Ottoman Empire to oversee major urban projects, with their designs reflecting the broader Westernization trends sweeping the empire. Prominent among these figures were Alexandre Vallaury and August Jachmund, who championed an eclectic style that juxtaposed European and traditional Ottoman motifs. Furthermore, their role in mentoring and training pioneering Turkish architects, such as Ahmad Kamal al-Din and Vedat Tek, proved instrumental in laying



the conceptual groundwork for the rise of the First National Architectural Style (Balcı, 2022, p. 171).

In 1908, Ahmed Kamal El-Din founded the Society of Ottoman Architects and Engineers with an initial roster of twenty-one members, including a limited number of Turkish architects – most notably Ahmed Kamal El-Din himself, Vedat Bayez, and Halil Ethem Bey. This organizational composition accurately mirrored the professional realities of the era, where minority architects comprised a significant percentage of the design field, while ethnic Turkish professionals predominantly occupied the engineering sector. Although the society ceased its operations at the end of 1912, it was subsequently reactivated in 1919 (Yavuz, 1981, p. 63).

An evaluation of Ahmad Kamal al-Din's architectural portfolio reveals that the decade spanning 1909 to 1919 marked the zenith of his professional productivity, characterized by structural diversity and innovation across multiple sectors. The distribution of his commissions demonstrates that he did not confine his practice to a singular structural typology; instead, he designed palaces, mosques, educational institutions, mausoleums, administrative buildings, hotels, and hospitals, thereby reflecting his versatility in adapting to the evolving functional demands of late Ottoman society. Within residential architecture, he designed several luxurious and functional estates for prominent dignitaries, including the Ismail Pasha Palace, the Halil Pasha Palace in Nişantaşı, a hillside villa on the Rumelihisarı slopes for the former Berlin ambassador Galip Bey, the Ahmet Ratıp Pasha Palace in Çamlıca, and the Sultan Reşad Palace in the Ortaköy grove (Kartal & Kartal, 2020, p. 324).

Within religious architecture, his portfolio includes the Mecidiye Mosque in Yeşilköy (1909), the Kamer Hatun Mosque in Beyoğlu (1911), the Kuloğlu Mosque in Bostancı (1911), the Bebek Mosque (1913), and the Emine Hatun Mosque in Bakırköy-Kartaltepe (constructed between 1913 and 1924), thereby demonstrating his proficiency in fusing sacred spaces with traditional architectural identity. In the educational sector, he designed the Fethiye School in Çarşamba between 1909 and 1919, the Kamer Hatun School in 1911, the Faik Efendi School in Istanbul-Alemdar after 1911, the Uşak Vocational School, a student dormitory in Istanbul-Şehzadebaşı, and the Reşadiye School in 1911, showcasing his commitment to advancing civic and educational infrastructure (Balcı, 2022, pp. 173–174).

His contributions to funerary architecture and monuments encompass the Ahmed Cevat Pasha Tomb in Fatih (1901), the Gazi Osman Pasha Tomb (1901–1902), the Ali Rıza Pasha Mausoleum, the Hüsnü Pasha Mausoleum, the Mausoleum of Sultan Mehmed Reşad V in Eyüp (1911), and the Mahmud Şevket Pasha Tomb in Şişli, underscoring his deep reverence for the historical and symbolic dimensions of architecture. Furthermore, his expertise extended across administrative, commercial, hospitality, and healthcare structures; this is evident in the Immigrant Guesthouse in Haydarpaşa, the Plovdiv Railway Station building (1908), the old Edirne Railway

Station building designed after 1911 (completed in 1914 and inaugurated in 1930), the Bandırma Government House, and the Aydın Foundations Directorate. This expansive repertoire also featured five hotels in Istanbul constructed between 1911 and 1926, the Vakıf Gureba Hospital built after 1911, and the Committee of Union and Progress Club in Edirne (1914), reflecting the sheer breadth of his structural versatility and capacity for cross-functional innovation (Balci, 2022, pp. 173–174). Collectively, these works embody his deliberate balance between tradition and modernity, whereby he safeguarded Ottoman architectural heritage while seamlessly accommodating the functional requirements of the modern era, establishing the 1909–1919 decade as a pivotal epoch for understanding the evolution of late Ottoman architecture.

Ahmad Kamal al-Din passed away in Ankara on July 13, 1927, after suffering a cerebral hemorrhage at his residence, which was situated within the Ankara Palas construction site. His remains were subsequently transferred to Istanbul on July 16 and interred the following day within the courtyard of the Beyazıt Mosque, where his gravesite was fully restored in 2007 with the addition of a commemorative monument erected in his honor. In recognition of his enduring contributions to architectural history, the Central Bank of the Republic of Turkey issued a twenty-lira banknote featuring his portrait in 2009 (see Figure 1) (*Al-Jami'a al-Arabiyya* newspaper, August 14, 1927, Issue 59, p. 3; Yavuz, 2015, p. 23).



Figure 1: The 20 Turkish lira banknote

Second: Summoning Ahmed Kamal El-Din to Jerusalem

Following the establishment of the British Mandate, the Supreme Muslim Council assumed operational control over Islamic endowments (*Awqaf*) and Sharia courts in Palestine in 1922. The Council's immediate administrative priority was initiating the comprehensive restoration of the standing structures within the Al-Aqsa Mosque compound—most notably



the Al-Aqsa congregational mosque, the Dome of the Rock, and the surrounding network of historic madrasas, gates, and minarets. This urgent intervention was necessitated by the severe deterioration of these historic monuments under the influence of environmental factors and structural shifting, which left several sections on the precipice of structural collapse (Council Report, 1347 AH, pp. 4–5). Foremost among the compound's structures in dire need of immediate engineering stabilization and restoration was *Al-Jami' al-Aqsa* (al-Qibli Mosque).

The term *Al-Jami' al-Aqsa* explicitly designates the congregational prayer hall situated on the southern perimeter of the Al-Aqsa Mosque compound, a structure historically recognized under various alternative nomenclatures, including the Covered Mosque, the Roofed Mosque, the Friday Mosque, and its contemporary designation, *Al-Musalla al-Qibli*. Over time, conceptual ambiguity has surfaced regarding the deployment of this terminology; the classical historian Ibn al-Athir, for instance, used the term interchangeably to denote both the specific southern building and the entire sacred enclosure. During the Mamluk and Ottoman eras, the broader compound became standardly referred to as *Al-Haram*, a convention that effectively restricted the moniker «Al-Aqsa» in certain contexts to reference this specific congregational structure (Ratrou et al., 2023, p. 266).

Archaeological and architectural assessments indicate that the early Umayyad footprint of Al-Jami' al-Aqsa extended approximately nineteen meters less to the north than the current building, revealing that Caliph Abd al-Malik ibn Marwan's foundational design relied on parallel arcades partitioned by north-south arches without a central nave or dome, complemented by a northern portico running parallel to the primary entrance facade. Due to the steep topographic incline characterising the compound's southern wall, this original spatial layout required the engineering of subterranean vaults and underground corridors to stabilize the Umayyad foundations and grant access to the inner esplanade. This primary architectural phase drew direct inspiration from the expansive rectangular geometry of the Prophet's Mosque in Medina, illustrating the continuous influence of foundational architectural precedents on Islamic structural expression. Consequently, the initial spatial organization of Al-Jami' al-Aqsa diverged sharply from later structural modifications, as it was configured purely to maximize functional liturgical space by aligning worshippers in long, parallel rows perpendicular to the Qibla wall (Al-Husseini, 1341 AH, p. 448; Da'wa Amma, 1922, pp. 5–6; Ratrou et al., 2023, p. 288).

The reconstruction executed during the reign of the Abbasid Caliph Al-Mahdi (c. 164 AH / 780 AD) marked a pivotal milestone in the evolution of Islamic sacred architecture, introducing a prominent dome and an expansive central transept that expanded the building to fifteen naves pierced by twenty-six portals, thereby extending the structure's footprint to its current northern perimeter wall and signaling a definitive departure from the early Umayyad typology. The final and most enduring macro-structural transformation transpired under the Fatimid Caliph Al-Zahir li-'az Din Allah (411–427 AH / 1020–1035 AD); following a devastating earthquake, the building's layout was contracted in 425 AH / 1033 AD to seven naves, a structural modification that required the integration of newly engineered columns, foundation piers, and structural supports designed specifically to withstand the widening thrust of the architectural arches (Ratrou et al., 2023, p. 288).

The Supreme Muslim Council commissioned the Jerusalemite engineer Rushdi al-Imam al-Husseini—who had completed his engineering education in Istanbul—to assess the extent of the structural shifting, devise the necessary restoration and maintenance protocols, and estimate the projected costs. Recognizing the immense technical demands of the project, Husseini advised the Council to summon the Turkish architect Ahmad Kamal al-Din due to his extensive expertise in historic preservation and sacred architecture (*Lisan al-Arab* newspaper, Issue 381, p. 1; Kartal & Kartal, 2020, p. 329). Accordingly, the Supreme Muslim Council formally contacted Ahmad Kamal al-Din in 1922, requesting that he travel from his base in Istanbul to examine the fractured structures within the Al-Aqsa Mosque compound. Following his initial on-site diagnostic assessment, Ahmad Kamal al-Din estimated that the comprehensive reconstruction project would require a minimum budget of 150,000 Egyptian pounds, and he emphasized the critical necessity of establishing a specialized technical committee composed of several engineers operating under his direct supervision. He subsequently returned to Istanbul to select qualified Turkish engineers, resulting in architects Cemal Bey, Hüsni Bey, and Mehmet Nihad joining the project in Jerusalem (see Figure 3) (Rida, Muharram 1347 AH, p. 310; *Filastin* newspaper, December 12, 1922, Issue 53879/, p. 3). According to the personal memoirs of Mehmet Nihad, he arrived in Jerusalem four days ahead of his colleagues, after which the entire technical team secured lodging at the residence of Mr. Ishaq al-Shihabi for an annual rent of 150 Turkish liras (Değirmenci & Pilehvarian, 2021, p. 70).

The official engineering committee was formally constituted to supervise the restoration project under the leadership of Ahmad Kamal al-Din (see Figure 2). The committee's roster included architects Mehmet Nihad and Hüsni Bey, engineers Cemal Bey and Rushdi al-Imam al-Husseini, and two secretaries: engineer Hikmat Abu al-Saud and Mr. Fayez al-Husseini. The monthly compensation matrix for the committee members was officially designated as follows (see Figure 4) (Supreme Muslim Council Report, 1924, p. 20):

Ahmed Kamal El-Din El-Turki	Egyptian piasters 16666
Mohammed Nehad El-Turki	Egyptian piasters 7000
Rushdi El-Imam El-Husseini El-Maqdisi	Egyptian piasters 7000
Jamal Bey El-Turki	Egyptian piasters 6000
Hosni Bey El-Turki	Egyptian piasters 3000
Fayez El-Husseini El-Maqdisi	Egyptian piasters 1200
Hikmat Abu El-Saud El-Maqdisi	Egyptian piasters 1200

Table 1: Monthly Compensation Matrix For Engineering Committee Members



Figure 2: A group photo of the Engineering Authority in the city of Jerusalem.

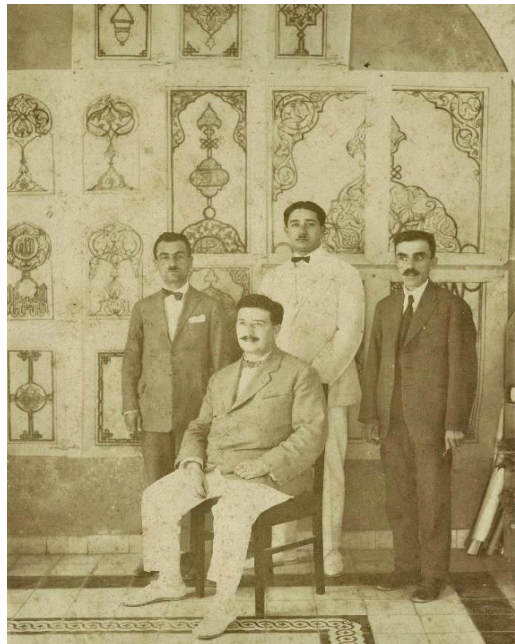


Figure 3: Architect Ahmed Kamal El-Din, Architect Nihad, Engineer Gamal, and Architect Hosni in Jerusalem.



Figure 4: Architect Ahmed Kamal El-Din, Architect Mohamed Nehad, Architect Hosni, and Architect Gamal with religious figures from Jerusalem in front of the Dome of the Rock.

Given the expansive scope of the restoration project and its substantial financial requirements, which far exceeded the fiscal capacity of the local Palestinian religious endowments (*Awqaf*) tasked with the routine administration of mosques, schools, and theological institutes, the Supreme Muslim Council deemed it imperative to solicit financial patronage and donations from across the wider Islamic world. To secure this international support, the Council dispatched high-level delegations—comprising its own institutional members and several prominent national figures—to the Hejaz, Egypt, India, Iraq, the Arab Gulf states, and Istanbul, to raise the capital required to execute the structural works (see Table 2) (Rida, 12 Rabi' al-Awwal 1347 AH, p. 384).

The primary delegation sent to the Hejaz was composed of Sheikh Muhammad Murad (a Council member and the Mufti of Haifa), Sheikh Said al-Husseini (the Mufti of Gaza), and Sheikh Ibrahim al-Ansari, while the secondary Hejaz delegation consisted of Hajj Said al-Shawa (a Council member), Sheikh Muhammad Tuffaha, and Sheikh Abd al-Rahman al-Alami. The diplomatic mission to Iraq and the Gulf states comprised Hajj Amin al-Husseini (the President of the Council and Mufti of Jerusalem), Amin al-Tamimi (a Council member), and Rashid Hajj Ibrahim. Conversely, the delegation tasked with securing funds in Egypt included Hajj Amin al-Husseini, Hajj Said al-Shawa, architect Ahmad Kamal al-Din, and Adil Jabr, whereas the Indian delegation was formed by Sheikh Muhammad Murad, Jamal al-Husseini, and Sheikh Ibrahim al-Ansari. Finally, the delegation dispatched to Istanbul was composed of Abd al-Latif Salah (a Council member) alongside architect Ahmad Kamal al-Din (Supreme Muslim Council Report, 1924, p. 7).

To regulate these incoming fiscal assets, the Supreme Muslim Council established a financial management committee designated as the Committee for the Restoration of Al-Haram Al-Sharif (*Lajnat 'Imarat al-Haram al-Sharif*), formally requesting that every



nation contributing capital to the project dispatch a representative to serve on this body. The committee's administrative board comprised Said al-Husseini, Ruhi Abd al-Hadi, Hajj Yusuf, Khalid al-Dajani, Abd al-Qadir al-Afifi, Badr Yunis, and Adil Jabr, alongside Hajj Abd al-Razzaq al-Shihabi, who was officially appointed to oversee accounting operations (*Al-Yarmouk* newspaper, August 10, 1928, Issue 292, p. 1).

Donor	Egyptian pound	Cent(s)
Islamic Council of Palestine Fund and Local Imports	16478	248
People of Palestine	04231	375
From King Hussein bin Ali and the Hijaz	38761	733
India	23788	68
King Faisal I and Iraq	06206	322
Kuwait	1362	520
Bahrain	2681	780
Sheikh Khazal Khan of Mohammerah	00621	635
Syria	00338	700
Turkey	00019	440
Egypt	00306	860
Immigrants in America	00163	920

Table 2: International Donors

To secure sustainable, long-term financial streams dedicated exclusively to the ongoing restoration, maintenance, structural upgrading, and operational endowment of the Al-Aqsa Mosque compound, the Supreme Muslim Council initiated the construction of a premier, grand hotel on Mamilla Street (شارع مأمّن الله). This vast commercial facility integrated 136 guest rooms alongside expansive reception halls, reading lounges, and modern amenities, yielding a projected annual revenue exceeding 6,000 Egyptian pounds; concurrently, the Council erected several commercial retail storefronts near Herod's Gate (باب الساهرة) to further diversify this institutional endowment (*Waqf*).

Meanwhile, the prominent Turkish politician and journalist Süleyman Nazif published a commentary in the Turkish newspaper *Peyam-ı Sabah*, reflecting on the Supreme Muslim Council's international appeal for pan-Islamic financial solidarity in restoring the sanctuary. Nazif observed that less than four years after the termination of Ottoman rule in Jerusalem, Palestinian delegations had already begun touring various Islamic countries to secure the capital required for emergency conservation and repairs. He emphasized that the Ottoman state had rigorously safeguarded Al-Aqsa Mosque and its surrounding holy sites throughout four centuries of custodianship—a legacy of meticulous preservation verified by both Western and Eastern historical literature. Furthermore, Nazif noted that the Islamic world had rarely encountered such profound structural degradation at the site, ultimately expressing his solidarity and hope that the fundraising missions would

successfully restore the monumental integrity of Al-Aqsa Mosque and preserve its sacred heritage (*Lisan al-Arab* newspaper, Issue 250, p. 1).

In 1922, Ahmad Kamal al-Din conducted the foundational engineering surveys of *Al-Jami' al-Aqsa* and drafted a series of proposed structural restoration schemes. Consequently, his comprehensive assessment of the building is widely recognized as the first rigorous, scientific study ever undertaken on the structural history of the mosque, documented through a detailed catalog of architectural drawings (see Figure 5) (Yavuz, 2015, p. 21).

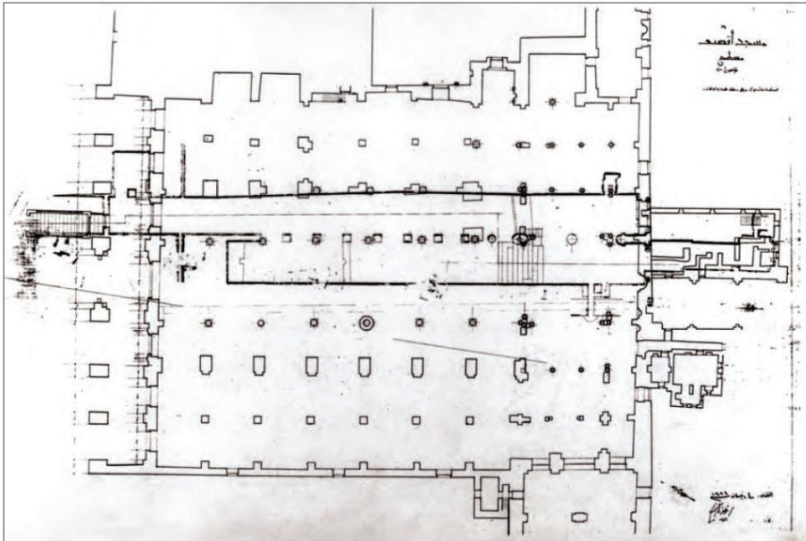


Figure 5: The plan of Al-Qibli Mosque, drawn by architect Ahmed Kamal El-Din on 41924-10-.

Ahmad Kamal al-Din submitted three distinct structural intervention schemes to the Supreme Muslim Council (El-Kattan, 1924, p. 11):

The First Scheme: A minimal structural intervention focusing on minor repairs to *Al-Jami' al-Aqsa* while fully retaining its historical dome, with projected execution costs estimated at 23,000 Egyptian pounds.

The Second Scheme: A comprehensive restoration program designed to retain the internal timber dome of *Al-Jami' al-Aqsa* while completely reconstructing the external dome group, complemented by critical structural reinforcements directly beneath the dome assembly. This intricate engineering operation was executed by underpinning the primary arches, the supporting drum (tambour), and the main dome—which together exerted a dead load of approximately 1,000 tons—utilizing temporary heavy timber shoring and structural scaffolding. Concurrently, the restoration required the physical removal of the fractured load-bearing columns along with their historical capitals and bases, which were subsequently replaced with newly quarried columns and structurally reinforced footings to guarantee the long-term structural stability and architectural integrity of the dome without compromising the aesthetic and decorative heritage of the mosque (see Figure 6).



The Third Scheme: This ambitious proposal entailed the installation of a massive brick dome flanked and supported by two semi-domes over the central transept of the building, featuring a proposed central dome diameter of approximately twenty-two meters with a slight segmental profile in cross-section. Supported by four large pointed arches, the superstructure was designed to soar to a height of forty-two meters internally and forty-seven meters externally, inclusive of the finial height. The interior architectural program featured a continuous epigraphic band encircling the inner circumference of the dome, mirrored by a corresponding calligraphic band running along the springline of the supporting arches. Additionally, the tympanum of the arches integrated three tiers of windows on the eastern and western elevations to optimize natural interior illumination. The main dome, semi-domes, and adjacent pendentives were to be adorned with classical Ottoman ornamentation, thereby demonstrating a deliberate synthesis of advanced structural engineering and the traditional aesthetic vocabulary of Islamic architecture (see Figure 7) (Yavuz, 1996, p. 155).

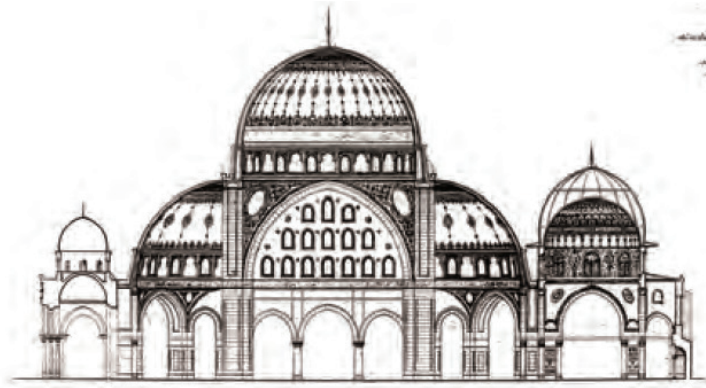


Figure 6: Ahmed Kamal El-Din's plan for Al-Qibli Mosque 181925-06-.

The initial iteration of this third scheme featured a central dome set upon a pointed horseshoe profile, engineered to reach an apex height of approximately fifty-four meters. Given the monumental proportions of this proposed dome assembly, it can be inferred that this structure was designed as an exterior shell superimposed over an internal dome, mirroring the building's original double-dome configuration. Furthermore, the structural arches supporting this dome group exhibited a distinct curvature, complemented by five windows integrated into the uppermost tier of the elevation (Yavuz, 1996, p. 155).

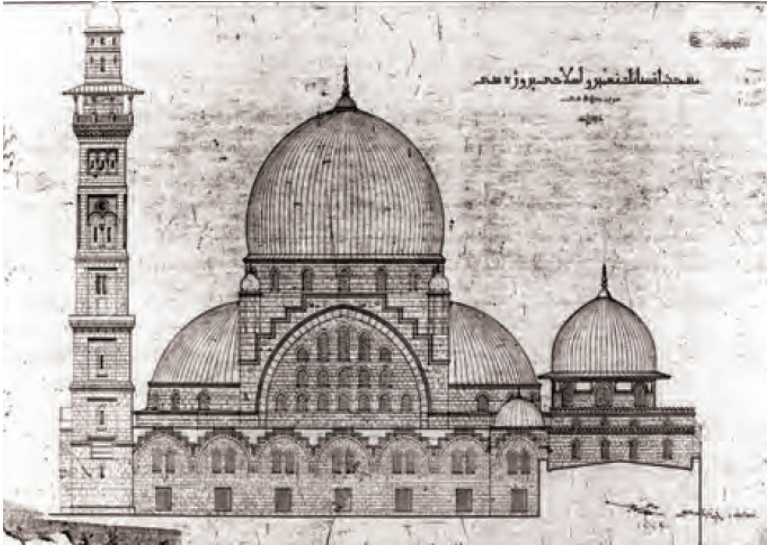


Figure 7: Ahmed Kamal El-Din's plan for Al-Qibli Mosque 181925-06-.

In essence, the third scheme proposed the complete demolition of the mosque's original dome and its subsequent reconstruction using reinforced concrete. This radical measure was justified by the severely compromised stability of the existing dome group and its supporting columns, a vulnerability exacerbated by the highly heterogeneous nature of the structural materials. Specifically, the piers situated between the columns were built of stone topped with timber blocks, while the supporting arches lacked the thickness required to survive long-term structural stress. Furthermore, the proposal called for the comprehensive renewal of the dome's drum, its structural arches, and its load-bearing columns. The existing thickness of these elements—measuring 0.85 meters—was structurally broader than the actual span of the arches, and the dome itself was composed of heavily deteriorated timber that suffered from a visible structural tilt over an unstable foundation, necessitating engineering stabilization via a reinforced concrete raft foundation (El-Kattan, 1924, p. 11).

Ultimately, Ahmad Kamal al-Din's third scheme was not merely a localized conservation treatment for individual structural elements; rather, it represented a near-total structural reimagining of the central transept of Al-Jami' al-Aqsa. The technical specifications outline a proposal anchored by a massive central dome spanning approximately twenty-two meters in diameter, supported by four monumental pointed arches soaring to an internal height of forty-two meters and an external height of forty-seven meters, flanked symmetrically by two semi-domes—while an earlier iteration of the project conceptualized an even more towering vertical profile reaching nearly fifty-four meters. Consequently, the core logic of the scheme transcended simple «structural shoring» to establish an entirely new and visually dominant load-bearing system. Evaluated through the lens of modern conservative preservation philosophy, the project can be interpreted today as an excessive structural intervention.

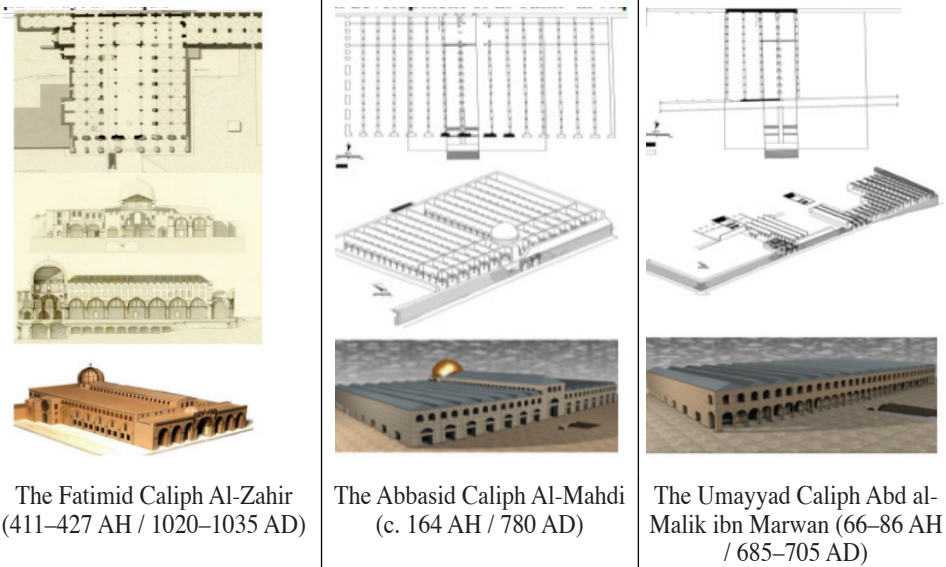


Figure 8

Historical Reconstruction and Restoration Structural Campaigns of Al-Jami' al-Aqsa

Third: The Convocation of the Engineering Conference

To evaluate the three structural intervention schemes submitted by architect Ahmad Kamal al-Din, the Supreme Muslim Council decided to convene an advisory conference composed of an elite group of engineers, architects, and archaeologists. Accordingly, the Council extended a formal invitation to Egypt to participate in this summit; Egypt accepted the invitation, dispatching engineer Ali Bahgat to represent the Committee for the Conservation of Monuments of Arab Art, alongside engineers Mahmoud Ahmad Fahmy¹ and Mustafa Hamdi El-Kattan on behalf of the Royal Egyptian Society of Engineers (*Filastin* newspaper, February 8, 1924, Issue 94652-, p. 3). Furthermore, invitations were extended to Ernest Richmond, the Assistant Civil Secretary for the British Mandate government and Director of the Department of Antiquities; Mr. Guy, an engineer within the Department of Antiquities;

¹ Mahmoud Ahmad Pasha (1880–1942): An eminent Egyptian engineer and archaeologist, born in Beni Suef, who graduated from the School of Arts and Crafts in Cairo and subsequently assumed the directorship of the Department of Arab Antiquities. He founded *Al-Handasa*, the pioneering engineering journal in Egypt, which he published continuously for fourteen years between 1924 and 1938. Throughout his distinguished career, he directed structural restoration campaigns across numerous historic Egyptian mosques and monuments, and he was later commissioned to assist in the stabilization and restoration of Al-Aqsa Mosque and the Dome of the Rock in Jerusalem. A prolific scholar, his authored volumes include *A Brief Guide to the Most Famous Arab Monuments*, *Ottoman Architecture*, *Al-Azhar Mosque*, and *The Great Guide to Arab Antiquities*, alongside published monographs on the structural histories of the Ibn Tulun, Sultan Hassan, Imam al-Shafi'i, Abu al-Ala, and Al-Mu'ayyad mosques. Additionally, he translated the seminal text *Arab Architecture* from English. His life was tragically cut short when he suffered a fatal accident while boarding a train at the Al-Zaytun station in Cairo (Al-Zirikli, 2002, p. 164).

Mr. Harrison, the Chief Architect of the Department of Public Works; the director of the German firm Philipp Holzmann; and the chief railway contractor of the Anatolian Railway (El-Kattan, 1924, p. 15).

Upon their arrival in Jerusalem, the Egyptian delegation conducted an empirical structural assessment of the existing conditions at *Al-Jami' al-Aqsa*. They conclusively affirmed the imperative to retain the mosque's original dome, advocating for its preservation via targeted, localized restorations that would efficiently satisfy all safety and engineering requirements. Consequently, they compiled a printed report detailing their technical directives, which stated the following (El-Kattan, 1924, pp. 14–15):

1. **Rejection of Demolition:** The delegation officially withheld approval for the proposed demolition of the original dome of *Al-Jami' al-Aqsa*.
2. **Preservation of Architectural Typology:** The delegation rejected the installation of a pitched truss system over the central nave, noting that such a modification would fundamentally transform the congregational mosque layout into a basilica style.
3. **Deployment of Specialized Craftsmanship:** The report recommended commissioning expert Egyptian artisans to manufacture the required stained-glass windows for the Dome of the Rock, while stipulating that all remaining restoration works proceed in strict accordance with the methodologies established by the Committee for the Conservation of Monuments of Arab Art in Egypt and aligned with international historic preservation standards globally.

The conference convened on February 23, 1924, at the residence of the Mufti of Jerusalem, where the Egyptian delegation distributed copies of their printed report to the committee and attendees. While Richmond, Harrison, and Guy endorsed the report's underlying principles, they stipulated that formal deliberations would commence only after reviewing the testimonies of architect Ahmad Kamal al-Din, who maintained the following technical positions (Supreme Muslim Council Report, 1347 AH, pp. 9–10; El-Kattan, 1924, pp. 15–16):

1. **Structural Instability and Material Heterogeneity:** The load-bearing columns and the main dome of *Al-Jami' al-Aqsa* suffered from severely compromised structural stability, necessitating the complete demolition and rebuilding of the entire assembly from its foundations to its apex using reinforced concrete. This radical intervention was justified by the fact that the existing materials exhibited highly inconsistent compressive resistance; specifically, the structural piers situated between the columns consisted of stone superimposed over timber blocks, while the thickness of the supporting arches failed to satisfy modern engineering load calculations, particularly if the monument was to be preserved for subsequent centuries.
2. **Foundation Vulnerability:** The existing foundations were structurally unreliable



and required engineering stabilization via a continuous reinforced concrete raft foundation extending beneath all load-bearing columns.

3. **Superstructure Overstress and Material Decay:** The structural arches and the supporting drum (tambour) in their current state were entirely unacceptable from a stability standpoint, an issue compounded by the fact that their thickness of 0.85 meters exceeded the actual width of the arches, while the dome itself consisted of heavily deteriorated timber.

Mustafa Hamdi El-Kattan vigorously countered these assertions, delivering a detailed oral rebuttal grounded in rigorous engineering and historical precedents. He began by emphasizing that monumental historic structures were rarely constructed from a single, homogeneous material; rather, their structural design historically relied on the deliberate integration of stone, marble, timber, and other materials exhibiting distinct compressive and tensile properties. Within this context, El-Kattan demonstrated that numerous landmark historic mosques—including the Al-Nasir Muhammad ibn Qalawun Mosque, the Qadi Yahya Zayn al-Din Mosque, the Ahmad ibn Tulun Mosque, and the Altunbugha al-Maridani Mosque—shared an identical architectural typology with *Al-Jami' al-Aqsa*. This shared system features a dome positioned directly in front of the mihrab supported by marble columns, which are topped by wooden tie-beams that carry stone arches, which in turn support a stone drum capped by a timber or masonry dome shell. Given that these historical domes had remained structurally sound for centuries with only minor periodic restorations, El-Kattan argued that this traditional construction methodology possessed proven empirical durability and structural efficiency (El-Kattan, 1924, p. 17).

El-Kattan subsequently transitioned to a comparative structural analysis between the dome of Al-Aqsa Mosque and that of the Queen Safiya Mosque in Cairo. He demonstrated that while the arch supporting the Al-Aqsa dome features a thickness of approximately 0.85 meters across a 9-meter span, the corresponding arch at the Queen Safiya Mosque measures a mere 0.45 meters in thickness despite spanning nearly 10 meters. Furthermore, the latter dead load carries a heavy masonry brick dome resting on structural piers, a configuration that undoubtedly exerts an engineering thrust far exceeding that of the Al-Aqsa dome assembly. Despite this massive discrepancy, the Al-Aqsa arch exhibited zero diagnostic signs of fissuring, material fragmentation, oversteering, or structural failure—a physical reality that systematically undermines any claims regarding its structural insufficiency, particularly given that the limestone quarry quality at Al-Aqsa was far superior to that found at the Queen Safiya Mosque.

Regarding the observed structural tilt and axial deviations, El-Kattan argued that these micro-movements were minor and did not warrant undue alarm or hasty engineering verdicts. He maintained that any definitive structural diagnosis must be predicated on precise metric surveys, systematic technical drawings, and rigorous load calculations rather than subjective empirical impressions. He noted with concern that these foundational diagnostic documents had not been prepared despite the ease of their technical execution,

while emphasizing the Egyptian delegation's immediate readiness to perform these mathematical calculations upon request (El-Kattan, 1924, p. 17).

He further asserted that there was an absolute lack of empirical or mathematical evidence demonstrating the instability of the supporting arches or the tambour; rather, the comparative data he introduced directly invalidated those assumptions. Consequently, he concluded that the perceived weakness of these load-bearing elements was rooted in undocumented engineering assumptions lacking comprehensive technical verification rather than clear scientific proof.

Addressing the timber framework of the internal dome shell, El-Kattan demonstrated that the vast majority of the historic wood remained structurally sound, with the compromised sections being relatively localized. He noted that viable structural shoring methodologies had already been proposed to alleviate all safety concerns regarding timber decay. He expressed profound professional regret that no proactive conservation efforts had been taken to treat these historic timbers with oil-based coatings or bituminous preservatives to safeguard them against wood-boring beetles, while simultaneously critiquing the systemic failure to shore up the main load-bearing columns supporting the dome—an omission he categorized as a fundamental breach of basic preservation protocols. He observed that if this primary column underpinning had been executed utilizing the structural methodologies successfully deployed to rectify the column failures at the Qalawun Mosque in Cairo, it would have been entirely unnecessary to suspend liturgical services within that vital sector of Al-Aqsa Mosque. Finally, regarding the external dome shell, he acknowledged the severe deterioration of its timber ribbing but maintained that this outer layer possessed no significant historical or architectural value (El-Kattan, 1924, p. 18).

Addressing the condition of the foundations, El-Kattan clarified that there was an absolute lack of conclusive empirical evidence demonstrating their weakness, noting that no genuine technical measures had been implemented to investigate or substantiate such a vulnerability. Consequently, he maintained that the assertion of foundational failure remained an undocumented assumption unsupported by sufficient engineering diagnostic testing—especially since scientifically verifying the true state of the foundations was entirely feasible had there been a genuine intent to do so. Speaking from his professional standpoint as a structural engineer rather than an architect, El-Kattan emphasized that he foresaw no technical difficulty in preserving the historic architectural group through targeted, localized restorations; in his assessment, the real structural hazard lay not in the current state of the monument, but rather in the high probability of execution errors during a radical intervention. He further asserted that if these operations were being conducted under the jurisdiction of the Egyptian authorities, he would have personally overseen the execution and assumed full professional liability for it, just as structural engineers routinely do in far more severe, monumental projects that dwarf the Al-Aqsa Mosque assembly in terms of risk or engineering complexity (El-Kattan, 1924, pp. 18–19).



El-Kattan concluded his counter-rebuttal by noting that structural irregularities, alongside localized vertical tilts or axial deviations, are standard, characteristic features of ancient historic monuments and can never serve as a valid engineering justification for demolition. He argued that if such a radical premise were applied universally, not a single historic monument would remain standing on Earth. Therefore, in his view, the foundational objective of historic preservation must focus strictly on safeguarding and conserving the physical monument itself, rather than demanding structural geometric perfection or the absolute eradication of every structural distortion introduced over time by environmental and temporal forces (El-Kattan, 1924, p. 19).

Following formal consultations, Ernest Richmond, the Director of the Department of Antiquities and Assistant Civil Secretary for the British Mandate government, announced the committee's final resolution. The decree explicitly stipulated that, out of rigorous deference to religious, political, and archaeological considerations—and to avoid inciting public alarm within the Islamic world—it was officially decided to preserve the historic architectural complex by underpinning the load-bearing columns and executing only the critical structural restorations necessitated by their physical condition. Concurrently, the committee deemed it essential to grant architect Ahmad Kamal al-Din complete operational autonomy in executing the project, authorizing him to personally select his preferred workforce and technical staff, and to implement all necessary precautionary engineering measures required when operating within a delicate monument of this nature. Ahmad Kamal al-Din formally signaled his assent to these parameters (Rida, Muharram 1347 AH, p. 310).

It was further agreed that the technical committee would reconvene the following day to officially sign the resolution and take a group photograph to document the historic proceedings. However, architect Ahmad Kamal al-Din failed to attend the meeting, choosing instead to dispatch a formal letter of apology via architect Mehmet Nihad. This abrupt absence provoked profound dissatisfaction within the Egyptian delegation, who consequently refused to sign the final decree and resolved to return to Egypt immediately. In the wake of this impasse, the delegation members addressed a formal letter to the President of the Supreme Muslim Council, which stated the following (El-Kattan, 1924, p. 22):

“Following a week dedicated entirely to investigating the structural state of Al-Haram al-Sharif and evaluating its restoration protocols, we compiled a comprehensive report outlining our professional assessment regarding these repairs and their technical execution. Although this document received the unanimous endorsement of the conference assembly, and despite the initial agreement of Professor Ahmad Kamal al-Din Bey to sign a resolution to this effect, his Excellency subsequently reneged on his commitment to sign the decree. Given that our definitive recommendations for the restoration are fully detailed within our aforementioned report, and since we have resolved to return to Egypt tomorrow, God willing, we remain prepared to formally sign the resolution upon our arrival in Egypt, contingent upon its prior signature by

the Professor and the esteemed committee members... The end.”

In response, the President of the Supreme Muslim Council urged the Egyptian delegation to delay their departure until the resolution could be formally executed; however, the delegation maintained their resolve to return to Egypt according to their predetermined schedule. Consequently, an envoy dispatched by the President of the Supreme Muslim Council arrived bearing the resolution, which had now been officially signed by architect Ahmad Kamal al-Din. The Egyptian members then introduced a critical amendment to the text of the resolution to safeguard their professional authority and project oversight, informing the envoy of their readiness to sign the document contingent upon the official inclusion of this modification. On the morning of Monday, February 25, the delegation departed from Jerusalem, and by mid-March, the finalized resolution—duly signed by architect Ahmad Kamal al-Din and the technical committee—was officially transmitted to Egypt (El-Kattan, 1924, p. 22).

Subsequently, the director of the prominent German construction firm Philipp Holzmann, who also served as the chief railway contractor for the Anatolian Railway, was summoned to provide a technical evaluation. He directly disputed the technical consensus of the engineering committee, arguing that pursuing such a complex and structurally hazardous preservation strategy was ill-advised. Instead, he advocated for either the complete demolition and reconstruction of the dome or the execution of a minimal structural patch, which he noted would be entirely inadequate. Furthermore, he demanded exorbitant compensation for executing the works and imposed highly restrictive contractual conditions should the project be entrusted to his firm under the technical committee’s supervision; consequently, the technical committee rejected his terms and resolved to execute the structural works entirely on their own (Supreme Muslim Council Report, 1347 AH, p. 10).

Architect Ahmad Kamal al-Din initiated the physical restoration works within the Al-Aqsa Mosque compound, and by March, the technical committee published its progress report detailing the structural interventions executed around the dome zone. The engineering team had successfully completed the underpinning and reinforcement of both the southern and eastern supporting arches of the dome; concurrently, work was underway to stabilize the highly critical northwestern pier using steel frames and tension rods, an urgent measure necessitated by the pier’s imminent threat of failure despite carrying the dead loads of both the western and northern semi-arches. Once the tie-rod reinforcement and structural bracing of the pier were finalized, the voussoirs of the western arch were carefully dismantled to allow for the casting of a secondary reinforcing arch out of reinforced concrete directly above them, after which the original carved historic stones were reinstalled along its structural faces. Subsequently, the team began the structural shoring and bracing of the fourth (northern) arch, installing steel frames and tension ties around the supporting jambs beneath the arch, while strengthening the span between the two columns with reinforced concrete prior to setting the decorative voussoirs. Work continued on assembling the steel



reinforcement grid above the arch in preparation for casting the concrete layer and finishing the decorative stonework, thereby guaranteeing the structural stability of the main dome while safeguarding its architectural and ornamental heritage (*Al-Yarmouk* newspaper, April 16, 1925, Issue 58, p. 2).

In April 1925, an official progress report was compiled detailing the operations completed within the Al-Aqsa Mosque dome restoration project, which noted that the reinforced concrete had been successfully cast for the fourth (northern) supporting arch, with its flanking faces systematically clad in original carved stonework. This milestone marked the absolute completion of all structural shoring and reinforcement works required for the dome's four primary arches. Concurrently, the engineering team initiated the extraction of the historic piers and ancient load-bearing columns for adaptive reuse in alternative structural locations. Following the implementation of exhaustive technical safeguards, the first column of the southeastern pier was carefully dismantled and replaced with a newly engineered square pier composed of reinforced concrete, after which the secondary column within the same pier assembly was extracted. Regarding the decorative program, historic mosaic conservation was executed within the spandrels between the newly constructed western and northern arches and the pre-existing arches. Furthermore, to clad the exposed reinforced concrete piers, a specialized shipment of red marble was commissioned from Italy—owing to its absolute unavailability within both the Egyptian and Palestinian markets—thereby guaranteeing that the traditional aesthetic and architectural identity of the mosque was seamlessly preserved (*Al-Yarmouk* newspaper, June 4, 1925, Issue 68, p. 2).

During the construction of Ankara, the new capital of the Turkish Republic, architect Ahmad Kamal al-Din was summoned to participate in the state architectural project; consequently, he transferred day-to-day oversight of the Jerusalem restoration works to engineer Rushdi al-Imam al-Husseini. Throughout this interim period, Ahmad Kamal al-Din maintained continuous communication regarding the project, routinely inspecting and approving the ongoing technical works. In 1926, the President of the Supreme Muslim Council formally requested that he return to Jerusalem to compile a comprehensive evaluation of the completed restoration works. Upon his arrival in Jerusalem, Ahmad Kamal al-Din drafted an official progress report, which stated the following (see Figure 9) (Supreme Muslim Council Report, 1347 AH, p. 11):

«Your Eminence, President of the Supreme Muslim Council: Pursuant to Your Eminence's letter dated March 24, 1926, conveying the joint resolution of the Supreme Muslim Council and the Restoration Committee stipulating that the architectural works I initiated must be brought to completion by my hand and under my direct supervision in accordance with the prescribed contractual terms, I have arrived in Jerusalem. Two and a half years have elapsed since the departure of our initial technical committee, and I have since reviewed all architectural works executed during my absence and meticulously examined all drafted engineering designs. It gives me great pleasure to inform Your Eminence that all works completed thus far under the direct supervision of Rushdi Bey, an esteemed member of our

initial committee, have been executed with consummate skill and in absolute conformity with the structural blueprints and designs I originally established. I am deeply grateful and proud of this successful coordination; furthermore, I have formally approved all supplementary designs drafted by the aforementioned engineer and have provided him with the necessary technical directives. — Professor Architect, Ahmad Kamal al-Din»



Figure 9: The reconstruction carried out under the supervision of Kamal Al-Din in Al-Qibli Mosque.

The restoration project of the Al-Aqsa Mosque dome highlights the intense complexity characterizing the interplay between modern engineering requirements, historical preservation challenges, and the site's profound religious significance. A clear discourse emerged between the radical paradigm favoring absolute structural reconstruction using reinforced concrete to secure maximum load-bearing stability, and the conservative methodology emphasizing the viability of preserving the original historical framework by targeted underpinning of the historic columns and arches to ensure structural equilibrium. Ultimately, the final resolution—which prioritized safeguarding the historical character and symbolic legacy of the congregational mosque while simultaneously satisfying essential structural engineering requirements—reflects a highly sophisticated understanding of heritage conservation aimed at preserving the unique identity and historical essence (*genius loci*) of the site.

Fourth: Contemporary Arab and Western Perspectives on the Architectural Contributions of Ahmad Kamal al-Din

The renowned architectural historian K.A.C. Creswell observed that the structural restorations directed by architect Ahmad Kamal al-Din successfully uncovered



numerous concealed structural details, which definitively prove that the current architectural configuration of *Al-Jami' al-Aqsa* dates back to the reign of the Fatimid Caliph Al-Zahir rather than the later era of Salah al-Din al-Ayyubi. To substantiate this historical attribution, Creswell relied on several structural and physical evidentiary indicators (Creswell, 1989, pp. 76–78):

1. **Uncovering of Fatimid Epigraphy and Mosaics:** During the restoration, the removal of the plaster layer from the northern face of the main northern arch supporting the dome exposed a magnificent mosaic composition adorned with dense acanthus scrolls; this ornamental program was encircled by an extensive Kufic calligraphic inscription directly beneath the roof beams, explicitly invoking the name of the Fatimid Caliph Al-Zahir. This physical epigraphic evidence definitively establishes that the primary supporting arch cannot date later than 1035 AD.
2. **Structural Examination of the Timber Dome Substructure:** The partial extraction of the lead cladding from the lower perimeter of the wooden dome shell revealed that this bottom edge flares slightly outward to divert rain and snow. This architectural configuration is secured in place by projecting horizontal tie-beams (wall plates) extending outward by approximately seventy-five centimeters. Although the vast majority of these newly exposed structural timbers were heavily compromised by wood-boring insects, the few remaining uncorrupted fragments preserved intricate Fatimid-era ornamental carvings; this diagnostic detail proves that the dome's supporting drum (tambour)—alongside all four primary load-bearing arches, rather than merely the single lower arch—cannot date later than the reign of Caliph Al-Zahir.
3. **Analysis of the Structural Tie-Beam Network:** Every structural arch within the congregational hall is interconnected via a system of double tie-beams secured with iron nails. The underside of each timber pair features a decorative wooden soffit board adorned with historic painted ornamentation, which had historically been concealed by later pine wood paneling that was subsequently dismantled in ten to twelve locations during the survey. Notably, one of these primary tie-beams situated to the west of the dome features a Kufic epigraphic band paleographically dating back to the eleventh century AD. Consequently, the surrounding arcade network adjacent to the central dome assembly, as well as the foundational tie-beam spanning the central transept immediately following the dome, cannot post-date the original Fatimid building phase under Caliph Al-Zahir.

The prominent Islamic scholar Muhammad Rashid Rida highly commended the Al-Aqsa Mosque restoration campaign, evaluating its completion as an eminently successful endeavor achieved through divine providence. To substantiate this assessment, he highlighted that the devastating Palestine earthquakes of Muharram 1346 AH left no discernible structural impact upon the specific zones where the architectural interventions had been executed, despite the fact that numerous other

monumental structures across Jerusalem suffered severe cracking and fissures. Rida framed this outcome as empirical proof that the recent restorations were executed in strict accordance with sound engineering principles, thereby endowing the superstructure with the resilience required to withstand and resist severe environmental shocks. He further emphasized that this conclusion was not merely a subjective theoretical interpretation; rather, it was officially verified by several structural engineers who visited the site to inspect the structural durability of the works, all of whom concurred that the Supreme Muslim Council's proactive stabilization of the dome had effectively prevented its catastrophic collapse during the seismic event. Consequently, Rashid Rida maintained that these operations transcended routine architectural repairs, serving as a decisive structural intervention that safeguarded Al-Aqsa Mosque from total destruction (Rida, Muharram 1347 AH, p. 310; Rida, 12 Rabi' al-Awwal 1347 AH, p. 384).

Speaking as a dedicated cultural heritage advocate and leveraging his past executive experience as the chief accountant for the Supreme Muslim Council, Abdullah Mukhlis leveled a comprehensive critique against the performance of the restoration committee. He contended that the Council had systemically failed to implement strict fiscal austerity measures across the executed operations, charging instead that the administration had succumbed to nepotism and favoritism toward relatives and personal associates. Mukhlis clarified that the procurement of primary materials was channeled through predetermined merchants bypassing standard public tendering and competitive bidding protocols. He highlighted a massive financial discrepancy, noting that while the market value of the primary construction materials utilized in the restoration—namely stone, timber, iron, and cement—did not exceed ten thousand Egyptian pounds, the aggregate operational expenditures soared to nearly six times that amount, an inflation further exacerbated by the exorbitant salaries drawn by the technical committee members.

Mukhlis specifically critiqued Ahmad Kamal al-Din Bey's diplomatic voyage to Ankara, which was intended to assess the feasibility of manufacturing specialized underglaze faience tiles in Kütahya, characterizing the mission as a stark example of institutional fiscal mismanagement. He noted that upon his arrival, Ahmad Kamal al-Din discovered that the co-owners of the sole operational tile factory in Kütahya had already vacated the city, with one having emigrated to Greece and the other having paradoxically arrived in Jerusalem. Furthermore, Mukhlis explained that Ahmad Kamal al-Din attempted to negotiate a contract with the co-owner present in Jerusalem to re-establish a manufacturing facility in Kütahya specifically to supply the historic tiles required for the Dome of the Rock facade before subsequently relocating him to Jerusalem; however, this convoluted enterprise ultimately failed due to the artisan's refusal to accept the contract parameters (*Filastin* newspaper, August 31, 1928, Issue 521112-, pp. 16/).

Mukhlis considered these two incidents clear evidence of the extravagance that



accompanied the restoration project of Al-Aqsa Mosque in general. He viewed that sending Ahmad Kamal al-Din and a member of the Council to Ankara burdened the Supreme Muslim Council with large financial loads that could have been avoided. He also considered that the attempt to bring Qashani tiles from Kütahya, despite the presence of its artisan and his factory in Jerusalem, reveals the failure of the Supreme Muslim Council body and the Restoration Committee to scrutinize the methods of expenditure, and indicates a lack of care in rationalizing resources and properly directing them. Mukhlis also pointed to the weak participation of Islamic countries in the restoration project, explaining that the Supreme Muslim Council had requested each Islamic state to send a representative to follow the works, but most of those countries did not participate effectively. He demonstrated that the members of the restoration committee themselves were not sufficiently informed of the expenditures or the progress of the works, which reflected, in his view, the absence of collective monitoring and joint supervision over a project that enjoys great religious and cultural importance. To support his position, Mukhlis cited the opinions of German engineers who studied the project and presented alternative solutions that he said were capable of reducing costs by more than fifty percent. He viewed that the Supreme Muslim Council's rejection of these proposals, and its insistence on continuing high expenditures, expresses a lack of flexibility in management and a disregard for practical economic solutions that could have achieved the architectural goal at a lower cost and with greater financial discipline (*Filastin* newspaper, August 31, 1928, Issue 521112-, pp. 16/).

Conclusion

The restoration of Al-Aqsa Mosque in the period 1922–1925 can be considered a pioneering model for heritage architecture in the Islamic world, as a balance was achieved between preserving the historical identity, strengthening the structure, and resisting natural factors. The project showed how a specialized architect, such as Ahmad Kamal al-Din, can integrate precise technical knowledge with an understanding of the historical context and traditional materials to guarantee the sustainability of the building.

The project also highlighted the challenges of economic and monitoring management in major heritage projects, including the need for carefully considered financial planning, careful selection of suppliers, monitoring of expenditures, and the effective participation of supervisory and international entities. This experience provides an important model for studying the relationship between historical architecture and modern engineering management, and confirms that protecting architectural heritage is not limited to technical precision alone, but rather requires an integrated administrative framework that guarantees the sustainability of heritage works and the preservation of their cultural and religious value over the long term.

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2 (A news newspaper considered one of the most important Arab newspapers during the Mandate period. The first issue appeared on January 15, 1911 AD).

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