Cambridge Central Mosque Media Pack June 2019

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Preface

With the Muslim population of Britain doubling every fifteen years, the pressure on its places of worship is intense. No sooner is a mosque built than it overflows. The response has until now been to run up cheap but vast barns to keep the rain from the heads of the worshippers, with scant attention paid to architectural nuance. But a newer generation, both more educated and more reflective about religion, is growing restless.

Cambridge is a magnet for upwardly mobile, young Muslims. With a Muslim student population from over seventy countries and a steady trickle of conversions among undergraduates, it breaks stereotypes of mosque goers as monoglot Bangladeshi elders or Kurdish kebab sellers. The mosque is probably the most ethnically diverse place in Cambridge; but it is also becoming one of the most adventurous and articulate.

The existing mosque on Mawson Road, just off Mill Road, is a former chapel which was rededicated as a mosque in 1981. Since that time, its Friday lunchtime congregation has grown from around forty to seven hundred. Its location on a narrow Victorian street makes further expansion, or any provision for parking, an impossibility.

Enter the Cambridge New Mosque Project. In 2008, the former Robert Sayle warehouse on Mill Road was bought by a charity headed by Yusuf Islam, the former pop idol Cat Stevens. The project's leaders recognised that a conventional solution on the site would be inappropriate. As a major international city, with a rich existing skyline of sacred buildings. Cambridge required a landmark, not a barn with a dome.

Interesting cultural arguments ensued. Mosque design has historically reflected the local cultures of the Muslim world. A mosque in Java bears no resemblance to a mosque in Bosnia, or a mosque in Senegal. And with Cambridge Muslims claiming such a diversity of origins, it was far from clear what the chosen idiom should be.

A hybrid seemed inevitable, and one with local references. But if mosque design has historically reflected local culture, how could British architecture figure in the shaping of the Cambridge building? One could guarry the past, and build a Gothic or a Palladian mosque. The dangers of pastiche would be immense. So, too, would be the potential alienation of the mosque's users, unused to a form so alien to the religion's heritage and its particular notion of the sacred.

An international competition was held, calling for inventive and innovative ideas. Entrants were told to propose a mosque that would hold a thousand men and women. and announce Islam's presence in Cambridge as a spiritual and cultural asset not only to Muslims but also to the wider community. Solutions poured in. Brutalist concrete answers were offered. together with Star Trek futurism. replicas of medieval Syrian buildings, and revivals of Victorian railway architecture. In an age of recession, architects were desperate for the work; but they also seemed passionate about the scheme.

Confronted by four superb finalists, the jury finally picked a design by Marks Barfield, designers of the London Eye. Their scheme exploited the overlap between the colour and texture of Cambridge white brickwork, with some of the great brick buildings of Central Asia and Turkey. But the building is strongly modern in inspiration and temper. It acknowledges Islam as an ongoing tradition, not as a cultural fossil.

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Page 2



The design allows visitors to experience a gradual transition, through a garden with a fountain, then a vestibule, and an atrium, into the main prayer hall, oriented towards Mecca. Trees give way to a covered space, and then to the mosque itself, a private, inner space which soars to a height of three storeys. There are no clichéd references to either Islamic or English themes, although both can be strongly intuited.

The link with the local and the Islamic is expressed not by exploring the distant medieval indebtedness of the Gothic style to Islamic building. Instead. the natural world is proposed as the point of connection. The inner sanctuary is faced with wood, and forms a forest of sixteen wooden columns, each of which opens up to support the roof, which it joins by means of geometrical structures inspired by Islamic design. The connection between the horizontal and the vertical, which is the symbolic message of a sacred building, is effected by a guiet celebration of the miracle of nature, and the ability of faith to detect mathematical order within it.

This focus on nature informs other aspects of the building's design values. A minimal carbon footprint is required, to emphasise spiritual beliefs in humanity's role as a humble and responsible custodian of creation. The building is energy efficient, with heat pumps, water recycling, and the strategic use of glass and other materials to gain and conserve heat. The great domes culminate in glass oculi, which bathe the interior in natural light. In the hours of darkness, high efficiency LED lights provide a soft but effective luminescence.

Islamic architecture is sometimes described as 'the alchemy of light.' The symbolism is obvious, as the Koran says, 'God is the light of the heavens and the earth.' Light is being, existence, truth, and reality. Darkness is made of shadows, which are insubstantial but can still distract us with the illusion that they really exist. The mosque tells the believer that the mystery of existence lies in the interface of reality and illusion. and that worship exists to help us find our way back to the way things really are.

It is clear that the very secular city of Cambridge is about to be challenged by a new monument, which will remind us that for many, the principle of sanctity is still interesting, and that it can still inspire subtle and intelligent artistic expression.

In a time when religion is often judged by its fundamentalist extremes, the Cambridge mosque may function as a signpost to a forgotten reality, a symbol not only of religion's ongoing appeal, but of its aesthetic and moral challenge to a culture most of whose monuments are frankly dedicated to the gods of money and of consumption.

Preface written by Tim Winter Shaykh Zayed Lecturer in Islamic Studies, Faculty of Divinity, University of Cambridge. Chair, Cambridge Mosque Trust

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Project History

The Abu Bakr Mosque on Mawson Road in the Romsey area of Cambridge became too small for it's growing congregation. Pressure was so great that latecomers had to pray on the street. A site for a new mosque was found, 3/4 mile away, capable of accommodating the many Cambridge people of Muslim faith. In 2008, the former Robert Sayle warehouse on Mill Road was bought by the Muslim Academic Trust, a charity headed by Yusuf Islam, the former pop-idol Cat Stevens, and the Cambridge academic Dr Tim Winter.

Cambridge Mosque Trust`s (CMT) intention was to create a beautiful place of worship; a high quality development which would fit in with its environment, and at the same time stand out as a new and distinctive focus. The intention was to incorporate a cafeteria open to all members of the community, and a meeting/ conference room which local groups can book for their functions. The brief called for a design with a focus on environmental sustainability, and with a significant element public art, integrated with the architecture.

In 2009 CMT launched an international design competition to select a design team to carry forward their vision for a landmark building which will inject new life into the Mill Road area of Cambridge of which the local and wider Cambridge community can be proud.

The competition brief included profound questions, for example: "Sacred architecture may require a totally different appreciation from that of modern architecture, one that is not necessarily centred on architecture as the work of an individual, but moreover on the architect's particular expression of



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a universal principle. Outline how you would interpret this in designing a Mosque and what measures you would take to ensure that the 'principles' are adhered to?"

Four finalists were shortlisted. They worked to a detailed design brief which incorporated the 2007 survey of Romsey residents' views made by East Mill Road Action Group (EMRAG), and the 2007 Development Brief prepared by the Cambridge City Council Urban Design Team. They presented their visions for the new mosque to a specially-chosen jury which included representatives from CMT, Cambridge Muslim Welfare Society, University of Cambridge Department of Architecture, and EMRAG.

Marks Barfield Architects working in association with artist-geometer Professor Keith Critchlow were selected by the jury in June 2009 and appointed by CMT to design the new Cambridge mosque.

The project team consulted local stakeholder groups in the process of preparing the detailed scheme, and the planning application was submitted and approved in 2013. Construction commenced on site in 2017 and the building was completed and opened in March 2019. On behalf of the Trust, Chairman Tim Winter said:

"Moving the mosque to this new location represents a hugely exciting opportunity for Cambridge. Working with Marks Barfield, we can create on the Mill Road site a superb place of worship."

"This building will be truly inclusive, sustainable, safe, secure and respectful of the neighbourhood."



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Project Timeline



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September 2011 Local consultation









(left) September 2017 Assembly timber structure commences

> (right) November 2017 Topping out ceremony Dome lifted into place

March 2019 First prayer & welcoming event









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Design

Sacred Architecture at it's best communicates universal principles and leads the mind from the literal mundane world towards an underlying spiritual reality. The appeal of beauty is not merely to the senses, but through the senses to the intellect.

The design process started with research into the architecture of mosques, globally. We discovered that for centuries and throughout the world, mosques have adapted to local cultural and climatic conditions and adopted the local vernacular, using building materials and technologies available in their "We didn't want to create a replica or pastiche of something that existed elsewhere. The opportunity to do something English, British, excited us. Now that there is a significant Muslim community in the UK it's time to work out what it means to have an English mosque" David Marks

place and time. Our intention was to develop a strongly contemporary design, of its place and time yet reflecting both the Islamic and British sacred traditions.

So, we asked ourselves – how should a British mosque be designed for the 21st Century? The idea emerged of a calm oasis of contemplation within a grove of trees, inspired by an image of the garden of paradise - with its water fountain symbolising the source of all life. We were inspired by elements from both the Islamic and British religious architectural traditions - for example the Esrefoğlu mosque in Turkey; Córdoba, in Spain and the Gt Mosque Tlemcen in Algeria as well as innovative English fan vaulting as seen in Kings college chapel, Cambridge and the chapter house in Westminster Abbey. The design also seeks to incorporate the application geometry, inspired by natural form and Islamic principles.



Early mosques were based on the house of the Prophet at Medina, with its living accommodation ranged along two sides of an enclosed courtyard



The Arabian heartland, Spain and North Africa: the hypostyle hall and open courtyard



Sub-Saharan West Africa: the hypostyle hall using mud-brick or rammed-earth construction



The Indian subcontinent: triple domes and an extensive courtyard



Anatolia: use of massive central dome



Iran and Central Asia: the bi-axial four-iwan type

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Page 8





Garden of paradise



Córdoba Mosque, Spain



Eşrefoğlu Mosque, Turkey





Wells Cathedral Chapter House

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Design

The site, on the busy Mill Road is in a predominantly residential area with domestic scale of 2-3 storey buildings. The aim was to create a building massing respectful of its surroundings - but that somehow fits in and stands out at the same time. It's massing consists of three main parts. The front portico and atrium address Mill road and are set back and low in response to the context. The ablution areas are lower still allowing the main plant to be hidden on their roof. The prayer hall, the principal and tallest building block, is set deep in the site and turns its orientation towards Mecca. The direction of Mecca is indicated by the gibla wall which incorporates the Mihrab and Minbar. The Imam's residence and accommodation for visiting scholars are secondary elements wrapped around the prayer hall.

The new Cambridge Central mosque will be nondenominational, inclusive, open and welcoming to the whole community. It seeks to imbed itself with ease into its social context both physically and socially. It is intended to be a meeting place and a cultural bridge where modernity and innovation meet timeless sacred principles. It also hopes to be one of the UK's leading women friendly mosques.

Worshipers and visitors take a journey from the busy street through a procession of spaces, encouraging them to experience a gradual transition from the day to day, mundane world to a reflective more spiritual one. First, they pass through a community garden, then a beautifully designed Islamic garden with its water fountain, through to a portico and then the atrium. From there they can visit the café or the teaching areas, or they can progress through the ablution areas into the main prayer hall.

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We imagined the site planted with a grove of trees, bringing the community together for gentle discourse under the shade of the trees. The trees then became the main structure of the mosque, joined to form an interwoven octagonal canopy – a lattice vault structure which supports the roof. This is then surrounded by structural timber walls (Cross laminated timber) clad in masonry tiles topped with a castellated parapet to symbolise the meeting of heaven and earth. The tiles are the colour of Cambridge gault bricks with accent red tiles set out to create a geometric pattern incorporating Kufic calligraphy.

Rooflights are located above the trees and throughout the public areas and have been carefully designed to maximise natural light such that no artificial lighting will be necessary during daylight hours. Islamic architecture is sometimes described as the 'alchemy of light'. Light is being, existence, truth and reality. The experience of the natural light is therefore a key element of the architecture, particularly in the prayer hall.



We imagined the site planted with a grove of trees



and re-imagined the 'trees' springing from the deck to provide the main structure for the mosque



and reaching up to support the roof using an interlaced and interwoven geometric structure



This is then surrounded by structural timber walls (Cross laminated timber) clad in masonry tiles topped with a castellated parapet to symbolise the meeting of heaven and earth

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Geometry

Professor Keith Critchlow was involved at the competition stage. He is an expert in sacred architecture and Islamic geometry. He subsequently drew, by hand, the guiding geometry for the building -'The breath of the compassionate pattern' which is based on octagons and symbolises the rhythm of life.

Public Art

It is a planning requirement to have an element of public art in major civic projects in Cambridge. MBA did not want this to be applied to the building as an add-on. We wanted it to be integral and imbedded within the architecture, specifically designed for this mosque and to be contemporary whilst drawing on the universal principles that lie behind all Islamic art.

Geometric patterns in Islamic art and architecture

Throughout the history of Islamic art and architecture, patterns have been used to represent nature and objects by their spiritual qualities, rather than their physical or material qualities. Geometric art is symbolic rather than literal, so is therefore consistent with the Islamic traditions against representation. Tessellating geometric patterns symbolise the infinite, and mathematical perfection, both qualities of god.

Geometric Artist

Professor Critchlow was commissioned to generate the geometry and patterns that find expression in every detail of the building- from the guiding geometry of the superstructure, to the brick bonding patterns, decorative fretwork covering air vents, the pattern in the dome and to the atrium floor. It is important to recognise that this art form is distinct from and has nothing to do with mere decoration, as the art serves the religious purpose of showing what lies behind the manifest world. Originality is a guiding principle – the word itself means referring to the origin or source. - Artists evoke symbols and motifs that connect us to our deeper selves, they can help us along the journey of our own lives. Religious art recognises this.

Professor Critchlow only draws by hand. The design is being coordinated using BIM level 2 and other sophisticated 3D computer modelling. We have worked closely with Professor Critchlow to translate his designs into a buildable form providing a seamless transition from traditional hand sketches to the latest CAD technology and construction drawings.



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Guiding Geometry

The guiding geometry of the building - The breath of the compassionate geometry is converted into a continuous structural pattern, with repeating octagons. The pattern is then projected onto the three dimensional fan vaulting form, with the help of the latest computer technology and alternate octagons are converted to the structural columns or 'trunks'. There are a total of 30 trees, 12 over the atrium, café and teaching space, 16 over the prayer hall and 2 over the north portico. The overall impression created by this architecture is one of calm, stillness, stability, quiet and focus combined with a strong sense of place.



Diagrams illustrating the progression from 1) the Breath of the Compassionate pattern, 2) joined to form a continuous structural grid, 3) brought a point at columns, and 4) projected onto vaulted 3D form

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Timber - Blumer Lehmann

Timber was chosen as the principal material for the building structure because it is one of the most sustainable building materials available. Trees absorb CO2 as they grow, they have low embodied energy and are a renewable resource. The timber used for the tree structure is sustainably sourced spruce and comes mostly from Switzerland, Germany and central Europe.

Concept and strategy for construction

Executing the roof support structure required a high degree of discipline and organisation. The architects created a detailed 3D parametric model. Blumer Lehmann then commissioned the digitalisation experts from Design-to-Production (D2P) to develop the CAD model of the timber construction. Blumer Lehmann and Marks Barfield worked closely with D2P and the engineers from SJB Kempter Fitze to create the complete digitalised prefabrication and assembly concept.

Through this process, the total of 2,746 segments were reduced to just 145 different component types, which in turn are based on just 23 different types of laminated timber blanks. These blanks, some of which are straight and some with single- and double-curved source elements, were all processed with 5-axis milling. The approach required a meticulous production strategy and further development of the software. The joints between the segments in the complex support structure also required painstaking

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planning. Slotted plates and Idefix connectors, among others, were used for the cross-grained joints in the lengthwise direction of the beams. Lateral butt joints were lapjointed and screwed together, but not glued. With the curved areas in particular, the insertion of the halving joints had to be simulated in advance to validate the geometry of the assembly sequence.

Implementation and result

A total of 80 lorry loads with just under 3,800 individual components made the roughly 1,500 km journey from Gossau, SG, to Cambridge, England. This required careful and timely planning, including the proper assignment, labelling and sequence of all parts. Only if each individual part arrived at the construction site at exactly the right moment would the assembly go to plan. This occupied the team from Blumer Lehmann for approximately six months.

Key project data

Free Form components: 2,746 Exterior walls: 2,000m² Interior walls: 1,200m² Roof surface area: 2,700m² Cross-laminated timber: 2,000m² Skylights: 63 Stairways: 3 Planning & implementation: 2016-2019







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Page 15













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Sustainability - Skelly & Couch

As a religious building that emphasises spiritual belief in humanity's role as a humble and responsible custodian of creation, the mosque has been designed with a minimal carbon footprint. The design intent is for environmental and energy concepts for the building to achieve low carbon emissions and none on site.

Energy use will be minimised by using mixed mode systems - static heating and natural ventilation, supplemented by displacement cool air supply at times of high occupancy or high heat gains and

The building form and fabric specification ensure it can be naturally lit during daylight hours and naturally ventilated throughout the year - even during periods of peak occupancy. The building fabric is designed to ultra-low U-values with airtight construction to minimise energy need and energy loss.

Each timber vault sits beneath a glass oculus, and the overall effect is an interior bathed in natural light. The striking timber construction means that embodied energy is very low.

Air source heat pumps are used for underfloor heating/cooling which also includes an innovative system of direct hot water heating via buffer tanks. Given that the grid electricity becomes increasingly less carbon intensive, the overall footprint will reduce year on year.

The building is part powered by a PV array and rainwater is harvested for flushing WCs and irrigation. The power produced by the PVs is sufficient to cover all of the hot water used in the building, all of the cooling and 13% of the heating.



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Structure - Price & Myers

Price and Myers joined the project after planning had been achieved. The brief was to design a large awe-inspiring timber superstructure, above an elegantly detailed but utilitarian basement car park and plant area, on a brownfield site where former uses included a cement and lime works, a saw mill, a foundry, a petrol station, and most recently, a warehouse. The latter was destroyed by fire in 2009 and the site lay unused until work started on the mosque in later summer 2011. These myriad site uses had resulted in some localised contamination of the soil, which was either removed as part of the basement excavations or contained at depth below the landscaped areas.

The building is supported on concrete bored piles ranging

between 13m and 22m deep. The piles provide support to the basement floor slab and columns, which in turn support the ground floor and the timber columns which form the striking "trees" of the superstructure. Piled walls hold back the ground around the basement as well as providing support to the cross-laminated timber walls and masonry cladding to the perimeter of the superstructure.

Significant challenges of the structural design included working out how each structural element would behave under different loading conditions and temperature variations, and how the blend of materials selected for the various elements would respond to each other. Differential movement of the foundations would have led to uneven movement of the timber trees, which would in turn be likely to cause the joints to open and appear untidy. It was also necessary to determine how much deflection of the ground floor slab could be tolerated by the timber wall panels and whether this would cause issues with the masonry cladding and glazed curtain wall.

Through frank discussions and careful collaboration with Marks Barfield Architects and Blumer Lehmann we were able to find an assuredly economical and elegant structural solution, where every element has a function and nothing is purely decorative: An approach which has allowed the client to spend the budget where it mattered most to them.



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Brick Tiles

Use of mathematical tiles on timber structures was widely used in the 18th and 19th Century in the South East of England, to emulate brick on a timber frame building, and it is from this historic construction method that we took inspiration, using brick cladding hung from the CLT timber walls.

The cladding reflects both local vernacular materials, and Islamic sacred traditions. The brick tiles have been chosen to reflect the light buff colour 'Gault' Cambridgeshire brick with an accent red tile. Also taking inspiration from masonry Islamic architecture across the Middle East, the brick tiles have been arranged to form Square Kufic calligraphy writing.

Square Kufic is a form of Arabic calligraphy based on a grid, where positive and negative space must be balanced. This lends itself to modular construction such as brickwork and tiles, and there are examples of Mosques and Mausoleums using this technique in Afganistan, Azerbajan, China, Iran, Kazakhstan, Turkey, and Uzbekistan. Where Square Kufic is used to create geometric brickwork patterns in relief, this is referred to as 'hazarbaf', Persian for 'thousand weavings' (source www.kufic.info)

For Cambridge Mosque, a 50mm high Dutch brick tile was used, allowing a rotated square pattern to be formed, saying in Arabic "say he is God, (the) one".



Kashan Jameh mosque minaret, Iran*



Typical Cambridge Gault brick with red accents



Brick tiles being clipped-in on site



Zeynel Bey Mausoleum, Hasankeyf, Turkey*



House in Lewes clad in Mathematical tiles*



Construction elevation drawing -Every one of the 212,140 brick tiles was drawn and checked on site

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Square Kufic calligraphy

The arabic phrase "Say he is God, (the) one" is repeated with rotational symetry



Module A Size: 4x4 diamonds 4 sub-modules, grouped and rotated Used on large areas of wall



Sub-modules A1 & A2 Size: 2x2 diamonds Used where module A does not fit, alternates between A1 & A2



Module B Size: 1 diamond Pattern only (no meaning) Used where modules A, A1 & A2 do not fit



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Dome

It is not a requirement for a mosque to have a dome. However domes do have significance in Islamic architecture, and symbolise the vault of heaven. Celestial patterns and motifs are typically utilised to reflect this.

The dome at Cambridge Central Mosque is offset towards the Qibla wall, on the central axis of the Prayer Hall. The internal lining has a three dimensional pattern, based on a truncated cubeoctahedron. This is one of the 13 Archimedian solids, which are semi-regular solids approximating a sphere using regular polygons.

The truncated cubeoctahedron is formed of regular hexagons, squares, and octagons, reflecting the underlying building geometry. This geometry allows an expression of 'flowers' with 8, 12 and 16 fold petals.



Proportion of dome and timber trees

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Truncated cubeoctahedron spherical grid



Development with flowers and petals



Construction drawing

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The methods used for designing and fabricating the internal lining of the dome combine both traditional crafts and sophisticated digital modelling. The pattern was designed by the geometric artist by hand, using traditional skills and a pair of compasses. This was then translated into a parametric digital model to coordinate with other elements of the dome construction, and issue information to allow the fabricator to produce their prototype panels and moulds.

The panels for the dome are constructed from Glass Reinforced Gypsum (GRG), by the plaster moulding fabricator. The moulds were produced by hand using traditional techniques. Only two triangular moulds were required, one being the mirrored copy of the other. These were used to produce 40 panels, of which 16 were trimmed on site to form the dome base aperture.

The panels were then filled, jointed and painted on site, and soft concealed uplighting accentuates the relief of the pattern.



Underside view of panel modules

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Type A panel prototype ready to form mould



Panel prototype relief detail



GRG fabricators factory, Birmingham, UK



Finished dome

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Landscape - Emma Clark, Urquhart & Hunt

The Landscape

Some time after Dr. Tim Winter commissioned Emma Clark to design the garden she approached Adam Hunt of Urquhart & Hunt Landscape Design to collaborate on the project. He and his studio have been of invaluable help in the development of the garden over the years. One of our main aims has been to create a beautiful green and lush space which is not only open to Muslims on their way to pray in the Mosque but is also welcoming to the whole community.

A guiding principle has been to combine Islamic design with a contemporary British plant palette incorporating perennials, (e.g. Roses, geraniums, salvias, iris, perovskia, oreganum, teucrium), scented flowering shrubs (e.g. Myrtle, Jasmine, Daphne, European and N. African natives) and a succession of bulbs including iris, narcissi and tulip species. Many of the plants have been selected because of their provenance in Turkey, the Mediterranean and further East but which also grow happily here in the UK.

After much deliberation we selected crab-apples (Malus 'Red Sentinel') for the trees in the *chahar-bagh* areas, which offer lovely spring blossom followed by bright jewel-like scarlet fruit as well as strong autumn colour. For the Community garden in the front, the columnar form of the Birch (*Betula pendula* 'Obelisk') was selected in order, not only to offer a strong vertical accent - so cherished a feature of gardens across the Islamic world, but also to honour the local community who were attached to the Birch tree formerly growing in this area.



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Intention and Qur'an reference

All Islamic gardens on earth are, to a certain extent, both a foretaste and a mirror of the Paradise gardens as described in the Qur'an (mainly *Surat al-Rahman*, Chapter 55). For the garden to be successful there has to be the best of intentions at the outset together with an understanding of the design principles and the symbolism integral to both the design and the planting. We have endeavoured always to apply these criteria to the very best of our abilities.

Our garden here is placed in such a way that all who enter the Mosque are obliged to walk through the centre of the garden first, around the fountain. This means that the garden itself may act as a kind of preparation for prayer for those whose eyes and hearts are open. With its carefully selected trees, plants, flowers and shrubs, this Islamic-inspired garden may offer a contemplative space for both the prayerful and for those simply needing a calm break from their daily lives.

There is only one word spoken in the Paradise Gardens and that word is *Salaam*, Peace – and there is no doubt that most of us wish for a little peace in our hearts and minds. We very much hope, *insha'Allah* (God willing) that this garden may give the visitor a little peaceful respite away from the busy street and before entering the mosque for worship.

The Islamic garden is regarded as one of the highest forms of visual art in the civilization of Islam. It is hoped that its beauty and symbolism may open the visitor's eyes to the rich history, culture and spiritual significance of Islamic art and architecture in general, and that the beauty of the space with its verdant planting and gently flowing water may indeed be a pathway to inner contemplation.







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Landscape - Emma Clark, Urquhart & Hunt

Principal elements

The two principal elements of the Islamic garden are water and shade - which we have included here while bearing in mind the context: Cambridge, England, rather than a hotter climate in the East! The third element is the four-fold design. the chahar-bagh, inspired by the four gardens of Paradise described in the Qur'an. Surat ar-Rahman. Chapter 55. In our garden there is a small *chahar-bagh* either side of the central fountain, and instead of the four rivers of Paradise flowing toward the four corners of the earth, there are stone pathways. This is often the case in gardens across the Islamic world for both practical and climatic reasons

The Islamic Garden at the front of the Mosque is open and welcome to all, Muslims and non-Muslims alike. Its principal aim is to offer the visitor a calm green space to walk through or sit in for a short while, either on the way to prayer or just for a few moments of stillness. Thus, we hope that the garden will serve, not only as a quiet transition area between noisy, traffic-ridden Mill Road outside and the peace of the Mosque within, but also to give a little taste of *Jannat al-firdaws*, the Paradise Gardens described in the Qur'an. The Community Garden on Mill Road outside the Mosque boundary is open to the public at all times. This is planted with fastigiate birch trees (*Betula pendula* 'Obelisk') that emulate the tall, elegant cypress trees representing eternity and the male aspect of Nature. A wide selection of shrubs and flowers, many from the Mediterranean, provide colour and scent as well as plenty of green for passers-by throughout the year.

The central feature of the Islamic Garden is an octagonal stone fountain (designed in collaboration with water specialist, Andrew Ewing), since running water is a vital element in the Paradise garden. Here there are curved oak benches to sit on (designed and made by cabinetmaker Tom Zinovieff), so that visitors may enjoy the sound and movement of the water as well as the shade of the trees and the plants in the gardens on either side.

To the left and to the right of the fountain area there is a *chaharbagh* (4-fold gardens) with crabapple trees (*Malus* 'Red Sentinel'), representing the female aspect of the plant, being fruitful, productive and ornamental. There is elegant and innovative mixed planting beneath the trees ensuring interest throughout the seasons. Evergreen structure in the form of yew (*Taxus baccata*) hedges enclose dense planting of naturalistic perennials and damask roses; the overall aim being an informal, inspirational carpet-like pattern of colour, scent and texture within a strong geometry.

A guiding principle has been that the garden will be a harmonious balance between Islamic structure and relaxed herbaceous and naturalistic planting; the plants will *insha'Allah* (God willing) evoke a sense of harmony through the seasons and connect with the rhythm of the natural cycles of the year. A respect for sustainability, biodiversity and insect-friendly planting has also been a constant theme in the selection of plants.

There is a small amount of seating in the two *chahar-bagh* areas in order that the visitor may absorb a little of the atmosphere of a quiet and contemplative space – an echo *insha'Allah* of the peace promised to the faithful in the *Jannat al-firdaws*.



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Principal Planting Form

Fruit is essential in an Islamic garden since it is mentioned many times in the descriptions of the Paradise gardens in the Qur'an (e.g. "Therein for them is every kind of fruit" S. 47:15 Pickthall); the colour green is vital too since not only does it offer a "coolness" for the eyes, as the Arabic saying goes but also it gives shade.

There are, as mentioned, crabapple trees (Malus 'Red Sentinel') in each of the eight planting beds, a guadrant either side of the central fountain beds. They have beautiful pale pink blossom at the end of April/ beginning of May which will stand out against the deep green of the evergreen yew (Taxus baccata) hedge. Planted next to each other, the blossoming trees and the evergreen hedge symbolise respectively transience and eternity. In miniature paintings such as the ones shown here you see the tall evergreen Cypress (Cupressus *sempervirens*) almost embraced by a blossoming fruit tree. This is also representative of the masculine and feminine qualities in Nature.

In the Islamic Garden we have created a jewel palette of perennial planting underneath and around the crab-apple trees, inspired by a combination of select flowers and plants from the Islamic world laid out in a more naturalistic style – presenting a contemporary vision of sustainable, ecologically-friendly planting for a city.

Planting Palette

The plant selection for the Islamic Garden is a balance between bold colour amongst plenty of green in order to be both calm and meditative as well as giving the sensation of walking through a living richly jewelled carpet.

Insha'Allah, it will offer uplifting and inspiring sensations encouraging visitors to deepen their connection with both the outer natural world and to their inner selves.

We have undergone extensive research into the flora of various parts of the Islamic world including Turkey, the Middle East and the Mediterranean, selecting a beautiful combination of perennial plants and bulbs.

Some of the most interesting and unusual species include *Geranium ibericum* 'Ushguli Grijis', *Trifolium rubens* (Noble clover), *Cyclamen persicum* (Persian cyclamen), *Nectaroscordum siculum* (honey garlic or honey lily), *Dianthus carthusianorum* (Carthusian Pink), *Verbascum phoeniceum* 'Violetta' (Pheonician purple mullein), as well as the better known *Viola odorata* (violet), *Primula* (primrose), *Eryngium* (mountain eryngo) and *Phlomis* (Middle Eastern Sage).

We have a special addition to the scheme in honour of the genius loci of the mosque: an *Iris sibirica* named 'Cambridge'!









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Landscape - Emma Clark, Urquhart & Hunt

Community Garden

Outside the perimeter fence of the Mosque garden there is a small Community public garden adjoining Mill Road. Here we have planted a plethora of Mediterranean shrubs full of scent and year-round colour which set off the columnar silver Birch trees. (*Betula pendula* 'Obelisk'). These trees give the vertical accent so beloved of many Islamic gardens across the world.

Boundary planting

Around the wooden boundary fence of the site will be planted a mixture of evergreen and floral climbers: *Schizophragma hydrangeoides*, *Clematis armandii* and *Pileostegia viburnoides* – the latter being particularly attractive to bees and other insects.



Enclosure

The evergreen yew hedge partly surrounds each of the two intimate *chahar-baghs* giving the impression of a semi-enclosed space in which to spend a quiet time for a while before entering the Mosque. Enclosure is a fundamental quality of a true Islamic garden since it offers the idea of a tranquil haven within, away from the noise and distractions of the world; also it suggests the idea of something hidden and mysterious, like Paradise itself.

There are some beautiful handmade oak benches here (by Tom Zinovieff) where the visitor may sit, contemplate and absorb something of the majesty and calmness of the trees as well as the seasonal flowering plants: from roses and summer colours and scents in the Summer to winter-flowering and scented Daphne and Christmas box later in the year, to blossom, narcissi and tulips in the Spring, not to mention the shiny red fruit of the crab-apple trees and their deep autumn colour.

The Garden Within

The idea of the garden within is very important. Not only is this represented by the two semienclosed chahar-baghs here but also it is a reminder that within each of us there is a garden: the garden of the heart. This needs constant nurturing through prayer, meditation and the remembrance of God, Allah t'ala. As Rumi wrote 'the real gardens and flowers are within man's heart, not outside.'

Water

Even in a temperate climate which we are fortunate to have here in the UK, water is the supreme element in an Islamic garden and so its prime location is at the Centre. In our garden we have an elegant stone fountain (designed in collaboration with Andrew Ewing) representing one of the fountains in Paradise.

There are many symbolic meanings attached to water in an Islamic garden, one of them being that it represents the source of all life, the eternally-flowing waters of Paradise, and another is that it is symbolic of the soul – sometimes restful in a still pool, sometimes dynamic when it is flowing fast.

The Building of the Garden

Adam Hunt and Lulu Urquhart, together with Emma Clark, are supervising the creation of the landscape of the Mosque, carried out by our contractor, Michael Fellas and his company, Landshaped. Together they are bringing the landscaping of the Mosque garden to its successful completion. Michael's experienced team are working to make sure the planting is beautifully bedded in and the trees firmly anchored and settled ensuring many years of enjoyment to visitors.

The concept of creating a beautiful Islamic garden in a British urban setting comes with a few challenges, one of them being rainfall! The site has a complicated catchment of rainfall in order to avoid contamination; hard surfaces and underground services have been designed to channel water to reservoirs for use in the Mosque and the garden.

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Marks Barfield Architects



Fountain

Andrew Ewing works exclusively with water features on landscape and architectural projects in the UK and internationally. With 30 years experience, he brings together a passion for how water behaves along with a keen sense of aesthetic and cultural reference. This is complemented by a thorough understanding of the engineering that goes on behind the scenes in order to convey the aesthetic and spiritual qualities water can offer. The fountain at the Mosque was designed in collaboration with Emma Clark and is composed of a circular, scalloped bowl resting on an octagonal base carved with a strong geometric pattern. It is built of Portuguese limestone by S. McConnell and Sons in Ireland.



Oak Benches

Tom Zinovieff is a cabinet-maker based in Coleshill, Oxfordshire. He makes furniture that is not only longlasting and for frequent daily use but is also admired for its practicality and beauty. Tom combines a deep knowledge of the traditional craft skills together with an eye for contemporary design.

The benches for the Islamic garden at the new Cambridge Mosque are handmade from 100 year-old English Oaks. The trees were felled in Oxfordshire and the timber air-dried for three years providing beautiful and stable long-lasting wood, perfect for outdoor use.

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Client Architect Project Manager Structural Engineer

Timber Engineer Building Services Engineer Landscape Architect Geometric Artist Cost Consultant Acoustic Consultant Fire Consultant Approved Inspector Timber Consultant CDM Principal Designer Planning Consultant Main Contractor The Cambridge Mosque Trust Marks Barfield Architects Bidwells Price & Myers (construction) Jacobs (planning) Blumer Lehmann Skelly & Couch Emma Clark with Urguhart & Hunt Professor Keith Critchlow Faithful & Gould Ramboll Harris TPS MLM Smith & Wallwork Engineers Faithful & Gould Bidwells Gilbert-Ash



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Form of Contract

Main Contractor

Contractors and Sub-Contractors

Timber Specialist Brick Tile Cladding **Building Services** Rooflights Joinery & doors Dome Internal Lining Dome Cladding Cast stone Tiling Soft floor finishes Metalwork Windows, Fascias & Cladding Curtain Wall In-situ concrete Precast concrete stairs Piling Roofing Balustrades & Handrails Glazed internal doors Railings Soft landscaping Fountain

Suppliers

Lighting Cast stone Photovoltaics Tiling

Curtain Walling Dome cladding Carpet Ironmongery Cubicles JCT Standard Building Contract Without Quantities (SBC/XQ)

Gilbert-Ash

Blumer Lehmann M Clarkes Facades Munro Building Services Roofglaze The Deluxe Group Blenheim Fine Interiors Exterior Metal Craft Cunningham Stone Stonefit Ltd Floorform Fleck Metal Solutions Creative Aluminium Pacegrade Fox Contracts Acheson & Glover Keller The Green Roof Company Laidlaw **Planet Partitions** Jacksons Landshaped Studio Ewing

Spectral Haddonstone Silicon CPV Kale (ceramics) Intermarmor (marble) Domus (craquele glaze) Raico KME Tecu Gold Ege D-Line Thrislington

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Marks Barfield Architects Email Julia Barfield | jbarfield@marksbarfield.com Matt Wingrove | mwingrove@marksbarfield.com Telephone +44 (0)20 7501 0180

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The Cambridge Mosque Trust is a UK charity created to build and run the new mosque. It does not follow or expect adherence to any particular school of Islam or political opinion. and the mosque will welcome worshippers from every part of the Muslim family, of both genders. The Trust has received donations from the Cambridge Muslim community, and from Muslim individuals and charities around the world. Two thirds of the mosque construction budget has been contributed by Yapi Merkezi, a leading Turkish firm of civil engineers, and by the Turkish Directorate of Religious Affairs. The first Imam of the Mosque is Dr Sejad Mekic, a UK citizen of Bosnian origin.



Bidwells is one of the UK's leading property consultancies, offering clients knowledge of, and access to, some of the most interesting real estate markets with the highest growth potential in the UK. More than 80% of the consultancy's work is concentrated in the 'Golden Triangle' of Oxford, Cambridge and London, including sector-leading work in the science & technology, and education sectors.

The Cambridge-based multidisciplinary advisers provided detailed contract and procurement advice, as well as offering programme advice to break the scheme down into phases, whilst maintaining continuity.

Bidwells Planning and Project Management teams advised the client from Day 1 in 2006, arranging workshops with stakeholders and architect interviews to choose the winning practice. The planning team managed the extensive public consultation process, which was a resounding success, and attained plaudits from local groups. After Planning was secured, Bidwells continued to project manage the build programme for the Mosque.

marks barfield architects

Marks Barfield Architects is one of the UK's most versatile and innovative architecture practices. Founded in 1989 by David Marks and Julia Barfield, the practice uses its creative approach to provide visionary, formally exciting and technically astute solutions to a broad range of project types that range from schools, offices and cultural projects to bridges and infrastructure. Best known as the practice that conceived and designed the world-famous London Eye, and now British Airways i360, Marks Barfield Architects has grown a practice with a unique entrepreneurial experience, giving it a deep understanding of the development process, as well as valuable insights into fundraising and stakeholder engagement.

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For further information please contact: Marks Barfield Architects

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PRICE&MYERS SKELLY & COUCH

Blumer-Lehmann AG, a leading Swiss timber construction company, offers comprehensive sector expertise encompassing consultancy, design, production, erection and project management. Working as a prime contractor or EPC contractor in collaboration with renowned architects such as Foster +Partners. Heatherwick Studio and Marks Barfield Architects. Blumer-Lehmann has completed pioneering Free Form timber structures all over the world. Based in Eastern Switzerland, the company has become known as a specialist in digital production of Free Form timber structuresthanks to its extensive know-how and wealth of experience in the field. Blumer-Lehmann AG also specialises in modular and temporary structures. Standardised layout concepts can be used as effective solutions for school buildings, temporary sales showrooms, office spaces or residential accommodation.

The Lehmann family's group of companies has been closely linked with timber for several generations. The former sawmill operation at Erlenhof, founded over 140 years ago, has grown into a family group of three companies employing around 300 people.

Cambridge Central Mosque 309 - 313 Mill Road Cambridge CB1 3DF cambridgemosquetrust.org Price & Mvers provided structural and civil engineering services for the Cambridge Central Mosque: a project that realises our aim of working with good imaginative architects to make excellent buildings. In our first 41 years we have worked on over 28,000 projects, and won over 700 awards. We have offices in London, Nottingham, and Oxford, and currently employ about 185 people. The team that worked on Cambridge Central Mosque was led by Partner, David Lockett, with Project Engineer Claire Washington, and are based in Price & Myers' London office.

Skelly & Couch is a dynamic firm of award-winning building environment and services engineers. The practice has grown steadily over the past decade through mainly repeat business, and employs over 40 people. Its primary market focus is to deliver fully co-ordinated, bespoke design solutions for high-quality, sustainable buildings. Many of its projects have been recognised with the cream of architectural awards and two have been RIBA Stirling Prize finalists (Command of the Oceans and Chadwick Hall). For three consecutive years, the firm was named one of the UK construction industry's Top 50 employers in Building magazine's Good Employer Guide.

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Emma Clark designs gardens with a fundamentally spiritual and holistic outlook. She specialises mainly in Islamic gardens, focusing on contemporary interpretations of traditional principles, often acting as a consultant. She works both in the UK and abroad and is well known through her book The Art of the Islamic Garden which has been translated into Arabic. Turkish and Russian. She lectures widely on different aspects of the Islamic garden, most recently in 2018 at the Sheikh Zayed Mosque in Abu Dhabi; at the International Green Capitals Congress in Konya, Turkey; and at the University of Brunei Darussalam, 'International Seminar on Ethnobotany in the Qur'an and Hadiths: An Exploration.'

Emma's Islamic garden projects include private gardens in Saudi Arabia, Egypt and Ibiza as well as in London and Oxford (The Oxford Centre for Islamic Studies. in association with the Prince's Foundation). In collaboration with Urguhart & Hunt Landscape Design, she has worked on several specialist Islamic design projects, for example: plans for the Islamic Gardens at the Roval Botanic Gardens, Jordan: a garden at Greensville (Muslim) Nursery School in Liverpool and designs for a garden at the British Muslim Heritage Centre in Manchester.

URQUHART & HUNT

Landscape Design Studio

Urguhart & Hunt are a studio of landscape architects, designers and horticulturalists. The underlying passion of this landscape design team stems from their love and knowledge of geometry, traditional plant-lore, sacred spaces, ecological restoration and wilding. Our team specialises in the creation of uplifting, naturalistic gardens and landscapes all over the UK and the world. Some of our design work includes: the Old Cloister at Carlisle Cathedral; the Walled Garden at Fulham Palace; Babington House, Somerset; and Hauser & Wirth, Somerset.

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Email





Gilbert-Ash is an award-winning UK construction and fit out contractor with 180+ employees at offices in London and Belfast. The company works throughout the UK and has undertaken numerous projects worldwide in a total of 43 countries from Poland and Bahrain to China. Japan and Australia on behalf of the UK Foreign & Commonwealth Office. Gilbert-Ash works together as one with its clients and partners, through teamwork, collaboration and togetherness, solving problems with a can-do attitude. Gilbert-Ash brings a fresh perspective on building, implementing a design-led approach combining insight and intelligence, vision and talent to deliver far-reaching, visionary construction projects. As one with their client's aspirations. The company has completed a broad portfolio of successful construction projects across sectors including arts and culture, workplace, hotels and leisure, science and technology, retail and residential.

Delivering 'Landmark Landscapes', many Gilbert-Ash projects are iconic in nature with significant historical relevance. The company's projects have been shortlisted for the Royal Institute of British Architects' Stirling Prize including the Lyric Theatre in 2012, Giant's Causeway Visitor's Centre in 2013, with the Everyman Theatre winning the coveted award in 2014. The company is focused on the role of construction in building smart cities where technology, place and people converge.

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Voices from the project

Doctor Tim Winter, CMT, said:

"This complex project has been a labour of love, and everyone in the team, including our main contractors, our engineered timber fabricators, our project managers, and everyone else, has shown the highest spirit of professionalism as well as real enthusiasm and dedication. After eleven years of work we now have a major new landmark for the worldcity of Cambridge. In our building, which seeks to be a celebration of the East-West encounter, and also a monument to the creative and sustaining possibilities of humanity's encounter with the natural world, we show the world how harmonious and respectful collaboration and partnership can work miracles."

David Marks, MBE, Marks Barfield Architects said:

"We didn't want to create a replica or pastiche of something that existed elsewhere. The opportunity to do something English, British, excited us. Now that there is a significant Muslim community in the UK it's time to work out what it means to have an English mosque"





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Voices from the project

Gemma Collins, Marks Barfield Architects said:

Guilherme Ressel, Marks Barfield Architects said:

"I have delivered many buildings within my role at MBA. All these impact and change lives in a positive way, and it is this that makes architecture a worthwhile career for me. However, the Mosque will hold a special place. It has been delivered with the help and dedication of many people of different nationalities and beliefs, and as with all projects, we had our challenges. But it stands and is testament to the close collaboration of the team and stakeholders and their commitment to deliver a quality building true to the Client's brief.

It is only now starting its journey, as it belongs to the people of Cambridge, and I feel privileged to have been a part of it." "Working on the Cambridge Mosque from the competition stage has been an incredible journey. Helping this fantastic building to be born from the conceptual idea of an oasis of trees. An idea that has evolved to become the three-dimensional composition of double vaulted timber forms which were inspired by the breathing in and out of the compassionate pattern. Today this is what provides structure to the building, a successful marriage between the geometrical discipline of Islamic patterns and the flexible fluidity of a natural material such as timber. This has been a 10 years long journey, certainly it has been a privilege to be part of it. I am very thankful."

Finbar McMeel, Techincal Director, Gilbert-Ash said:

"Cambridge Mosque is unique in so many ways, it was challenging but also incredibly rewarding to design and deliver something so technically advanced, but also with such intricate attention to detail that you don't find in many buildings. One of the core values of Gilbert-Ash, is our spirit of collaboration and flexibility, and this was paramount in bringing a building of this nature to fruition. The client team recognised the importance of early contractor involvement, and we were able to work closely with them to agree innovative ways to keep the project progressing as funding was secured and to develop alternative technical solutions as challenges were encountered. This level of trust and collaboration within the team really set this project apart from others and is very fitting for a project of this nature. Cambridge Mosque is a truly exemplar building and we are very proud to have been trusted to deliver it".



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Raymond Gilroy, Construction Director, Gilbert-Ash said:

"At Gilbert-Ash we treat each building as one of a kind, and the iconic Cambridge Mosque is certainly unique. Our team prides itself on the world-class landmark buildings it has created, with this project standing out for both its technical intricacies and outstanding beauty. From the outset we recognised that Cambridge Mosque was a very special project; we are passionate about delivering demanding projects and our team, along with our skilled partners, worked as one to ensure the realisation of this great building. We carefully planned and implemented the design and build with attention to detail but also with the efficiency required to deliver the high standards of the project. We have experience of delivering prestigious projects in over 40 countries across the globe; Cambridge Mosque is a world class project where our global experience has helped us to create a stunning building".

Stephen Mulligan, Design Manager, Gilbert-Ash said:

"Working on the prestigious Cambridge Mosque project has been a career highlight for me. I come from an Architectural background specialising in sustainable buildings, so to have the opportunity to work on what is Europe's first eco-mosque was an excellent experience, bringing my personal skills, knowledge and expertise to the project. It tested my ability to communicate with, manage and motivate people at all levels, from site staff to sub- contractors. design teams and stakeholders alike. There was a real sense of excitement across the project team; we knew that we were creating something truly special. The Gilbert-Ash team worked closely with the client from an early stage, to understand their vision and ambitions, long before the construction phase started. Together we pushed boundaries, using bespoke products and solutions across this world-class building. Sourcing the best construction specialists took us all over Europe, working with different cultures and countries to create a fascinating building. There has been a great sense of achievement from the entire team."

Mike McLaughlin, Project Manager, Gilbert-Ash said:

"Constructing an iconic landmark building of this scale and significance instilled a great sense of pride, not just personally, but across the whole Gilbert-Ash team. Quality was a huge focus, drawing upon a complex sequence of works to achieve the high specification required. Using our extensive supply chain across Europe, we worked with highly-experienced specialist contractors to ensure the detail desired by the client was delivered to an impeccable standard. It was inspiring to work with such a passionate architectural practice and client team, who shared Gilbert-Ash's focus, enthusiasm and attention to detail, along with a fierce dedication to the project's success. Cambridge Mosque was a joy to complete and we are proud that innovation runs throughout the building, both inside and out."



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Voices from the project

Declan Digan, Site Manager, Gilbert-Ash said:

"It has been a privilege working on the prestigious Cambridge Mosque project; it was tremendous to work together as a team with the client, our partners and sub-contractors to make this iconic building a reality. The attention to detail required throughout the design and build process was remarkable, from the beautiful timber frame structure to the finishing of the oak panels and doors, as well as the unique tile finishes within the landmark building. It is this attention, right down to the smallest detail and finishes, that really sets a landmark building apart. It has been built to the highest possible standard, with meticulous logistical planning and careful consideration required for all elements of the building. This has led to a truly spectacular, innovative Cambridge Mosque, and all of us at Gilbert-Ash are extremely proud to have been part of its journey to completion."



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Jeptha Schnaffer, Project Manager, Blumer-Lehmann AG said:

"Planning the exceptional Free Form structure was an exciting challenge for me, and an additional milestone in my work as Timber Construction Engineer and Project Manager at Blumer Lehmann. My task was to collate and coordinate the various needs and demands of those involved in the project, and then to shape these into a form which could be produced and built. The unique design by Marks Barfield Architects was my starting point. I also took into consideration the demands of the structural analysis, as determined by physical laws and calculated by the structural timber engineers of SJB Kempter Fitze, and incorporated parametric and geometric inputs from the digital planning process. These came from our partner company Design to Production, as well as from our internal timber construction planners. Logistical and technical production questions also had to be taken into account, as these were decisive in enabling us to produce all the individual components at our various manufacturing facilities and to then send them by lorry to



England in compliance with budget and scheduling requirements. Pulling the strings to unite all the individual participants into a functioning whole able to plan, produce and successfully construct this extraordinary project on site was an unforgettable and highly enjoyable experience for me. And it would not have been possible without outstanding teamwork from everyone involved, to whom I owe a huge thank you."

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David Lockett, Partner at Price & Myers said:

"When we were asked to be involved in the Mosque project it was immediately apparent that it was going to be something rather special. However, it was only when we got to know Tim and Sohail from the Muslim Academic Trust that we fully understood their vision for the building; it needed to meet the needs of users from differing backgrounds as well as the needs of a changing world, while establishing itself as a modern landmark within this historic city.

Together with Marks Barfield Architects (MBA) we iteratively refined the design to ensure an 'honest', economical, and elegant structure. MBAs refusal to settle for anything that didn't meet exacting criteria pushed and inspired us to go to great lengths to ensure we were delivering the best possible solution; and it was an absolute pleasure!"

Mark Maidment, Director at Skelly & Couch said:

"Cambridge Central Mosque is set to be an exemplar of sustainable design and our design intent for the building's environmental and energy concepts has always been to achieve low carbon emissions and none on site. It has been a fantastic opportunity to integrate services and materials that spearhead the very latest in engineering innovation.

From the spectacular timber vaults with their low embodied energy to natural daylight and ventilation, air source heat pumps for underfloor heating/cooling and an airtight building fabric, all the environmental features set a new and inspiring benchmark for places of worship the world over."

Lulu Urquhart, Partner at Urquhart & Hunt said:

"Our desire has been to create a blended mass of perennials and some grasses to form a rich carpet of delight and beauty beneath the fruit trees. Many of the plants that have inspired our palette have origins in the Islamic world, from Mediterranean countries such as Lebanon and Syria (damask roses), Andalucia and Morocco to Turkey, Iran and further East. Our focus has been on plant forms throughout the year as well as a dense, colourful and textural scheme."

Adam Hunt said:

"It has been a privilege to see this project through from start to finish and to work with experts in their fields like Marks Barfield Architects and garden designer Emma Clark. I have personally enjoyed seeing how traditional arts have been brought together to create a beautiful contemporary building complex showing that they are more relevant today than ever, especially within an environmentally aware context. It has truly been a joy to design a garden for a public space with such meaning, tradition and history behind it."



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Voices from the project

Emma Clark, Islamic Garden Designer said:

"I am very fortunate in having known Dr. Tim Winter, the mastermind behind the new Mosque in Mill Road Cambridge, since around 1990. He first approached me over 10 years ago asking if I would be interested in designing the garden for the new Mosque he was aiming to build in Mill Road Cambridge. The brief was very simple - create a beautiful Islamic garden in front of the new Mosque: a garden that fits into the context of a mixed residential and commercial area in the city of Cambridge but which also offers a taste of the Paradise gardens of the Qur'an.

After discussions with Dr. Tim Winter and before beginning research for the design, I gave two presentations in Cambridge on the Islamic Garden, one at the Faculty of Divinity on 'The Islamic Garden: An Opportunity for 'bridge-building' Between Cultures' and another for The Romsey Garden Club (the local garden society for the new Mill Road Mosque) on 'An introduction to the Islamic Garden and its application to the Cambridge Mosque Project.' These were helpful in letting the local community know that the garden would be a wonderful green addition to their area.

You could say that creating this garden is the fulfilment of a dream for me! I first started studying Islamic Gardens and reading the Qur'an at the Royal College of Art (1988-1990) where Professor Keith Critchlow, specialist consultant on this Mosque, was my supervisor. What an incredible opportunity Dr. Tim Winter gave in commissioning me to design an Islamic garden for the new Mosque in Cambridge. It has been a hugely creative and collaborative experience working with my dedicated associates, Urguhart & Hunt. Together we are confident that the garden will serve as a beautiful and harmonious setting for Marks Barfield Architects exciting contemporary design."

James Hamilton, Senior Landscape Architect, Urquhart & Hunt said :

"My favourite aspect of the project is the feeling of community from the design. The Mosque is open to all and offers a real source of pride for the area. The transparency of the large glass façade is inviting; the intimacy of the courtyard garden creates places for conversing; and the beautifully intricate design celebrates collaboration of craft."



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Project Data

General	
Area (Net Internal)	2340m² - Mosque 2560m² - Basement
Prayer Hall capacity	1000 worshippers
Facilities	Prayer hall, mother & child and balcony spaces Atrium, Cafe Kitchen and teaching space Ablutions and WC facilities Islamic garden and community garden Front and rear porticos Mortuary Basement car park Imam and scholar accommodation
Car parking spaces	80 - including 7 wheelchair accessible
Cycle parking spaces	127
Shoe rack spaces	558
Ablutions spaces	17 male + 10 female + 5 wheelchair accessible
Structural 'tree' columns	
Number of 'tree' columns	30
Tree component types Tree component pieces	145 2746
Volume - timber frame Volume - trees only	1239m³ (Spruce) 253m³ (Spruce)
Tree geometry pattern	the Breath of the Compassionate
Building grid	8.1m (36 bricks)
Prayer Hall dimensions	31.7 x 31.7 x 8.3m
Height to dome finial	17.0m
Brick tiles Number of brick tiles	212,140
Brickwork meaning	"Say he is Allah (the) one"

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View from street © Morley von Sternberg



View from street © Morley von Sternberg



front portico © Morley von Sternberg



Front portico © Morley von Sternberg



Islamic garden, fountain & front portico © Morley von Sternberg



Islamic garden, fountain & front portico © Morley von Sternberg



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Gate post detail



Decorative screen detail © Morley von Sternberg



Brick tile cladding © Morley von Sternberg



Brick tile cladding & crenulations © Morley von Sternberg

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Brick tile cladding, crenulations & dome © Morley von Sternberg



Brick tile cladding, crenulations & dome © Morley von Sternberg



Brick tile cladding, crenulations & dome reflected in rooflight © Morley von Sternberg

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Atrium © Morley von Sternberg



Front portico © Morley von Sternberg



Atrium brickwork and floor tiling detail © Morley von Sternberg

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Prayer Hall © Morley von Sternberg



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Prayer Hall and dome © Morley von Sternberg



Bookshelf in Prayer Hall © Morley von Sternberg



Prayer Hall © Morley von Sternberg



Mashrabiya screens in Prayer Hall © Morley von Sternberg

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Female ablutions © Morley von Sternberg



Male ablutions © Morley von Sternberg



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Tree column in Prayer Hall © Matt Wingrove / Marks Barfield Architects



Marquetry timber door pattern © Matt Wingrove / Marks Barfield Architects



Decorative screen in front portico © Matt Wingrove / Marks Barfield Architects



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Male ablutions © Abdallah Abada



Atrium looking towards Mill Road © Abdallah Abada



Air intake at low level with decorative fretwork © Chris Heaney

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The finishing touches before opening © Julia C Johnson



The first prayer on 15th March 2019 © Julia C Johnson



A mother & child in the Atrium © Julia C Johnson



Man carrying shoes © Julia C Johnson



Stained glass window colours © Julia C Johnson

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