Al-Nur (The Light):
The Architecture of Fumihiko Maki

Allah is the Light of the heavens and the earth. The Parable of His Light is as if there were a Niche and within it a Lamp: the Lamp enclosed in Glass: the glass as it were a brilliant star: Lit from a blessed Tree, an Olive, neither of the east nor of the west, whose oil is well-nigh luminous, though fire scarce touched it: Light upon Light! Allah doth guide whom He will to His Light: Allah doth set forth Parables for men: and Allah doth know all things.

Qur'an, Sura 24:35
In a sense, the entire effort of His Highness the Aga Khan, beginning with his ongoing dedication to the Ismaili community, and continuing with such exceptional initiatives as the Aga Khan Award for Architecture or the Aga Khan Program for Islamic Architecture (AKPIA) at Harvard University and the Massachusetts Institute of Technology (MIT), has been leading to this. A Museum dedicated not only to the display of exceptional objects of Islamic art, but also to music, to education – and to a sense of pluralism and openness that he found in Canada, but that he first and foremost finds in Islam. When His Highness decided that the noted Japanese architect Fumihiko Maki would design the new Museum,¹ he wrote him a long letter. In that letter the Aga Khan stated: “For the Aga Khan Museum, I thought that ‘light’ might be a concept around which you could design an outstanding museum. The notion of light has transversed nearly all of human history, and has been an inspiration for numerous faiths, going as far back of course to the Zoroastrians and their reverence for the Sun, to the Sura in the Holy Qur’an titled al-Nur. Decades of Western history are referred to as the ‘enlightenment’ for good reason.”²

Presentations of contemporary architecture tend to focus on practical details and indeed these are important in order to understand how a building will look and how it will function. Then, too, the aesthetic notions and theories brought to bear by famous architects usually colour public perception of a building. Fumihiko Maki might best be described as modest and refined in his expression; his is not the bombastic vocabulary of those who pretend to invent whole new types of architecture. He is a
A site plan shows the Aga Khan Museum opposite the Ismail Centre as they are inserted into the Wynford Drive site.
man of modernity who is not dismissive of the past, and these factors are important in situating the design and architecture of the future Aga Khan Museum. In many ways, the architecture is really about the uses planned for a building whose true function is not so much the display of art as it is education in the broadest sense. Beyond such practical considerations, however, the real theme of the architecture will be the ephemeral miracle of light, in the physical and artistic definitions of the word. Few, if any, symbolic starting points for a museum could be as inclusive and yet specific as the Aga Khan’s reference to light. This theme justifies the conclusion that much of the activity of the Aga Khan has been leading to this Museum – in the sense that it is a distillation of everything he has expressed interest in – from architecture to the meeting of peoples and minds: a ray of light passing through a translucent wall. The message of pluralism and of the wealth of Islamic traditions that will be embodied in the Aga Khan Museum will have to encounter receptive eyes of course, but with the art selected, and the architecture designed, everything has been done to make it possible to bridge the gap between Islam and the West that the Aga Khan perceives as a central problem of the contemporary world.

This abstract, but inclusive, reference to Islam will indeed be part of the Aga Khan Museum, but it will of course be a modern, efficient building allowing for an innovative programme. As described in a report from Toronto’s Commissioner for Economic Development, Culture and Tourism: “On 8 October 2002, the Aga Khan Development Network (AKDN) announced its intention to establish in Toronto a
museum housing exceptional collections of Islamic art and heritage items, as well as a cultural and educational centre devoted to the study and practice of human pluralism. The location for this proposed development is a seven-hectare site located on Wynford Drive in the north-west quadrant of the Don Valley Parkway and Eglinton Avenue. The site includes a 3.6-hectare parcel upon which the AKDN had previously proposed constructing a mosque, and an adjacent 3.35-hectare parcel that the AKDN has recently acquired from Bata Industries.” In its conclusion, the report states: “The AKDN proposal would appear to be a major acquisition for the City of Toronto, and demonstrates that the world recognizes Toronto’s long-standing tradition of tolerance. It further adds to Toronto’s appeal as a vibrant international city
capable of competing for prominent business, research and cultural attractions. This announcement made world coverage in many major newspapers, increasing Toronto's worldwide profile.³

Luis Monreal, the General Manager of the Aga Khan Trust for Culture (AKTC), underlines the significance of the Museum in the present world situation: “The evolution of the political situation in the last few years, its resulting crises, and the additional factor of flows of emigration toward the West, have revealed – often dramatically – the considerable lack of knowledge of the Muslim world in Western societies. This ignorance spans all aspects of Islam: its pluralism, the diversity of the interpretations of the Qur’anic faith, the chronological and geographical extension...
Full-height glazing reveals the inner courtyard of the Aga Khan Museum in this rendering by Maki and Associates.

of its history and culture, as well as the ethnic, linguistic and social diversity of its peoples. The supposed ‘shock of civilizations’ is in reality nothing more than the manifestation of the mutual ignorance that exists between two long-time neighbouring worlds. For this reason, the idea of creating a museum of Muslim culture, as an eminently educational institution with the aim of informing the North American public as to the diversity and importance of Muslim civilization, naturally imposed itself in the AKTC’s programmes.⁴

The “centre devoted to the study and practice of human pluralism” referred to in the 2002 report is taking form, but in a different location. The Global Centre for Pluralism will be located in the former Canadian War Museum on Sussex Drive in Ottawa. The description of the Museum remains accurate. After the original site planning by Sasaki Associates, the architects, first Charles Correa (Ismaili Centre) and then Fumihiko Maki (Aga Khan Museum), began to work on adjacent parcels of the Wynford Drive site. The 11,000-square-metre Museum will be laid out on three floors: two floors above grade and one below for parking and reserves. The two floors above ground will contain 1800 square metres of gallery space for temporary and permanent exhibitions, a multi-purpose auditorium, a restaurant, private reception spaces, and educational areas consisting of classrooms and a library. “There is a symmetrical dome that corresponds to the auditorium: from the outside it signals the presence of the Museum, and, inside, it gives added height to the space. I am inclined to use stainless steel on the dome and canopy, but this is not yet decided,”
Above, the two main levels of the Aga Khan Museum are seen in these floor plans, showing the auditorium to the upper left of each drawing.

Below, an 'aerial' view of the site showing the roof of the Museum.
The Aga Khan Museum

says Maki. A high room also projects above the essentially rectangular volume of the whole building, offering a special space for receptions and meetings. Though much less visible, the underground spaces will be quite ample: “We have a basement level for storage and a large parking garage below the garden. Toronto does not allow too many cars on the surface, so a great deal of parking for the Ismaili Centre and the Museum is below ground.”

As for the overall character of the building, Fumihiko Maki states: “Contained within a simple rectilinear footprint, the four primary functions will revolve around a central courtyard, which will act as the heart of the building and will integrate the differing functions into a cohesive whole while allowing each space to maintain its independence, privacy and character.”

Eighty-one metres long by fifty-four metres wide, the building is described by the architect as “compact,” a fact related as much to the site and its future development as it is to the need to create a cohesive whole. “We were asked to create a museum of a certain size,” says Maki, “but we decided to make it fairly compact because the possibility of future expansion was part of the programme we were given, though no precise size was determined.” The expansion of the Museum is certainly not on the agenda for the moment, nor indeed is the design predetermined in any sense by the positioning issues evoked by the architect; rather, future expansion plans are permitted through the orientation of the present building and its compact form. “The placement of the Ismaili Centre,” continues Maki, “and the need to create green barriers around the site to protect it from traffic noise made
Two wall section drawings through the Museum show the angled exterior, metal skylights, interior exhibition spaces and the technical and parking areas below grade.
the precise orientation and location of the Museum fairly evident. Aside from the exhibition of art, His Highness wished to hold events such as concerts in the Museum, and there is also sizeable space for educating children about Islamic art. A shop and restaurant that can be used even by those not entering the Museum are provided for. This is not just a museum, it is actually more of a cultural centre. We felt that a compact form would allow for the required functions and good communication between them.⁶

Although the interior configuration has not yet been fully determined, Fumihiko Maki explains some of the main characteristics of the galleries: “We have tried to optimize the exhibition space to allow different configurations depending on the types of shows that might be concerned. The precise division of the spaces, essentially two L-shaped galleries – one on the ground floor and one directly above, on the first floor – is not yet determined, but there will be one area allowing for more considerable ceiling height.” Maki is also allowing for the relatively small volume of the “Salon Persan”, a room with Nasrid-style showcases in which Prince Sadruddin Aga Khan kept his precious collection of Islamic ceramics, in Geneva. These have been generously donated to the Museum by his widow, Princess Catherine Aga Khan. Some sculptures from Prince Sadruddin’s collection will be integrated into the gardens and courtyard of the Museum. The current proposal for the courtyard, including an elaborate geometric pattern in the stonework, may in fact be the clearest reference to Islamic decorative traditions in the Museum.
Born in Tokyo in 1928, Fumihiko Maki is one of the foremost architects in the world. After receiving his Bachelor’s degree in Architecture from the University of Tokyo (1952), he went on to obtain Master’s degrees from both the Cranbrook Academy of Art (1953) and the Harvard Graduate School of Design (1954). This international education might be considered unusual for Japanese architects, but Maki came from a privileged background that encouraged such openness. He worked for Skidmore, Owings & Merrill in New York (1954–55) and Sert Jackson and Associates in Cambridge, Massachusetts (1955–58), before creating his own firm, Maki and Associates, in Tokyo in 1965. Maki’s study and early work in the United States undoubtedly influenced him. He has always demonstrated a skilful and subtle use of modern forms and materials, while respecting elements of Japanese tradition, albeit in a contemporary way. Recent and current work by Fumihiko Maki includes the Shimane Museum of Ancient Izumo (Taisha, Izumo City, Shimane, Japan, completed in 2006), a structure similar in size to the Aga Khan Museum that uses a dynamic combination of glass and Corten steel, and the World Trade Center Tower 4 (New York), a sleek sixty-one-storey skyscraper to be completed in 2012.

Two of Fumihiko Maki’s Tokyo buildings from the 1980s, Tepia (Minato-ku, Tokyo, completed in 1989), a pavilion for the display of high technology, and Spiral (Minato-ku, Tokyo, 1985), might be selected to evoke some of the qualities that His Highness the Aga Khan detected in his work. Both of these buildings place an emphasis on metal facades, but they also share a carefully studied use of light. It might be
A rendering of the World Trade Center Tower 4, designed by Maki and Associates, shows the 61-storey structure, which will be completed in 2012 (New York City, New York, USA).
noted in passing that Japanese tradition sees the light or wind that enters a building as manifestations of nature, no matter how chaotic the surrounding urban environment might be. Within Tepia and Spiral, the visitor retains a sense of calm and light, far from the dynamic life of Tokyo’s streets. There is also a pronounced silence about the interiors of these buildings, even though Spiral is used for commercial activities as well as the display of art or events. Material and its manifestations, such as the perforated steel screens used in Tepia, or the floating fifteen-metre-diameter spiral ramp that gives its name to the earlier building, are one of Maki’s strongest points as an architect. The quality of Japanese construction may allow for greater refinement in some instances than can be achieved outside his native country, but Maki’s sense of detail, surfaces and volumes is unequalled in contemporary architecture.

Although the numerous cultural facilities that Fumihiko Maki has worked on obviously qualify him for the design of the Aga Khan Museum, it should be noted that he has almost completed another building in Canada for His Highness the Aga Khan. The Delegation of the Ismaili Imamat in Ottawa is located at 199 Sussex Drive on a one-hectare plot, neighbouring many of Canada’s prominent diplomatic and political sites, such as Parliament Hill, the official residences of the Governor General and the Prime Minister, as well as numerous embassies and consulates. The building will function much like an embassy. “It will be an enabling venue for fruitful public engagements, information services and educational programmes, all backed by high-quality research, to sustain a vibrant intellectual centre and a key policy-forming
A model photograph by Maki and Associates shows the Museum, with the emerging dome of its auditorium. The representations of the gardens are not accurate here.

institution," according to the Aga Khan. "The aim," he continues, "will be to foster policy and legislation that enables pluralism to take root in all spheres of modern life: justice, the arts, media, financial services, health and education."

To be completed in 2008, the Delegation building was the first project to be given to Fumihiko Maki by the Aga Khan. Although its nature and functions are quite different from those of the future Museum, comments made by His Highness the Aga Khan reveal some of the thinking that went into the selection of the Japanese architect: 'If the mandate to the architect is to be as good as anyone in modern architecture, using modern materials and concepts but at the same time having the sensitivity to bring in external value systems, Maki was the obvious choice, because of the sensitivity of Japanese architects to their own cultural history. Linking cultural history to modernity is probably something that Japanese architects are as good at as anyone. They understand that. Maki seemed to be one to whom you could give a mandate and say, 'I am trying to bridge a number of different forces by building this modern building, and one of them is to take some of the value systems of the past, put it into this building, but not make it so esoteric that it overburdens you. It has to be inspirational and subtle.' It is not a theological building, but if, within that building, there are spaces of spirituality which we like to see as part of everyday life – it is not the exception, it should be part of everyday life –, then you are bringing that into that building. His concept of the chahar-bagh and the roof of the Delegation building, which plays with light and facets of glass, to me is very inspirational.'

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The letter of His Highness the Aga Khan clearly explains the relationship of the client to the architect in this instance, expressed in terms of the ephemeral but essential qualities of light. “I hope that the building and the spaces around it will be seen as the celebration of Light, and the mysteries of Light, that nature and the human soul illustrate to us at every moment in our lives,” states the Aga Khan. “I have explained at the beginning of this letter why I think Light would be an appropriate design direction for the new museum and this concept is of course particularly validated in Islamic texts and sciences: apart from the innumerable references in the Qur’an to Light in all its forms, in nature and in the human soul, the light of the skies, their sources and their meaning have for centuries been an area of intellectual inquiry and more specifically in the field of astronomy. Thus the architecture of the building would seek to express these multiple notions of Light, both natural and man-made, through the most purposeful selection of internal and external construction materials, facets of elevations playing with each other through the reflectivity of natural or electric light, and to create light gain or light retention from external natural sources or man-made internal and external sources.”

Quite obviously, the architect has taken the references to light by the Aga Khan to heart both in purely symbolic terms and in practical ones. The architect has been careful to create ideal conditions for the viewing of Islamic art, providing very low luminosity where the exquisite miniatures from the Aga Khan Collection might be shown, for example. Skylight screens with geometric patterns “inspired by the
windows in mosques” and translucent marble walls will be features of the exhibition spaces. The design is centred around a courtyard, intended as “a symbolic space, protected from the outside world,” with an “inherent link to traditional Islamic architecture.” The exterior of the Museum is “inspired by the forms and shapes of precious stones” and will have walls inclined at two distinct angles to accentuate the play of light on the surfaces. Translucent marble and opaque white marble are likely to be the main cladding materials, although white granite was still being considered as this book went to press. As for the relation with Correa’s Ismaili Centre, Fumihiko Maki states: “The metallic roof of the auditorium space will further accentuate the shape and materiality of a precious stone and is intended to establish a formal dialogue with the crystal roof of Correa’s Ismaili Centre, adjacent to the Aga Khan Museum. The primary entrance and axis of the Museum is aligned with the Ismaili Centre, which will provide a subtle relationship between the two buildings, emphasizing the unity of the complex.”

Though he wishes for such references to be subtle, Fumihiko Maki does reveal some of the sources of his thought where light is concerned. “The angular facade is able to refract natural light in quite an interesting way – but the final effect will only be visible when the building is completed. The cladding of the building, in white marble or white granite, will assume different colours according to the light conditions.” More specifically, Maki says: “At sunset the Taj Mahal glows red or pink, while it appears to be white at noon.” The use of an angled facade of this nature
In this rendering by Maki and Associates of the exterior of the Aga Khan Museum, the white simplicity of the design is emphasized, with different colours and shading visible on the facade according to the time of day and the angle of the sun.
has never been attempted by Maki, but full-scale mock-ups have been erected near the site to confirm the effects of light, or indeed those of climate, on the planned stone cladding. The architect goes on to refer to the interior of the Museum, stating: “There is some natural light but we tried to make the openings very carefully since much of the material exhibited is very sensitive to light. I feel that references to Islamic architecture should be abstract in this instance, and the screens we have developed respond to this approach. The choice of cladding materials – white marble or white granite – will allow for a certain translucency from the inside, perhaps a bit like the marble used in the Beinecke Rare Book Library at Yale designed by Gordon Bunshaft [Skidmore, Owings & Merrill, New Haven, Connecticut, 1963].” In explaining the interior forms of the dome that tops the Museum’s auditorium, Maki makes specific reference to a dome: “The stage of the auditorium recalls the domes of Islam – perhaps the Bazaar in Kashan, Iran, for example.” The angled skylights introduced into the museum design by the architect are of course abstract, but his own documentation refers to the very subtle windows of the Shaykh Lutfallah Mosque (Isfahan, Iran, 1603–19).

It would appear that the references of Fumihiko Maki, ranging from ancient Iran and the Taj Mahal in India to a work by Gordon Bunshaft, correspond quite directly to the Aga Khan’s words concerning the Ottawa Delegation building: “If the
mandate to the architect is to be as good as anyone in modern architecture, using modern materials and concepts but at the same time having the sensitivity to bring in external value systems, Maki was the obvious choice.” Fumihiko Maki concludes: “His Highness didn’t want this particular building to use overtly Islamic forms or references. He wanted to have a modern building appropriate to its context.” In what may be his most significant remark about the building, Fumihiko Maki says, “we want to have quiet spaces.” Situated in a rather busy area of Toronto, the Aga Khan Museum will be surrounded by gardens designed by Vladimir Djurovic, and its powerful walls speak of a sense of protection, of a place to leave the everyday world behind and to plunge into the wonders of civilizations that may not be familiar for many visitors.

It is important however to underline the fact that Islam and, indeed, spirituality are a constant factor in the activities of the Aga Khan, and that such a presence may not only make itself felt through specific citations, albeit abstract ones, of Islamic architecture. Nor would it be appropriate to exclusively analyze the work of Maki in this instance as a piece of contemporary architecture. The Aga Khan Museum will indeed be a modern facility and through its many planned activities, its education,
music and performance programmes, it will reach out and plead for the pluralism that is at the heart of the message conveyed by the Aga Khan himself.

The dedication of the Aga Khan to architecture, seen in such ongoing programmes as the Aga Khan Award for Architecture, has to do more with improving the conditions of life of a vast part of humanity than it does with heralding a new architectural style. Pointedly, the Aga Khan refers to architecture as part of "the processes of change" – a terminology that may be at odds with most descriptions of contemporary buildings. When asked if, for him, building is not in fact a way of bringing people together, he responds: "Yes, or giving them a sense of individuality. Sometimes they need that also. I think spirituality is not necessarily experienced only in a societal context, it can be very much an individual thing. There are certain times when you need to create space where spirituality can be experienced individually. I think of parks as places where the individual is very powerful. We have also worked recently on dormitories for universities. What the West would think of as secular spaces, in our context very often are not exclusively secular. They actually seek to have a content in an area or in the totality of the building which has an additional

Muqarnas on the Shaykh Lutfallah Mosque built by Shah Abbas I in Isfahan, Iran, from 1603–19. Fumihiko Maki cites this structure as an influence on his design for the Aga Khan Museum.
message or an additional sense to it. In the Islamic world we always look at the fundamental unity of *dīn* and *dunya*, of spirit and life, and we cannot tolerate that one functions without the other. The notion of *dīn* and *dunya* and the integrity of human life is a very important issue."¹⁰

It is surely in the "quiet spaces" of the Aga Khan Museum that the talent of Fumihiko Maki will be felt, and the connection between the client and the architect will be most readily apparent. The Museum will be a vibrant place, full of life and art, but it will also be a quiet one, where the sense of spirituality referred to by the Aga Khan will be felt by those who understand it. It is no accident that in describing "light" in his original letter to Fumihiko Maki, the Aga Khan passes directly from an evocation of a *Sura* of the Qur'an to a reference to the European Enlightenment. The light he refers to crosses through civilizations and religions – it is the source of life and art, the two forces being brought together in the walls of the Aga Khan Museum. The ultimate message of pluralism and tolerance conveyed by His Highness the Aga Khan might best be summed up in this instance by his own references to the two sources of light, "natural light emanating from God's creation," and "light ... which emanates from human sources, in the form of art, culture and well-inspired human knowledge."¹¹

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¹ Design Architects: Fumihiko Maki and Maki and Associates, Tokyo, Japan. Architect of Record: Moriyama & Teshima Architects, Toronto, Canada.
² Letter from His Highness the Aga Khan to Fumihiko Maki, 3 January 2006.
³ Staff Report from Joe Halstead, Commissioner Economic Development, Culture and Tourism to the Economic Development and Parks Committee of the City of Toronto, 20 November 2002.
⁵ Fumihiko Maki and Maki and Associates, "Aga Khan Museum 002 02 17.pdf*. Document provided by the architects to the author.
⁶ Interview with Fumihiko Maki by the author, Basel, Switzerland, 13 May 2008.
⁷ Interview with His Highness the Aga Khan by the author, London, United Kingdom, 6 March 2007.
⁸ Letter from His Highness the Aga Khan to Fumihiko Maki, 3 January 2006.
⁹ Interview with Fumihiko Maki by the author, Basel, Switzerland, 13 May 2008.
¹⁰ Letter from His Highness the Aga Khan to Fumihiko Maki, 3 January 2006.