Islam’s first mosque, built in Madinah in 622, was a simple rectangular structure constructed of palm logs and adobe bricks. The United States’ first purpose-built mosque, completed in Cedar Rapids, Iowa in 1934, was a simple rectangular building of white clapboard on a cinder-block foundation, with a dome over the front door.
Mosque Design in the United States

In the 13 centuries that separate those buildings, mosque design has evolved differently in the different countries and cultures where Muslims live, and in the US too the thematic and visual characteristics of mosque architecture had to deal with a new environment—one that had its own pre-existing historical and visual vocabulary.
Of nearly 1000 mosques and Islamic centers in the United States surveyed in the mid-1990's, fewer than 100 had originally been designed to be mosques and, of those, the older ones had not been designed by architects. Many of these simple buildings were meant to be used as cultural or community centers—for example, the Albanian Cultural Center, the Arab Banner Society, the Indian/Pakistani Muslim Association—and not exclusively as mosques. They had a room for prayer, but—like the Cedar Rapids mosque—they also served as clubs, with a social hall for weddings and parties and a basement for bingo games.

No longer. American mosques built in the last few decades, in the period in which Islam has begun to feel at home in the United States, are almost universally architect-designed. And despite stylistic features that vary considerably, especially among the more elaborate mosques, all of them fall into one of three basic categories. First, there are those mosques that embody a traditional design transplanted entire from one—or several—Islamic lands. Examples are the Islamic Cultural Center in Washington, D.C. (built in 1957); the Islamic Center of Greater Toledo, Ohio (1983); and the Islamic Center of West Virginia in South Charleston (1989).

Second, there are those that represent a reinterpretation of tradition, sometimes combined with elements of American architecture. Examples are the Islamic Cultural Center in New York City (1991) and Dar al-Islam in Albuquerque, New Mexico (1981).

Third are the designs that are entirely innovative, like those of the Islamic Society of North America's headquarters in Plainfield, Indiana (1979); the Islamic Center of Albuquerque, New Mexico (1981); the Islamic Center of Edmond, Oklahoma (1992); and the Islamic Center of Evansville, Indiana (1992). As in the older mosques, most of the buildings in all these categories are not exclusively places of worship, but function rather as Islamic centers, with such facilities as classrooms, library, conference center, bookshop, kitchen and social hall, as well as recreational facilities, residential apartments, and in some cases even a funeral home.

The Islamic Center of Washington, D.C. was the first of the large, traditionally designed structures, and architecturally it is still one of the most significant buildings that Muslims have built in the United States. It is listed, and thus protected, as a historical American building. It was designed by Mario Rossi, an Italian architect practicing in Cairo, with the help of engineers from the Egyptian Ministry of Pious Foundations, whose functions include care of mosques supported by religious endowments.

The Islamic Center took its inspiration in part from the Mamluk architecture of Cairo, but it also includes Ottoman Turkish and Andalusian decorative motifs. The interior furnishings are also a multi-ethnic mix: The wall tiles were donated by Turkey, the chandeliers are from Egypt and the By importing designs, the architect evokes nostalgia and suggests stability.
rugs were presented by the Shah of Iran. It was financed by the diplomatic missions of the Islamic countries and such donors as the Nizam of Hyderabad, who gave $50,000—a grand sum in the 50’s. In his 1985 book *East Comes West: Asian Religions and Cultures in North America*, E. Allen Richardson noted that the mosque represented a new type of cooperation among Muslim countries in support of a US mission, and became a symbol of Muslim unity and identity.

The Albanian Islamic Center in Harper Woods, Michigan is another example of transplanted Islamic architecture. Designed and built in 1962 by an American architect, Frank Beymer, the mosque makes a clear and unambiguous statement of its national character in its Ottoman exterior, represented by its sleek arches, dome, and color scheme. Although all Muslims are welcome there, its façade proclaims the identity of its original founders, the Albanian Muslim immigrants of Michigan.

A number of mosques similar to the one in Harper Woods and Washington, varying in size and scale, were built in the 1980’s. Two other transplantations of traditional mosque architecture to an American site are the Islamic Centers near Toledo, Ohio, and in South Charleston, West Virginia. Turkish architect Talat Ilki designed and built the striking Ottoman-style mosque in the cornfields of Ohio in 1983. Its 41-meter (135’), octagonal minarets and hemispherical 18-meter (60’) dome are visible from the nearby highway, an exotic bit of Middle Eastern visual culture in an otherwise Midwestern environment. In addition to his obvious disregard for the building’s surroundings, the architect appears also to have disregarded the flexible spirit of Islam, which maintains that the material culture of Muslims—including architecture—is bound by space and time and can therefore be both varied and diverse.

The transplanted-mosque approach has been used by Muslim and non-Muslim archi-
The dome dominates a space that uses contemporary language to express essentially traditional forms.

Center (ICC) of Manhattan is one example. It was designed by the prestigious firm of Skidmore, Owings & Merrill (SOM) and completed in 1991 on a site in uptown Manhattan at the intersection of Third Avenue and 96th Street. The project represents an effort to find an image that would please both Muslims and the larger, surrounding society. Its history also highlights the relationship between architectural production and the cultural politics of identity. The mosque was designed for the use of Muslims in the New York City metropolitan area, who include high-profile, influential Muslim diplomats and others attached to the United Nations, consulates, and trade offices.

The governments of Kuwait, Saudi Arabia, and Libya bought the site in 1966, and the State of Kuwait has been the prime financier of the project since 1981. Initially, the project was given to the Iranian-American architect Ali Dadras, who drew up a traditional mosque plan with a courtyard and gardens. By the mid 1980's, however, the ICC's board of trustees
had come to favor a more contemporary style, and Dadas was replaced with SOM, whose long architectural involvement in the Islamic world included the design of the Hajj Terminal, the National Commercial Bank building and King 'Abd al-'Aziz University, all in Jiddah, as well as many other large projects in Saudi Arabia, Kuwait, and Bahrain.

During the design stage of the project, the IIC board appointed two advisory committees, one composed of "prominent members" of the Muslim community in New York, the other of architects, mostly non-Muslims. The debate between the two centered on the image of the mosque. The architects—some practitioners, some scholars—wanted a "mosque that belonged to the 21st century.

The Muslims wanted the designers to reproduce the style of a traditional mosque with literal versions of historic motifs.

The architects urged SOM to exercise complete freedom in forms and motifs while respecting Islamic beliefs, and Michael McCarthy, the SOM architect, chose to follow their advice. Interviewed for Architectural Record's August 1992 issue, he justified his decision by pointing out that "Islam in its vast conquests absorbed the best of local building techniques and materials under an overall umbrella of careful geometric ordering of mass, enclosures, and finishes. Why not meld this tradition with the best that the 20th century has to offer?"

After a long and thoughtful debate the two committees agreed on a "modernist" building, but with the Muslim committee insisting on the inclusion of both a minaret and a dome, neither of which were favored by the architects' committee. The conflicting perceptions of what a mosque ought to look like brought into high relief the salience for many Muslims of "old and familiar," a preference that many Westerners are unaware of and some Muslims prefer to disregard.

When it was completed in 1991, the IIC mosque consisted of a 27-meter (90') clear-span structure roofed by a system of four trusses supporting a steel and concrete dome, beneath which the women's gallery is suspended. The plan is composed of a domed cubical volume in the center, with four square corners roofed by skylights in the form of quarter pyramids. Light pours in through these skylights and through the decorative square openings of the trusses beneath the dome.

The square is consistently used throughout the building at various scales and in a variety of material and expressions. The external walls are divided into large square modules of light granite panels, each outlined by a strip of glass and supported by a concealed grid of tubular steel. This abstract geometric form has lent the design a simple, rational appeal and given the project a contemporary character, while allowing continuity of association with traditional Islamic architecture through the use of abstract geometry.

The building's link with traditional mosque architecture, however, goes deeper than subtle references through geometry, or the obvious use of architectural icons and calligraphy. As Islamic architectural historian Oleg Grabar pointed out, SOM's drawings for the final design of the mosque were quite reasonably within the conventional Ottoman tradition. The SOM reference to the Ottoman mosque type also inspired the skylights in the roof corners and the patterned glass in the upper walls, which bathed the prayer area with light. The stepped,pendentive-like beams at the corners of the middle part, in addition to their structural role in supporting the dome, help visually to connect the trusses to the dome, thus allowing a smooth transition between the square plan and the circular dome. This inspiration from traditional structural and aesthetic systems seems to unify the middle and upper parts of the interior of the mosque. Although the dome is used as a traditional form, it is effectively and successfully expressed in a contemporary language.

While the architects' committee had resisted the inclusion of a minaret, some outsiders joined the traditionalist Muslims in supporting it. Among them was David Rockefeller, who donated a large sum toward the financing of the minaret when he was told it was in danger of being excluded for reasons of cost as well as design. With this encouragement, the design of the minaret was entrusted to Swanke Hayden Connell Architects of New York. The chief designer was Alton Gürsel, a Turkish-American architect, whose unenviable task was to satisfy the perceptions of what a minaret should look like in the eyes of the nearly 50 Muslim countries represented in the New York community. Gürsel designed nine minarets before eventually choosing one design that was sufficiently abstract and de-historicized; in contrast to the
massiveness of the mosque proper, its slenderness, simple articulation and sheer height (one and a half times the height of the dome) made it an elegant addition to the project. In view of its astounding cost ($1.5 million) and its functional uselessness—no call to prayer issues from it—the minaret demonstrates the importance many of the participants attached to a suitable expression of their identity as Muslims: Construction of significant parts of the ICC project, such as the school and the library, were delayed so that the minaret’s construction could go ahead. The architects and the chief financial patrons of the project, however, did not see this choice as giving image-making precedence over service to the community. Rather, because of the mosque’s location in one of the world’s financial and cultural capitals, the architects conceived it as providing a “welcoming image, which includes, rather than excludes the public.” Since its completion in 1991, the mosque has become a landmark in the area.

edge at ground level. The mosque’s dramatic form, as sculptural as anything in the surrounding landscape, was achieved by combining a Byzantine and Sasanid dome, barrel vaults, and large, pointed arches. The Dar al-Islam mosque grew out of the same romanticized regional style that Fathy created for New Gourna in Egypt, and uses the same earthen construction. Because of New Mexico’s cultural links to Spain, which nurtured a local mud-brick building tradition quite similar to that in New Gourna, Fathy’s Dar al-Islam is certainly appropriate to its context.

Three criticisms can be made of the Dar al-Islam project, however. One is its disregard of the local climate, wetter and colder than that of Egypt, resulting in water seepage from the roof and the dome. The second is that its physical isolation from population centers allows the building to avoid dealing with the conflicts and diversities of modern life. The third is that, by thus refusing to engage in a dialogue with the dominant culture, the mosque and its community are in danger of reinforcing western views about the “otherness” of Islam.

A decisive departure from both the transplanting of traditional architecture and the modern reinterpretation of it can be found in the designs of Gulzar Haider, a Pakistani-Canadian, and Bart Prince, an American. Their projects represent the innovative, the creative and the unprecedented mosque. Haider advocates a design approach that is “environmental,” “morphological” and “semiotic.” His notable example is the mosque in the Islamic Society of North America (ISNA) headquarters in Plainfield, Indiana. According to Haider, Islamic architecture should be expressive and understandable to all. It should employ a form of language that invokes in immigrant Muslims a sense of belonging in their present and hope in their future. To the indigenous Muslims it should represent a linkage with Muslims from other parts of the world and should underscore the universality and unity of Islam. To the new Muslim this architecture should invoke confidence in their new belief. For non-Muslims it should take the form of clearly identifiable buildings which are inviting and open, or at least not secretive, closed, or forbidding.

In 1979, the parent organization of ISNA decided to consolidate its numerous activities at a headquarters in Plainfield. Haider was engaged to design the complex, with detailed construction documents prepared by the associated architect Mukhtar Khalil, an Indian Muslim. Though the headquarters were never completed, the buildings that were constructed included a mosque, library, and some office space, and they are nonetheless now collectively known as the ISNA headquarters.
The buildings are set amid elaborate landscaping with a formal front plaza. The mosque, the library and the office block form a unified scheme in which the mosque and the office block are placed on one axis and the library on a perpendicular axis. The architect explains the symbolism of the design in these terms:

A mosque is a space celebrating man’s servitude to God. The office building is an arena of work for Islam and its society in North America. The library is a research facility upholding the Qur’anic ideal that only through knowledge, intellect, and contemplative thought does man ascend to higher levels of belief and action.

The ISNA mosque has an austere contemporary character that is entirely without iconic references to traditional Islamic architecture. The solid exterior walls give few clues about what is inside. Haidar sees this contrast between outside and inside as embodying two of the 99 beautiful names of God: al-batin ("the hidden") and al-zahir ("the manifest"); he believes these attributes of God are "of special interest to architects in pursuit of the silent eloquence of space and the quintessential presence of form."

According to Haidar, the ISNA mosque addresses itself to Muslims through its concepts of al-batin and al-zahir, through mystical geometry, and particularly through its cubical form, a subliminal reminder of the Ka’ba, the symbol of unity. He relates his decision to contrast the inside and the outside to the fact that Muslims are a minority living in predominantly non-Islamic America. He sees this contrast as symbolic of the fact that Islam in this country is a private matter of faith, rather than the state religion that it is in much of the Islamic world. "If the dome is symbolic of the esoteric and the divine, and the cube of the esoteric and the Earth, then we consider it a fitting gesture to make the dome internally manifest and externally veiled," Haidar wrote. Moreover, the exterior of the building, in its materials, details, and fenestration, is intended by Haidar to be

If the dome is symbolic of the divine, and the cube symbolic of the Earth, then it is fitting to make the dome internally manifest and externally veiled.

—Gulzan Haidar
The architect designed a climatically sound building unencumbered by historical precedent. There is no dome, no minaret, no sign of "Islamic architecture."

"sympathetic to North American indigenous architecture rather than any historic or modernized Islamic style."

Conceptually related to the NSA headquarters in terms of innovative mosque design are a number of other Islamic centers. One is the Islamic Center of Albuquerque, New Mexico, completed in 1991 and designed by Bart Prince, a leading exponent of organic architecture. From a distance, the building resembles a giant set of bleachers reaching skyward in tiers and topped by towers that contain tall, narrow windows. Inside, the mosque is essentially one large hall divided at prayer times by a temporary partition to separate men from women. The ceiling steps up with the tiers, supported by thick wooden beams and rafters made of bronze-colored pipe. Daylight pours through the narrow windows. It is a simple, elegant building, functional, and completely at home in its environment.

The work of the New Mexican architect resists easy translation into words. Dramatic and often unusual forms characterize his project, like his other buildings in New Mexico. His style is rooted in the peculiarly American tradition of organicism. Defined by Frank Lloyd Wright and the Oklahoman architect Bruce Goff, the organic tradition argues for the necessary individuality of each architect and each architectural design. The tradition's individualism makes it difficult to attribute a coherent set of stylistic characteristics
What do these various mosque projects tell us about the nature and direction of mosque design in North America? New and insecure Muslim communities at first often construct mosques that are architecturally nondescript. Better established communities have built a large number of mosques in the purely traditional styles found in the Muslim homelands, with little regard to their surroundings in North America. Some architects have experimented with reinterpreting traditional styles, using mixed designs and achieving equally mixed results. The innovative mosques of Haidar, Prince, and Karim have not always been well received by the immigrant Muslim communities because they do not match the immigrants’ notions of what a mosque should be. Given the extreme diversity of America’s Muslim population, it would seem logical to favor the unprecedented mosque, with maximum regard for the strictly Islamic requirements and minimum regard to ethnic or national taste or historical style, be it Ottoman, Mamluk, or Mughal. We have seen such a compromise reached in the case of the minaret of the ICC mosque.

Attachment to traditional design principles is, however, by and large restricted to first-generation immigrant Muslims. Their descendants and American converts to Islam, who will eventually constitute the majority of the US Muslim population, will probably tip the scales in favor of more innovative architecture. Many Muslims of all backgrounds may even see this as responding to a prime Islamic imperative: to live in harmony with the total natural and historical environment of a place.

This article is adapted from “Approaches to Mosque Design in North America,” in Muslims on the Americanization Path?”, edited by Yvonne Yazbek Haddad and John L. Esposito (Scholar’s Press, 1998, ISBN 0-7885-0441-X).

Dr. Omar Khalidi (okhalidi@mit.edu) is a staff member of the Aga Khan Program in Islamic Architecture at the Massachusetts Institute of Technology in Cambridge.

Related articles have appeared in these past issues of Aramco World and Saudi Aramco World:
Islam’s First Mosque: JF 99
First US Mosque: N&D 76
Canada’s First Mosque: JA 98
Islamic Cultural Center, Washington: MJ 85
Islamic Cultural Center, New York: N&D 96
Dar Al-Islam, Abuja: MJ 88
Hej Terminal, Jiddah: JIF 01
King ‘Abd al-‘Aziz University: JA 74
Hassan Fathy: JA 99

November/December 2001 33