

# BD MAY 2014

THIS MONTH

Building study: *Pegasus Academy* / What now for the Mac? / Tackling the housing crisis / RIBA presidential hopefuls



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## After the fire

May's biggest story was the fire at the Glasgow School of Art. Firefighters saved most of the building, but sadly the library was destroyed. There was plenty of debate about restoration, with most agreeing that the building should be returned to its former condition. Sensitively recreating the patina of 95 years will be challenging but not impossible providing the money and will are there. The key lesson is that prevention is better than cure. The Mac's extensive wooden panelling and open staircases made it particularly vulnerable to fire. Ironically, the building was just weeks away from having a new sprinkler system fitted. Mist sprinkler systems can significantly slow the spread of fire with minimal damage to building fabric and contents. Hopefully this sad incident will make the custodians of other historically significant but vulnerable buildings reassess their fire prevention strategies to lessen the chance of this happening again.

The housing crisis is dominating the headlines and now the EU is intervening with its own take on the problem. BD columnist Hank Dittmar has come up with a more intelligent solution that busts the usual planning logjam, help to buy and not in my backyard debates. His suggestion to create an English Partnerships type series of development corporations to deliver infrastructure rather than housebuilders has a lot to recommend it. This could unlock the market for smaller developers, custom and self builders. Opening up the market to more competition could also improve the design quality of new homes which in turn could make new development more palatable to objectors and crucially create a better environment for us all.

**Thomas Lane, BD editor**



# PROJECT WINS

## Daniel Libeskind team picked to design Canada's national Holocaust memorial

David Adjaye and Ron Arad among beaten shortlisted teams



Daniel Libeskind has won the competition to design a national Holocaust monument in Canada.

The architect is part of a team with Gail Lord of Lord Cultural Resources, artist Edward Burtynsky, landscape architect Claude Cormier and Holocaust scholar Doris Berger.

Five teams were shortlisted including one featuring David Adjaye and designer Ron Arad.

The memorial, to commemorate the victims of the Holocaust and honour Canadian survivors, will be located opposite the Canadian War Museum in Ottawa.

In plan it will be shaped like a six-pointed concrete star, the symbol of

Jewish identity. Visitors will journey through the star, encountering triangular spaces, a reference to the triangular badges used to classify prisoners in concentration camps.

Photographs by Burtynsky of sites associated with the Holocaust will be embedded in the concrete. Cormier's landscape will include a conifer forest on rocky ground, to evoke the forests of eastern Europe and a living symbol of how survivors and their children have changed Canada, according to a report in Canada's Globe & Mail newspaper.

Construction will begin this summer and is due to be completed next autumn.

## Niall McLaughlin and Purcell scoop £17m museum at Durham's Auckland Castle

Annexe part of scheme to turn castle into heritage attraction

Niall McLaughlin Architects and Purcell have won a competition for a £17 million museum at Auckland Castle in County Durham.

The two-storey annexe is being described as the "most pivotal transformation" of the medieval stronghold in 300 years.

Auckland Castle is the former historic home of the bishops of Durham and is considered to be the third most historically significant ecclesiastical complex in Europe, after the Vatican and Avignon.

The development is part of £50 million plans by the Auckland Castle Trust to turn it into a heritage attraction.

Building work on the museum, which will house a museum charting 500 years of faith in Britain, will begin at the end of next year and should be completed by spring 2018.

Purcell's Newcastle office and Niall McLaughlin Architects have

been working closely with the local authority, English Heritage, the Heritage Lottery Fund and Bishop Auckland Civic Society on the proposal, which has yet to be submitted for planning.

They said the extension would have the feel of a medieval tithe barn from the outside with a long, steep roof and low eaves. Inside, the building will be naturally divided into bays, emulating its ancient foundations.

The castle's chief executive David Ronn hopes the museum will help draw more than 130,000 visitors a year.

He said: "This is an ancient site and a building dating back 1,000 years. To incorporate any addition into such a setting is both architecturally and historically challenging, but we are creating something extremely special here at Auckland Castle."

## Squire & Partners bags planning for first stage of Chelsea Barracks redevelopment

Westminster council backs controversy-dogged project

Squire & Partners has won detailed planning permission for the first phase of the redevelopment of Chelsea Barracks.

The approval comes seven years after Qatari Diar bought the high-profile central London site, and six years after previous plans by Rogers Stirk Harbour were dropped following private lobbying by Prince Charles. His intervention — directly to the Qatari royal family — sparked uproar.

Westminster council last night approved three eight-storey buildings designed by Squire & Partners, housing 74 properties for private sale.

Construction is expected to start later this year.

Qatari Diar bought the site from the Ministry of Defence for nearly £1 billion in 2007 and first launched its plans the following year. But the



developer was forced to rework its plans in 2009 after facing opposition, including from the Prince of Wales who called the scheme "a gigantic experiment with the very soul of our capital city".

Qatari Diar won outline planning permission at the end of 2011 for 448 residential units, a sport centre, retail, health centre and other leisure uses.

# THE BIG ISSUE

## The Mackintosh phoenix must be allowed to rise again

News of the fire at the Glasgow School of Art on 23 May shocked the architectural community and left it in suspense during the weekend. Thankfully it emerged the heroic actions of the Glasgow fire service had saved 70% of the contents and 90% of the building structure. The main casualty was the iconic library. Below we share architect **Clare Wright's** reflections on what the building meant to her, and what you think about restoration. We also include a gallery of pictures featured in BD in happier times

**O**n Friday afternoon, Mac alumni exchanged emails of pain and grief at the sight of the flames licking the roof and the smoke belching from the hen run at the Mac. There was disbelief and terror that the raging fire had spread so far in an hour. It was extraordinary that the fire services then contained it and that so much of the building seems to have been spared, with 90% of the structure reported as intact. That said, my partner Sandy's mantra for the weekend has been, "The library, the library, the library..."

The Glasgow School of Art is an extraordinary building not only because of its beautiful plan and section, or because of the light, or the contrasts or the practicalities, but in the summation of these and their detail, its humanity touches our souls. For many, especially those of us who experienced our adolescent creative coming-of-age there, it is like a parent for whom we have

extraordinary primal feelings. It validated our creativity and moulded our architectural outlook irrevocably. It was the powerful presence we could kick against and throw paint at, climb over and revel in, which it seemed could not easily be damaged, even by 100 years of teenagers' artistic mess.

It had places we could go to be calmed and soothed. Alison Watt, writing in *The Observer* following the fire, described the concealing booths in the west corridor where she sheltered after a bad crit.

I went to the library, almost always about this time of year, as the pressure built up. The light in the early evening filtering through the west-facing windows, into the gloriously dark wooded interior was transcendental, and always calmed me. A student couldn't have done that latterly, because the library was thought too precious to be open. Access was limited and mainly by guided tours, with the



**Clare Wright: "Its humanity touches our souls"**

upper gallery closed for safety.

Like all architects, Charles Rennie Mackintosh defined the Glasgow School of Art in drawings that can be reused, and the building can be rebuilt. David Cameron and Alex Salmond have both vouched they will pay whatever it costs.

That is the nub of it: how will that be managed? Will it be with our society's current public-sector diktats about "handling risk" and "managing costs", which almost always result in poor quality at every stage? Will it

entail crazy management selection assessments for consultants, chosen on the basis of their size and low fees, that do not allow adequate time or resources for good detailed work or adequate supervision by architects and engineers, coupled with a design-and-build or management contract which allegedly transfers the risk? The risk of what? In this case, the risk that the building will be "restored" but its essence lost. That is why people who love this building are still distressed, though the damage is limited. Though they know there are people with the skills and aptitude to reinstate the building - and with better discreet services and fire protection - they fear our confused societal values will get in the way.

I think this time the Mac team will be better than that. They will do it right and set an example to the rest of the UK, underpinning the values that created this great building. Then out of the ashes the phoenix will rise again.

## FEEDBACK



"Can the Glasgow School of Art find a way of combining the best of Mackintosh with new architecture for those other spaces to create something of the past and of the future?"

### Peter Scott

Tragic although the loss of the library is, to have saved 70% is a miracle when the fire looked so completely devastating. Congrats and huge thanks to the firemen. Hopefully the library can be reconstructed, with the archives (including Mackintosh's original drawings?) saved?

### Simon Carne

You can't restore the patina of time. Let the building rest, see how it fares. Make it safe but please no restoration. From this awful event a new place will emerge and who is to say that it won't

be the equal of what was there before which itself was the result of years of use.

### Ian Caldwell

What would Mackintosh have done? He would have sought to improve on what was there. The iconic library and the best of Mackintosh will be restored, in the process creating facilities for the 21st century. What of other spaces? Can the school find a way of combining the best of Mackintosh with new architecture for those other spaces to create something of the past and of the future?

### SoupDragon

If the library is rebuilt as it was, will they actually allow students to use it? Or will it just be retained as another tick on the tourist trail? Surely the architecture only has integrity if it is being used for the purpose it was designed? By all means rebuilt it faithfully but give it back to the students.

### Gareth Atkinson

The commission of restoration architect could be a double edged sword and will be an extremely difficult job. I believe it should be reinstated as

close a possible to its former glory, and given back to its proposed use. A past Mackintosh Scholar is a must. Wright & Wright are a perfect fit for the job.

### Gillian Darley

Goodness, how quickly architects can leave the general to pursue the personal. And not a very edifying sight. The GSA is in need of a period of calm, reflection and the attentions of the most expert conservators in the business. Stand back you architects.



Send us your comments  
[bdonline.co.uk](http://bdonline.co.uk)





“The Mackintosh building validated our creativity and moulded our architectural outlook irrevocably”

As work continues to salvage treasures from Glasgow School of Art's Mackintosh Building, we republish photographs taken by Ed Tyler exclusively for BD in 2010 to accompany Clare Wright's Inspiration. Some are seen here for the first time



To donate to the restoration fund or offer other help: [www.gsa.ac.uk/support-gsa/how-to-support/mackintosh-building-fire-fund/](http://www.gsa.ac.uk/support-gsa/how-to-support/mackintosh-building-fire-fund/)

# PRACTICE AND PROFESSION

RIBA presidential candidates to tour UK, both vowing to shake up institute; survey shows workloads increasing; and more office space is needed in capital

**T**he two candidates hoping to become the next RIBA president have set out their manifestos as the month-long election campaign kicks off.

Jane Duncan and Oliver Richards announced they will be touring the country together with a series of hustings so architects can grill them directly before casting their votes.

In interviews with BD at the start of the campaign, both expressed concerns about the leadership, internal politics and direction of the RIBA and vowed they could make real changes.

Both placed supporting architects at the heart of their campaigns and pledged to continue the work of current president Stephen Hodder.

Strengthening the regions and international chapters, and improving communication were other areas of common ground.

Richards, who founded Orms in 1984 after working for Terry Farrell, was RIBA vice president for education for four years and is now chair of the steering group bringing all the institute's London offices under one roof at 76 Portland Place.

Duncan, who has run her own practice for two decades, chaired the RIBA's small practice committee and was vice president of practice and profession for six years. She is now equality and diversity champion.



**Jane Duncan**

Jane Duncan has promised to focus on both the institute and its members because both were in need of leadership and vision.

She pledged to restore architects' pride in their profession, to push for pay commensurate with their skills, and to create a diverse profession, which she says is essential for its long-term financial success.

"It's a profession which is faltering for lack of leadership. I am not demeaning previous presidents because each had their own agenda. But there's an overview that's missing.

"We need a really strong institute that's member-focused and offers leadership in the industry. I can see the changes that are needed and I know what I need to do to make them happen. "The president who can make the most impact is one with really good insider

knowledge and really good drive – and the balls for the job.

She says she will get RIBA staff to spend time in practices so they have a much clearer understanding of the membership they serve.

She plans to launch a new project architect of the year award to celebrate the skill of the people who guide complex schemes to successful completion.

She will also develop the RIBA's business guidance which has already produced a fees toolkit. The importance of staff retention – and the cost of losing unhappy staff – will be tackled, followed by the importance of not giving away your intellectual property.

<http://www.jane4riba.com/>



**Oliver Richards**

Oliver Richards has vowed to make changes in the first 90 days of becoming president. His priorities would include

reasserting the RIBA's prestige by making research a cornerstone, speaking out on the "issues that matter" and encouraging greater collaboration with other built environment professions.

He hopes all this will help attract more members in their 30s and 40s. "There are a lot of architects who are not members because they find the RIBA irrelevant and inward-looking," he said.

He described Angela Brady's recent Israel vote as "own-goal territory" and said the institute should focus on its Royal Charter objectives of excellence in design and educating the next generation.

He would immediately commission research on easing the burden of

tuition fees through tax breaks and would encourage closer links between practices and schools of architecture.

The problem of architects "giving away our best ideas for free" needed to be tackled in the first year of university.

He also condemned as "despicable" the practice of paying women architects less than men. "This needs to be stamped out," he said.

He also vowed to remodel the competitions office and client advisory service. And he wants to widen the reach of RIBA Awards beyond the RIBA's "natural preferred style" which currently excludes architects like Robert Adam.

<http://richards4riba.com/>

## ARCHITECTS GETTING BUSIER, SAYS RIBA

Architects are remaining confident about forthcoming work with those in London the most optimistic, according to the RIBA.

It said that practices had reported an 8% improvement in the value of actual work in progress in the first quarter of this year compared to the same quarter 12 months ago.

RIBA director of practice Adrian Dobson said it was "the third consecutive quarter of aggregate growth in the value of work being undertaken by the UK architects' profession".

He was speaking as the RIBA's April index for its Future Trends survey stood at +35 – the same as last month's figure – but still down on February's high of +41.

All UK nations and regions have

returned positive figures, with London the most positive at +45.

Private housing and commercial work lead the way in sectors returning positive figures although the public sector at +4 continues to lag well behind.

The majority of practices, 94%, said they expected their staffing levels to either stay the same or increase during the next quarter.

### More London office space needed

London office space is "likely to remain in short supply for two years" despite an upswing in demolitions and sites readying for construction, according to the latest Deloitte London office crane survey.

The survey said there were 9.2 million sq ft of offices under construction

in central London. The level of office development is up on the previous year, but is still below the long-run average.

This, combined with a "clear rise" in office take-up over the last 12 months, has resulted in availability falling to its lowest point since 2007, says Deloitte.

This year will see 7 million sq ft of grade A office space delivered, the largest volume in a single year since 2003.

But 45% of the total volume under construction has already seen early letting success, "meaning available space reaching the market will be significantly lower" than previous years.

Anthony Duggan, partner and head of research at Deloitte Real Estate, said: "Developers that started office

development schemes at the first signs of economic recovery in 2011/12 are now reaping the rewards as their schemes complete at a time of increased tenant demand."

### Foster only architect on rich list

Norman Foster is the only architect to appear in the Sunday Times' annual rich list.

Foster is reported to have a fortune of £150 million which places him at number 607 on the list, down from last year's 522.

Also on the list were Orbit designer Anish Kapoor featured at number 691, having amassed £130 million; and RMJM owner Fraser Morrison along with brother Gordon, with their £95 million putting them at number 921.



## BDP BRINGS BACK PROFIT SHARING AS INCOME RISES

BDP has restarted a staff profit-sharing initiative after the practice said the worst of the recession was now behind it.

The architect, which employs more than 750 people across six offices in the UK and five overseas, said: "The recent decision to reactivate employee and director profit sharing arrangements is an important strategic development."

Together with the reopening of its group internal share market from next year, the firm said "these measures will support the attraction and retention of first-class designers and managers".

It revealed the details in its latest report and accounts for the 18 months to December 2013.

Turnover was just under £90 million during the period compared to the £67.6 million for the year to June 2012 while pre-tax profit was up from £1.5 million to £1.7 million.

The bulk of its work was in health and education.

## IN PRACTICE



**"The key is not in the physical scale of the practice but in its business mentality"**

**If you've got big ambitions, don't start small, advises Caroline Cole, author of the RIBA Business Benchmarking reports.**

"If you want to run an architectural practice that designs small-scale projects in your local, domestic market then set up a small practice. If you want to work on anything else, then set up a

large practice. Why? Because in business terms, the differences between small and large practices are so extreme that it is perverse to assume that one would inevitably lead to the other.

The latest RIBA Business Benchmarking report reconfirms this difference. Most of the fee income from both the public sector and private corporate clients goes to the larger practices, and the ways in which these practices operate is light years away from the way small practices work.

Importantly, there is no doubt that small practices do not have the right business (as opposed to architectural) mentality and will therefore require lots of hand holding. Clients look for reassurance that their architects understand and have experience of the systems they operate, and proof that they can deliver value and great

architecture accordingly.

However, we all know that just because a practice is big it doesn't mean that it is capable, and most savvy clients know this. As a result, big practice clients increasingly want to know about the individuals that will be working on their projects and what those individuals have delivered, successfully, in the past.

So how do you set up a large practice? The key is not in the physical scale of the practice but in its business mentality and its engagement with targeted clients.

These need to reflect the world in which big practices thrive. But you also need to be able to reassure clients on a personal level through the experience, reputation and expertise of the key players in the practice.

So, a prerequisite to setting up a big practice is almost certainly to get big practice experience first: either yourself or by teaming up with someone who has already been there. That way, at least, you know what it takes and why.

**Caroline Cole is director of Colander Associates Ltd [www.colander.co.uk](http://www.colander.co.uk)**

## FEEDBACK: RIBA PRESIDENTIAL ELECTION



**"The RIBA is calling on members of the Israeli institute to comply with international law. A president with such narrow views as those of Richards would be disastrous"**

### Andrew Jones

With all due respect to the integrity of the two candidates, the position is now such a poisoned chalice that nobody of the right calibre is coming forward to challenge for it.

By right calibre, I mean a heavy-weight who will let others do the nibbling around the administrative edges and is more likely to take the institute into a position where it is listened to by a wider audience than just enthusiastic RIBA London members.

The chief executive has been a bit of an expensive joke since Bill Rodgers stepped down from the DG role. For the presidency to have any wider political or social relevance, it would need a Richard Rogers to step up to the challenge. But somebody of that ilk is far too wise to run for president. Catch 22.

### J Burden

The RIBA is what it is. A venerable royal institute that invited Prince

Charles to make an address at its 150 year anniversary – despite all the controversy he has had with the profession – is unlikely to ever stray too far from its comfort zone.

It's up to individuals to look to ourselves and change the culture of the profession, starting with our long hours mindset. We need to reclaim time back in order to get involved with the world around us – local politics, community projects or even just coaching a local youth sports team.

Are we staying till 10pm every night out of true necessity? (Well yes, of course sometimes we have to.) Or is there an element of preciousness or "face time" involved? We need to start putting ourselves in the heart of the community and influencing decision making and we can only do that if we have the time and energy to do so.

### Kate Macintosh

Oliver Richards, in condemnation of

the Brady/Oldham Motion as an own-goal and too political, reveals that he has no concept of professional, ethical standards.

Presumably he would have similarly condemned the RIBA motion of the late seventies severing links with the South African schools because, in a country with an 80% non-white population, all the architectural students were white. In the year of Mandela's death few would agree with him.

The RIBA through the UIA, is calling on members of the Israeli institute to comply with international law. A president with such narrow views as those of Richards would be disastrous.

### Ray Bell

I have to disagree with Kate Macintosh – it really is pointless for the institute to pronounce on global political issues whilst it is barely perceived as relevant

outside the profession.

And dare I ask, is membership to be restricted to those of a left-leaning, liberal political point of view?

Should I ever choose to join the RIBA, it would certainly not be on the basis that it holds any political inclination, left or right, nor that it should hold forth on issues outside its remit.

I would be more drawn to an institute that focused on supporting the difficult art and business of architectural practice nearer to home!

### Urbanist

Ray Bell: I find this most curious. Are you saying that in some way, architects would be able to just practice our profession without reference to the world around us?

If a man in jackboots with a little moustache asked you to masterplan a large detention camp with big ovens for disposing of unwanted corpses, would you just say yes?

# BIM: FEDERATE BEFORE YOU COLLABORATE

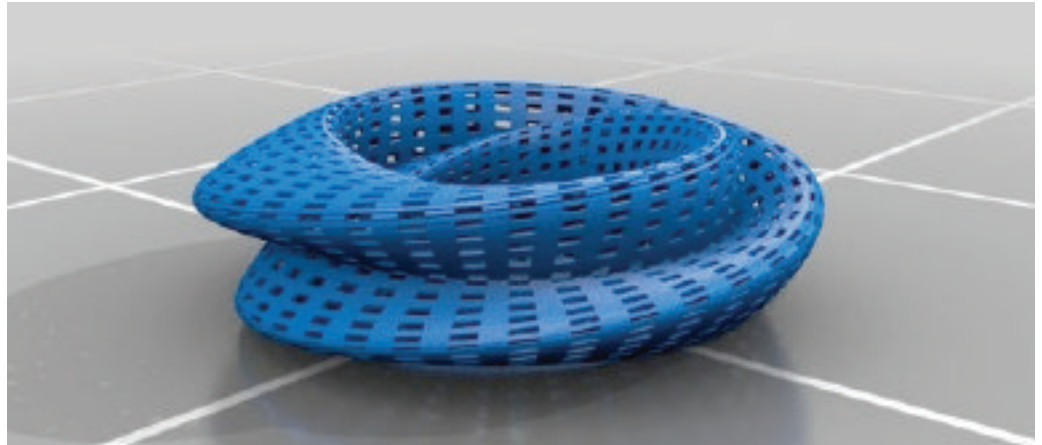
Get the licensing right – and your staff holidays – or all your BIM work could unravel, advises David Shepherd

Let's say your practice has just won a design competition for a new sporting venue. The key signature of this design is a complex twisting roof, known as a Klein torus. It has the whole industry buzzing. It's even been nicknamed the Bagel – and we all know that the best portent of architectural fame is a high-profile design nickname, don't we? Because of its more than passing resemblance to the breakfast pastry, you're set to become the toast of the British architectural profession (collective groan).

Both the cladding system and the underlying structure are controlled by ambitiously complex geometry that, in turn, is driven by a set of complex equations that only your graduate architect with a PhD in advanced mathematics can unravel.

However, those geometric roof curves are vectors, having both magnitude and direction.

Your architect with the post-grad maths degree is on holiday when a technician inadvertently reverses the direction of one of those defining vectors. The change triggers an automatic update to the structural model, putting some elements meant to be in tension into compression.



A Klein torus: don't let your innovative design become half baked

Unless the control of models is clearly documented and explained, you will now have to wait until your good doctor of parametric geometry returns to resolve the problem. However, by that time, your client might be well ticked off by the delay in finalising the complex roof design.

In fact, your toast might be the burnt and binned Bagel, abandoned for a far simpler roof design.

The key to averting this sort of disaster is not technological, but organisational. All complex

design methods need to be clearly documented and carefully deployed. Cover for absent specialised BIM staff must be pre-arranged. Most importantly, each discipline needs to maintain the independence of their respective models by a method known as model federation.

Federation may be defined as the combination by prior agreement of independently organised entities to operate in a joint capacity. For instance, several states can be federated by treaty to act as a single nation, yet they retain a measure

of independence – the US being the prime example. In like manner, model federation is the process of organising and managing independently developed models to operate in a joint capacity for specific collaborative purposes. Those permitted purposes should be documented in the BIM protocol: a contractually binding agreement that licenses the model(s) to the client (without surrendering copyright) for the duration of the project.

It's important to note that, under the Construction Industry Council's

## FEEDBACK



"Correct modeling of a building requires considerably more knowledge of how to resolve interfaces between components and systems. A basic CAD technician may lack this"

### Terencechatfielduk

The flaw in how BIM is implemented is indeed the staffing arrangements.

My last employer decided to put two highly CAD experienced architects onto the fast-track from training up in Revit. They ignored that one was at retirement age. The other (myself), a job-running project architect with an expressed aversion to being treated like a CAD monkey, was also pressed into it.

Now the near retiree is doing exactly that, and I've left as I could see I would be going nowhere for the next couple of years, in either pay or

promotion prospects.

How much was spent though on this so far failed strategy, on PC boxes that could run Revit without a problem, and on training in office time, and indeed on external trainers? Rather more than they care to think, I imagine.

### Urbanist

Your assumption that the architect to whom you refer, who clearly had decades more experience than you, was a "near retiree" is based on your misconception that people retire at some particular age. There is no retirement age in the UK. I imagine

s/he was put on this job because s/he had the skills to be able to do it.

### David Shepherd

Both good points. My view is that the correct modeling of a building requires considerably more knowledge of how to resolve interfaces between components and systems. A basic CAD technician may lack this knowledge.

I don't understand why a practice would send staff on training that they clearly don't want to undertake, nor why there was no contractual obligation for repaying training costs should the person leave. In any case,

it would be wise to ensure that they document the key work processes for producing "business as usual" production information.

Instead of teaching them to model in BIM, I would have assigned more experienced staff the task of applying their considerable insight to identify where interfaces are poorly coordinated and, by superimposing their sketches on the prints, to supervise BIM technicians on what the resolution should look like.



Send us your comments  
[bdonline.co.uk](http://bdonline.co.uk)



# INTERIORS

Interiors show the May Design Series took place at London's Excel in May and featured a discussion with BD's architectural correspondent Ike Ijeh and Pringle Brandon Perkins & Will principal Jack Pringle. BD caught up with Pringle before the session to discuss the changing face of workplace interiors.

BIM protocol, the client, in turn, sub-licenses all models to other project participants for the pre-arranged purposes only. Restricting the use of models to those purposes requires a carefully pre-defined and monitored regime for regularly issuing models in a format suitable for integration. If well organised, BIM can facilitate better collaboration resulting in faster consensus, greater cost certainty and improved construction processes and sustainable design outcomes.

This is where a thoughtfully developed BIM project execution plan can make a difference. At HOK, we have for many years mandated BIM project execution planning on all projects in order to ensure we achieve exceptional results through the technology.

If this is your first BIM project, something as simple as specifying a commonly used interoperable file format for everyone should provide all BIM end-users with the benefits of being able to open each other's models. Someone in the project team must be assigned to manage changes to the architectural model, ensuring that issued model updates do not trigger inadvertent modifications to the structural or services models.

Also, regularly convened design review sessions should highlight each party's key amendments, so that you can agree beforehand on the consequent changes that other project members should make.

This model review and sharing regime explains why the BIM level 2 definition (mandated by government for all centrally procured projects by 2016) includes the requirement for model federation. Without it, it's impossible to distinguish the clear boundaries of each designer's and constructor's responsibility needed to operate successfully in today's collaborative shared BIM environment.

If you use BIM in our current climate of individual project insurances and carefully segregated design-construction liability, federation is about as far as integrating models from multiple disciplines can go.

**David Shepherd is HOK's London BIM manager.**

**W**orkplace interiors have been Jack Pringle's domain for over 20 years; during this time the co-founder of Pringle Brandon Perkins & Will) has become an authority on workplace strategy and corporate interiors, leading a team which has been at the vanguard of the revolution in office design.

In the early days, he says, "we came from an architecture background and approached [interiors] from the basis of systems supporting needs. That worked well in the corporate world; it mapped the way the business world works."

The practice's interiors portfolio has expanded into other areas, including hotels and hospitality, but workplaces continue to be a core element of its output. "The reason we've stayed in this sphere is because we've been part of that relatively small group of people who have caused the workplace revolution to come about in the UK," he says. "Twenty-odd years ago the world [of work] was uninterested in design, in how interiors could support workplaces; they tended to be hierarchical places, uninterested in the brand."

Since then, the walls have come down physically and metaphorically.

"Step by step, what we've done in the design world has mirrored or encouraged transformation in how businesses have operated," he says. "[Now] our clients tend to have values where information is readily shared, hierarchies are flattened, they're quick to market. It's an exciting space."

In London especially, where the average age of many companies is under 30 and organisations are eager to attract and retain a dynamic young demographic, the demand for design-aware, brand-aware workspaces has never been greater.

"Twenty years ago, the expectation was that a young person would conform to existing organisational values, whereas now it's the other way round," he says. "Organisations are anxious to make sure those values are appealing to a younger demographic; for people to come in and say, 'I want to spend a



**"Twenty years ago, the expectation was that a young person would conform to existing organisational values, whereas now it's the other way round. Organisations are anxious to make sure those values are appealing to a younger demographic"**

lot of time here. This feels like me, and these people will support me?"

Even organisations traditionally associated with a conservative background - banks, accountancy and law firms, pharmaceutical companies - are embracing the trend for the open, collaborative workplace style favoured by technology and media companies. Pringle cites his firm's fit-out for financial services group Macquarie as a prime example. "Everyone [now] believes collaboration is the holy grail, and in a knowledge industry you need to make that happen," he explains.

A key element which will continue to evolve and play a larger part in office fit-outs, Pringle says, is integrated technology. "The most interesting new technology is in

information displays," he says. "Big screens, interactive panels - interactive is definitely the name of the game."

Another trend he identifies is a move toward what he describes as a 'European feel' in offices - a brighter aesthetic, harder surfaces, timber floors and woven plastic flooring replacing carpet tiles.

Being forward-thinking without resorting to fleeting trends and gimmicks in workplace design requires a good deal of balance and integrity.

"Every client tells us they want a classic, modern design which will look great in a few years' time," he says. "And you know what they really mean, is they want something quite conservative - which is going to date quickly. For something truly fresh and modern, it has got to look really fresh and modern right now, so you have to be brave and push the designers. But all good designers know the borderline between proper well-founded good design and funky gimmicks."



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# WE NEED TO OPEN UP THE HOUSING MARKET

Ending the housebuilders' monopoly will improve both the supply of housing and the quality of its design, argues **Hank Dittmar**



**R**ecently the Canadian governor of the Bank of England told us that the biggest threat to the fragile economy is structural problems in the housing market. With the clarity of a fresh perspective, Mark Carney noted that Canada produces twice as many houses as the UK, despite having a far smaller population, and that so long as demand in Britain far outstrips supply, prices will rise and there will be a danger of buyers taking on too much debt. He didn't say that this situation makes inevitable interest rate rises perilous for many homeowners but this is a corollary.

Government efforts to address the issue have focused on two things - stimulating demand through the Help To Buy programme, and streamlining planning. Smaller programmes have been initiated to help bring empty homes back into use and



**Eco Arc's co-housing project at Forge Bank, Lancashire: one of Britain's few co-housing projects.**

to encourage custom building, and the review of planning has heightened emphasis on design quality in some ways.

While housing starts have rebounded from their nadir after the recession, they remain stubbornly

pegged to the levels delivered by private house builders during the New Labour era, when house price inflation really took off. A review of historical trends reveals that Britain met the demand for new homes only when local authorities and develop-

ment corporations were in the development business themselves.

Underneath the structural problem in the housing market lies a structural problem in the industry: its increasing concentration in a few companies, compounded by plan-

## FEEDBACK: TACKLING THE HOUSING CRISIS



"There is so much infrastructure already in existence in once-great cities like Glasgow or Liverpool that can be built upon rather than starting afresh with a garden city."

### Ray Bell

The glaringly obvious solution (which nobody seems willing to advocate) is to bring back council housing.

Not-for-profit public ownership would work to deflate the level of private rents (consequently reducing the house price inflation caused by the buy-to-let industry) and offer secure and affordable tenure as an alternative to home ownership.

### Ninian MacQueen

The real solution is to ease the burden of demand on London and make the other cities of the UK more desirable places to do business/industry

somehow, and then as a result to live in. There is so much infrastructure already in existence in these once-great cities like Glasgow or Liverpool that can be built upon rather than starting afresh with a garden city that will simply end up as a Barrettesque suburb.

### Ralph Kent

Some simple suggestions to ease the "housing crisis" (25 million households in the UK; 27 million homes) that will never be enacted owing to MPs' vested interests:

1) Limit overseas investors buying up all new UK housing stock;

2) 0% VAT refurb to increase supply and boost construction;  
3) Compile a database of buy-to-let landlords so that HMRC actually starts collecting income tax and capital gains tax from landlords (HMRC admit they aren't even trying at the moment);  
4) Provide assistance to those who want to downsize but find the process intimidating or complicated (elderly);  
5) 200% council tax on second homes / unrented properties;  
6) Bring in more protection to renters - providing stability and confidence for renting and promoting mobility of labour. Look at models in Germany for reference;

7) Actually start building some housing directly - especially social housing, rather than just having Funding for Lending/ Help to Buy pass through about 10 different agents with everyone taking their cut and pushing up costs.

### Jonathan Clarke

We need greater diversity amongst those building homes, including local authorities and community groups.

A few of the comments have picked up my absolute bugbear on the issue of housing: it isn't just about supply and demand, there is also need, meaning those who need housing but lack

ning conditions requiring new local and regional infrastructure to be delivered on the backs of home buyers and landowners. This limits local competition, and the incentive to build more is reduced by the desire to keep prices up. There is likewise no imperative to improve quality, as any new house will sell. If one wants to increase the diversity and number of actors, then the government needs to reduce the barriers to entry for small builders, landowners acting as developers, smaller housing associations and custom builders.

The key barrier is the requirement to front-fund community infrastructure well before income is generated from the new homes. The coalition government has correctly identified this problem for garden cities, and the finance and delivery tools granted to the development corporations address this issue. The approach needs to be extended to both brownfield and urban extension

**"A review of historical trends reveals that Britain met the demand for new homes only when local authorities and development corporations were in the development business themselves"**

strategic sites. The former English Partnerships did this right in the days before it was expected to become a cash cow, delivering schemes through planning, front-funding infrastructure and overseeing design quality.

Extending this approach to all government-owned sites would reduce barriers to entry, improve viability and ensure quality. It is also an ideal way to encourage custom building, since "oven-ready" plots can be sold to homeowners or master builders for development after planning permission is granted, making Nick Boles' Right to Custom Build a reality.

Changes in tax treatment of development might also be needed to encourage landowners to work with developer partners to see a site through planning rather than optioning it to house builders. If this were accompanied with a more realistic approach to delivering infrastructure as it can be paid for, one might see both more sites and higher quality.

This kind of approach may go against the grain for many of those in power, but it is a pro-growth strategy, a pro-business strategy and it puts government in the business only of setting the table, not of delivering the whole meal. As Mark Carney said, this is not the business of the Bank of England, but it surely is within the purview of Treasury and DCLG.

the funds to exert demand upon the market.

#### Jockwit

Ninian has hit the nail on the head. The age of technology was supposed to free the shackles of where we live and work; unfortunately we all chose London. In the eighties and nineties, the northern cities were as vibrant and rich in culture as London, then dropped out of fashion. The reinvigorating of these cities is vital to the housing issues of the South-east. The government needs to look at incentivising companies to move north, relieving housing pressure while reversing brain drain.

#### TerencechatfieldUK

It is the system itself that is at fault, geared towards large developers

who can afford the delays, the fees charged, the necessary multiple consultants for everything, the expensive process and so on that local authorities are increasingly imposing.

This is the experience to date of an architect colleague looking to build his own house, showing LAs aren't at all supportive of any change happening any time soon.

The problems he had were in only doing one house, in an established area, on the site of a previous house (demolished).

The authority, Kingston Borough Council, had required numerous changes in design, with the approval process marred by changes in planning staff, staff absent or on holiday, supervisors refusing to intervene to ensure approvals are made within time limits and refusing

This year's London Festival of Architecture includes a debate on tackling the shortage of homes in the capital

#### Housing Londoners: Is it just a numbers game?

Now in its 10th year, the London Festival of Architecture begins on June 1 and runs for the whole month. More than 150 activities are taking place under this year's theme, "capital".

The festival's programme of events is organised by a number of cultural and academic institutions including the Royal Academy of Arts, the Design Museum, Serpentine Galleries and the National Trust.

Among the issues covered by this year's event are housing and tall towers. Last year, London built 17,000 new homes when the capital needs 52,000 to keep pace with a population growth that is expected to hit 9 million by 2020.

One million more Londoners will



**PKCO Architects' Peabody homes in Plaistow**

need homes over the next decade. Yet the current level of house building in London is only skimming the surface of housing need, and the impact on levels of affordability is well documented.

This debate will take as its starting point the desperate need to house our growing, changing population, and examine how we can achieve the numbers, while creating great neighbourhoods and quality homes that reflect both our changing lifestyles and an aesthetic value that London can be proud of.

#### Speakers:

Claire Bennie – development director, Peabody  
Richard Blakeway – deputy mayor for housing, land and property, Greater London Authority  
Teresa Borsuk – executive director, Pollard Thomas Edwards Architects  
David Lammy – MP for Tottenham  
Rob Perrins – managing director, Berkeley Group

**Housing Londoners: Is it just a numbers game? takes place on June 16 at Kings Place, 90 York Way, London N1 9AG. The debate starts at 7pm and runs till 8.30. Tickets are £9.50.**

For a full programme, go to [www.londonfestivalofarchitecture.org](http://www.londonfestivalofarchitecture.org)

to even meet to discuss even with fees paid to do so, followed by the usual excessive conditional requirements once the approval was finally granted.

Things were so bad, and he was so desperate with a contractor already put off several times from a start, he simply gave up on trying to comply with pre-commencement conditions.

And this is someone who is experienced with the planning process!

How has anyone else, other than the big players, got a chance?

#### Stewie

As said above: double council tax on second homes. The greed of some people in this country is astonishing when you consider buying two homes essentially makes one more person homeless in this country.

Villages would be the place to build. Many are too small for present day viability which is why many village post offices and schools close. Essentially the population has grown old in many villages in the UK and with it the vibrancy of village life.

Social housing would have to be built with some kind of mortgage rather than rental scheme with the home owner footing the bill for maintenance and decoration. Otherwise you just get a situation of the councils/housing associations footing the bill of a deteriorating housing stock while renters of social housing, having little incentive to work, kick back and let the house go to rack and ruin.



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# BUILDING STUDY: PEGASUS ACADEMY TRUST

Hayhurst and Co's remodelling of the Pegasus Academy in Croydon brings together years of piecemeal architecture into a coherent whole, writes **Ike Ijeh**







Most new architecture doesn't actually involve new buildings. In a society such as ours, with an established building stock located within what is often a historically conceived urban fabric, architecture is more often than not an exercise in accretion rather than creation, an evolutionary, cumulative process that sees each generation leave its mark in the addition and adaptation of existing buildings.

In the education sector, new structures are often forced to integrate with old. Of course some schools are brand new but the majority more commonly experience periods of incremental intervention where portions of fabric are replaced, reconfigured or expanded.

One of the latest examples of this approach is the new £4.2 million Pegasus Academy Trust in Croydon, south London. The building presents a veritable kaleidoscope of ad hoc architectural styles and accumulation over the past 150 years: Victorian board school core, functional 1950s remodelling, insipid 1990s extensions and now, courtesy of architect Hayhurst and Co, significant, contemporary new wings.

But this project is more than an extension alone. Hayhurst and Co won the commission on the basis of prior work it had completed placing new accommodation within an existing void in the same school.

Therefore the firm's latest work on the academy is not merely an act of addition but reinterpretation. It develops a new architectural language that stitches the school's disparate parts together and also gives it a new civic identity that allows it to engage more openly with its local community. In so doing, the school's empathetic new design philosophy allows it to address and resolve contextual challenges that will increasingly face our wider school and building stock as a whole.

Pegasus Academy was formed in 2011 through the amalgamation of Whitehorse Manor Infant and Junior Schools. Both schools were located on the same site in an interconnected series of 19th and 20th century buildings. The most architecturally distinctive buildings on the campus were the single-storey Victorian





The new school's rooftop profile follows that of the Victorian block beside it



wings located at either end of the site. Both display the architectural palette of gable roofs, brown/red brickwork and tall windows synonymous with the board school style.

In proceeding years, a jumbled assortment of various largely ancillary buildings had sprung up between the two blocks, essentially segregating the two schools. Because the central area faces directly on to the adjacent main road, the school's principal entrance frontage was largely occupied by unsightly back-of-house accommodation.

Executive head teacher Jolyon Roberts describes the problems: "The fact that the kitchens were topped with a corrugated plastic roof meant that the frontage we were displaying to the outside world was inappropriate. Also, staff rooms were spread out in various different parts of the school and classrooms were

generally too small. Suspended ceilings had been installed in most of the high-ceiling Victorian rooms, which restricted daylight and led to a more claustrophobic atmosphere."

Hayhurst and Co's design approach was to "bring together a fragmented site with a series of interventions and extensions that thread new teaching spaces through a complex arrangement of existing buildings". A key component of this strategy was "to create a new identity to the street" and it is this that is the most visible public face of the school's transformation.

The design replaces some of the ancillary buildings with a continuous new wing that consciously connects them for the first time. But, as architect Jon Nicholls points out, it wasn't a question of simply "demolishing everything that had been on the site previously, even if the budget had

allowed for it". Instead it was more a "careful and considered approach that sought to reuse existing accommodation where possible and weave the new building into the fabric and character of the old".

On the entrance frontage, this is achieved by the new block assuming the same height and proportions as the Victorian block at one end and maintaining and modulating this historic roof pitch line right across the new building's frontage. The centre of the block is punctuated by a gated opening that forms the school's new main entrance via a new courtyard beyond. This central break in the elevation is replicated at first floor level by punched openings into a planted steel pergola beyond and at roof level, by a lattice of thin openings dramatically sliced into the surface.

The entire facade is clad in TECU gold, a shimmering copper alloy that

is an oblique tectonic reference to the standards of excellence pursued at the academy - Pegasus is Croydon's highest-performing school.

But more intriguingly, and frankly more convincingly, is the civic aspiration behind the choice of cladding, which Roberts explains: "This part of Croydon may not be the most affluent part of London but it actually has a proud heritage of civic buildings such as the library and station. We wanted something that makes as much of an impact and plays as visible a role in the community role as them."

The academy's new frontage is redeemed not so much by its material but by its massing and articulation - it is a bold, sweeping new volume that quite literally glues the school's fragmented pieces together.

Moreover, it reveals a subtle interplay between solid and void that is





The 1950s infants school hall behind the street facade has been expanded and refurbished



Near right:  
Internal  
ceilings are  
formed by  
larch timber-  
clad pitches  
with skylights



Far right:  
The school's  
internal area  
has been  
significantly  
expanded





Roofscape and ceiling articulation form a key part of the new design concept

far more suggestive of new intervention than any amount of ostentatious alloy could ever hope to be.

There is however, much more to the school than a new frontage. Nicholls reveals that a core intention of the design was to “build on the character of the existing Victorian school buildings”, and it is behind the new frontage where this ambition becomes evident.

The architects have adopted a site-wide design approach that sees their new areas conceived as a series of room-scale pitched roof extensions which they describe as a “responsive roofscape”. This new roofscape is directly derived from the pitched roof aesthetic of the Victorian wings and it is expressed as groups of sawtooth pitches which all comply with a newly established hierarchy of scale.

Roofs to new nursery areas have the smallest pitch, roofs to break-out spaces and junior classrooms have the intermediate-sized pitch and roofs to communal, community and hall areas (such as the frontage) have the largest pitch.

Externally the result is a vibrant new internal streetscape whose dynamic roofs do indeed add the visual coherence, control and legibility lacking from previous piecemeal extensions. The almost Lilliputian scale of the smallest nursery pitches adds an animation and intimacy that one imagines might appeal to the toddlers who will inhabit its interiors and the wise substitution of TECU gold with cedar shingles on these rear spaces also adds a communal sense of warmth and enclosure.

Again, the architect’s contextual sensitivity and its judicious approach to what is retained and replaced is in evidence. The pitched new junior classrooms wing is built on top of a single-storey 1980s block but the two are entirely structurally independent.

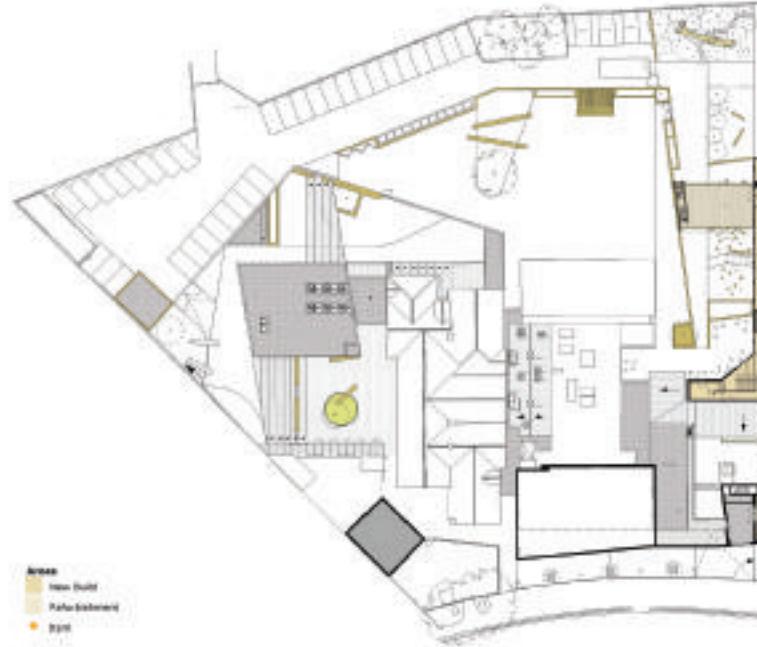
“It’s an urban site and space is at somewhat of a premium,” explains Nicholls, “so as we couldn’t build on external play areas, in this instance we had to build above an existing block. But in order to avoid imposing additional structural loading on it, the first floor straddles it with columns on either side. Additionally, it is partially suspended from a new structure built into the apex of the roof pitch.”

The external roof aesthetic is also

expressed internally in lofty pitched ceiling spaces lined with continuous strips of larch which bestow a soft, almost domestic atmosphere. Classrooms and corridors are surmounted by east-facing skylights cut into the roof which flood the interiors with daylight.

Seven new classrooms have been provided and five have been remodelled. Classrooms themselves are large and flexible, up to 60m, and separated from wide corridors and break-out spaces by glazed pivot wall panels that enable both spaces to flow into one.

So what then of the current political approach to school construction, which, as expressed in the Priority School Building Programme, proposes a more standardised approach? “It wouldn’t have worked on this site,” insists Nicholls, “with all decision-making about what had to be retained and replaced and the stitching together of old and new on such a complex site, we had to have a traditional contract along with the design control and client involvement that that provides.”



First floor plan







Ground floor plan



Above: New areas to the rear of the school are clad in cedar shingles

Left: A new staircase doubles as seating area

**PROJECT TEAM**

Architect **Hayhurst and Co**  
Client **Pegasus Academy Trust**  
Main contractor  
**Kier Wallis, Morgan Sindall**  
Structural engineer  
**Ian Wright Associates**  
**M&E engineer** Edward Pearce



# TOWNHOUSE BY BRENDAN WOODS AND ANDREW H

The reworking of an 1840 house in Greenwich has radically reconfigured the building's relationship with both its basement and garden, while adding a new layer of sophistication



**Project** Semi-detached townhouse  
**Architects** Brendan Woods and Andrew Houlton  
**Location** Greenwich, south-east London  
**Completion** October 2013

The recent architectural works by Brendan Woods and Andrew Houlton to a grandly scaled, 1840 semi-detached townhouse in Greenwich have radically reconfigured the house's relationship with both its basement and garden, while providing a series of interiors within the house that communicate a refined elegance.

The house plan is defined by a central structural spine wall which, on each floor, divides the house between street-facing and garden facing rooms, with the main staircase located to the side on the front, mirrored by a bay-windowed room to the rear. The experience of the existing structure was led by a combination of the impenetrability of this spine wall, the formality of the window and door locations and the resultant vistas and lines of movement through the house. In response, the architects have created new openings and new relationships between rooms, which overlay the axial hierarchy of the plan with a subtle sequence of diagonal routes. The resultant arrangement of rooms - rigid in configuration yet fluidly experienced - are either white painted or luxuriously lined with dark hardwoods or richly veined marbles, suggesting a European sophistication that gently rubs against the building's innate Englishness.

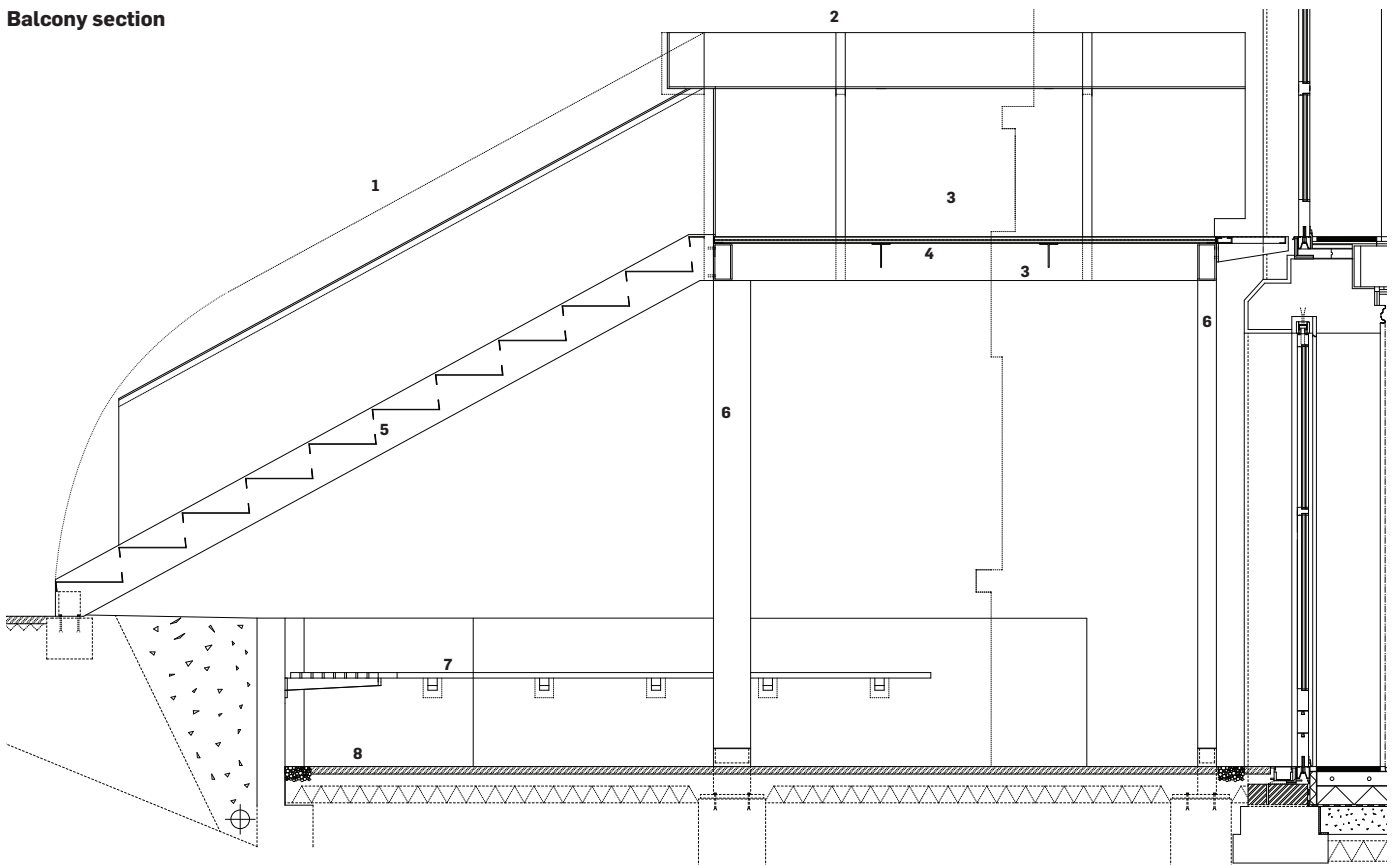
In parallel with each floor's horizontal spatial re-ordering, the lower ground floor, formerly the servants' quarters, has been reconnected both with the upper levels of the house and with the rear garden. To this end the retaining wall and steps up to the rear garden have been extended out, allowing a usable external space at the lower level, and views out and up to the greenery beyond. In addition, new apertures at each end of the spine wall at this level create stronger links between the front and back of the house. But rather than fully integrating the lower level, the detailing reinforces the sense of a lower world, with oak



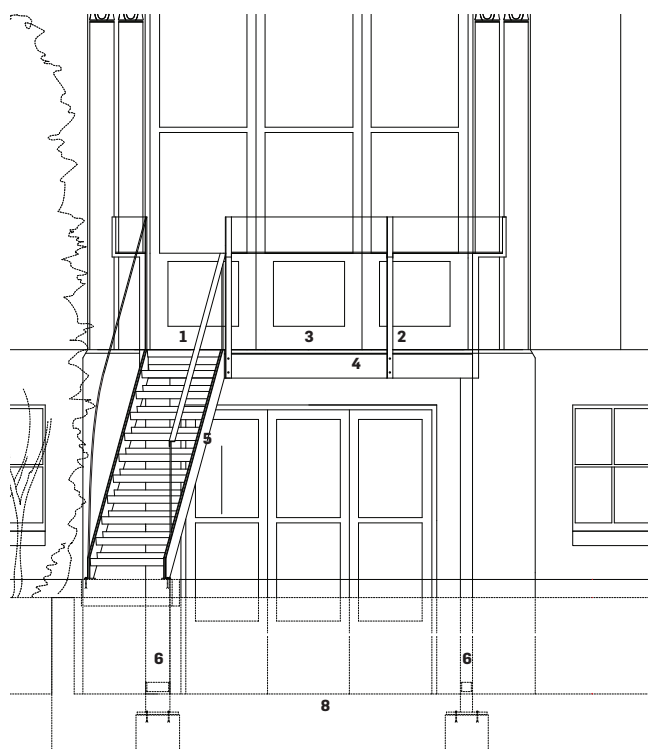
A new balcony and staircase link the ground-floor kitchen and dining room with the garden

## HOULTON

Balcony section

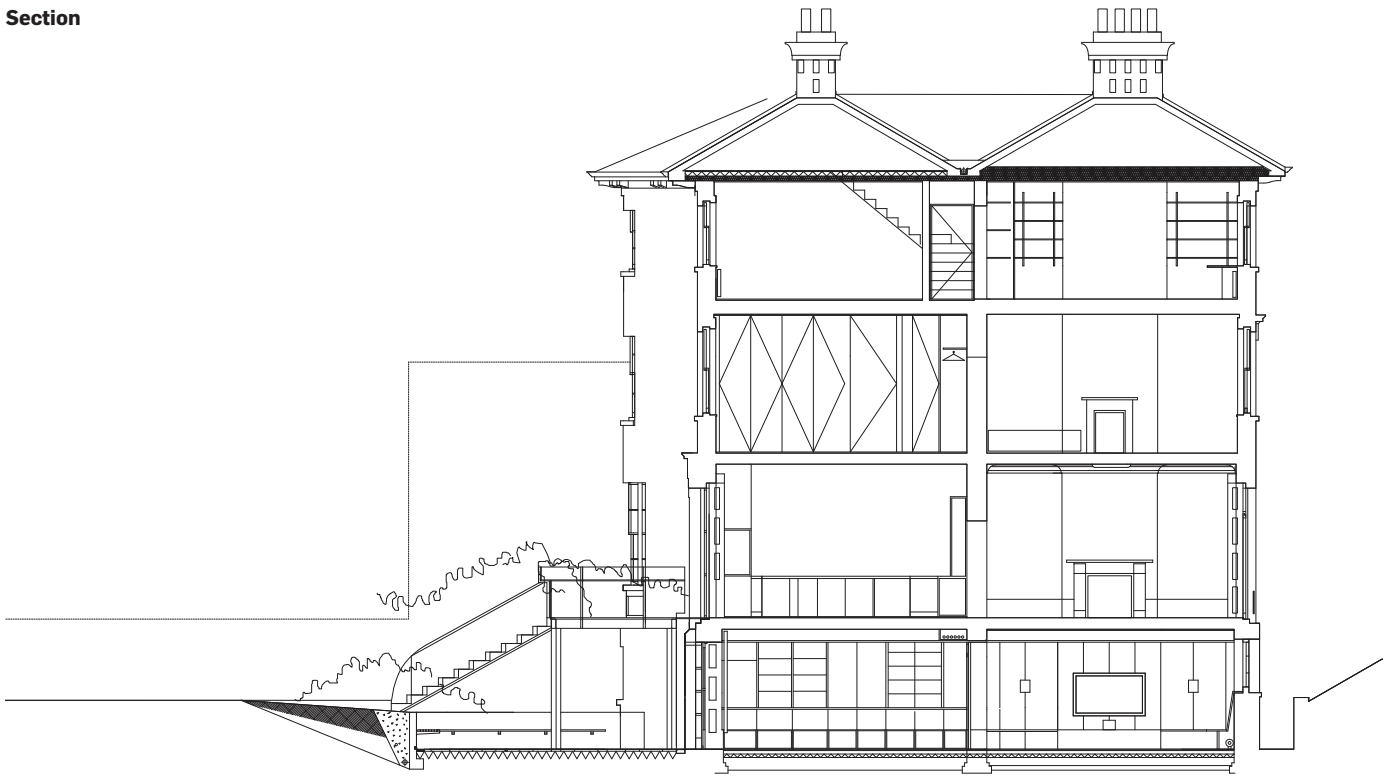


Elevation

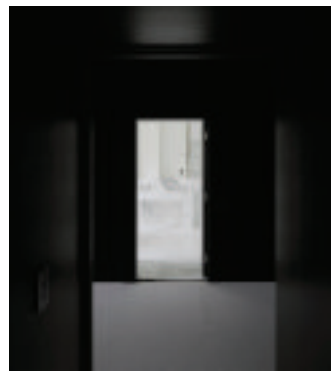
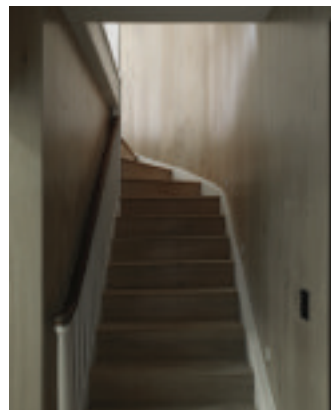


- 1** Handrail, 40mm dowel  
European oak
- 2** Metal support for  
balustrade, powder  
coated white
- 3** Clear glass balustrade
- 4** Glass to floor,  
white translucent  
Carborundum finish
- 5** Metal stair stringers,  
powder coated white
- 6** Leg supports and  
perimeter beams,  
100x200 RHS,  
powder coated white
- 7** Slatted seat,  
European oak
- 8** Stone

Section



Rear of house with balcony and staircase



Timber-lined staircase, and bathroom



Front of house



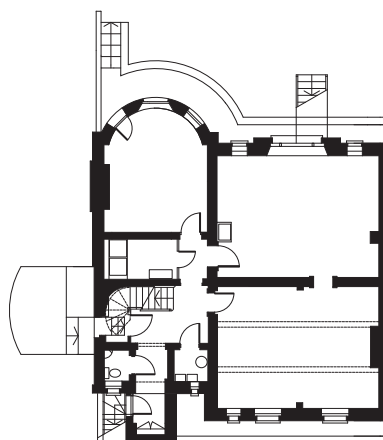
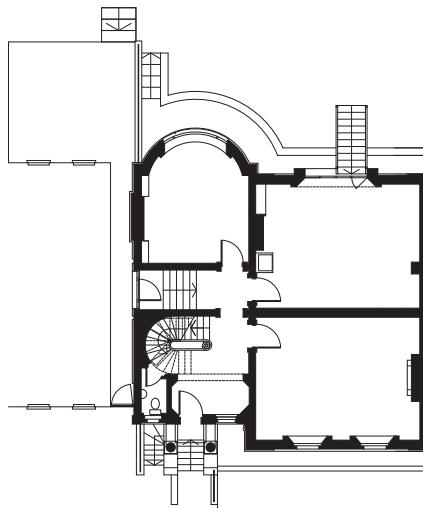
boarding to the sides of the stair down from the entrance hall leading to a series of low-ceilinged, timber-lined rooms and lobbies, creating an ambience of intimacy quite different from the grandeur upstairs.

However, the key element in this series of spatial realignments is the balcony and stair that link the ground floor kitchen and dining room with the garden. The size and refined detailing of this element provides much more than the simple connecting stair it has replaced. With a room-like scale, it suggests at ground floor a stopping point between house and garden, the type of place one imagines a garden party would gravitate around. On the lower level, the balcony's four steel corner posts provide a formality to the entrance that validates the previously hidden away semi-basement. In contrast with the straightforward alignment of the balcony structure, the stair to the garden is offset and angled, in part giving uninterrupted views out from the lower level, garden-facing games room but also allowing it to open out and formally embrace the space of the garden.

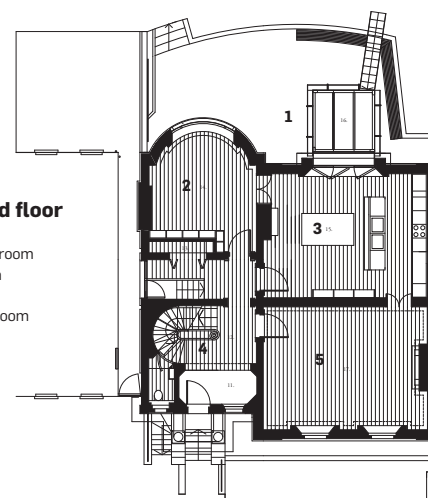
The balcony's primary structure comprises four columns and a connecting ring-beam, all formed from 100 x 200 mm rolled hollow sections, which have been powder coated in an off-white colour close to, but subtly different from, the hue of the facade's pilasters. In plan the orientation of these columns rotates, gently subverting their intrinsic classical formality. Two additional steel sections span the ring beam, providing intermediate support for the glass floor deck. This comprises three sheets of white translucent, annealed glass with a carborundum layer, which provides a resilient and hard-wearing finish.

A secondary structure of mild steel angles forming the balustrade supports is fixed back to this primary frame. These 40 x 40 x 5mm steel angles are cranked, with a step out at 900mm above the floor level to form a delicately protruding shelf-like lip. The glass balustrade is formed from 10mm-thick toughened glass. This has been pre-drilled and fixed on site to the steel uprights with countersunk screw fixings. The glass performs structurally, spanning the

## BEFORE



## AFTER

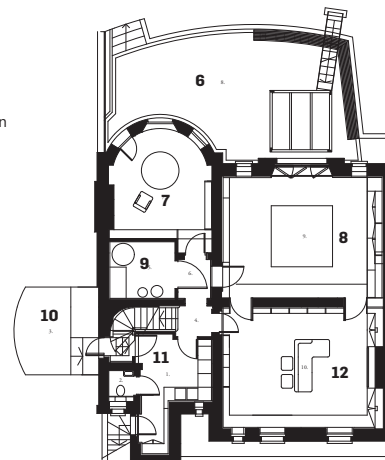


### Ground floor

- 1 Terrace
- 2 Family room
- 3 Kitchen
- 4 Hall
- 5 Living room

### Basement

- 6 Sunken garden
- 7 Study
- 8 Dining room
- 9 Boiler room
- 10 Cellar
- 11 Utility
- 12 Library



vertical steels to form a composite, rigid frame, with the benefit of avoiding secondary horizontal steels and achieving greater transparency. The combination of the steel vertical struts and the glass forms a hybrid structure, with the glass providing rigidity and the steels allowing a thinness to the glass that would otherwise be unattainable.

The architects note that "structural glass construction is often materially heavy due to the sizes of glass junctions and proprietary fixings. We wanted the metal supports and the surrounding glass balustrade to

provide a unified structural solution that together describe the projecting, crown-like form". The resulting delicacy stands in sharp contrast with the solidity of the existing fabric.

The careful detailing of the balcony and stair allow close-up enjoyment of its subtle tactility, while at the scale of the whole building suggesting a formal, cubic counterpoint to the embedded cylindrical volume of the rear elevation and a cultivated, modernist partner to the classical portico of the street-facing, front door.

## PROJECT TEAM

Architects  
**Brendan Woods and Andrew Houlton**  
 Clients  
**Dr Rupert & Hilary Evenett**  
 Structural engineer  
**Barton Engineers / Hardman Engineers**  
 Services engineer **Max Fordham Associates**  
 Quantity surveyor **Holloway Squire Partnership**  
 Main contractor  
**Westgate Construction Ltd**  
 Joinery **Matthew Marchbank**  
 Photographer **David Grandorge**