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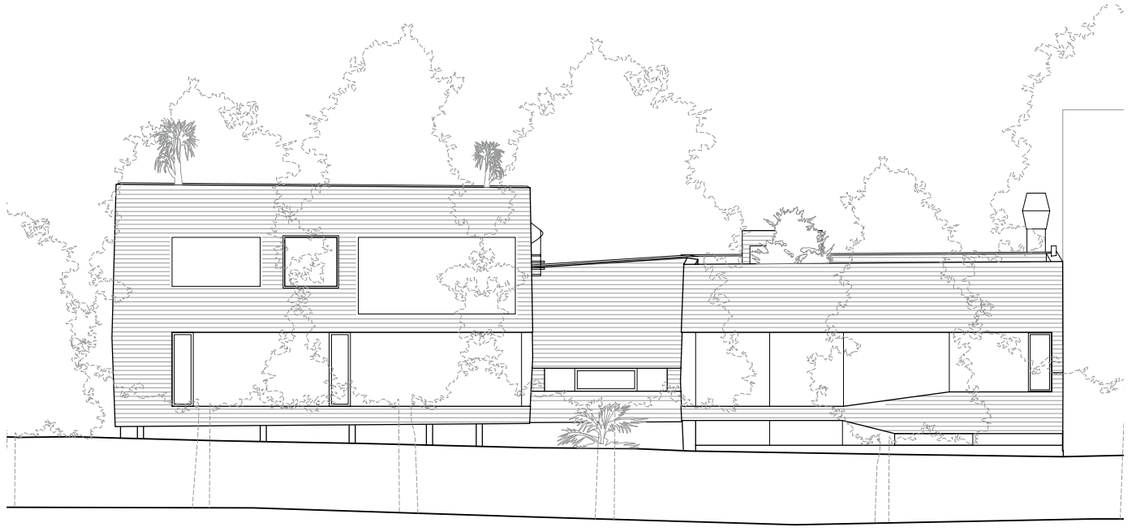
# Light and space

Bouverie Mews by Spatial Affairs Bureau
PLUS Architects share their hand-drawings

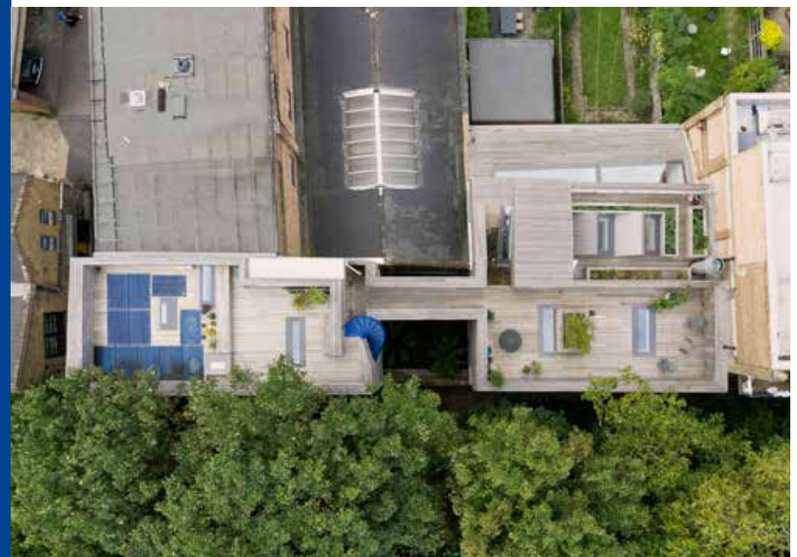



*Building study*

# A trick of the light

## Spatial Affairs Bureau has created an elegant artist's studio and home plus a separate apartment on a constrained cul-de-sac plot in Bouverie Mews, north London





*The brief for Bouverie Mews was to create a commercial studio for an artist, plus a three-bedroom, two-bathroom primary residence, two-bedroom secondary residence and gardens where possible. Priorities included optimising the use of space on the constrained site, creating energy-efficient, light-filled interiors despite an imposed limitation on windows on most sides, making the most of the existing building's relationship to the adjacent Abney Park Cemetery, and consideration for the proximity of the neighbours.*

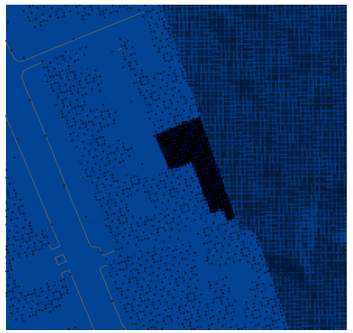
**Words** Rob Wilson
**Photography** Rory Gardiner

Crates line the undercroft-like space you enter under the timber-clad block, akin to a gatehouse, at the entrance to this dwelling-cum-studio. It sits discreetly at the end of a mews in Stoke Newington, adjacent to the

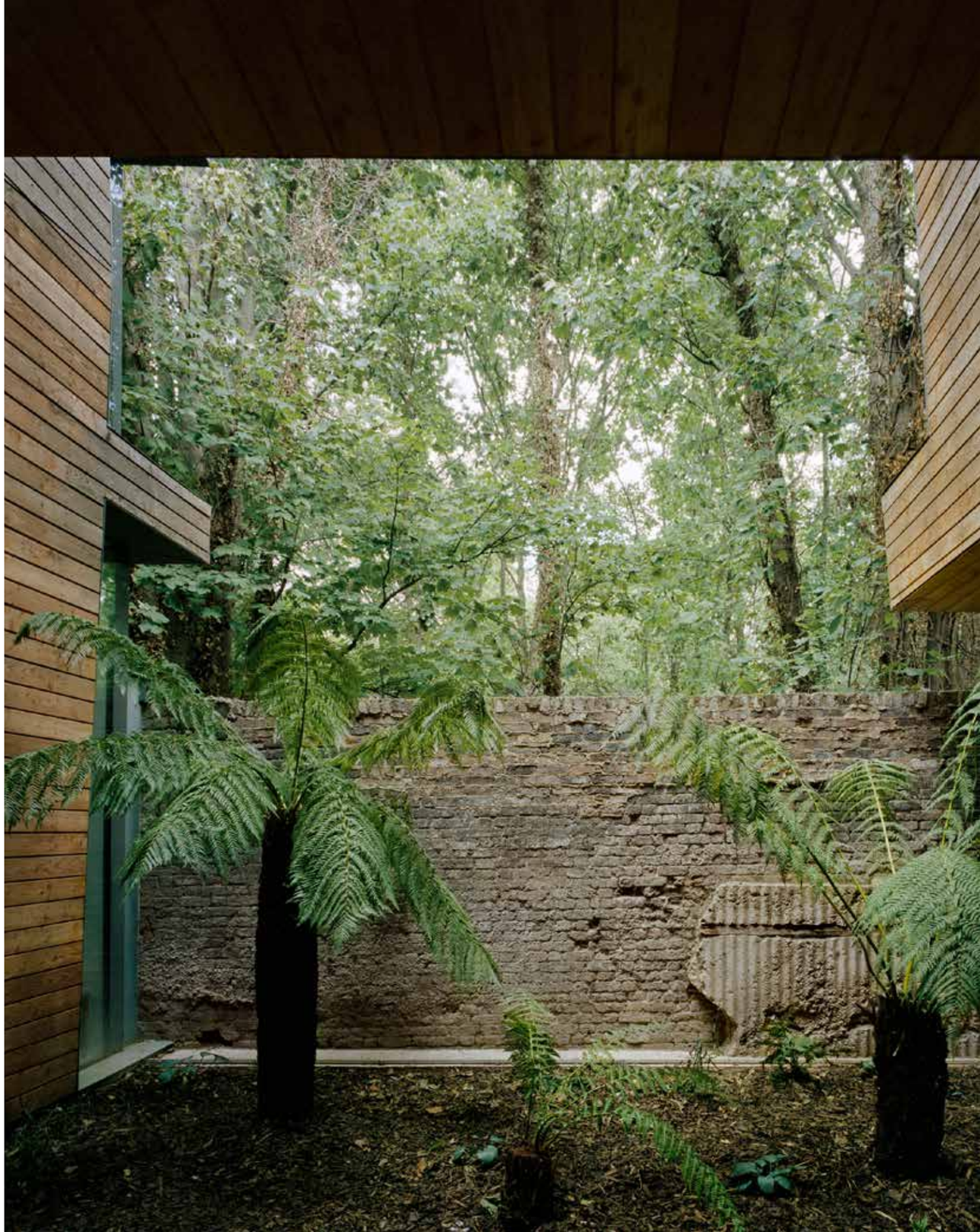
crumbly brick wall of Abney Park Cemetery, above which trees form a thick secondary wall. The crates are awaiting collection for an upcoming exhibition by the client, artist Rana Begum, which opens shortly at her London gallery, Kate MacGarry. Some last packages of building work, taken out of the main contract, are still being finished but the crates bear witness to the already busy life of the development, as Begum and her two children moved into the first-floor flat before lockdown.

A bright red double-door with glazed circular cut-outs – the main entrance to both flat and studio – lies ahead beyond a glade-like slot of garden where the building's volume cuts back, reading like a courtyard against the wall of the cemetery to the east. This area's careful modulation between light and shade is a motif that becomes apparent throughout the scheme but here the break in the fabric also marks a transition from public to private. Indeed, this tension between workspace and living space is a key determinant of the architecture. There is no strict division nor easy split between the two. The red door leads to the ground-floor studio spaces, but above them on the first floor are the living rooms of Begum's flat. This is connected via an isthmus-like bridge section to the taller 'gatehouse' block under which you have entered, which contains the private realm of bed- and bathrooms. Above the flat sits a second two-bedroom apartment, designed to be separately rentable. This is accessed independently off the mews up a stair, which also acts as an escape route from the main flat.

The whole site is bounded tightly by the cemetery wall and the back walls of domestic gardens and former light industrial buildings. It's a typical London backland or, rather, back-of-block scenario, where small-scale fabrication once thrived. The buildings include a former parachute factory (now flats) and a shed-like ballroom. The site itself was previously filled by a metal workshop accommodated in ramshackle sheds. Begum had known of it since the noughties, when she had a studio in one of the adjacent ex-industrial blocks and used it to help fabricate work. When the plot came up for sale in 2008, the potential to develop it as a combined studio-cum-home







seemed too good an opportunity to miss. 'It's such a magical position next to the cemetery,' says Begum. Peter Culley and his newly-founded Spatial Affairs Bureau was commissioned to develop a design.

The key design challenge, aside from the obvious planning constraints – 'there were 12 party wall agreements' says Culley – was getting light into the enclosed site, not only to the living spaces but to ground-floor art spaces, too. With planning restrictions on height and overlooking precluding any windows to north or west, fenestration was only possible facing the narrow slot to the mews and at first-floor level overlooking the cemetery to the east. Even there, the light is heavily filtered by trees, especially in summer. Culley's solution was to develop a 'landscape of rooflights', in particular a band along the western edge, which takes light down deep to the ground-floor studios.

The original design received planning consent in 2012 and went back to planning again in 2014 after the addition of a basement workshop to the proposal. Work finally started on site in 2017. The essential form has remained the same throughout, moulded by the dictats of planning: two blocks separated by the 'courtyard' cut-out, the skinnier, taller 'gate-house' block off the mews to the south, the lower, chunkier block to the north, where the site widens out.

The envelope, clad in Scottish larch boarding chosen to age to silver and merge against the trees of the cemetery, has an attractive softness (although, given shifts in architectural fashion, it looks a touch retro now in the current climate of *de rigueur* tiling). It's an envelope designed to approach Passivhaus standards of insulation and air-tightness. Indeed the whole project, reflecting its long gestation, was designed to the then gold-standard, if now-defunct, Code for Sustainable Homes level 4. The concrete mix used is 50 per cent GGBS and the Gypsol screed presents a 94 per cent saving in carbon emissions compared with a cement-based one, although, Culley says: 'We'd be taking steps to reduce the embodied carbon further now.'

But slow cooking seems to have enriched the design and led to a high level of tailoring in its form, seen on the façade in the delicate facets that cut across it. These break down and round out the otherwise potentially bald

outline of its blocks. In particular, the second floor is canted subtly back in what Culley describes as ‘an attic’. Most graphic is the play of openings. Some are surface-glazed, continuing the line of the envelope, while others are deep-cut, especially the long, horizontal strip at first-floor level along the east façade. Broken in the middle by the ‘courtyard’ cut-out, this reads as a single, if interrupted, gash, underlying the delicate play between separation and continuity, public and private in the architecture.

‘I like that it has a bit of a Pac-Man face on the left,’ laughs Culley, observing the chunky yet characterful arrangement of the façade. ‘Rick [Mather] would have flipped out. He was always getting rid of thickness.’ One gets the sense this has been a project with which Culley has enjoyed exploring his own architectural voice. This sense of the scheme’s ‘character’ is not something Culley casts only in anthropomorphic terms, describing it both as ‘animalistic’ and ‘like an animal sitting here’. The faceting of its façade does indeed seem to flex and pull the building’s form like sinews.

There’s an echo of this zoomorphic spirit in the leg-like concrete columns of the undercroft. They are set back, so they hold the structure free of its boundaries at ground floor level. On the first floor the floorplate cantilevers out on a lighter steel frame to the boundaries of the site, so the width of the ground-floor entrance below is maximised. On the left, a stair up to the flats rises alongside a neighbour’s rough party wall, its stairwell treated as outside space. To the right, the wall of the cemetery

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provides a characterful foil to the architecture of the undercroft. The remains of a Second World War concrete air raid shelter once cast against it reinforce the site’s palimpsest nature. This also acts as a datum line, underscoring how this entrance level dips down slightly. It is indicative of the complexity of level shifts required in section to accommodate the necessary height and bring light into the ground and first floors.

Past the red entrance door, a stair to the flat opens off a lobby. Ahead are two connecting studios, lit by deep lightwells. An office, a spray booth and the basement workshop complete the suite of workspaces, which can accommodate up to seven assistants at a time. The lathes in the workshop were salvaged from the metal workshop previously on the site.

The flat above offers an open flow of living spaces, animated by changes of level, accents of colour, texture and play of light.

A step-up in level on the east allows for clerestory lighting in the office below over the cemetery wall, while also creating a cosier, more domestic slab of horizontal living space, oriented towards the rich wall of cemetery woodland seen though a long strip of window.

The neutrality of the main surface finishes such as the polished Gypsol screed floor, chosen for its high thermal conductivity and efficiency given the underfloor heating, is set off against intense areas of colour and patterning. Slabs of pinkish terrazzo, ‘quite wild, but calm’ as Culley puts it, drop to form a ramp down to the kitchen and rise to form its counters. Douglas fir kitchen cabinets and built-in furniture have their texture softened but brought out by a milky wash, while the WC has a spotted resin floor.

There is a complex play of light from the combination of strip window and skylights. ‘It’s not just the light but the quality of the light that’s important,’ says Culley. All the glass is low-iron, eliminating the greenish tinge of normal glass – important for viewing art but also countering the intense greenish filter the curtain of trees to the east creates in the summer. The tweaking of form and detailing is again apparent here in the tailoring of each skylight’s shape and edges. The environment is echoed in the animated but calm energy seen in the large painting by Tess Jaray hanging in the space. Jaray was Begum’s teacher and mentor at the Slade. A corridor crossing the ‘bridge’ above the courtyard garden offers a long view and route back to the front. Off this are three bedrooms and two bathrooms.

There is evident care in the diversity of detail and material in different rooms: Corian-framed doors and alcoves to one bathroom, its ‘tiling’ formed of the plastic reflectors Begum uses in

## Architect’s view

The building has been designed to exceed Building Regulation requirements for thermal and acoustic performance and as far as possible to adhere to Passivhaus principles for efficiency of envelope and air-tightness, with low-velocity filtered air plus heat recovery systems and exposed thermal mass. South-facing windows for winter warming were not possible, due to the site’s orientation, but skylights provide some benefit in this regard.

Despite the restricted nature of the site, gardens and usable roof terraces dominate the experience, with carefully selected planting to bridge towards the rich habitat of the adjacent cemetery. All the water from the roofs is collected and used for irrigation via an integrated pumped system.

The building has been designed for long-term flexibility in use, including the ability to include outside businesses within the studio space if necessary. Overall, the project creates a vibrant and densely packed sequence of uses that adds to work and residential occupation, in line with local policy, on what was previously a brownfield site.

*Peter Culley, creative director and founder, Spatial Affairs Bureau*

## The straightforward, robust nature of the main finishes used underlines the livable, working nature of this building

her work, contrast with another lined in warm, polished Moroccan plaster. All windows are left as clear glass. Privacy issues with respect to the essentially public park of the cemetery below are dealt with through a layering of in-built blinds and two opacities of curtain. Heating is underfloor and, while there is mechanically assisted ventilation, a heat recovery system is installed and all windows are fitted with openable vents. At second floor level, a series of roof terraces presents as rooms, surrounded by walls of Scottish larch and cedar floors, small redoubts with an almost North American beach-life vibe. A blue steel spiral stair connects to the terrace above the second-floor flat, where a bank of solar panels provides up to 12 per cent of operational energy.

Some elements remain unfinished: a temporary guard to the main stair is due to be replaced by panels of pink glass – one of the packages taken out of the main contract. There are some evident issues of quality in the concrete pour, which is a little hit-and-miss in places, while cracking in the screed floor was caused, says Culley, by the underfloor heating being cranked up too high. Overall, the straightforward and robust nature of the main finishes used underlines the livable, working nature of this building.

It's difficult to summarise the experience of this live-work project. It's an architecture of narrative, movement and slippage of space but also of set-piece spatial moments and caught views out. As a project, it's deceptive, having both a cragginess and softness to its architecture. 'It's like an entire world,' Begum laughs. 'Once I get a sauna installed on the roof, I'll never have to leave.'



## Project data

**Start on site** October 2017
**Completion** April 2021 (phased)
**Gross internal floor area** 455m²
**Construction cost** £2 million
**Construction cost per m²** £4,395
**Architect** Spatial Affairs Bureau
**Client** Rana Begum
**Structural engineer** Structure Workshop
**M&E consultant** David Lindsey
**Quantity surveyor** Exigere
**Project manager** Kempton Smith
**CDM co-ordinator** MLM
**Approved building inspector** MLM
**Main contractor** Barski
**CAD software used** Revit, AutoCAD, Rhino
**Annual $CO_2$ emissions** First-floor flat estimated as 12 kg/m²/yr (modelled in SA)
**Code for Sustainable Design consultant** Southfacing
**Specialist glazing consultant** Constant Design
**Landscape consultant** Frances Christie, Remapp

## Performance data

**Percentage of floor area with daylight factor >2%** Average daylight factor in living room exceeds 3%, in kitchen exceeds 3% (modelled in IES including the effect of the east façade trees in leaf)
**On-site energy generation** First-floor flat: 8 kWh/m²/yr (estimated)
**Heating and hot water load** First-floor flat: 46 kWh/m²/yr (estimated)
**Total energy load** First floor flat: 54 kWh/m²/yr (estimated)
**Total carbon emissions** First floor flat: 12 $kgCO_2eq/m^2/yr$ (estimated)
**Annual mains water consumption** 38m³/occupant/yr (actual)
**Airtightness at 50Pa** 3 m³/hr/m² (actual)
**Overall thermal bridging heat transfer coefficient (Y-value)** Not determined
**Overall area-weighted U-value** 1 W/m²K (estimated)
**Whole-life carbon** Not determined
**Predicted design life** 50 years