



BUILDING STUDY

Dreaming of spires: Gort Scott designs new figurehead for Oxford's skyline

Gort Scott has designed two new buildings for St Hilda's, Oxford, with the Anniversaries Building's orthogonal turret helping it compete with the dreaming spires of the city's older colleges

19 NOVEMBER 2021 BY ELLIE DUFFY. AJ. PHOTOGRAPHY BY PETER COOK AND JIM STEPHENSON

Since it was founded in 1893, students at St Hilda's College have glanced from its site overlooking the River Cherwell and Oxford's botanic gardens towards a skyline of dreaming spires marking the city's defining quads. Strictly speaking quadless, St Hilda's is the only Oxford college east of the Cherwell and, before it became co-educational in 2008, was also the university's hold out of female-only education.

An inaugural intake of seven undergraduates at the end of the 19th century was accommodated in the former home of botanist Humphry Sibthorp, built in the 1780s for its proximity to the Physic Garden. From then onwards St Hilda's expansion was piecemeal and linear, a game of stealth involving a sequence of acquisitions and extensions. By 1920, when for the first time women were allowed to graduate with a degree at Oxford, the college had consolidated its presence in the form of a solid terrace along the one-end street of Cowley Place, and was beginning to develop an annexe of buildings to the south. In 1968 St Hilda's commissioned the seminal Garden Building with its 'Tudor yashmak' of timber screening, designed by the Smithsons to prevent girls from feeling too exposed in their large-windowed bedrooms. In 1995, Van Heyningen & Haward's Jacqueline du Pré Music Building added another discrete, erudite architectural volume in celebration of a former honorary fellow. Both are located away from the college entrance, tucked away in the south annexe. Neither helped the college with its front-door problem.

'Someone said that the entrance to St Hilda's looked like the back end of Tesco's,' says Georgina Paul, acting college principal. She's recalling the conversation at an 'away day' in the wake of the co-ed move, when 30-odd fellows got together to discuss strategy. 'We decided on that day that what was getting in the way of reaching our highest ambitions for St Hilda's were aspects of our estate,' she says.

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Gort Scott won the job to extend the college through [an invited competition in 2016](#), navigating an interview stage that involved 19 practices before prevailing in a not especially co-ed final line up of DRDH, Hall McKnight, 6a and Tim

Ronalds Architects. St Hilda's wanted more on-site student living accommodation, more teaching and admin space and a place for congregation and events. It asked the practices to model their design moves at 1:200 on to a site-shaped jigsaw piece, slotting them in turn into a wider model of the estate. It was this exercise, says Paul, that convinced the fellows of the sense of Gort Scott's proposal.

Their manoeuvre was two-pronged and unexpected: a protective arm of enclosing boundary building in pale brick and a contrasting riverside pavilion in darkly reflective glass. A rejoinder to the long terrace, the brick and precast concrete frame Anniversary Building in fact constitutes two separate internal worlds: a three-storey block of administration and teaching spaces facing off the gable end of Cowley Terrace with a new porters' lodge; and beyond that undergraduate living, with lower ceiling heights, arranged over four levels. Working as a counterpoint to the front-back character of the Anniversary Building, the sculptural, gem-cut Pavilion provides high-quality, transparently flexible space on the prime riverside for functions and events, both college-focused and external hires – an inverted quad of sorts.

The orthogonal turret calls out across the Cherwell in an architectural conversation with the English Gothic pinnacles of Merton and Magdalen

Another pivotal move from Gort Scott was to raise an aspiring tower from the entrance corner of the Anniversary Building. This now acts as a marker along the Cowley Place approach – solving what practice co-director Jay Gort describes as 'the series of false dawns' of a line of historic doorways. Zooming out, the orthogonal turret brings a new figurehead to Oxford's skyline, calling out across the Cherwell in an architectural conversation with the English Gothic pinnacles of Merton and Magdalen, the spires of All Saints and University Church. Back at street level, the new arrival sequence is finessed with the embracing scoop of a new brick boundary wall juxtaposed with glimpses through the open work of railings to rolling lawns and exotic shrubs.

The scheme involved demolition of two structures: a low porters' lodge slung defensively along Cowley Place in the 1960s; and a building at the hinge point of the site, purchased in 1958 with the aim of uniting the campus. In fact, says Gort,

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it did the opposite, with a footprint that hogged the riverline, precluding sightlines and access. Worse, its prow – a balconied chamber overlooking the water – was customarily the domain of a single don. ‘It was about democratising our views of the river,’ says Paul.

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At rooftop level, the Anniversary Building provides two distinct metal-clad volumes with access to a large terrace: above the accommodation block a big glass box of teaching space with panoramic views; and, higher still, above the entrance, the smaller-footprint of the tower eyrie. Quite how the college will best occupy the latter space in a democratic manner remains an open question.

Themes of place, route, pavilion and the layering of façades lie at the heart of this redevelopment. The project reverberates with echoes of context, from a picturesque treed garden setting (including what is thought to be one of the oldest cedars of Lebanon in the UK) to time-accreted façades and Smithsonian tectonics. The Anniversary Building's chevron brickwork 'eyelids' and the deep scalloped profile of its penultimate storey are extrapolated from details of historic buildings on the site. There may be no mention of yashmaks now, but bronze-coloured metal screens across the project fulfil the same role, employing the leitmotif of an oak leaf pattern (taken from a historic fire surround on the estate) to screen today's occupiers from glazed exposure. The oak leaf is the language, too, of the new tower's filigree halo – an important place-defining gesture that releases across the rooftops an insistent chatter of associations – from paganism to Ancient Greece and Rome, from Green Men to Frida Kahlo. King Lear's crown of weeds – with its symbolism of the madness of absolute power – emerges at the forefront.



In contrast to the inevitably somewhat regimented spatial organisation of the Anniversary Building, with its 60 bedsit rooms handed off a central corridor and ranks of small, medium and large workplaces grouped around a small atrium, the Pavilion is joyfully extemporary inside and out. An example of what Gort refers to as the ‘push and pull’ of spatial relationships on the site, its irregular floorplan is gathered up in a lofty roof with the defining stamp of a pentagonal lantern that floods the space with cerebral light. There’s a different, rugged quality to the ceilings in the Anniversary Building, which makes use of exposed painted concrete soffits throughout, along with the concrete frame, as part of a strategy to regulate internal temperatures.

More than some, the St Hilda’s College redevelopment is a place that needs to be experienced in the round. Standing in gardens, which gently slope to the river, a delightful inversion of architectural orthodoxy comes into play; air space sculpted by the subtly faceted inflections of new façades working in concert with old fabric and the low-sweeping boughs of ancient trees to forge a new genius loci.

If there’s a price to pay for Gort Scott’s virtuoso placemaking it’s that the internal organisation lacks the easy, compelling logic of the diagram. A sense of

processional internal circulation is not immediately grasped on the Anniversary Building's floors of small-group teaching and office space; the hermetically sealed feeling of its glassed-in mini atrium – an inversion of sorts of the adjacent tower – leads to a curious spatial sensation. For a building with the privilege of unfolding slowly in the lives of its inhabitants over the course of three years' study, these are minor matters. The onus is now on St Hilda's to craft compelling narratives of inner worlds to match its new outer self.



Architect's view

The scheme consists of two buildings, seen very much as a pair, which have been formed by a serpentine garden space that sits between them. The larger Anniversary Building redefines the boundary of the college, strengthens the street scene on Cowley Place and creates enclosure to the college gardens. It acts as a hinge point and reinforces the relationship between existing structures on either side to become a ribbon of buildings.

Alongside it, the riverside Pavilion is conceived as a lighter, more transparent and jewel-like structure within the landscape, and as a counterpoint to the

solidity of the Anniversary Building. The play of light and shadow across the elevations and into the buildings has been instrumental in defining their articulation and detailing.

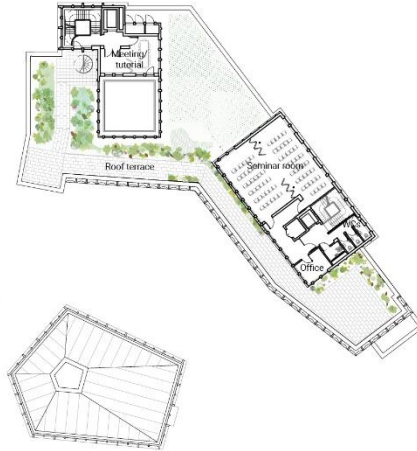
New landscaping reconnects the previously bisected college estate and celebrates its relationship with the river and the 'borrowed landscape' of Christ Church Meadows beyond. The new arrangement offers a connected and more inclusive design which enhances the experience of St Hilda's as a place to study, live and work.

The Pavilion and the Anniversary Building's tower resonate as distinctive features of the development, the transparency of the latter allows it to become a glowing lantern at night. Decorative metalwork creates a filigree crown to the tower, which acts as an orienting marker and totem for the college within Oxford. It establishes a dialogue between the college and the other university towers across the city skyline.

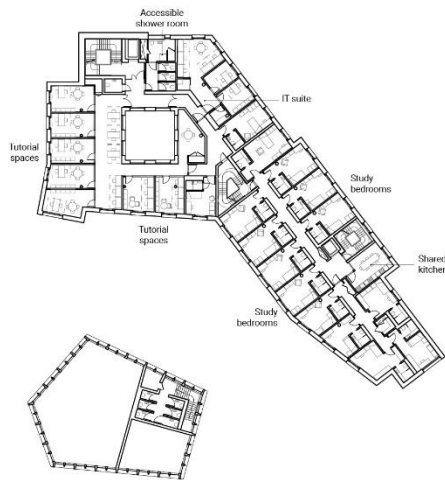
Jay Gort, director, Gort Scott

Plans

Roof plan



First floor plan



Ground floor plan



Client's view

Between 2018 and 2021, St Hilda's College embarked on a major building programme to provide more high-quality student accommodation for our undergraduates and improved facilities for all college members and visitors, including a new middle common room for graduate students and further teaching, office and social spaces.

Gort Scott's concept for St Hilda's opened up the college site and brought cohesion to it. The Anniversary Building creates a link between the north and south parts of the site and the two existing buildings, Hall and South. The Tower Entrance has raised the college's profile on Cowley Place and, through subtle visual reference, connects the college to other Oxford towers on the western side of the River Cherwell. College life has been enriched by the use of our new spaces. All rooms are fully accessible. The Anniversary Building is home to St Hilda's multi-faith space, The Sanctuary, and the views over Oxford from the rooftop suite of rooms are spectacular. The Pavilion overlooking the river Cherwell is at the heart of the college. The new buildings have optimised our riverside setting and with redesigned gardens, they have become embedded into our distinctive green space. Sustainability was key to our vision and reducing polluting emissions from the buildings was an integral part of their design.

With the completion of the buildings this year, the original plan for a college with a pavilion on the river at its centre and a further building, the 'third sister' to Hall and South Buildings, has been realised.

Georgina Paul, acting principal, St Hilda's College

Section A-A



0 1m

Engineer's view

The Pavilion's faceted roof form harnesses the complex geometry of the site location to capture views out across the river and gardens. Modelled in 3D, slender steel columns were positioned to suit the defined fenestration of the elevations while suitably limiting the global deflections of the structure when subject to variable wind and snow loadings.

Non-structural precast concrete fins formed a key feature of the elevations to provide solar shading. To suit the construction sequence, connections back to the main steel frame were detailed to house concealed fixing points.

The building sits within Oxford's River Cherwell flood zone. To accommodate this, the building's foundation system incorporates a large undercroft area beneath the ground-floor slab to contain potential floodwater flows, which enter this void through a permeable river wall. Flood compensation areas were provided to balance out the volumes of riverbank occupied by the development. This void under the building also assists in the natural ventilation strategy; cool air is taken from above the river's surface and then tempered in this undercroft before entering the hall at floor level and being drawn out through the rooftop lantern.

Exposed concrete, while adopted elsewhere on the site for its thermal massing, was discounted due to the knock-on effect its increased loading would have on the design. A steel frame solution was adopted as a more sustainable alternative, using timber joists to form the infill roof and floor cassettes.

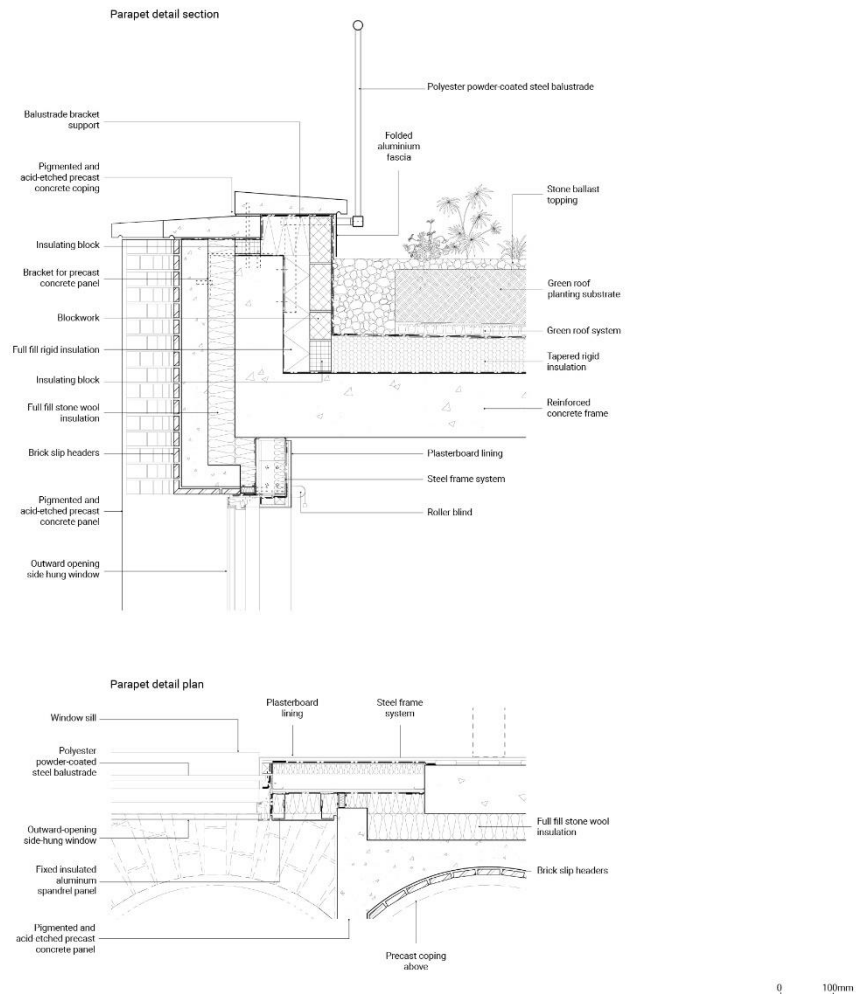
Because the development falls within the Environment Agency's regulated activity list, bespoke flood risk activity permits were required, including for a temporary cofferdam with silt traps within the river bed to allow for safe demolition of the existing wall.

The foundations for the boundary building and the geotechnical assessment of the piling were designed to preserve the historic brick-built strategic sewer and the ground around as it snakes under the building footprint.

Mark Harris, director, Solid Structures

Working detail

Working detail



Learning from the immediate context, characteristics and idiosyncrasies of the college's estate have been echoed and reinterpreted throughout the project, embedding new architecture into old. An array of fluted brickwork panels prominently terminates the Anniversary Building while simultaneously softening and countering some of the angular geometry of storeys below and presenting a varied roofline as typical of Oxford college buildings. In this instance, the fluted motif has evolved from a decorative window lintel of a building nearby – borrowed, repurposed and reimagined.

Panels wrap westerly elevations, knitting together the north and south of the college's riverside site and imbuing these façades and the external spaces they sculpt with a heightened sense of importance. Organised in a tight bellowing

formation, panel types oscillate between solid fluted brickwork, polished concrete fins and window openings with splayed brick soffits. The pattern is repeated and extended for the length of each façade, giving rise to an ever-changing play of light and shadow throughout the day.

We looked at a number of different technical approaches to achieving the design, weighing up site versus prefabricated solutions. Paying particular attention to economy and sequence, and given the challenging geometries and repetition involved, we opted for an off-site solution using precast concrete and brick slips, best suiting the construction programme and offering the most consistent high-quality finish. Where panels differ and are unique, such as at corner interfaces, these have actually been constructed on site. Precast panels are arranged as a series of interlinking “T” shapes, providing the most versatility in terms of repetition, and with total weights that best suited crane requirements.

Jay Gort, director, Gort Scott

Project data

Start on site December 2018

Completion August 2021

Gross internal floor area Anniversary Building 3,140m², Pavilion 275m²

Construction cost £18.5 million

Architect Gort Scott

Client St Hilda’s College, Oxford

Main contractor Beard Construction

Structural engineer Solid Structures & Infrastructure

Civil engineer Solid Structures & Infrastructure

M&E consultant Skelly & Couch

Acoustic and lighting consultant Skelly & Couch

Project manager Austin Newport Group

Quantity surveyor Austin Newport Group

Planning consultant JPPC

Heritage consultant Marcus Beale Architects

CDM co-ordinator Andrew Alder Associates

Approved inspector Aedis Group

CAD software used Vectorworks, Allplan

Performance data

On-site energy generation 23.2%

Heating and hot water load 69.2 kWh/m²/yr

Total energy load 112.5 kWh/m²/yr

Annual CO₂ emissions 34.6 kgCO₂/m²

Embodied carbon/whole life carbon Not supplied

Overall area-weighted U-value 0.18 W/m²k