

Ecological, ethical Cambridge Mosque ties west and east

04 June 2019 Words: Shahed Saleem

Marks Barfield's long-awaited, £23 million Cambridge Mosque marries Islamic traditions with contemporary form to make an optimistic landmark for the city

'It is the most incredible masjid I have ever seen', says my Afghan taxi driver, barely able to contain his pride, and refusing to take a fare for bringing me here. Mill Road's radical political history still leaves the area with a bohemian feel, rows of 19th century workers' terraces sit behind small businesses, charities and independent shops. Sitting calmly amid this low rise and eclectic landscape, set back from the street and behind newly planted trees, is the city's first purpose built mosque, by Marks Barfield Architects.



Friday Prayer shoes. Credit: Morley von Sternberg



Friday Prayer. Credit: Morley von Sternberg



Atrium looking out to street. Credit: Morley von Sternberg

A new mosque for Cambridge has been a decades long vision of Muslims in the city, the extant mosques being converted premises which were inadequate for the growing local, student and international Muslim population. Spearheaded by Dr Tim Winter, a Cambridge academic and Islamic scholar, a group of the city's Muslims came together to realise this vision. Large sites for new builds are scant in the city, so when a former John Lewis warehouse on Mill Road was offered to them in 2008 they frantically fundraised the £4 million required to purchase it.

And so the Cambridge Mosque Project was formed, a coalition of community activists, academics and religious figures, and the new mosque initiative began in earnest. At the heart of its design was a simple question; what should an English mosque look like? The question resonated with the multi-cultural Muslim community of the city, and was intended to be a continuation of the historical tradition of mosque architecture which has always adapted to the new places that Muslims settled into.

An invited design competition was held which included entries from Magera Yvars and 5th Studio, and a range of proposals described by Winter as varying from 'brutalist concrete... [to] Star Trek futurism, replicas of medieval Syrian buildings, and revivals of Victorian architecture'. But Marks Barfield prevailed with a scheme rooted in the symbolic and spatial traditions of Islamic architecture, delivered in contemporary form, material and method. This vision has been realised 10 years and £23 million later, the funds raised through tremendous community support bolstered by a few large donors from Qatar and Turkey.

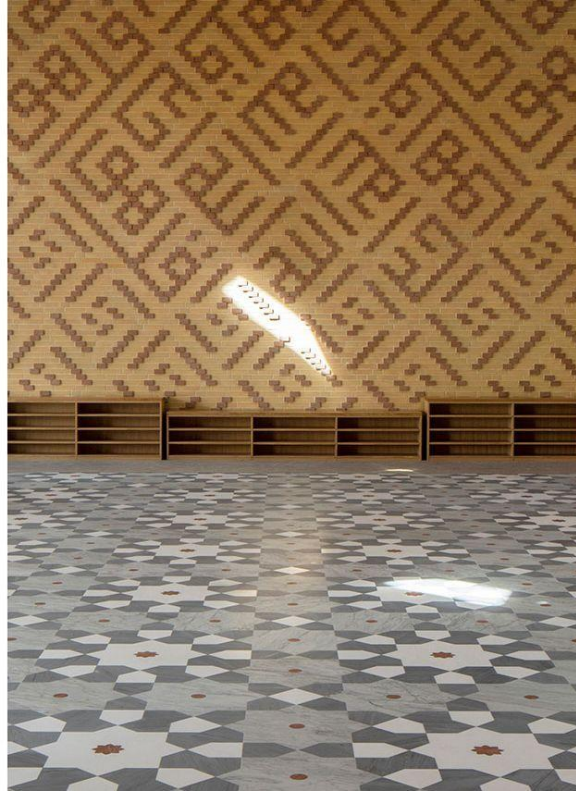
Worshippers pass through a sequence of spaces from the street to the prayer hall, starting with an Islamic garden representing paradise, which is open to the public. A central feature of the garden is an octagonal stone water fountain.

The defining feature of the main prayer hall is the grid of structural trees which spread to form a geometric canopy. They evoke both gothic fan vaulting and the framed vistas of historic Islamic architecture.

The mosque aims to tackle the spatial marginalisation of women in mosques head on by placing men and women in the same prayer hall, separated by a screen of varying heights so users can choose their preferred degree of separation.

The castellated parapet evokes historic Islamic architecture and symbolises the meeting of heaven and earth. A dome is positioned on a central axis in the prayer hall, symbolising the vault of heaven.

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Atrium. Credit: Morley von Sternberg



A colonnade of structural timber columns supports a portico which is the first experience of the building from the street. Credit: Morley von Sternberg

The building is low rise and spread across the site. Rather than demanding attention from the street, it is instead experienced internally. A colonnade of structural timber columns and portico form the facade, set behind a public garden.

Newly built mosques in Britain tend to be bold expressions of Muslim identity, usually deploying familiar tropes of domes, minarets and arabesque decoration. Cambridge Central Mosque avoids this, and instead embeds its historical reference in the plan and the sequences of spaces that this creates. David Marks, speaking in 2013, explained how originality was the design's guiding principle, where the word is understood in its true meaning, 'from the origin,' not, as we might think, completely new.

Accordingly an underlying geometry, 'the breath of the compassionate', which is rooted in Islamic tradition, has been designed for the mosque by Keith Critchlow, an expert in sacred geometric art. This geometry, signifying the universal and sacred, infuses the building from the plan to the brick bonding patterns, from the atrium floor tiling to the door marquetry. Though it is not about copying, Marks points out, but inventing anew.

The result is a building that prioritises inner experience over external expression. From the street you first enter a public Islamic garden, symbolising paradise, which leads to a portico, after which is an atrium leading onto a hallway, and then, angled slightly to face Makkah, the prayer hall. This procession of spaces leads systematically from the outside world into the sacred, a glazed curtain wall between portico and atrium forming the facade which, when the interior is lit at night, appears transparent.

The exterior walls are faced in brick cladding hung from CLT timber panels. The brick has been chosen to reflect the light buff of Cambridgeshire gault brick, while being decorated with Arabic inscriptions in the Kufic style.

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The female ablution space for ritual washing before prayer is octagonally shaped and lit naturally from above. Credit: Morley von Sternberg



The male ablution space is bathed in natural light from above. The hot water is powered by PVs, and rainwater is harvested for flushing WCs. Credit: Morley von Sternberg

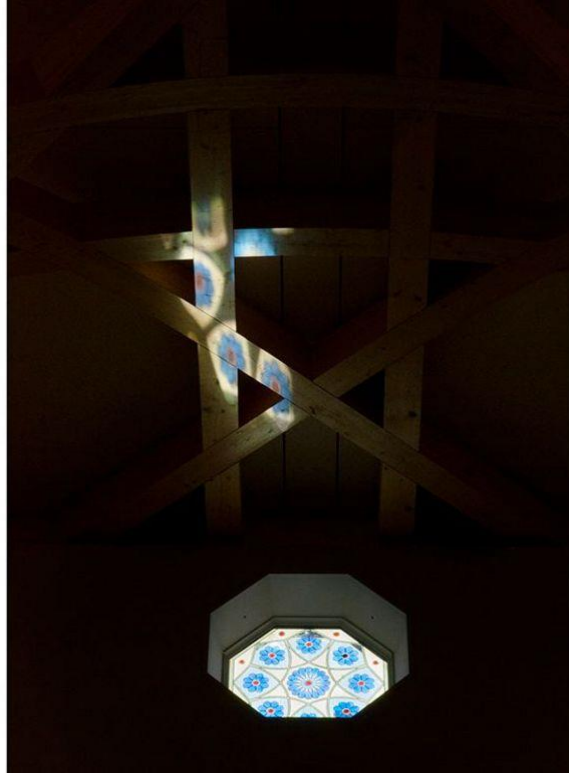
What characterises this building, however, is not just the syntax of the plan, but the grid of dramatic spruce timber structural columns from portico to prayer hall that rise into flowing, curving, geometric patterns, fanning across the ceiling. Julia Barfield describes how gothic fan vaults, a specifically English invention and exemplified in the nearby 16th century King's College Chapel, as well as the repetitive arches of the Cordoba mosque, are conceptual references for the unfurling Islamic geometric structure vaulting across the Cambridge mosque ceiling. It is this merging of tradition and modernity, inner and outer, Muslim and non, that lies at the heart of the new mosque.

Alongside this conceptual underpinning, the mosque's ecological impact is explained as integral to its sacredness by both Winter and Barfield, who are passionate if not evangelical on this topic. The building aspires to a minimal carbon footprint, and describes itself as 'almost carbon neutral'. The super structure is cross-laminated timber with external brick cladding patterned in traditional Kufic styles which, along with high levels of insulation and air tightness, ensures ultra-low U values. A series of mixed-mode systems keep energy use to a minimum; static heating, natural ventilation, air sourced heat pumps, a PV array, rainwater harvesting, natural daylighting throughout – this building has it all. For both client and architect, this is about ethics over and above meeting regulatory requirements.

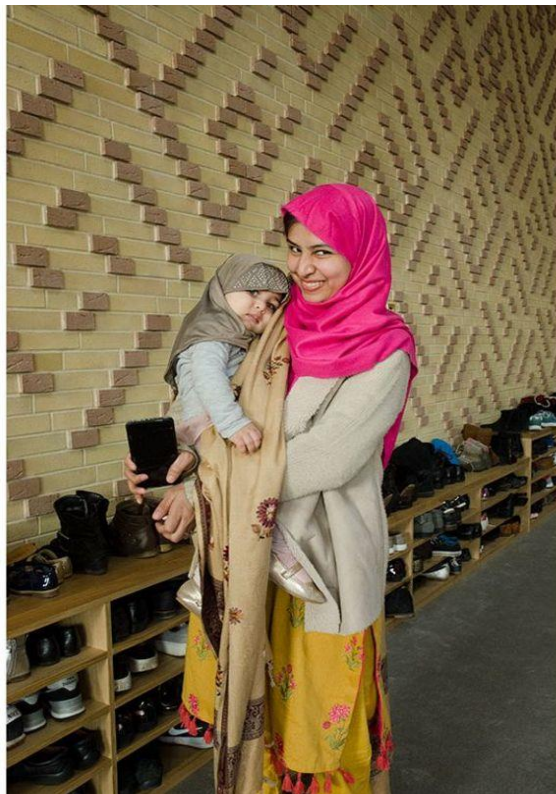
Ethics are also at the heart of a new strategy that the mosque is pursuing, one often at the centre of religious debate – the question of gender. Men's and women's spaces are customarily separated in mosques, with differences of opinion over the method and degree of separation. In a handful of mosques in the UK women take up a gallery overlooking (albeit screened from) the larger male prayer space, but for the most part they find themselves in a completely separate room, smaller and generally poorer in comparison to the male. Whilst acknowledging the benefits of a secure and dedicated space for women, critics also point out that this leads to many feeling unwelcome and excluded.

Keith Critchlow designed the guiding geometry for the building, which is converted into a continuous structural pattern from which the timber trees grow. Each tree has been fabricated from 145 different components which were transported by road from their Swiss factory, then slotted and fixed together on site.

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Stained glass window. Credit: Julia C Johnson



A mother and child outside the prayer hall.
Credit: Julia C Johnson

The main prayer hall accommodates men and women with a moveable partition between, of varying heights. The mosque claims to be the most inclusive of women in the country.

Cambridge Central Mosque has responded by aspiring to be the most inclusive women's mosque in the UK. All spaces are shared up to the point of entry to the prayer areas. But even here men and women both use the same prayer hall, with a screen between them that can move depending on the ratio of men and women attending. The screen also ranges in height from a standing person, to waist high, to completely open, resulting in the possibility for women and men to pray in effectively the same space, probably a first for a mainstream UK mosque. This allows women who prefer separation to position themselves behind the screen, and for those who do seek further privacy, a first floor gallery is also provided.

The new Cambridge mosque is a bold endeavour to bring Muslim culture, experience and history into dialogue with wider British society. Indeed, Winter himself embodies these crossing of cultures; the son of eminent British modernist architect John Winter, he is a long standing and well-respected academic at Cambridge's Faculty of Divinity. After converting to Islam he took the name Abdul Hakim Murad, and has since earned credibility and respect across the Muslim community as an Islamic religious scholar, being identified as Britain's most influential Muslim in 2012.

Julia Barfield is resolute that this design could not have happened without Winter at the helm, while Winter deflects attention by stating; 'The vision was altogether David's, and as the client we were struck by the quickness with which he understood the subtle atmospherics of Islamic spaces and the need for a meditative sobriety – and delivered this in a very unforced way in the context of a building that is still resolutely modern.' The new Cambridge mosque shifts the narrative of mosque architecture in Britain. Driven by an ambition of intercultural exchange and dialogue, it is the architecture of hope, and if it succeeds it may come to be seen as one of the most significant religious buildings in Britain of a generation.

Shahed Saleem teaches architecture at the University of Westminster and is the author of 'The British Mosque, an architectural and social history'

Credits

Project team:

Client The Cambridge Mosque Trust

Architect Marks Barfield Architects

Project manager and planning consultant Bidwells

Structural Engineer (construction) Price & Myers

Structural Engineer (planning) Jacobs

Timber Engineer Blumer Lehmann

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Building Services Engineer Skelly & Couch
Landscape Architect Emma Clark with Urquhart & Hunt
Islamic Geometer Professor Keith Critchlow
Quantity Surveyor, Principal Designer Faithful & Gould
Acoustic Consultant Ramboll
Fire Consultant Harris TPS
Approved Inspector MLM
Main Contractor Gilbert-Ash