

Concentration in context

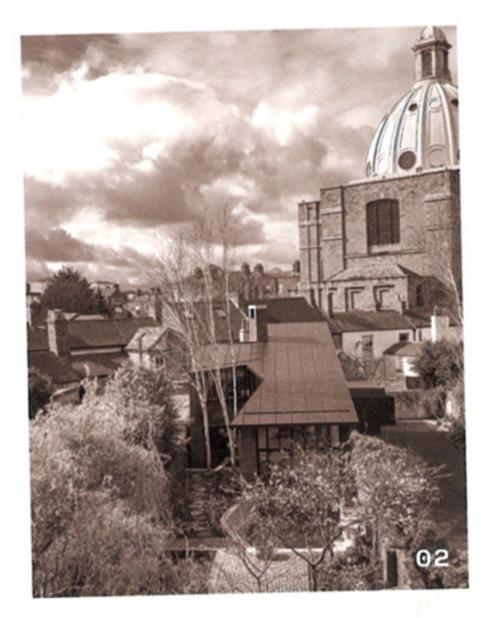
When architects design their own studio, a studio for themselves, unusually personal modes of analysis may ensue. More intimate than the professional office, with its computer terminals and group meetings, yet less bothered by the typical home's need for individual rooms and specifically serviced spaces, the studio-as-type can potentially signal some essence of purpose and belief on the part of its designers. Such studios lie on a spectrum between the common garden shed and the more esoteric casino or folly, between building — to borrow Nikolaus Pevsner's dichotomy of bicycle shed and Lincoln Cathedral — and architecture.

Sheila O'Donnell and John Tuomey have been building architecture for four decades now of ambitious and plucky practice. From such early works as the house near Rosses Point and the provocatively red pavilion for paintings by Brian Maguire (installed initially in the Dutch provinces and subsequently in the courtyard at IMMA), even their smallest works suggest collegiality with an expansive world of architectural form and, occasion permitting, with nature, topography, and atmosphere.

Conversely, in primarily interior projects like the Press Reception Room at Leinster House, or the late, lamented Milkbar, the tiny cafe/takeaway on Montague Street, bespoke surfaces are harnessed to create entire three-dimensional environments, little essays in the haptic co-relation of space and material.

The studio that Sheila and John recently completed for themselves occupies the long rear garden of a terraced house in Rathmines. The couple have lived here for several decades, reconfiguring the house to accommodate the ebb and flow of family and their own architectural predilections. Many friends and colleagues have enjoyed a congenial evening in the tall space carved out inside the existing house. The architects later expanded outward with a tautly glazed extension into the garden; a garden now planted with pale delicate birches.

O'Donnell + Tuomey's new studio is, thus, the latest component in a linear sequence of interventions, a sequence framed or held by party walls and leading from public street, through domestic interior, across gently-stepped garden and through the studio to a low-key mews lane, so characteristic of Georgian and Victorian Dublin, and a dramatic finale view of the great copper dome of Rathmines church (technically Mary Immaculate, Refuge of Sinners) rebuilt after a fire in the early 1920s.



It's a wonderful plan of walls and thresholds — places to pause — not unlike a musical score or cinematic strip. The inhabitants and their lucky visitors not only encounter perfectly composed rooms, they are urged on by an enfilade of indoor-outdoor spaces to go explore. A dynamic plan, therefore, energised by the new studio that, rather than plugging the garden with some dull opaque mass, opens up view corridors and points of access on multiple fronts, inflecting walls and positioning apertures to surprising spatial effect.

This use of diagonal vectors to open architecture up to its surroundings is further emphasised in section. Under your feet, the courtyard steps down gently to access the studio beneath the great sloping roof. Here, the concrete rises back up at the side to create a three-dimensional dado line manipulated to accommodate countertops and cills. The result is like being inside a flat boat, partial deck, or raft (Huckleberry Finn!) moored beneath a roof that, from its hunkering position in the garden, rises to sail up and direct views out to the

southwest sky.

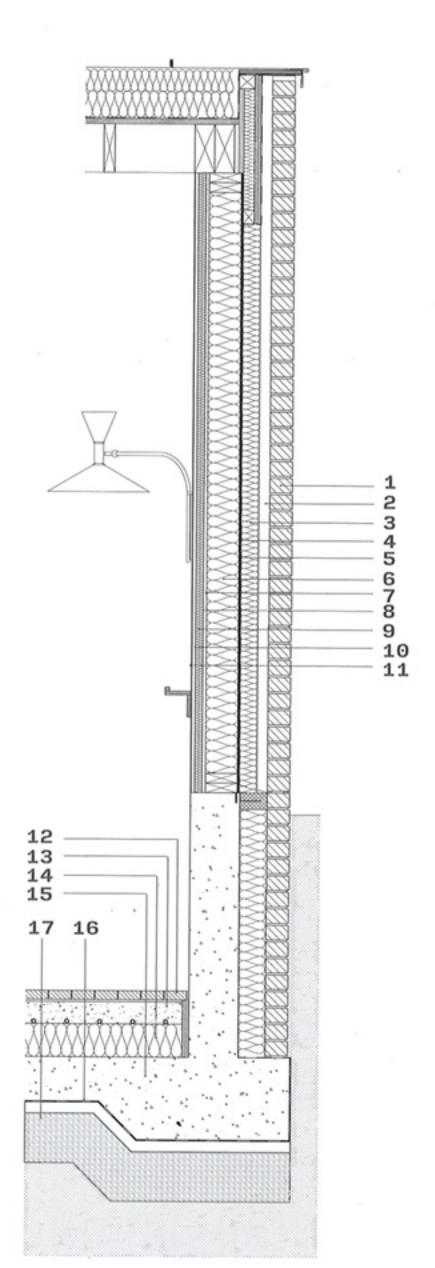
In section, you see how the lane is slightly lower than the garden (four steps lower, in fact) and how this height difference establishes the datum or gunwale line for cills and slightly lower — desktops and a small kitchen unit tucked-in below the mezzanine. This horizontal datum extends across the interior to the landing of the open stairs that leads, with a gentle sashay about the flue, to the floor above. From this landing you see back to the garden and up to the dome. Everything, it seems, is related.

You mightn't automatically connect the work of O'Donnell + Tuomey to the organic tradition, to the postwar work of, for instance, Frank Lloyd Wright and certain Europeans championed by Bruno Zevi. Their architecture appears rational and figurative, as with their crisp Timberyard housing in Dublin 8. Yet here in the rear garden in Rathmines, there is an approach to space and ground, and indeed to materials, that suggests a recalibration of how the practice might be categorised in a critical schema or taxonomy of things.

In The City of To-morrow and

its Planning (1929), Le Corbusier contrasted Twentienth Century Man who 'walks in a straight line because (...) he has made up his mind to reach some particular place and he goes straight to it' with the poor Pack-Donkey, who 'meanders along, meditates a little (...) zigzags in order to avoid the larger stones, or to ease the climb, or to gain a little shade'. The Swiss Master favoured the rational and the orthogonal, yet admitted that the 'winding road is more appropriate for recreation'.

In The City of To-morrow, Le Corbusier was, of course, thinking of the planning and efficiency of cities. Nevertheless, throughout the work of O'Donnell + Tuomey, it's arguable that their smaller projects have an urbanity (that Rossian sense perhaps of everything contributing to collective form), whereas the larger institutional projects, such as the Saw Swee Hock Student Centre at London's LSE, are marked by moments of intimacy, intimacy facilitated by a kind of invented geology, as if architecture can breathe, offer connections, and surprise when it approaches an approximation of topography.



Detail Section

- 102.5 mm brick
- 2. 50mm cavity
- 3. 80mm partial fill cavity Rockwool insulation
- Weatherproof membrane
- 9mm OSB sheathing
- 6. 145mm timber stud with Rockwool insulation
- Vapour barrier
- 8. 15mm Fireboard [30min fire rated]
- 34.5mm services void + 30mm insulation with timber battens
- 10. 15mm plasterboard [fire spread class C-S3, D2]
- Plaster finish
- 40mm clay tiles on 10mm bedding layer
- 13. 100mm concrete screed with underfloor heating pipes
- 150mm floor insulation with 30mm perimeter floor insulation
- 15. Concrete foundation slab
- 16. DPM /radon barrier on sand blinding
- 17. Hardcore

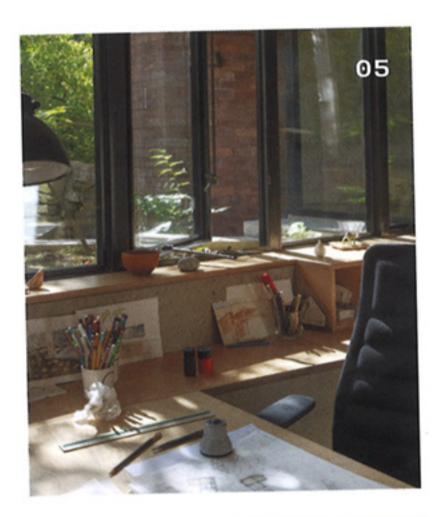
The Cultúrlann Uí Chanáin in Derry is another O'Donnell + Tuomey building where the interior space seems to be not any one static chamber but a constructed, multi-dimensional landscape akin to a canyon or valley to be discovered and explored within the fabric of the city. The stepped and folded planes of their new studio suggest similar intent at domestic scale, this smaller building having, conversely, the potential to test ideas for larger future projects.

The selection of materials is critical in this reading of building as landscape: natural materials — in Rathmines, a beautiful Italian brick also used for the new Sadler's Wells Dance Theatre in London — and components that define apertures, thresholds, cills, visible structure (posts and beams painted iron oxide red, an industrial product mere steps removed from nature). It's a closely edited palette, an ecology like the ecology of stone and vegetation (the ground and what comes out of the ground) encountered *in situ* in the natural world.

While the geometries may evoke the organic, they are not random. The studio's spaces are more fluid than those of the cabanon Le Corbusier built for himself at Roquebrune, or the cubic Experimental House Alvar and Elissa Aalto enjoyed lakeside in Muuratsalo. In Rathmines, the new studio manoeuvres its bulk about the existing birch trees in empirical response. But the trapezoidal or chamfered volumes — allowing for views back to the original house and out to the dome and mountains beyond — also result from more abstract logic and alignments.

"...the trapezoidal or chamfered volumes — allowing for views back to the original house and out to the dome and mountains beyond — also result from more abstract logic and alignments"











Le Corbusier famously applied what he termed tracés régulateurs (regulation lines) to achieve ideally balanced facades. In Rathmines, O'Donnell + Tuomey use not dissimilar linear techniques in plan and section to determine the edges or perimeters of interconnected spaces, voids or held space having priority in the creation of architecture not as consumer object but as dynamic terrain.

What happens in this built terrain? What uses does it serve? When Ben van Berkel and Caroline Bos designed the Möbius House for a couple near Hilversum, each client wanted their own space, especially during the workday, yet be aware of the other's presence within that super-fluid structure. In Rathmines, Sheila is likely to be downstairs, drawing or working on watercolours and looking directly into the garden, while John, upstairs on the mezzanine, may well to writing the sequel to his recent memoir, *First Quarter*.

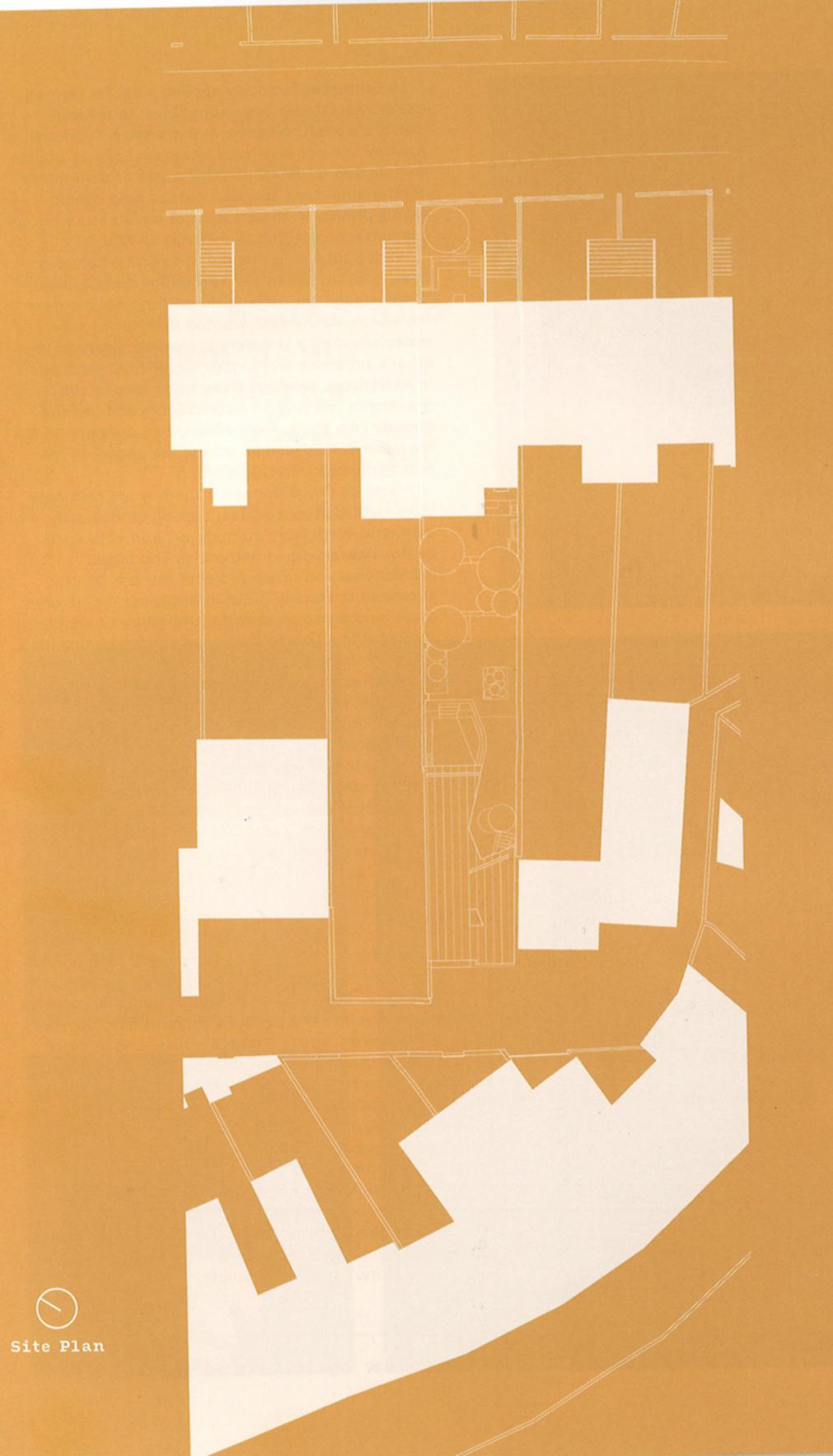
Practices like O'Donnell + Tuomey are fortunate to work at different scales, tacking strategically back-and-forth from intimate experiments such as this new studio in Rathmines and bigger institutional and urban projects like the Central European University (CEU) in Budapest. St. Jerome must be the patron saint for this genre of architect, sheltered in a library/studio yet contemplating ideal buildings and cities beyond that minimal container.

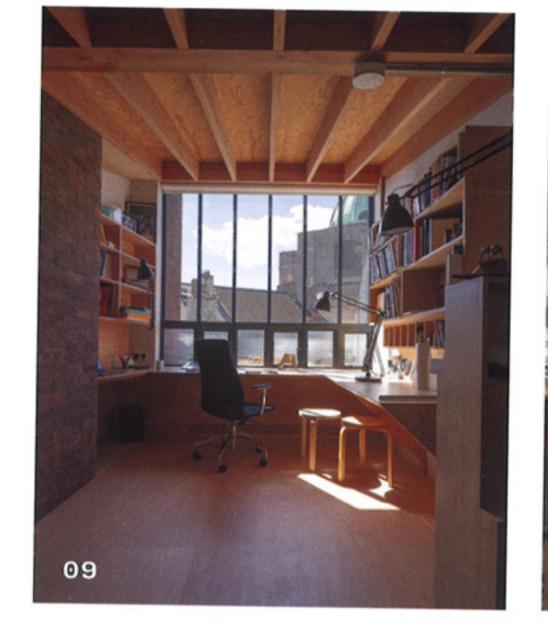
Other recent structures by O'Donnell + Tuomey signal similar values and ambitions. In the fecund fields of West Cork, the architects have collaborated for some time now with woodworker and sculptor Joseph Walsh. Close to the large shed housing Walsh's atelier, the architects have in consecutive years constructed Passage House, with its asymmetrical thatched roof; Stone Vessel, a perforated stone monolith; and Hedge Theatre, a place for gathering bound by earth and stone walls.

If Rathmines is ostensibly an urban project, albeit one that simulates the natural world, the Fartha Three are rural projects in which timeless qualities of meeting and shelter and the careful assembly of components are manifest. The moulding of ground in both Cork and Dublin instigates pause and gentle immersion into the earth. In counterpoint, the roofs in Rathmines, above Passage House, and in much bigger projects like the Liverpool University School of Architecture, nearing completion, are canopies: taut in the case of Rathmines and Liverpool, or enclosing, more overtly protective, like a dense cloud or cave ceiling, as at Fartha.

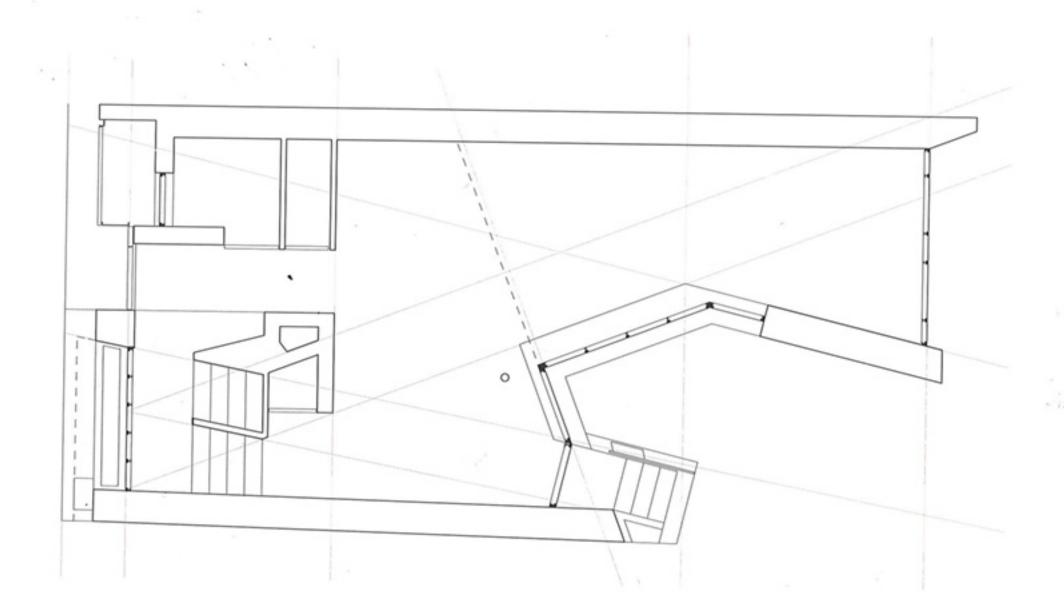
If architecture is a form of language, the Rathmines studio is a remarkably articulate text, articulate in its individual components while simultaneously arranging solids and voids to create precise volume and mass. Akin perhaps to a perfect short story, with future novels in mind.

Review by Raymund Ryan

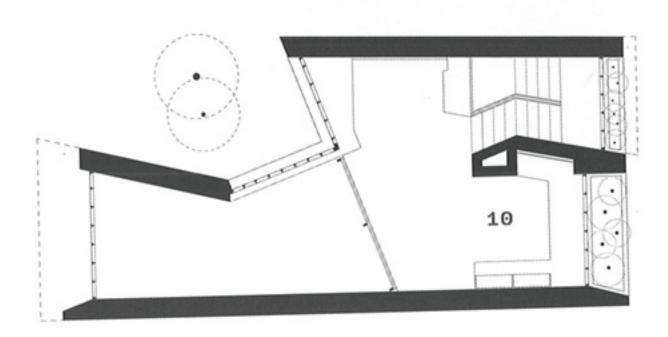




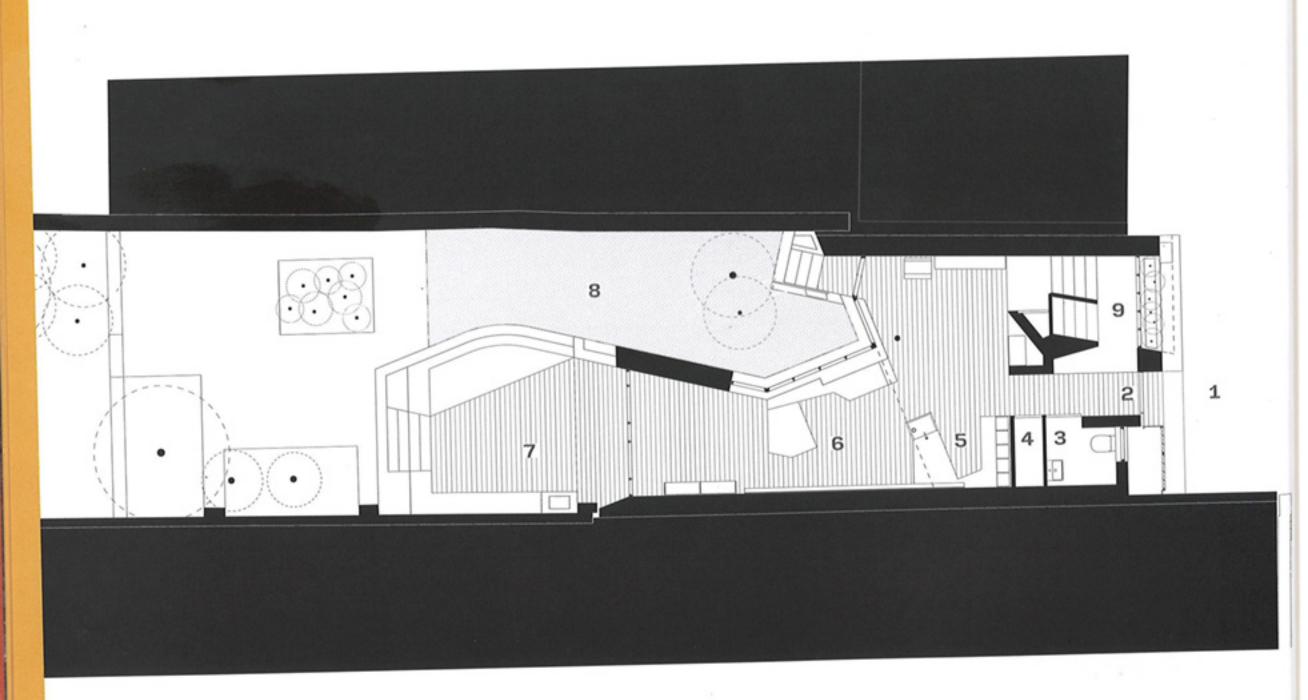




Gridline Diagram



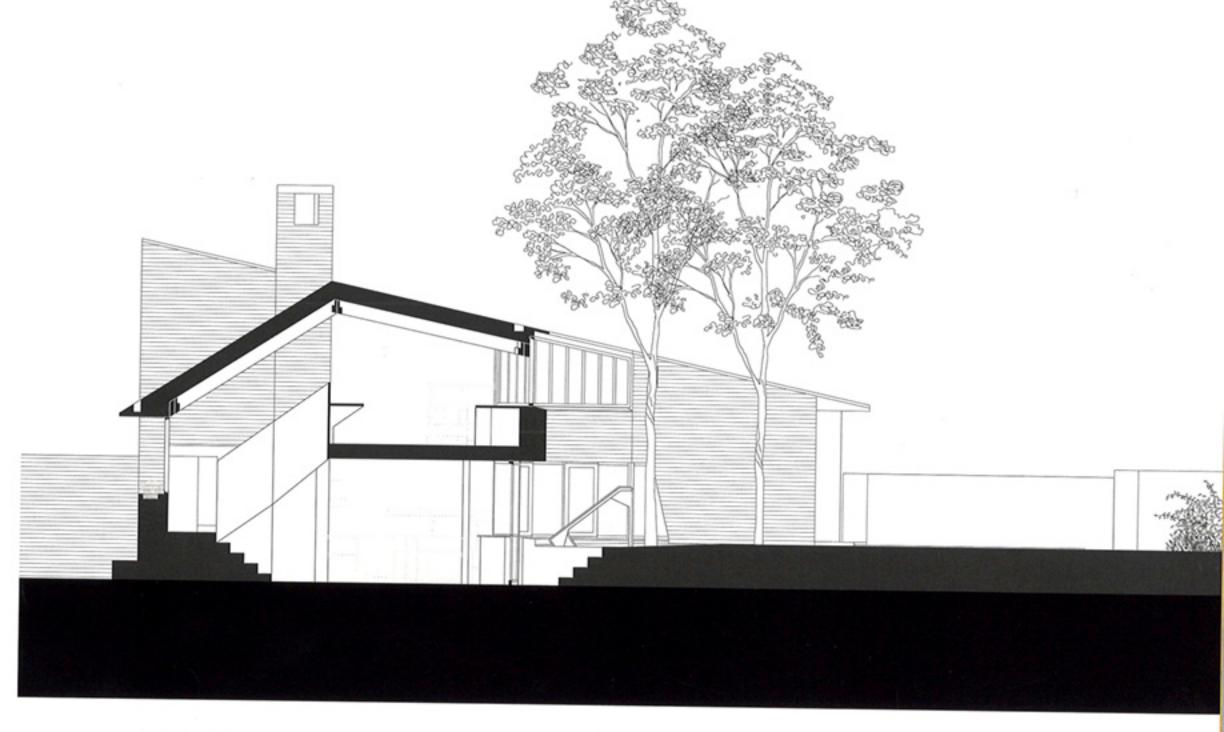
Mezzanine Floor



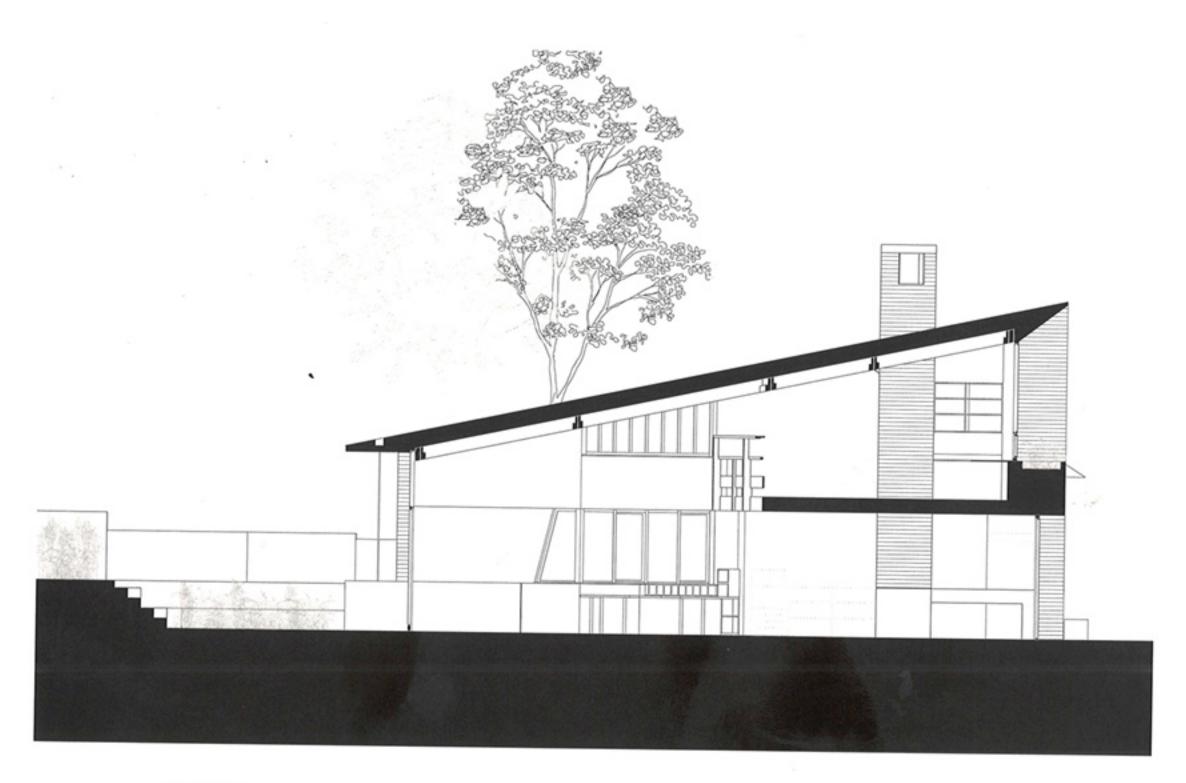


Ground Floor

- Front courtyard
- 2. Entrance
- 3. WC
- 4. Plant room
- 5. Kitchen
- 6. Studio
- Sunken courtyard
- 8. Side garden 9. Stairs
- 10. Mezzanine



Section



Section

Architects' Studio

Fortescue Lane, Rathmines, Dublin 6



Items considered private are marked 'undisclosed'. Items not available or applicable to the submitted projects are marked 'n/a'. Information that is not available but is in the process of measurement is marked 'TBD'.

Area

Site Area	125m²
Floor Area	60m²
Plot Coverage	0.43
Plot Ratio	0.48
Unit Density	n/a

Procurement

Client	Private Individual		
Building Type	Workspace .		
Contract	n/a		
Value	Undisclosed		

Performance

BER	A3
Airtightness	TBD
Biodiversity Net Gain	TBD
Certification	TBD

Performance (cont.)

measurement	project value	RIAI 2025 target	RIAI 2030 target
Primary Energy Demand (Part L)¹	4,751 kWh/yr	n/a	n/a
Operational Energy (estimated) ²	TBD	< 75 kWh/m²/yr	<55 kWh/m²/yr
Operational Energy (in use) ³	TBD	<75 kWh/m²/yr	<55 kWh/m²/yr
Embodied Carbon ⁴	n/a	<970 kgCO ₂ e/m²	<750 kgCO ₂ e/m²
Potable Water (estimated)	TBD	< 13 l/p/day	< 10 l/p/day
Potable Water (in use)	TBD	< 13 l/p/day	< 10 L/p/day
Overheating	TBD	25-28 °C maximum for 1% of occupied hours	
Daylighting	TBD	> 2% av. daylight factor, 0.4 uniformity ratio	
CO, levels	TBD	< 900 ppm	
Total VOCs	n/a	< 0.3 mg/m ³	
Formaldehyde	n/a	< 0.1 mg/m ³	
Radon	n/a	< 50 bq/m³	

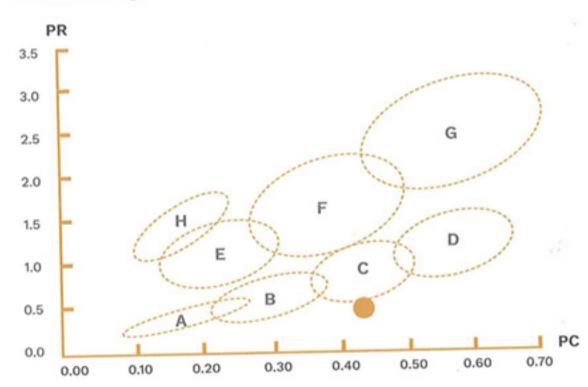
Duration

0	design	0.5	planning	
202	Oct - Nov	202	Dec - Dec	





Density



- (A) low-rise, detached
 (B) low-rise, terrace
 (C) low-rise, bybrid
- (C) low-rise, hybrid(D) low-rise, courtyard block
- (E) mid-rise, terrace (F) mid-rise, hybrid
- (G) mid-rise courtyard block
- (H) high-rise terrace

Architects' description

The Architects' Studio is the realisation of a longterm plan for a home-based workplace for an architectural partnership, a freestanding extension to a late-Georgian terraced house. An irregular bite is taken from a simple rectangular plan to protect the roots of two birch trees planted thirty years ago. The built form provides a destination at the foot of the garden. The studio is a shed-like structure with a sloping roof to protect views to the dome of Rathmines church, mono-pitched over a single, slightly complex, volume, creating two negative spaces - side garden and sunken court exploiting the level difference between street and lane. The studio provides space for drawing and writing, collaboration and private study, painting and discussion.

Construction began with a concrete footprint, a retaining structure to allow the building to dig down into the levels of the site. Above this 900mm concrete datum, the superstructure is of Douglas Fir, heavily insulated and externally clad with hand-laid brick and a black zinc roof. Angled brick specials resolve the corner geometries, with no bricks cut on site. The studio is designed to exploit natural daylight and natural ventilation in all areas. Space-heating is via an air-to-water heat pump.

The existing Georgian terraced house was built in the 1830s, and sits within the curtilage of a protected structure, and in close proximity to a nineteenth-century church building with a monumental dome. Therefore, the challenge was to build a spatially efficient and environmentally resilient workspace within strict conservation controls and dimensional restrictions. Existing boundary walls and trees are protected, and important view-lines are maintained.

The lower studio wraps around the existing birch trees and opens onto a sunken court. The mezzanine studio faces the rear wall and dome of the local church. Two workspaces meet in the middle around a kitchen and stove, with a meeting table on the mezzanine. A stair of concrete and plywood winds around the chimney.

There are no corridors or wasted areas, resulting in a functional plan with different kinds of space and a range of volumetric variety within the limits of a 60m² structure.

The studio is designed to accommodate future change and to foster multigenerational functionality. Spaces are planned to allow a change of use to residential. It is a prototype for sustainable intensive development of Dublin's underused back lanes, proposing a flexible and adaptable densification of the downtown residential plot.

The built form makes minimal intrusion on the conservation setting of adjoining houses and is designed to be a sensitive addition to its surrounding context. Built of natural materials, the studio is designed for long term durability and minimum maintenance.

The building uses the minimum required amount of fair-faced concrete, the main material of construction being locally sourced structural timber. The studio was painstakingly constructed to a precise and demanding geometry by a dedicated builder, with one skilled craftsman responsible for most of the work on site and coordination of plumbing, electrics, metalwork, and joinery.

Photography

- View of rear elevation and sunker courtyard.
- Aerial.
- 3. Lower studio with view of terrace.
- 4. View from lane.
- 5. Window desk overlooking side garden.
- Shelving.
- 7. Stair landing showing balustrade embedded in the wall.
- 8. Lower studio.
- Mezzanine desk overlooking the dome of Rathmines Church.
- 10. View of desk in lower studio.

Photography by Aisling McCoy/Peter Cook

Credits

Architect
O'Donnell + Tuomey

John Tuomey FRIAI
Sheila O'Donnell FRIAI

Hugh Ivers MRIAI
Ross Ledsham
Jitka Leonard MRIAI
Brian Barber MRIAI

Client

Sheila O'Donnell and John Tuomey

Window and Door Supplier Lambstongue

Notes

- Excludes unregulated loads, calculated using DEAP/NEAP.
- Includes regulated and unregulated loads, calculated using a performance-based standard/software.
- Includes regulated and unregulated loads, calculated using metered or utility bill verification.
- 4. Measured using EN 15978 and Level(s) GWP.

Density diagram and block types based on the Spacemate, developed by M. Berghauser Pont and P. Haupt in *Spacematrix: Space, density and urban form*, Rotterdam, NAi Publishers, 2010.