ARCHITECTURAL CONSERVATION AS A TOOL FOR CULTURAL CONTINUITY: 
A Focus on the Built Environment of Islam

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Abstract
Architectural historic preservation has been used as a means to express or represent national, Islamic and even ethnic identity, and often this is linked to tourism or used to serve political ends, particularly in nation building. This article investigates agency and utility in the conservation and restoration of religious built environments in different societies in the Islamic world and its meaning to these societies today. Conservation should be interpreted more broadly than the physical continuity of historic structures; it should also enable the continuity of non-material aspects of culture.

Keywords: Stewardship; values; conservation; restoration; charter guidelines.

INTRODUCTION
Stewardship and the built environment
Islam enjoins its followers to be stewards of the earth, and whatever act that reinforces this is regarded positively. The notion of stewardship includes the protection of heritage, both natural and constructed. The Quran says: “The servants of [Allah] All Merciful are they who tread gently upon the earth with humility” (Quran XXV: 63). Being prudent with both building and natural capital supports this notion of safeguarding them for future generations. Historic buildings are reflections of cultural values, and contain within them our collective memory; an integral part of our identity is lost when they disappear.

The contemporary Islamic world faces a challenge in determining its future physical environment. Affluence, rapid demographic growth and urbanisation have led to the large scale changes in the urban fabric. New buildings age and over time assume value to us as individuals and communities as reflections of cultural values. Historic buildings contain within them our collective memory; once they disappear we lose an integral part of our identity.

Conservation itself can be a tool for cultural continuity. In a speech published in 1978, now almost 40 years ago, His Highness the Aga Khan said; “We must ask ourselves how we can prevent future architectural development from accelerating the loss of our cultural identity. … We must acknowledge that the world is changing, but in doing so we must realise that there are still many lessons that must be drawn from the past” (Holod, 1980).

The toll that religious and sacred places take is significant, especially in resource poor countries where poverty proliferates. In a seminal publication of a 2000 World Bank symposium and publication entitled Historic Cities and Sacred Sites (Serageldin and Shlugar, 2000), Ismail Serageldin noted:

“Cultural heritage preservation and poverty reduction are closely intertwined. The fight against poverty … and empowerment cannot occur unless the sense of common purpose, shared values, and affinity with others is anchored in a notion of a common culture…. Historic and sacred sites are part of that shared heritage. The Comprehensive Development Framework (CDF), advanced by World Bank President
James D. Wolfensohn, pioneered the specific inclusion of culture and identity as essential elements of a more holistic development approach.”

The issue of historic conservation, preservation, restoration or rehabilitation goes far beyond that of preserving the built environment: it raises broader cultural questions as to who we are, where we are coming from and to where we are going. It is an issue of importance to Muslims the world over as we become members of a globalising world.

Countless great historic structures of Islam have undergone change, enlargement, and indeed restoration over the centuries. In the past little regard was given to restoration that brought the structure back the state of some period of existence or originality that represent significant moments in history and are exemplary as great works of architecture – some are discussed in this essay.

**Philosophical Considerations about Value**

It is worth placing the conservation of historic sites into a larger framework. The associated issues are not only about culture: here the focus is on the philosophical and ethical nature of interventions in the built environment of Islam, and not on the technical, although some consideration is given to architectural and design issues.

There are a number of factors to be considered in preserving and restoring iconic buildings, which includes the political, economic, cultural and physical contexts within which the buildings are located. The broadly philosophical and ethical considerations are perhaps more important than the architectural parameters of ‘best practices’, as they express religious and cultural values to ourselves and the world at large and to next generations.

Looking back at the philosophy of modern restoration, to the time of the influential thinkers John Ruskin and Eugène-Emmanuel Viollet-le-Duc in the 19th century, two different viewpoints are clearly apparent. Just to quote one small point in their extensive oeuvre illustrates two significant approaches to conservation. Ruskin, in the Seven Lamps of Architecture Ruskin, 1849), writes:

> “Neither by the public, nor by those who have the care of public monuments, is the true meaning of the word restoration understood. It means the most total destruction which a building can suffer: destruction … accompanied with false description of the thing destroyed. … It is impossible, as impossible as to raise the dead, to restore anything that has ever been great or beautiful in architecture.”

This abhorrence for restoration is in marked contrast to Viollet-le-Duc, who wrote in The Foundations of Architecture, (Viollet-le-Duc, 1854) that “Restoration is a means to re-establish [a building] to a finished state, which may in fact never have actually existed at any given time. … it gives us an understanding of history and place.” The first calls for cultural continuity and the notion of maintenance as an ongoing process whilst the latter for the restoration and revitalization of the built environment.

In the early 20th century, the Austrian art historian Alois Riegl posited a critical analysis of heritage values, which constitutes the first coherent basis for modern conservation theory. His concept of Alterswert (the value of aging and the importance of marks of usage) was outlined in his pioneer work, The Modern cult of Monuments (Forster and Ghirardo, 1982). There he outlines the idea of value as a basis for making decisions about preservation. He divided values into two types: i) Memorial Values, which dealt with age value and historical value, and ii) Present-day Values, characterised as use value, art value, newness value, and relative art value. These value theories give us a rationale for historic preservation practice. They provide a useful check-list by which to measure historic preservation actions even though the philosophical approaches are affected by non-conservation considerations. To this set of values one might add others that specifically pertain to religion and culture.

The first consideration for intervention pertains to significance of the buildings and sites – what they mean to us today and through history. Some of these models are manifest through the
The historic and vernacular architecture of different regions from that of West Africa and the Arab countries to that of the Indian sub-continent and S.E. Asia.

Second is the importance of a building in connection with its age and social memory – its longevity (something that Ruskin valued greatly). If a building has survived over the centuries it will have accrued great meaning to the community that uses it and have acquired a kind of landmark status within an urban fabric. The pyramids of Giza near Cairo are a fine example of this, although they are not Islamic but are located in a Muslim country.

A third reason for restoration would be architectural value, where the structure and ornament in a mosque is exemplary and worth preserving as a fine example. Sites such as the 17th century Maidan Emam (formerly Maidan-i-Shah) in Esfahan is bordered on all sides by monumental buildings linked by a series of two-storeyed arcades, the Royal Mosque, the Mosque of Sheykh Lotfollah, the magnificent Portico of Qaysariyyeh, and the 15th-century Timurid palace. (see Figure 1).

![Maidan e-Emam, Esfahan](Source: Drawing by Klaus Herdeg)

The importance of religious value (something that Reigl did not deal with), with the mosque at its centre is self-evident as with the Ka’aba and other religious structures including shrines, which may be of more local importance. Examples include the 9th century Mosque of Ibn Tulun in Cairo and the Bakiriyya Mosque in Sana’a dating from 1597.

Cultural value is to be differentiated from the religious and architectural values. Preservation for cultural purposes, to recognise specific ethnic or religious groups, or social significance, provides another reason for intervention. This is often given shape through political decisions. We see that decision making about conservation or restoration is made through this overlay of values, which need to be clearly defined and stated.

**Continuity and change in the historic places of Islam**

The fact that a building is in use is another reason for preservation. However, in most such cases the building usually only needs regular maintenance, as called for by Ruskin. The situation may be complicated when the structure needs to be expanded, as in the case of the Prophet's Mosque in Medina particularly in the case of the need for expansion and enlargement to
accommodate increased usage. If one were to follow Viollet-le-Duc's principles this would be acceptable as long as the whole is not compromised and in accordance with the Venice Charter the old and the new should be clearly discernible. (The 1964 International Charter for the Conservation and restoration of Monuments and Sites, widely known as the Venice Charter, whose principles still largely guide the principles of historic preservation states, in Article 12: Replacements of missing parts must integrate harmoniously with the whole, but at the same time must be distinguishable from the original so that restoration does not falsify the artistic or historic evidence.)

For example, the Ka’aba, “The very first house (of worship) established for humanity. ...The place where Abraham stood (to pray)” (Quran III: 96-97), has been built, rebuilt and changed over the centuries. (The changes to this sacred site are too numerous to outline, but the following makes the point about the problems associated with rebuilding and restoration clearly seen in this the most holy of Muslim sites.) It used to cater to some 280,000 pilgrims in the 1950s and now has to accommodate some two million pilgrims yearly. In the 20th century several major changes have taken place under Saudi Arabian aegis where the administrators of the shrines have had to cope with the situation. The Haram had to be extended and rebuilt (see Figure 2A-C) and the pilgrims have been accommodated in vast tent cities with sanitary facilities and highways. Unfortunately, at times, new additions or reconstructions largely altered or even obliterated not only the historic and characteristic features of the monuments but also much of their setting, and perhaps overwhelmed something of the spirit of the pilgrimage. Such changes may be understood to be the latest phase in the continual alteration of the buildings, which occurred throughout their existence, but the speed of change in recent times has allowed little time for reflection or consideration as to what the design means in terms of either continuity or preservation.

A. Ka’aba – 19th Century Print
B. Ka‘aba plan

C. The past Saudi King Abdullah expansion of the holy precinct, currently under construction.

Figure 2. The Kaaba: Changes over the years (Images from the internet).
Consider also the Mosque of the Prophet itself – the Masjid an-Nabawi. (see Figure 3A-D) The structure started off as the Prophet's house in Medina, a simple courtyard with rooms on two sides that was designated as a mosque in 622 CE. Eighty years later Caliph Al-Walid replaced it with a new building with minarets. There were several alterations and additions, including those made by the Ottomans who controlled Medina from 1517. After the foundation of the Kingdom of Saudi Arabia in 1932 the mosque underwent several major modifications, including the one in 1986 by the architect Abdel Wahid El-Wakil. Although he intended to incorporate the old structure into his design for a more commodious building, the old mosque was torn down and replaced with a new one, the second largest mosque in the world. Currently, extensive additions are underway, which will again considerably alter the area.

A. The house of the Prophet  
B. In the late 7th Century  
C. In the 20th Century  
D. The Mosque today

Figure 3A-D. Mosque of the Prophet, the Masjid an-Nabawi, development and growth over time (Source: Author).

What do these examples of enlargement mean, and how do they relate to the notion of historic preservation of cultural heritage? The present building has no relationship with the past except that it recognises the magnificence and the presence of Islam and the central role of the Prophet. How far should we go in the preservation of past heritage? How much should we allow for change in restoring a mosque? To what degree does contemporary utility, however discreetly provided, rupture the sense of historical integrity?
Perhaps what we should look for is not integrity of the past, which now exists in juxtaposition with the contemporary, but the integrity of aesthetic feeling, meaning, and use, revealed in a continuity of forms. In this way the old can inform the new but is differentiated from it.

Given this thought, this also raises the issue philosophically as to how far should we go in the preservation of past heritage? How far should we allow for change in restoring a building? After all Islam is a living religion and all living things adapt, change and die.

A good example of this is the Khulafa Mosque in Baghdad (Holod and Khan, 1997), originally built by the Abbasids in the 9th century and replaced in the 13th century. All that remained of the second building was the restored Suq al-Gazi minaret. The memories associated with the site are important to the city and its population.

In 1961, the Iraqi architect, Mohamed Makiya was commissioned to build a new mosque on the site that integrated the old minaret. The building was to be modern but was to respect the space and materials of the remaining minaret (see Figure 4A-B). Makiya designed the main octagonal prayer hall to be surrounded by riwaqs (arcades), and he employed yellow brick to match the minaret and yet be distinctive from it – thus following the guidelines of the Venice Charter (UNESCO, 1964). The 1963 project successfully retained the spirit of place and the past.

Figure 4A. Plan and elevation of the redesigned mosque with the remaining historic minaret shown in blue.
Restoration and Politics

What one restores and why is often a matter of politics. As the historian Renata Holod acknowledged in her introduction in *Conservation as Cultural Survival*, (Holod, 1980): “Efforts at structuring conservation programmes are therefore faced with several difficulties. The old environments have lost status; at best they have suffered from benevolent neglect on the part of governing elites. ... the impetus to organize and implement such an action lies within the realm of political and ideological decisions.”

Muslims have sometimes taken over and adapted the buildings of other religions, and such appropriation occurs in all religions. For example, the magnificent Great Mosque of Cordoba in Spain (8th – 10th Centuries), which was built and adapted by the Umayyads from a former Christian church, was converted back into a church in the 14th Century, and under King Charles V in 1523 a cathedral was inserted into its centre as a symbol to re-establish the might and dominance of Catholicism. (see Figure 5)
Conversely, Constantine's Basilica in Istanbul, known as the Ayasofia or Hagia Sophia, was built in 360 CE and used as a church until it was converted into a mosque in 1453. The conversion of the interior of the basilica into a mosque involved the removal of the altar and relics, the plastering over of the mosaics, the addition of a \textit{maqsura}, a \textit{minbar}, and the mounting of the enormous shields of calligraphy with the names of God and the prophets at the intersection of walls – these shields were added in the 19th and were not part of the 15th century changes. The slight shift of the interior axis to face Makkah is barely discernible. Meanwhile, on the exterior four minarets were added to proclaim the building as an edifice of Islam (see Figure 6). From 1935 the building complex has housed a historic museum. It has undergone several restorations, the most recent being at the end of the early 20\textsuperscript{th} century.

Figure 5. Roman Catholic Church inserted into the Cordoba Mosque in the 16th century (Source: Aga Khan Award for Architecture).
In the Cordoba and Istanbul examples, the notion of restoring cultural heritage is a politically charged one, raising questions regarding which cultural layer is accorded privilege over another and why this is so. It also highlights the time dimension to old monuments that problematizes simple notions of the cultural component of architectural legacies. Although the above are historical examples the problem persists today.

For example, since 1947 in Pakistan conservation preference is given to mosques rather than temples or churches because Pakistan sees itself as an Islamic state, even though other religions had built significant religious edifices within its boundaries. It should be noted that important pre-Islamic sites in the country are preserved, but given the meagre resources of the archaeology department, the priority is to conserve Islamic buildings.

Because of the significance and symbolic value of the mosque it is sometimes a place of conflict. A dramatic case is that of the Buddhas of Bamiyan in Afghanistan, dating from the 6th century, which were destroyed as being “un-Islamic” in 2001 by the Taliban. This was done in spite of Mullah Mohammed Omar’s July 1999 decree in favour of the preservation of the Buddhas. He noted that because Afghanistan’s Buddhist population no longer existed, which removed the possibility of the statues being worshiped; they were no longer religious artefacts. He said, “The government considers the Bamyan statues as an example of a potential major source of income for Afghanistan from international visitors. Bamyan shall not be destroyed but protected” (Harding, 2001). However, after the ruling Taliban government came out with a consensus that declared that they were ‘idols’ (forbidden under Sharia law) and therefore against the tenets of Islam, the destruction of the giant Buddhas was assured. Several Muslim governments, including Saudi Arabia, Pakistan and the UAE, joined the international protests to save the monuments to no avail. Two years later in 2001 Mullah Omar stated, “Muslims should
be proud of smashing idols. It has given praise to God that we have destroyed them” (Times of London, 2001) (see Figure 7A-B).

A. Before 2001

B. After destruction

Figure 7. The Buddhas of Bamyan (Source: Author).

What should have been the attitude of Islam as a religion of tolerance in these cases? Should religious edifices belonging to another religion be preserved? And within Muslim countries themselves, how would this affect the preservation of, say, Shiite mosques in predominantly Sunni countries? This is an ethical question. Suffice it to note, preservation is often a political act.

Mechanisms enabling conservation and restoration

It is worth noting that contemporary architectural conservation is a relatively recent phenomenon in Muslim societies – generally since the 1960s – except for the preservation of historic archaeological sites and major historic monuments that come under the aegis of departments of archaeology usually established by colonial powers, but there were few indigenous institutions.

For example, in 1881 the Khedive Tawfiq established a Committee responsible for the preservation of Islamic and Coptic monuments in Egypt as a body within the ministry of Awqaf (charitable endowments). In the vast majority of cases the Committee opted for preservation only but some complete restoration programs were carried out, most notably the restoration of Sultan Qalawun complex and the funeral complex of Qayatbay.

Architectural conservation in the Islamic World has largely been the purview of governments, ministries, departments or local government, although in more recent times preservation work has been augmented by non-state initiatives by NGOs, local community groups, often using zakat (charitable) funds, and by wealthy individuals.

Preservation efforts have been negatively affected by the lack of expertise in the archaeological departments, which are by far and large responsible for conservation of historic monuments. A shortage of personnel, budgets, and even interest, play a part in this.

Within Islam the institution of the Waqf, or charitable trust, plays a significant role. The term Waqf (plural Awqaf) literally means detention. The legal meaning of Waqf, to paraphrase Imams Abu Hanifa, Abu Yusuf and Muhammad Says, is the detention of a specific thing in the ownership of Waqf and the devoting of its profit or products for the good of the poor or other good
causes. It infers the retention of all things in the implied ownership of God, in such a manner that its profits may revert to or be applied for the benefit of Humankind. This reinforces the notion of people as stewards of the earth. In the history of Islam the first waqf is the mosque of the Mosque of the Prophet, c. 622 CE, in Medina. In countries where awqaf do not exist, as in the USA and Canada, Muslim communities administer their waqf properties in accordance with the Foundations Acts and Regulations as not-for-profit organisations.

Originally, edifices such as mosques were maintained and restored and run through the endowed trust income, and administered by an independent group of trustees. In the urban areas many of the social and religious buildings came under the aegis of waqfs.

The evolution of the waqf to the present has varied throughout the Muslim countries, in some cases having disappeared completely with the waqfs absorbed into ministries. In other instances many actual Ministries of awqaf (vakif in Turkish, and habs in North and West Africa) – including the Ministry of al Waqf in Egypt, the Ministry of Awqaf Islamic Affairs and Holy Places in Jordan, the Ministry of Awqaf and Islamic Affairs in Kuwait for example – have been established. As an institution it has a great potential for restoration of buildings and the conservation of areas. At times Ministries or waqfs (plural awqaf) reach out to the public for additional funding to enable work to be executed.

Even in a self-declared secular state, the Turkish Vakıflar Genel Mudürlüğü, a waqf, has been reasonably successful in the restoration of mosques and the and the reuse other buildings such as caravanserais into hotels, as can be seen with the 1972 project for the Rustem Pasha Caravanserai in Edirne, Turkey. (see Figure 8).

![Figure 8. Rustem Pasha Caravanserai, Edirne (Source: Aga Khan Award for Architecture).](image-url)
Other mechanisms that enable (or hinder) the restoration of buildings are those of funding – both public and private – and that of legislation. In the west there is a well-established tradition of charitable giving supported by tax incentives. This may be a variation of the Waqf mechanism, but exists in the general sector and is not limited to religious places. Legislation that protects buildings now exists in most Islamic countries, unevenly applied, but mechanisms such as tax credits, used effectively in the United States, have yet to be implemented.

Some private organizations restore buildings in Asia and Africa. Prominent amongst them are the Aga Khan Trust for Culture and the World Monuments Fund with their work in Cairo and elsewhere. The World Bank, the European Commission, the European Investment Bank, and national governments have also supported projects in the Islamic world. Ultimately, international bodies continue to play major and decisive roles for conservation around the globe – UNESCO most significant among them. It also established the International Committee of Experts (ICE) to provide technical assistance for conservation work.

In 1960 UNESCO established a World Heritage List which identified places and buildings of importance to all humankind, and with the aid of international campaigns raises funds and provides expertise to save them. The UNESCO list of 2014 contains some 1007 properties (buildings, areas, towns, landscapes) of which 185 are in the Islamic World. Of these there are around 95 religious buildings, including churches, monasteries, mosques, and temples; some 25 of these belong to the world of Islam, and are located in mainly urban areas.

The conservation of the Yemeni town of Sana’a, aided by UNESCO, has been a long-time project which started in the 1970s and continued for over two decades. It included both restoration and reuse of buildings and the development of infrastructure. (see Figure 9A-B)
The paucity of much of the Islamic world’s built heritage from this list is telling. It is partially due to the fact that Islamic governments are sometimes reluctant to nominate such individual buildings because of their uncertainty regarding their global significance and due to the long and arduous process this entails even though, once on the List, the chances of international support and finance increase. If governments or their designated agencies go through the tedious process of writing up the nominations, they tend to include whole areas rather than individual structures. Another reason is that inclusion of buildings from outside the West has only gained momentum since the 1990s.

Tourism and restoration

Revenues obtained through tourism significantly fund conservation of historic edifices, and the judicious staging of facilities and utilisation of sites can yield direct economic benefits. Mass tourism, however, can also damage the urban fabric of old cities and the historic buildings themselves. Tour groups in search of the “authentic” often stimulate an artificial life separate from the environments and lives of the people that inhabit them. Souvenir shops and traffic congestion affect the environment, and tourism can alter the experience.

An external factor that emerged in the 20th century has been the increase of tourism. It is worth noting that mass tourism is one of the fastest-growing and most highly developed industries in the world, stimulating some $800 billion in investment yearly in new facilities and equipment. Today 21.3 million people around the world are employed in the travel and tourism industry, one that generates around $4.2 trillion annually.

Both Muslims and others, when travelling for tourism want access to the great and even minor sites they are in to gain a sense of history, culture, and architecture. These include historic mosques that continue to be used for worship, such as the magnificent Badshahi Mosque in Lahore and the historic walled city of Lahore, an infrastructure project undertaken by the government with World Bank funding as well and the restoration of several neighbourhood houses by the Aga Khan Trust for Culture Historic Cities Programme. (see Figure 10) Both of them have been maintained and only restored in areas as needed. Maintenance is more desirable than restoration.
One way in which to protect buildings is to restrict access to them – a general principle more difficult to impose on public and religious buildings. How can one limit access to mosques and religious buildings that in concept belong to the ummah - society? To reject access to non-Muslims or to other Muslim denominations can exacerbate the perception of Muslims as being intolerant and regarded as “the other”.

Many historic buildings come under the aegis of Ministries of Culture and Tourism. Herein lies a conundrum: most of the countries of the Islamic World need the income that tourism brings so that they can maintain and restore their buildings. Many of the Departments of Archaeology are housed within the Ministry of Culture, and even if they want to restore a particular site or building they have to temper their considerations with those of the need to generate funds – even though the restoration could lead to cultural conflict and degradation.

The balance between tourism and conservation is a delicate one. Add to this the issue of the iconic and religious built environments and we have an overlay that is charged with great emotion. Hence governments, who in general have to make choices as to what they should restore, often succumb to religious pressures in making their choices.

CONCLUSION

What is missing in many contemporary Muslim societies is a set of enforceable guidelines for conservation and best practices for restoration that meet international norms developed since the early 20th century – the international Charters and Guidelines. Some countries do have them built into law – Algeria, Indonesia, Pakistan and Turkey, to name a few – but are often not followed. Muslim countries should develop a Charter of ethical practice to govern conservation actions.
As a principle, I propose that buildings should be preserved as long as its form possesses meaning for us and as long as its survival can be prolonged by technical means. Historic preservation is a professional activity, but one that is tempered by a number of actions external to the field itself necessitating a balancing act and negotiation. The conservation of the physical context / surroundings of religious buildings are important. However, it is not sufficient to preserve monuments, but that the ensemble of historic cities must be re instituted as a viable and vibrant node in urban life.

There is the need for change, growth, and even the adaptive reuse of structures, which is more complicated for religious buildings due to their symbolic nature. In these instances, the philosophical values outlined in the international Charters and Guidelines proposed by UNESCO, ICOMOS and other bodies, such as the aforementioned Venice Charter (1964) and the Burra Charter (1981), should be adhered to, but need to be critically re-examined for their applicability to Islam. These will inevitably be compromised by ideological or fiscal concerns, but at least will contain within them a backbone of ideas that can act as a guide.

The great 20th century Egyptian architect, Hassan Fathy, not known for preservation work, recognised the central place of conservation in our lives when he commented at the conference, Conservation as Cultural Survival in 1978: (Fathy, 1980: 103)

"I want to comment on the nature of change, the importance of continuity and the preservation and conservation of our monuments and towns. ... we have to remember that the importance of conservation is not limited to the maintaining the forms of historic buildings for posterity; conservation is also the mechanism for the carry-over of the old traditions, from the conceptual as well as the functional viewpoint."

Architectural restoration is more than an intervention; it is, as Fathy asserts an instrument for cultural continuity. In order to facilitate the transformation of Islamic heritage as a tool with which to plan for the future and not just as a record of some ‘glorious’ Islamic past, preservation needs to be a forward-looking enterprise. Conservation is even more than a tool for continuity; it could be a tool for cultural survival and enhancement.

REFERENCES


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