



# RIBA JOURNAL

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## The collaborators

Many hands make  
architecture work

**Classroom assistant:** Sarah Wigglesworth's new school  
**Dealing with stress:** How AKT II's p.art boosts design  
**Through a glass darkly:** MVRDV's glazed farmstead  
**Hotel inspector:** Style sleuths restore Claridge's



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# 04:2013

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APART FROM A FEW resolute off-grid self-builders, it has never been customary for architects to make entire buildings solo, from first concept through to finished article. And even on the rare occasions that they do, they still have to negotiate with officialdom, which means getting along with two or more other professions. What's not in question is that the numbers of specialists and 'experts' in the building team today has ballooned, for any construction over a certain size. Many are necessary and desirable, some less so. I know of one sizeable retail development where every architect's move was referred to a 'shopping centre consultant' earning big fees. This man turned out to be a know-nothing former security guard working out of a back bedroom. You had to admire his chutzpah – and wonder at how he got to be appointed. Insert your own stories here.

But we're not going to talk any more about people like that. We're going to talk about the people who make your working lives better, the ones who help you achieve what you want to do and even take you to a higher level. This is a no less familiar story: a lot of professional life is about building up relationships with people you trust. There are, of course, the famous double-acts of architects and engineers, architects and landscape designers, architects and artists, those with trusted builders, above all architects and clients. And Cedric Price used to speak very highly of his QS, because he was prepared to tackle the unfamiliar.

It comes down to mutual respect and mutual understanding. And so, in this issue, we bring you the other professionals and client representatives who are on your side. It doesn't always have to be a battle, this architecture business.

HUGH PEARMAN | EDITOR

## ROOM INSIDE

'**BLACK MARIA**' might seem an odd name for a temporary timber structure that does not look like a police van and is not black. But it's named after the other Black Maria – the 1893 adaptable wooden shed in New Jersey which Thomas Edison used as his Kinetoscope film studio for a decade.

Designed by artist Richard Wentworth with emerging Zurich practice GRUPPE, it was recently assembled in the west transept of the huge atrium of Stanton Williams'

Central St Martin's art and design school in London's King's Cross for a month. It had a use besides being an enigmatic object of the kind Wentworth (a resident of the area) celebrates in his 'Making Do and Getting By' photographic series. By day it was a kind of public retreat from the agora of the atrium; in the evenings it became a mini-auditorium for discussions and screenings.

'It's about economy of means, economy of time, the frankness of material and the dumbness of stuff,'

said Wentworth, who praised the collaborative way his architect friends work. 'It's a gathering machine. People could meet here, perhaps fall in love here. What I really wanted was that the act of building would be its own provocation – part of the energy pouring into King's Cross.'

An augury, perhaps, for September, when the same cavernous space will play host to the 2013 Stirling Prize evening. The Central St Martin's building was designed, of course, by last year's winner. **HP**





# THE MONTH

## Cambridge keeps growing

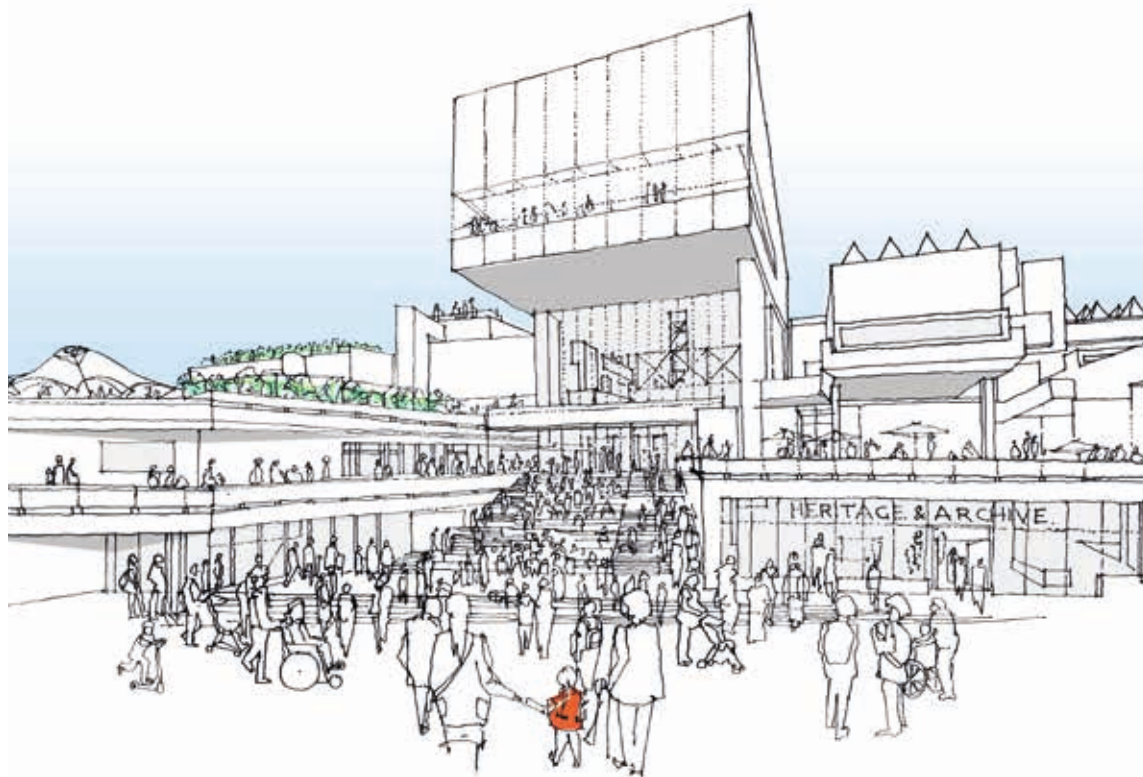
The development of Cambridge's fringe continues apace with the announcement that CF Møller and PRP Architects have secured planning approval for a 5.4ha site in Skanska's Great Kneighton development. Chris Fay from CF Møller highlighted

the Scandinavian approach to the design of both home and neighbourhood. The 273 homes at Long Lane will be laid out in streets, terraces and blocks around a park – with an existing hedgerow taking centre stage. Sustainable homes code level 4 or 5 is planned for all the units. **EY**



## Winter wonderland

Any self-proclaimed lover of British modernism with £3m to spare will relish the opportunity to acquire the home of John Winter in London's Highgate, which came on the market last month following the architect's death last year. Built for himself in 1967, the steel frame and floor to ceiling glass structure was the first domestic home in the UK to be clad in Cor-Ten – and was heavily influenced by his time in the US with SOM and Charles and Ray Eames. But the grade II\* listed house is 'in need of restoration', says agent The Modern House. Run-off from the beautiful flush detailing of Cor-Ten has given the glass the milky hue of cataracts. 'Some of the double glazed units have visibly blown and the flat roof might need looking at... anyone who takes it on will be doing it as a labour of love,' it says. **CK**



FCBS | SOUTHBANK CENTRE

## Southbank shuffle

There weren't exactly shouts of joy when Feilden Clegg Bradley Studios unveiled its designs for London's Southbank Centre – the mid 1960s LCC-designed Queen Elizabeth Hall/Purcell Room/Hayward Gallery part – but there was a lot of support for what

is seen as a pragmatic response to the challenge of this classic (and unlisted) Brutalist ensemble. It's an ambitious, £120m scheme – the same level of spending the adjacent Royal Festival Hall received for its reopening in 2007. It is the latest of several rejuvenation schemes for the site since 1989.

The idea is to make a third cultural palace of this group, fit to stand between the RFH and the National Theatre, itself being upgraded by Haworth Tompkins. FCBS does this with three or four clear moves that acknowledge and develop Rick Mather's 2000 Southbank masterplan. **HP**



### Building for the future

No less a luminary than TV physicist Prof. Brian Cox was singing the praises of well-designed research buildings at last month's Mipim property fair in Cannes. And this is one reason why: the £61m National Graphene Institute by Jestico + Whiles, to be built by Cox's University of Manchester.

Graphene is the thinnest, strongest and most conductive material yet discovered, 200 times stronger than steel and only one atom thick – it is the future. This building is planned to be the world's leading centre for graphene research – fittingly, as Manchester University first isolated it in 2004. **HP**



### BoJo's floating village hits stormy waters

Boris Johnson's ruddy complexion might have been redder than usual after this year's MIPIM, at which he launched his new pet project for London, the 'liquid postcode' – a floating housing project situated directly below his other darling, the Emirates Airline on the south side of London's Royal Docks. Johnson inherited over 600ha of land through the Localism Act and has gone on record as being determined to bring more of it forward to develop for housing. He's allocated six of them to Ian Ritchie Architects, to propose up to 800 homes, hotels, restaurants and bars. Johnson hopes to tempt domestic and foreign investors to take the bait, announcing at MIPIM that the site 'has the potential to become one of the most sought after addresses in the capital while breathing new life into London's waterways'.

However, it turned out that what he dubbed 'London's answer to Venice' happens to sit right in London's City Airport's Crash Zone – which might concern future residents and breaches Department of Transport guidelines.

Local resident and anti-airport expansion campaigner Alan Haughton said 'This floating village would be a village of the damned. No-one wants to live with the risk of an aircraft coming down on their family, let alone other risks like noise.' **CK**

### Civic pride

The Civic Trust awards have slipped from prominence, but they provide a reliable indicator of the good, sometimes unsung, work being done around the country. This year's winners and commendations

are as eclectic as ever, ranging from Wilkinson Eyre's 'Peace Bridge' in Derry/Londonderry, to the Vine Trust barge in Edinburgh by Ingenium Archial. The one shown here is that rare and wonderful thing: a new complete building by

Birds Portchmouth Russum, commended for its Downley House in East Hampshire for client Chris Tae. Sited in the South Downs National Park, it incorporates an existing ruin and makes great use of renewable resources. **HP**



NICK KANE

### Breathtaking in Brazil

ANDArchitects and 3DReid have won projects in Brazil for the Rio 2016 Olympics, capitalising on their experience at London 2012 and the Commonwealth Games in 2014 respectively. Each firm is already leading on a live project there. For 3DReid its relationship with local

practice BLAC Architects has been critical to securing work on the Velodrome. The role is described as a 'light touch', using 3DReid's expertise developed on the Chris Hoy Velodrome in Glasgow to check BLAC's designs. ANDArchitects is advising Brazilian firm Lopes, Santos & Ferreira Gomes on how to create a reusable temporary

structure for the Rio 2016 Handball Arena, building on experience of four temporary Olympic Park pavilions it was involved in for London 2012. AND director Manuel Nogueira explained how the components will be designed to be reused in four schools in Rio. 'That is the only way to do it, with a specific end product,' he said. **EY**



# OBITUARY



GEORGE FINCH, 10 OCTOBER 1930–13 FEBRUARY 2013

Passionate socialist whose work at London County Council produced famous buildings for ordinary people

**GEORGE FINCH** was a passionate socialist and this informed his social housing, civic buildings and environmental designs. He was proud to make homes for everyday people, insisting on the highest building standards. So he was perfectly suited to London County Council, where Peter Aldington remembers that ‘as a greenhorn straight out of architecture school, meeting George at the LCC and watching the way he worked and cared about the people who would inhabit his buildings was a game-changing experience for me. He managed to make a lot more of the then LCC standards than the rest of us did, especially the ways in which he articulated tower blocks and completed them at the skyline. When George followed Ted Hollamby to Lambeth, it was always inspirational to visit him.’

Another of Finch’s skills was to use space freed up by tall blocks to build family houses

– even in overcrowded Stepney, where he was particularly proud of his Spring Walk scheme.

Finch’s interest in public wellbeing owed much to his background. Born in Tottenham, the son of a milkman, an early love of making models led him to seek a career in architecture. Wartime evacuation to Saffron Walden saw him attend a really good grammar school, but his first architectural studies, at North London Polytechnic, disappointed him. The tutors warned him of the ‘wayward and impractical’ Architectural Association; Finch took a look, felt its radical yet warm ambience was for him, and secured its one LCC scholarship in 1950.

Finch will be best remembered for two major buildings he designed for Lambeth council. The first was Lambeth Towers, 10 storeys of flats set over a luncheon club and doctor’s surgery. Inspired by Moshe Safdie’s published student project, the scheme was built at the same time as Safdie’s Habitat blocks for the Montréal Expo of 1967. The second was Brixton Recreation Centre, designed in 1971 as the centrepiece of a radical redevelopment on raised walkways that responded to proposals by the Greater London Council to bisect the area with a motorway. Only the recreation centre survived a reality check in 1973. Finch was keen that individual sports should not be closed off and created an active atrium linking the swimming pools, gymnasias, climbing wall and other facilities. Recently threatened with closure, in January council leader Lib Peck affirmed that ‘The Rec is a treasured, landmark building and is part of what makes Brixton so special and unique’, promising that it would be retained.

**‘Tutors warned him of the “wayward and impractical” Architectural Association; Finch took a look, felt its radical yet warm ambience was for him, and secured its one LCC scholarship in 1950’**

An accomplished musician and thespian, Finch formed a partnership with theatre architect Roderick Ham, and worked on the Derby Playhouse and Wolsey Theatre, Ipswich. From 1973 until 1978 Finch was head of design in the school of architecture at Thames Polytechnic (now Greenwich University), and then worked with Bob Giles as Architects Workshop in Docklands. Finch later moved to Hampshire, working as a consultant for the county council before establishing a practice with his partner Kate Macintosh. In 2005 their adventure playground in Southampton won an RIBA award.

George Finch is survived by his ex-wife, Brenda, and children Alison, Emma, Sarah, Adam and Jonny; and by Kate and their son Sean. ■

## Elain Harwood

### IN MEMORIAM

David Joseph Clarke, elected 2004, Cromer, Norfolk
Michael Oliver Watson, elected 2004, Reigate, Surrey
Basil Norman Atkinson, elected 1950, St Albans, Hertfordshire
John Wingate Davidson, elected 1950, Robertsbridge, E Sussex
Brian Anthony Rush, elected 1950, Stratford-upon-Avon
Leslie Robert Malcolm Tibble, elected 1953, Southampton
Charles Galloway, elected 1953, Pinner, Middlesex
Alastair Campbell, elected 1954, Crieff, Perthshire
Ronald Albert Cox, elected 1954, Leigh-on-Sea, Essex
Harold Peter Scher, elected 1955, London
Roger Frank Marshall, elected 1956, Sevenoaks, Kent
Richard Kellett German, elected 1956, Redhill, Surrey
John Hadley Alan Coleman, elected 1958, Taunton, Somerset
Geoffrey Marsh, elected 1959, Wolverhampton
Simon Alexander, elected 1959, Wembley Park, Middlesex
Archibald Lachlan Brown, elected 1964, Glasgow
Ronald Sheridan, elected 1967, Paisley, Renfrewshire
Bernard Joseph Throp, elected 1972, Crawley, West Sussex
Granville William Partridge, elected 1989, Redhill
Robert Andrew Bowcock, elected 1981, Twickenham, Middx
Antony William Morgan, elected 1988, London
Horace George Clinch, elected 1942, Eastbourne, E Sussex
Brian James Moxham, elected 1947, Skipton, North Yorkshire
Michael Mountford Pigott, elected 1951, Cheltenham, Glos
Laurence Jules Perlston, elected 1949, London
Ian Alexander Campbell, elected 1945, Troon, Ayrshire

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# CONFOUNDED CRITIC

John Ruskin made a lasting impression on the Institute when he rejected the Royal Gold Medal

50 YEARS AGO

RIBA Journal, April 1963. Librarian John Harris discovers how in 1874 critic John Ruskin refused the Royal Gold Medal. It went instead to G E Street, as then President Sir George Gilbert Scott explained

**TO MR. RUSKIN'S EYE** the best of our restoration are mere vandalisms, for he protests against them root and branch: and to him all the difficulties and disappointments met with in carrying them out would be only so many reasons for reproaching us for having undertaken them at all. Anyhow, he would find in England far more than one half of our ancient churches to have been so dealt with by ignorant and sacrilegious hands... but restoration has not laboured alone in the work of Vandalism; deliberate destruction has been rife. Has not one great cathedral body deliberately pulled down its ancient hospital hall of the 14th century, and another its stupendous tythe barn of the 13th?

Fully, however, as we may allow that we have in these days more cause for humiliation than for mutual gratulation, we cannot go so far as to admit that this deprives us of the right and privilege of giving honour where we know that honour is due. Great as are Mr. Ruskin's merits, they are in the main those of words rather than deeds. Mr. Ruskin says we have not any right remaining either to bestow or to receive honours; but he perhaps reserves to himself the pontifical power of dispensation.

I may say for myself that I had gone to the Council meeting with the intention of



John Ruskin famously snubbed the RIBA.

proposing Mr. Street, when the course of discussion led us to choose a man, whom we might have guessed, had we sufficiently thought of it, would be likely to bring some theory to militate against our intentions, and who has really not done so much to merit this honour as Mr. Street; for, after all, an anathematiser of what is bad claims lesser honours than he who practically carries out what is good.

25 YEARS AGO

RIBA Journal, April 1988. A fêted underground designer by the name of Ron Arad – surely a Ruskinian 'noble craftsman' – was starting to go commercial. But in a distinctly steampunkish way, as Jennifer Havinden reported

**RON ARAD'S** new One Off shop in Covent Garden is hard to find, with its paint-streaked metal security shutter and steel panelled door with graffiti-style 'One Off' logo gouged into the panels. Piercing the shutter is a line of small peepholes which provide a fish-eye view of the interior. To enter you have to take courage and press a loud metal buzzer. Entering the shop is like stepping into the wings of a stage set: the gloomy, mysterious interior, full of curious pieces of twisted metal furniture, is viewed through an opening cut into an inner lining of welded steel.

Inside all existing partitions have been removed to provide a large space supported by exposed columns and lined with a patchwork of discoloured sheets of welded 2-gauge steel... artificial lighting is provided by the various lamps on show and the floor is of reddish brown bare concrete. Integral to the interior 'skin' of the showroom is a bar, which Arad describes as a 'ripple' off the main wall, consisting of various cone shapes, again in steel, with a stainless steel dish-like top.

*Editor's note: Arad later formed a successful architecture practice mentoring Alison Brooks among many others. Today his practice spans design, sculpture and architecture.*

100 YEARS AGO

RIBA Journal, April 1913. Sir Ernest George tells Royal Academy students what he reckons architecture is all about. He gets in a swipe at that pesky Ruskin too

**TO GET THROUGH** your allotted work you have to specialise and limit your interests, giving your mind to one earnest pursuit, avoiding distracting influences. When all is done, your attainments will not exceed your needs as accomplished architects, for you are probably ordinary mortals.

When I was a pupil the enthusiastic writings of John

Ruskin were an awakening influence; they opened the eyes of so many to seek and to see what was beautiful. Unfortunately, Ruskin, with all his genius, had no sound knowledge of architecture, on which his outlook was prejudiced and narrow. He was instrumental in upsetting all that was left of our national building traditions, and at his bidding we enthusiasts went out to gather and assimilate "brick and marble" architecture and mediaevalism in France, Germany or Flanders, setting most store on things un-English. When this acquired

knowledge came to be applied at home a picturesque quality was sometimes attained, but harmony and restraint were not accounted of. The change was accepted as a reaction from the dull and generally mean work of the earlier Victorian epoch. It is for us to lead and not to be led by the chance wave of popular fancy. We must be deaf to the clamour for new art and a new style of architecture; our aim must be for continual progress and an increase of knowledge and power of design, raising the standard of our work, leaving no handle for a revolutionary crusade.

# SHARE AND SHARE ALIKE

Why do working mothers still struggle in the profession, asks **Anna Gidman**

**BEING A FEMALE ARCHITECT** can be difficult. We come with an element of risk if we are at an age where we might start having children. We may get pregnant and leave for up to a year or never return. Hardly a useful investment for your practice – and all that paperwork! Then there is the architect mum who has young children. You know the age I mean; the sleepless-nights age where babies and toddlers catch every single germ known to man. The age of awkward phone conversations between working parents, which go something like, “I’m too busy, yes, I know you did it last time but I have a deadline”.

Who is the first to give in? In my non-survey based experience where both parents are trying to have careers, it is usually one parent more than the other. On what basis? Money. The one who earns less money usually breaks sooner, gives in, makes their apologies and leaves to administer pink medicine and cuddles.

## Fear factor

This is based on the fear that sudden and frequent departures from work during the middle of the day are not good. It is felt risky. The person who earns more money should therefore take this risk less often. Now, if you add this to the fact that architects don’t earn that much and throw in some maternal instinct then you have a lot of women architects leaving the profession. If they stay, then not many get far with part time work either. I know architects who have returned part time only to find they have to go back to full time as they simply aren’t taken seriously. On what grounds I wonder? Surely an architect mum by her very existence is proving that she is perfectly capable of running a project?

Women are more likely to return to their previous place of work rather than go to a new job, because it is safer. They are known and have developed relationships. They feel that people will understand that an egg and spoon race is more important than a specification. This is not necessarily a good way to develop a career. If you have worked somewhere for a few years you can still be treated with caution on your return. It took me a while to prove myself and regain the level of responsibility I had previously had. I may have had the occasional

bit of goo on my shoulder but I could still do my job.

Architects are wonderfully and stupidly dedicated. Before I had children I wouldn’t think twice about working until 8 or 9pm, even 2am if something had to be done. But once you have children this is no longer sustainable on a daily basis. This is actually a very good thing indeed. It is quite liberating. There is nothing like a deadline. Having to leave at 5pm can make you work more efficiently than you ever thought possible. A family can also make you more dedicated as you have more riding on your wage. Leaving early will always be difficult though. A scrooge mentality still exists around work and we have to fight that.

If both parents are architects, as we are, it can be especially hard. Whoever picks up the children usually spends the evening alone while the other works late. It’s a single parent mid week experience, which can be lonely and tiring. Something has to change, but what? Perhaps if we respected ourselves



**‘When both my children were at nursery I remember calculating that I earned £9.00 after childcare. Yet I still worked three days a week to avoid a big (apparently disastrous) gap in my cv’**

more as a profession and demanded higher fees then overtime would reduce as staff would be available to do the work in paid time. Not only are we working long hours and getting paid relatively little compared with other professions, but the cost of childcare is crippling too. When both my children were at nursery I remember calculating that I earned £9.00 after childcare. Yet I still worked three days a week to avoid a big (apparently disastrous) gap in my cv, to get out of the house and to give my children a different experience.

## In the balance

Until there is a true work/life balance, women will continue to leave the profession. Women seem happier to admit that something isn’t working and do something about it. I call this the ‘stop and ask for directions’ phenomena. They will also have time to reflect upon their life during their maternity leave. If you stay in the profession you need to really love it because it requires so much dedication. But other than fees, what could be done to make architecture more attractive?







Practices could actively offer a ‘What would suit you best?’ attitude at work, which should come from the employer, not as cautious requests from the employee. Employees should be brave and demand more flexibility. What are we teaching our children by never being at home? But nor should there be an expectation that those who don’t have families should work late just because they can. A life outside work is crucial, whatever it may be.

Women fought for the rights to vote and to be educated and join the professions. It is time for men to demand more time at home. Would men do this? Would they fight for all things domestic? I’m not so sure. Does anyone really delight in cleaning the bathroom? But then again, does anyone honestly love plodding through an ironmongery schedule? Ultimately, everything needs to be shared if we are to live equally. ■

**Anna Gidman** is a part time project architect at Ellis Williams Architects. She also teaches part time at Liverpool University. Her architect husband works part time for MUMA.



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# ALL IN THE MIND



ANGELA BRADY | RIBA PRESIDENT

**FOLLOWING LAST** month's column looking at the benefits to the profession of attracting students from all socio-economic backgrounds, Alison Watson, from Class of Your Own and Victoria Thornton, founder of Open-City, give their insights into how to engage and excite school children into architecture, a subject we all believe should be on the curriculum. If you are interested then you can join STEMnet, as an ambassador (see right) or just give your local school a call and offer to give a talk on careers in architecture or run a workshop. ■

Angela Brady @angelabradyRIBA

*Broadening horizons and expectations is critical to create a profession that is diverse enough to build better for everyone*

## Architecture is a STEM subject and can be fitted into most areas of the curriculum.

STEMnet ([www.stemnet.org.uk/content/ambassadors](http://www.stemnet.org.uk/content/ambassadors)) creates opportunities to inspire young people in science, technology, engineering and mathematics (Stem). The Stem Ambassadors Programme helps teachers to link the curriculum with how Stem is practised in the world of work. Ambassadors are volunteers from Stem backgrounds and can contribute to regular lessons or participate in extra-curricular activities such as Stem clubs, careers days and visits. They open the door to a whole new world for young people.

VICTORIA THORNTON | OPEN-CITY FOUNDER

## GET INTO THE CLASSROOM TO BUILD DIVERSITY

**IT IS A** cliché that 'the built environment' influences daily lives so its absence from the school curriculum is all the more salient and remarkable. This doesn't mean all students should learn about architecture rather than, say, geography, but architecture has a unique capability to deliver multiple sub-disciplinary aspects. What could be more exciting?

The UK is home to some of the finest architecture in the world and we should take children beyond the confines of their classrooms into realms that are private and privileged as well as public. Giving them the chance to explore exemplary architecture has been central to Open-City's Architecture in Schools programme with 30,000 school children taking part over the last 10 years. There is also the RIBA 'Adopt a School' initiative, backed by resources from the RIBA Library and Engaging Places portal.

Teachers welcomed the *Opening Up Architecture* publication, which shows how architecture can be applied to National Curriculum core subjects as well as art and design. Participating architects helped

create more innovative and engaging teaching methods while complying with the curriculum. Together we learned that socio-economic diversity in architectural practice is absent partly because people from disadvantaged backgrounds – who lack a history of people to discuss roles in this area – are unaware of career opportunities in the industry. To tackle this we started a free Summer Architecture Academy, with 'taster' workshops for teenagers, enhancing awareness of the industry and of the variety of career options surrounding it.

Giving support, like our Accelerate into University! programme, helps them reach their full potential. This programme, partnered with Make and other practices, together with The Bartlett, has seen 78% of its students gain conditional offers from top universities. As our skills and knowledge are shared with the next generation, we will see the results in better places created by a diverse profession.

[open-city.org.uk](http://open-city.org.uk)

ALISON WATSON | CLASS OF YOUR OWN

## BUILDING CONFIDENCE

**AN ABSENCE OF** positive promotion to the general public of careers in the built environment over the last two decades has left the construction industry with a poor image and low social status.

Even the revered architect has been reduced to someone who simply draws all day, needs no maths, and earns pots of money from the outset.

How has this happened? The mathematical knowledge of children can be stashed away, never to return, if all they ever see is the whiteboard. Yet give them a real design project, and watch the maths fly... they see the need for trig, formulas, addition, subtraction, multiplication and division, because they're using maths to solve a real problem.

Architecture is changing, with collaboration and BIM technology a way of life. For too long, subject criteria has been devised and evaluated by experts who are not necessarily in tune with 21st century careers. As new vocational qualifications are developed, it's very clear that a new curriculum model which inspires academic and vocational progress must not focus on construction trades again, but instil excitement and enthusiasm in teachers and students alike, and give parents the confidence that their children are studying a robust programme which will give them a route to architecture and other design-focused careers.

Our Design Engineer Construct! curriculum targets tech-savvy young people who need support to grasp the application of pure subjects and how they relate to solving some of the world's greatest challenges in sustainable living. Teachers are also learning technologies used by professional architects and engineers, but too often fear 'not having a construction background'. Teacher training is fundamental to the programme's success.

We provide recognised qualification routes and offer industry-led events for students and teachers alike. We have developed an effective professionally led training and mentor scheme, and are linking with teaching schools and universities to provide CPD accreditation. We are developing criteria with progressive universities, industry leaders and professional bodies to deliver a specification for the people who will employ our children.

[designengineerconstruct.com](http://designengineerconstruct.com)



## TIME TEAM

Any doubt over the value of archives is lavishly dispelled by the forensic refurbishment of the elegant Art Deco entrance to Claridge's Hotel. Michael Blair reports

**OLD PHOTOS** are not just for nostalgia. They can be a useful design resource, as London's Claridge's Hotel reveals with its newly-refurbished entrance on Brook Street. Since its completion in 1929, this beautiful example of Art Deco architecture lost many of its finer touches in unsympathetic modifications and repairs. Blair Associates Architecture turned detective to piece together those elements and return the entrance to its former glory.

I have worked on Claridge's since 2004. As a grade II listed building any work must respect the existing historic fabric, so we worked with the hotel to build up the background required for refurbishment. The team began with the archives of the hotel, but to unearth the complete picture we had to spread our net wider to the RIBA libraries and the London Metropolitan Archives.

To piece together the original works and stages of evolution of the hotel, we delved first into the mass of papers that a building like this acquires over its lifetime.

Claridge's is made up of two buildings, the original Victorian design of 1896 by C W Stephens (also the architect for Harrods) and Oswald Milne's 1929 Ballroom Wing. The complexity of Claridge's is where Art Deco architecture meets the Victorian original: for example the present main entrance and foyer supplant one allowing horse drawn carriages to drop off guests within the hotel precincts.

Oswald Milne and his contemporaries, Basil Ionides and Art Deco artists, also converted the dining room and many of the suites in the Victorian wing. Happily, however, they left alone the hotel's greatest Victorian masterpiece – the flowing grand staircase by Stephens and Sir Ernest George.



RIBA LIBRARY PHOTOGRAPHS COLLECTION

ABOVE: A scan of the large plate negative, a fount of unrecorded detail.

RIGHT: Putting back the pieces for a renovated Claridge's.





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BELOW: The refurbished canopy with its bronze and chrome detailing restored.

The hotel's extensive archive includes an extraordinary hand written account of the building process of the Victorian wing in the form of minutes. These are fascinating in their own right; meetings were attended by D'Oyly Carte, César Ritz of Ritz Hotel fame, C W Stephens and Ernest George, among many famous names. The highly descriptive account may be a little hard to decipher but it describes not only the design process but client decision making too. It gives the background to the original Victorian Claridge's and allow easy identification of future stages of work by others.

However, there is little within the Claridge's collection to document Oswald Milne's design intention in written material or original drawings. For the Art Deco drawings and details we had to look further afield.

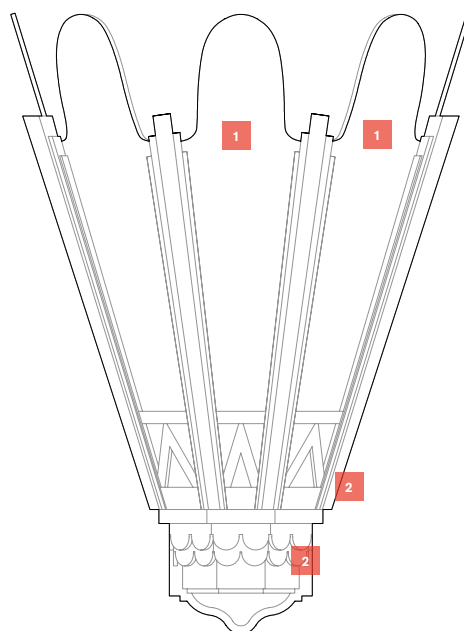
Forensic research was needed before we could fully understand the original design, detailing and appearance of the Art Deco entrance. For this we went to the RIBA Library and Photographic Library, where we found a collection of images of the original design photographs taken just after the grand opening. These fantastic photographs are large plate negatives so it is possible to enlarge them and find otherwise unrecorded details. Despite the description of the highly polished canopy soffit with decorative chevrons, the shape and size of these adornments were not recorded. Zooming in on the photographs revealed their shape and form very clearly, and many other features of the canopy too; blowing up the photographs made details of stone joints, railings and urns quite clear. These RIBA photographs and Claridge's own extensive collection of images resolved most of the missing detailing. The RIBA Library also had original 1932 editions of *Architecture Illustrated* and *Country Life*, which had extensive descriptions of the main entrance portico and other aspects of Milne's work at Claridge's.

We found Milne's original drawings at the London Metropolitan Archives, which clearly illustrate in section the substructure roof make-up and the bronze detailing connections of the soffit.

For a long time now the underside of the canopy had been painted white with a suspended mesh to which Christmas



NICK CARTER PHOTOGRAPHY



FAN-SHAPED WALL LIGHT

- 1: Milk glass finish
- 2: Metalwork finish

decorations could be attached. But the original was a beautiful bronze framework with inlaid chrome mirror-finished panels and etched chevron detailing. Again the shape and size of the etching details were revealed in the photographic analysis which we then drew out fully to ensure the pattern worked across the whole of the soffit. During early trials we removed the white paintwork, and to everyone's surprise the bronze detailing was all there. Unfortunately, however, the original chrome panels had tarnished and corroded, so they had to be remade and replaced.

Much of the original surrounding stonework had been replaced with new stone not consistent with the original Roman stone and in many cases had been painted over to disguise wear and tear. This has been replaced with stone matching the original.

The original revolving doors, luggage entrance and glazed screens have been fully restored and where elements required replacement the detail of the original has been faithfully reproduced. The corroded mezzanine windows and balustrade above the canopy have also been fully refurbished.

On top of the portico sit floral urns, which having lost their original colour were no longer even noticeable, while behind it is hand carved brickwork that has got lost in years of atmospheric pollution. Both these elements have been magnificently restored, with the flower and fruit arrangements on the urns painted to Art Deco colour schemes and the urns themselves returned to their original black and gilded splendour.

One of the original outstanding features was the ornamental fan-shaped wall lights which were removed during the war, and lost. The original lights would fill with rainfall, and early investigations made it clear that the canopy had been extended on either side to protect these lights from the elements. Again, the discovery of detailed photographs enabled us to have precise replicas made.

So the painstaking work of gathering evidence enabled us to reconstruct the scene as it was in 1929. Restoring this beautiful Art Deco design must give Claridge's the most glamorous hotel entrance in London. ■

Michael Blair is principal at Blair Associates Architecture



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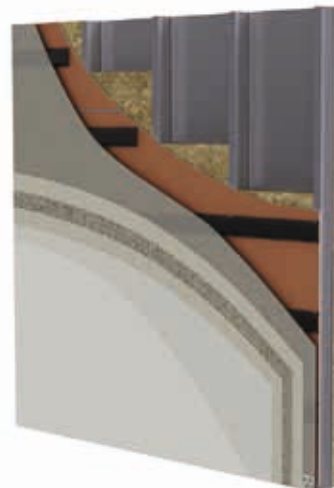
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# TERRIBLY GRIPPING

**Hugh Pearman** found this collection of dialogues unbearably self-absorbed, but he just couldn't put it down

**NON-LONDON READERS** may be excused for rolling their eyes at this. It is the written record of a monumental piece of self-indulgent showboating that took place in 2006 under the auspices of the Serpentine Gallery's annual pavilion programme, designed that year by Rem Koolhaas. That was the pavilion with the deformed helium balloon for a roof that looked like a chef's hat or giant muffin. Associated with it was this 'happening': a 24-hour interview marathon conducted by Koolhaas, with Serpentine co-director and architecture's Boswell, Hans Ulrich Obrist. It assumes that London is the centre of the cultural universe. It is very much pleased with itself. It has the patchouli-oil, wacky-bacsy reek of the 1960s.

Damien Hirst knows this. At 4.25am – nearly half-way through the marathon – Hirst arrives for the graveyard slot. 'Hello Hans,' he says. 'That fruit doesn't look very good. That fruit's been there since the 1960s.' Hirst proceeds to wind up his interlocutors. To Obrist's first question – about having once said something about the city being a 'good soup' – he responds: 'Jesus! I

can't remember a good soup. Do you mean with loads of layers with art and music? How long have you been doing this? Since 5 o'clock? What's the next question?'

Soon after, the flies start to bother Hirst. He must be amused by the connection with his own work. 'Why did you get these flies on me?' he asks Koolhaas, who is trying to draw him on the subject of being an 'oppression' to other artists. 'What are these little flies? It's the fruit.'

Koolhaas persists. 'Can you say something about politics?' Hirst continues to evade. 'Not after midnight! Jesus Christ, are you mad?' He pretends not to understand Obrist's questions, quoting himself from an earlier interview instead: 'I said there has only ever been one idea in art – what you are wearing tomorrow. I don't know what the f\*ck\*ng hell it means but it sounds great.'

I was immediately gripped. This has not been redacted to make the organisers look good. Despite my opening lines, this book is absolutely fascinating to read. Rem was right, damn him: the sheer intensity of this experience has brought forth wonders, though perhaps



not those the serious and self-absorbed Obrist might imagine. More probably it fulfils the mischievous side of Koolhaas's character, because the invited participants made it in various ways illuminating, oblique, and – as with Hirst – funny. Of course, taken as a whole, this series of interview vignettes amounts to a piece of performance art in itself.

The artists are best: Gilbert and George (early shift, 7.10am on day two) tell London anecdotes. Gilbert complains about backpackers

Where it all happened: Koolhaas' 2006 Serpentine pavilion.

whacking you in the face as they turn round. Koolhaas agrees in a purely Koolhaas way: 'Rucksacks kind of make mankind twice as voluminous.' Peter Cook (2pm, second day) is the opposite of Hirst, with very long, detailed replies, for instance about being non-metropolitan ('I still am psychologically provincial in that I hate not looking out on a tree when I wake up.')

People stroll on and off. The reader becomes an eavesdropper on private conversations.

The idea is to build an impression of London through a certain cadre of creative individuals associated with it. In this it succeeds. You get no cab-drivers or Polish builders or gang members, but people who have a view on all that. So is the book precious? Slightly ridiculous? Up itself? Certainly. But also absorbing and worthwhile. Especially if it makes you angry. ■



**LONDON DIALOGUES:**  
SERPENTINE GALLERY  
24-HOUR MARATHON  
eds Hans Ulrich Obrist and  
Rem Koolhaas.  
Pub Skira, £19.95 paperback

## EDITORS' SELECTION



### The Urban Masterplanning Handbook

Eric Firley and Katharina Grön,  
Wiley, £50

How-to guide based on real, built, urban districts, from Belgravia to Potsdamer Platz via Downtown Dubai. How replicable these places are isn't clear, but if you want analysis, it's here in spades. Worth it for the diagrams. **HP**



### Old House Eco Handbook

Marianne Suhr and Roger Hunt,  
SPAB/Frances Lincoln, £30

You can do energy-saving retrofit without wrecking the character of the house says SPAB – especially without losing original windows. This book even tackles flood protection. Straightforward language, a must especially for conservation architects. **HP**



### Handmade Urbanism

Edited by Marcos L Rosa and Ute  
E Weiland, Jovis, £32

Drawing on local researches in Mumbai, Mexico City, Istanbul, São Paulo and Cape Town, stakeholders in projects in those cities' 'less favoured' areas share their experiences of initiatives. Helpful, like its cartoon-style graphics. **EY**



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# LIGHT WORK

It might not sparkle quite as much as a Christmas tree, but there are lessons on life here, says **Eleanor Young**

**THE LIGHT SHOW.** It sounds all singing and dancing: a performance. But, in winter at least, this is what we expect – not just practical light but a bit of a show – glitter, flashing, the works. The cover girl of the Light Show does just that, but with steel rods, in a circle. Leo Villareal's *Cylinder II* is pretty. But like early video art which was not as good as a TV this is not as good as great Christmas illuminations. Artists might have creativity and insight but it doesn't mean they match the technical skill and ingenuity of those working in the lighting industry itself.

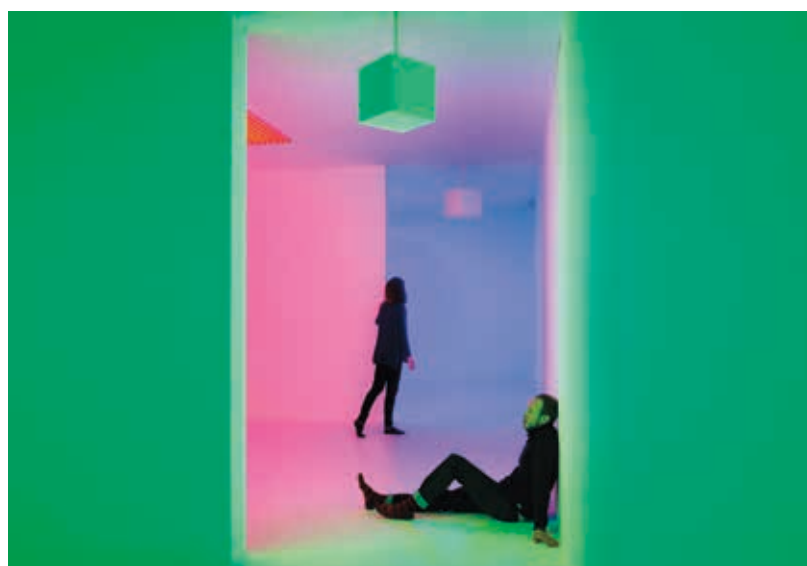
But bear with me: critique, experimentation, beauty and the nature of light are all here, even as they are sandwiched with the banal. And if you emerge with a slight headache as well, it shows you have taken it in properly.

First, the most profound experience. Chromosaturatation tells you about colour and your eye's adjustment to it, as much as the nature of light. Three 'colour chambers', each

intensely lit with just one colour, play gentle tricks on your eyes. Adjusting to the last the green tubes seem white, while your skin looks very unhealthy indeed, thin with blood too near the surface.

Conrad Shawcross' cage with a rotating light, or rather the shadows it throws out, has a similarly powerful effect. I was not the only one with a queasy stomach watching the advancing and retreating lines moving at pace on the wall, creating unknown geometric landscapes that shifted the ground under your feet. If the shadows of a colonnade can impart a cool, calm rhythm, here was its opposite, uncoupled from the slow pace of sun and moon. It was an experiment in horizons.

This wasn't the only experiment. Artist Olafur Eliasson, he of the Weather Project in Tate Modern's Turbine Hall which engendered picnicking and sunbathing on its concrete slope, used the flash of strobe to freeze frame the droplets of fountains in the retina,



LINDA NYLIND

capturing a different beauty.

The most 'natural' piece was, of course, by James Turrell. Regarded like a god himself, his Roden Crater in the Arizona Desert is a place of pilgrimage. I associate experiences of Turrell's work with earth and sky and the slowness of time. The queue to see *Wedgework V* was indicative not just of Turrell's status but also the 15 minutes needed for the eye to accustom itself to the subtleties of light after the brightness of the gallery. Only by watching and waiting can you perceive the depth and space he creates in a simple enclosure with light.

This respect for time and expectation of slowness is a rare gift. But sometimes it's fun to throw it out of the window. The brightly coloured letters on a tower of ticker tapes run at giddy speed in Jenny Holzer's *Monument*. You barely have time to catch the threateningly grim messages it displays, 'US Custody',

ABOVE: Colour playing tricks on the eye in Carlos Cruz-Diez's *Chromosaturatation*.

BELOW LEFT: The pretty *Cylinder II* with Batchelor's piece questioning light and dark behind.

and 'time of death' flash past in this set of declassified documents from the US war on terror. Light here is a language which throws its content into contrast with extreme dissonance.

So Shawcross uses shadow, and Turrell light emerging from darkness, but the only explicit exploration of darkness and implicit critique of electric light was David Batchelor's *Magic Hour*. Batchelor turns his installation of many-coloured lightboxes to the wall, deliberately leaving on display coils of black wires in the shadows. So this show takes on an edge, becoming an exhibition not just of light but of its complex corollary and the condition of modern life. ■



LINDA NYLIND

**LIGHT SHOW**  
To 28 April  
Hayward Gallery, Southbank  
Centre, London SE1 8XX  
[www.southbankcentre.co.uk/lightshow](http://www.southbankcentre.co.uk/lightshow)



The background of the advertisement is a high-angle, aerial night photograph of a city. A large, modern building with a complex, multi-level roof is the central focus. The roof is illuminated with bright yellow and blue lights, creating a vibrant contrast with the dark night sky. The surrounding city is also lit up, with various buildings and streets visible in the background. The overall scene conveys a sense of urban development and modern architecture.

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# LISTINGS

## STUDIO MATTERS + 1

A field of coloured lights, inspired by the street lights of Sicilian festivities, take over a room at the gallery. Accompanied by artist Massimo Bartolini's 'containers of thought', his studio works.

> To 14 April

Fruitmarket Gallery, 45 Market Street, Edinburgh, EH1 1DF  
[www.fruitmarket.co.uk](http://www.fruitmarket.co.uk)

## KNOCK KNOCK

Seven contemporary artists with a Hastings link, in a show curated by artist Professor Gerard Hemsworth. My favourite is Fiona Banner, showing a shot of the metal ingots of Sea Harrier and Sepecat Jaguar aircrafts.

> 17 April

Jerwood Gallery, Rock-a-Nore Road, Hastings, East Sussex  
[www.jerwoodgallery.org](http://www.jerwoodgallery.org)

## WALLS

Artist Miranda Donovan takes layers of walls into art with her resin and foam sculptures. Brick, paint and graffiti, sometimes even a leaf or two, exhibit unexpected power and fascination.

> To 20 April

Lazarides Gallery, 8 Greek Street, London W1D 4DG  
[www.lazinc.com](http://www.lazinc.com)

## MARKING THE LINE: CERAMICS AND ARCHITECTURE

Soane's collection of pre-Columbian pottery provides a starting point for this exhibition by contemporary ceramicists Nicholas Rena, Carica Ciscato, Clare Twomey and Christie Brown. Shock of the new? No just more pieces of incredible clutter.

> To 27 April

Sir John Soane's Museum, 13 Lincoln's Inn Fields, London WC2A 3BP  
[www.soane.org](http://www.soane.org)

## MASTER DRAWINGS UNCOVERED

The hugely detailed preparatory sketches for Giovanni Battista Piranesi's last project, the Paestum drawings of three Doric temples. With workshops and evening courses on Piranesi's drawings.

> To 18 May

Sir John Soane's Museum, 13 Lincoln's Inn Fields, London WC2A  
[www.soane.org](http://www.soane.org)

## MICHAEL LANDY: FOUR WALLS

His father housebound at 37, young couples and dreams of home improvement, decayed structures and blocked drains. Just a small part of Landy's 2004 Semi-Detached rendering in the Tate of his home, but worth catching. Plus a lot of land art in the rest of the gallery.

> To 16 June

Whitworth Art Gallery, The University of Manchester, Oxford Road, Manchester, M15 6ER  
[www.whitworth.manchester.ac.uk](http://www.whitworth.manchester.ac.uk)

## CYCLES OF RADICAL WILL

Mini Ramp Intersection, the title of Australian artist Shaun Gladwell's installation on the roof of the De La Warr Pavilion, says it all. Wheels, movement, conflict and collision all feature in a show drawing on film, the area's history and the subcultures of skating and cycle. And yes, that installation will be a genuine skate ramp.

> To 23 June

De La Warr Pavilion, Marina, Bexhill, East Sussex, TN40 1DP  
[www.dlwp.com](http://www.dlwp.com)

## RUINS IN REVERSE

Monuments and ruins. Two sides of the same coin. Explored in the Tate Modern's Project Space through the work of six artists including R&D di Martino who photographs the abandoned Star Wars set in the deserts of North Africa as it becomes part of the landscape.

> To 24 June

Tate Modern Project Space, Bankside London SE1 9TG  
[www.tate.org.uk](http://www.tate.org.uk)

## WIM CROUWEL – A GRAPHIC ODYSSEY

Sixty years of typographic innovation including many decades of design for Amsterdam's Stedelijk Museum with Crouwel's rather awkward computer-style typeface the New Alphabet.

> 12 April to 30 June

The Lighthouse, 11 Mitchell Lane, Glasgow, Scotland G1 3NU  
[www.thelighthouse.co.uk](http://www.thelighthouse.co.uk)

## DESIGNS OF THE YEAR

Digital designs, products, the Olympic Cauldron. This year's list is as invigorating and eclectic as usual. Architects with projects nominated include Hackett Hall McKnight, Witherford Watson Mann and Studio Egret West. Don't wait until the winners are announced, go and take a view now; you are sure to find something to surprise you.

> To 7 July

Design Museum, 28 Shad Thames, London SE1 2YD  
[www.designmuseum.com](http://www.designmuseum.com)



## MUST SEE

### THE INDEPENDENT GROUP: PARALLEL OF ART AND LIFE

The Independent Group brought together the energies of Alison and Peter Smithson, James Stirling and Colin St John Wilson with Reyner Banham, and artists Richard Hamilton and Nigel Henderson (above). The exhibitions they organised went down in history for their layout and unconventional objects. Their 1950s meeting place of the ICA makes this a perfect institution for looking back at their work.

> To 9 June  
 Institute of Contemporary Arts, The Mall, London SW1Y 5AH  
[www.ica.org.uk](http://www.ica.org.uk)



## EXPERIENCE THIS

### TOO MUCH NIGHT, AGAIN

Pae White spins black and purple yarn across the room responding to the space of the South London Gallery. Words appear and disappear with the viewpoint. Cocooning, yet the stuff of hours spent worrying the night away.

> To 12 May  
 South London Gallery, 65-67 Peckham Road, London SE5 8UH  
[www.southlondongallery.org](http://www.southlondongallery.org)





### ACTION STATIONS

#### RUN, JUMP, SHOOT

Calling potential architectural photographers. This workshop goes from the archives of the RIBA to the cityscape of Churchill Gardens with a look at some urban disruptions en route. With parkour photographer Andy Day, curator Justine Sambrook and artist Keith Harrison. (If you prefer the pencil look check out Explore and Draw.)

> 20 April,  
13.00-17.00  
RIBA, 66 Portland  
Place

For more details on all  
these events go to  
[www.architecture.com](http://www.architecture.com)

#### AFTER THE PARTY

Lively show on the extraordinary structures used to mark events and their legacy.

> To 7 April  
The Architecture Centre, Narrow  
Quay, Bristol BS1 4QA

#### VENICE TAKEAWAY: IDEAS TO CHANGE BRITISH ARCHITECTURE

The 19 teams which travelled the world to look for inspiration report back from the Venice Biennale. Plus international exchanges with the architects and those from

abroad who have inspired them.

> To 27 April  
RIBA, 66 Portland Place, London

#### EMERGING ARCHITECTURE

Work from young architects globally, from ar+d Awards for Emerging Architecture. Includes Gun Architects and Rural Urban Framework.

> To 27 April  
RIBA, 66 Portland Place, London

#### THE BANALITY OF GOOD

New towns transformed with iconography. This show, curated

by Dutch collective Crimson Architectural Historians, takes a look at six decades of invented cities.

> To 10 May  
RIBA, Portland Place, London

#### CHROMAZONE: COLOUR IN CONTEMPORARY ARCHITECTURE

Does what it says on the tin. Also looks at non-colour, sometimes known as minimalism. You might expect Alsop but Olgiati is here too. Dark glasses compulsory.

> To 19 May  
V&A, Cromwell Road, SW7 2RL



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# EXCHANGE

We welcome communications but retain the right to edit them.

Email [editorial@ribajournal.com](mailto:editorial@ribajournal.com) or write to us at *RIBA*J, RIBA Enterprises, 15 Bonhill St, London EC2P 2EA

## SHAPE UP

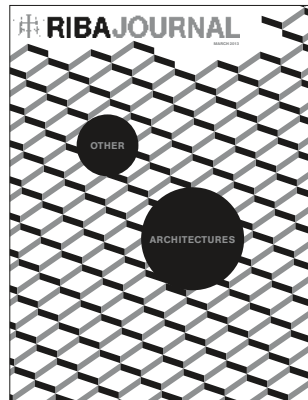
I have recently completed an RIBA survey which primarily dealt with the services provided by the institute.

It would be interesting to see the results of a survey of the quality of the information provided by architects to builders, local authority building inspectors, suppliers and customers.

I operate a very small practice, but in my experience builders, building inspectors and suppliers frequently complain about the poor quality of information provided by some members of our profession.

They report feeble CAD drawings with no dimensions, little information and numerous 'cop out' clauses putting far too much design responsibility on contractors and making it almost impossible to price the work.

When work is short the profession needs to demonstrate that it can provide service of a quality



that cannot be equalled by the competition!

**Peter Ashworth**  
Northumberland

## BUILDING BLOCK

I am very interested in the piece on the Plan of Work 2013 (*RIBA*J, March 2013), which is to be fully published this May.

I was pleased to read you shared my concerns in your second question: 'This leaves some major tasks out of the work stages, notably procurement.'

Dale Sinclair replies that the tendering stages have

been deleted but replaced with a procurement task bar. However, your diagram of the task bars fails to mention this in either the top or the side line, so the entire procurement procedure has to become a task, added by each practice.

With the new Plan of Work, it is now possible to provide electronic design drawn information but then go straight to BIM and not build at all.

**Howard de Mont**  
Loughton, Essex

## CONSERVATISM TO BLAME

I'm all for diversity in offices and universities and student bursaries (Asif Kahn, *RIBA*J March 2013), but I don't believe that what Khan calls the 'unfortunate university fee situation' is the main disincentive to those wishing to enter the profession.

'Endemic conservatism' over the years has brought us to the point where I ask: Compared to the other

professions, trades and labour working in the construction industry, is a young architect appropriately rewarded and trained?

With 22% of the profession unemployed and many of the remainder underpaid by comparison, financial assistance for those in the profession has become necessary plus a reality check for those wishing to enter it.

In my opinion reducing to a single span 3/4 year training course would be a change for the better for practices and students of all backgrounds.

**Peter Barker**  
Johnson & Partners

## GONE BUT NOT FORGOTTEN

I thought Matthew Butcher's excellent 'Ghost of Mies at Mansion House' (*RIBA*J, March 2013) might have included an RIP to Thomas Belcher's Mappin & Webb building that stood on the site until its demolition in 1994.

**Nick Coombe**  
via email

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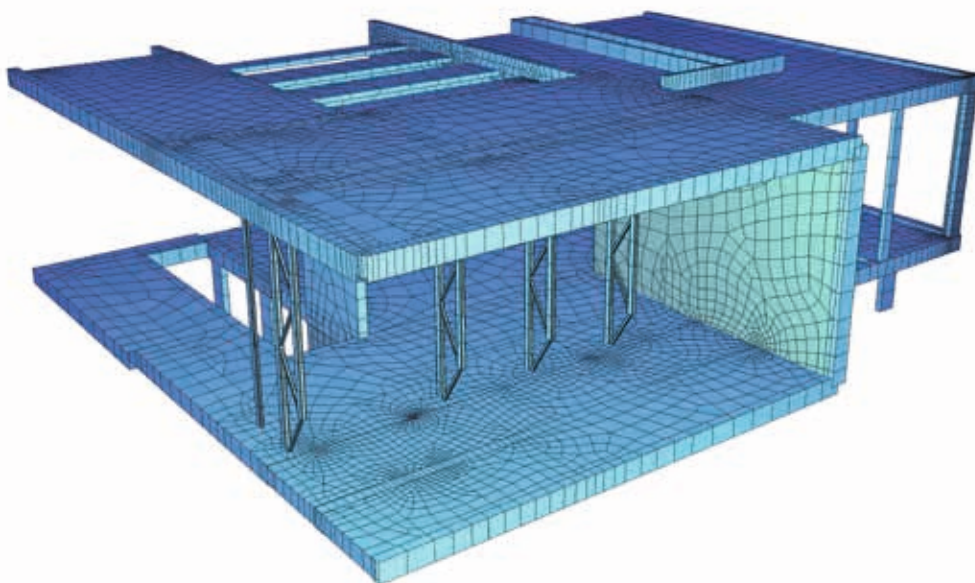
# ALWAYS PART OF THE AKTION

Structural engineering plays a critical role in the history of architecture. Cutting edge research and collaborations for the likes of Stanton Williams' and Hadid's most ambitious projects put AKT II firmly in this illustrious canon

**Words** Hugh Pearman | **Portrait** James Bolton

**THERE ARE**, at any given moment, structural engineers who go hand in hand with architects to develop techniques and approaches which revolutionise the art and science of building. For Berthold Lubetkin and so many others after him, it was Ove Arup and his protégées, including Peter Rice. For the young Norman Foster and Jan Kaplicky, it was Tony Hunt. For others, Ted Happold. For Rem Koolhaas, Cecil Balmond was the one. Today one can make a considerable case for the influence of AKT II, previously known as Adams Kara Taylor. Will Alsop's Peckham Library put the company on the map, Zaha Hadid's Phaeno Science Centre in Wolfsburg sealed its reputation. It invested – heavily – in new technology to serve the most ambitious architects. And it is making sure it stays ahead, stays focused. This is why I have come to meet the inner sanctum of AKT II, the priesthood known as p.art, standing for Parametric Applied Research Team. Putting in the dot makes this name trademarkable.

Not they would acknowledge it in terms of such priestly exclusivity: they see it as rather as a strand running through the practice, the expertise that adds value, or even (officially) 'an undisciplined group within our office'. Present to meet me in the Clerkenwell offices are Hanif Kara, one of the three founders of the practice in 1996, with fellow directors and p.art initiates Paul Scott, Gerry O'Brien and Daniel Bosia, who runs the unit. With them is an AA-trained architect, Adiam Sertzu, exemplifying the fact that p.art is an unorthodox collaborative endeavour (four of the 12 members of the unit are architects). There is one major proviso, which Kara – always the most visible face of the company – is very firm about: they don't do buildings on their own account. Despite

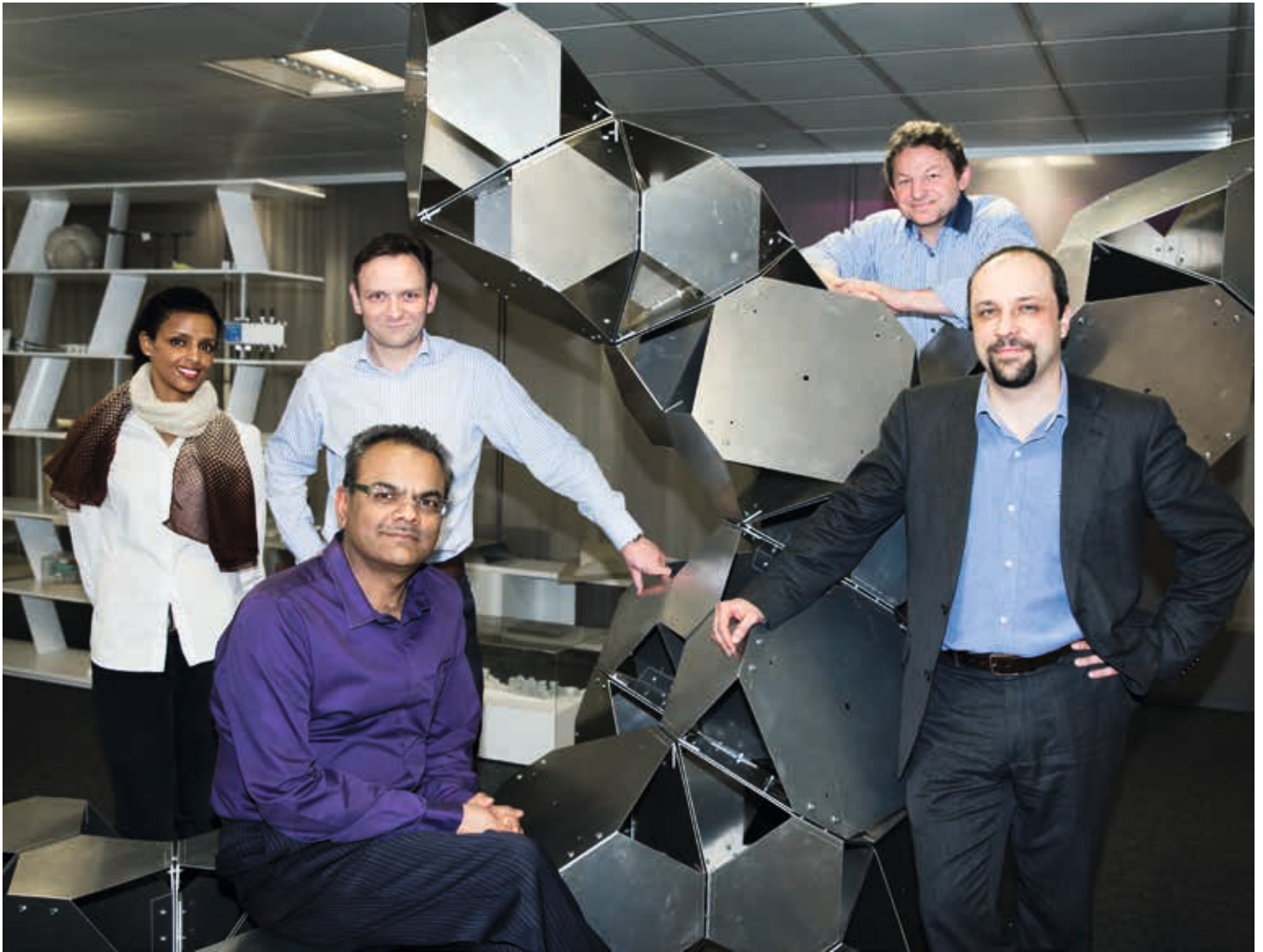


**'Despite their evident design skills – aesthetics is very important – they don't regard themselves as architects: they work with architects. As Bosia puts it, the software they have developed is simply a tool for form-finding'**

their evident design skills – aesthetics is very important – they don't regard themselves as architects: they work with architects. As Bosia puts it, the software they have developed is simply 'a tool for form-finding'.

That tool – or toolbox, since it is constantly growing and changing – does a very particular thing, says Kara. Previously, engineers generally analysed form from the point of view of geometry. With the speed of calculation that became available, it got easier to analyse other parameters, including paying more attention to the properties of specific materials – such as concrete, for example. Both Phaeno and the utterly different Stirling Prize-winning Sainsbury Laboratory at Cambridge University





ABOVE: p.art initiates at AKT II – from left are Adiam Sertzu, Paul Scott, Hanif Kara (seated), Gerry O'Brien and Daniel Bosia.

OPPOSITE: Finite element analysis of the south cantilever of Stanton Williams' Stirling Prize winning Sainsbury Laboratory in Cambridge.

by Stanton Williams are monolithic concrete buildings which require no expansion joints. What they do instead sounds slightly alarming – millions of micro-cracks – but it might be easier to say that they flex. When I mention the elastic properties of hydraulic lime mortar, they nod. They know all about that ancient material, too, having just engineered a brick facade using it (so again, no expansion joints needed) with architect Stiff + Trevillion on a London office building for Derwent London (*RIBA J*, March 2013, page 66). If the new toolkit has done nothing else, ridding the world of ugly expansion joints by better understanding the thermal expansion characteristics of different materials is a great step forward.

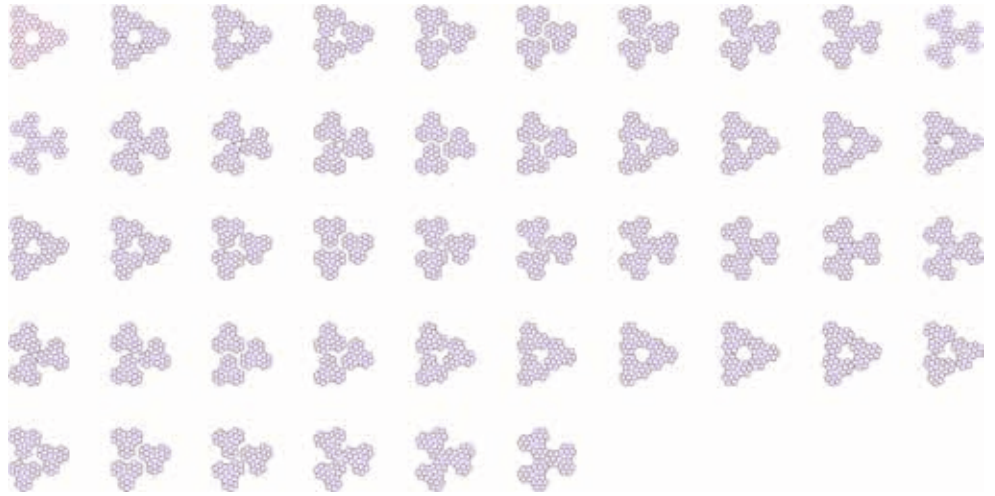
And it's not just concrete. Ever wondered who productionised Thomas Heatherwick's first real building, the oxidising steel monocoque form of the East Beach Cafe in Littlehampton, where form and structure are one and the same? Wonder no more.

The specialist expertise of p.art tends not to be needed for relatively standard buildings. The team comes into its own for complex requests. This does not necessarily mean more complex shapes, though in architecture 'parametricism' has become associated with an audacity of form-making. It might, for instance, be used for the best form of value engineering – the kind that is able to realise an architect's concept by reducing the number

of differently-shaped components required, so reducing cost, increasing buildability and generally making the thing workable. The team shows me a planned future terminal of Oslo's Gardermoen airport, its fluid timber lines achieved with the minimum of 'special' pieces, hence the maximum of repeats.

Engineers have long had 'special projects' sections: Tony Hunt used to, Balmond founded Arup's 'Advanced Geometry Unit' before he left to set up his own studio. But one of his co-founders at the AGU was Daniel Bosia, now heading p.art. So it's not as if AKT II is in uncharted territory here. The difference, perhaps, is that this relatively small firm in engineering terms (a mere 140 people compared to many thousands in the big practices) does not want to be all things to all people. The old AKT spent five years as part of a large do-everything consultancy, WYG, did not much care for it, and – helped by the global economic meltdown – staged a management buy-back in 2011, since when it has steadily expanded as an independent. 'We're a single-discipline structural engineer,' offers Scott. And this is what architects value: a sense of working with like-minded practitioners rather than a faceless conglomerate. It is no coincidence that the AKT II office is right in the middle of the London architects' 'village' of Clerkenwell. It's about five minutes' brisk walk from AKT II to the old schoolhouse HQ of Zaha Hadid Architects when it comes to discussing the latter's Grand Theatre de Rabat in Morocco, for example – a current project.

Up to this point, the team has shown me its applied research – actual buildings by architects. Now Sertzu steps forward to explain a bit of pure research done for charitable purposes: its entry to the 'Canstruction' competition, used to enable food distribution to the needy. Instead of the usual Lego-like modelling of familiar people or objects, p.art chose to use its 2,800 flat cans (of (in their case) pineapple chunks) to build a 3m spiralling twin-tower structure named S-string II. Once the ground plan is set out on paper, she explains, the thing almost builds itself. Which sounds easy, but when Kara produces a little flick-book showing how it modifies itself at each level, things become more complex. It's a fractal weave, apparently. Buildings as rope. It looks very scaleable, very buildable. It's like the metal structural sculpture adorning the office's reception area that breaks down into useful objects like coffee tables. Each part of that interesting exercise in pure form is made of what Bosia calls 'bricks', each made from a very few repeated pieces.



Can do – the 'S-string II' gravity structure, built for charity, is a fractal weave of three spirals, each consisting of three sub spirals, each layer of which is made of seven cans (of pineapple).

p.art is not a bolt-on service you can buy: it is financed by the overall fee income of the practice, and called on if needed. Its findings filter down into the general work of the firm anyway. Add to this the constant involvement of AKT II in teaching over the years – Kara's experience alone here ranges from the AA to Harvard – and it becomes clear what they are up to. It's partly inculcating architects with a sense of what is structurally possible, partly being there at the moment when new design ideas emerge. In engineering you just have to stay ahead of the game. With p.art, AKT II is keeping tabs on pretty much everything. ■



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# THINKING BIGGER

Bold ambitions led an Essex primary school to move to the village's new estate, and gain an exciting modern building by Sarah Wigglesworth Architects. With inventive design and successful collaborations the move paid off, and it didn't cost the earth

**Words** Eleanor Young | **Pictures** Anthony Coleman

**UP IN THE ATTIC** of Takeley Primary School a rug and bookshelves nestle under the eaves. This hidden story space shouldn't be here — it is not in any schedules and no Building Bulletin requires such a facility.

It is that squeezed-in mezzanine, rising from the library below, that won the project for Sarah Wigglesworth Architects and its contractor-employer May Gurney. How it was snuck in when public spending is all about cutting costs is a tale of collaboration between the school and its informed governors, the architect and an unusually flexible contractor, better known in the field of highways and waste collection (early meetings were held at its gritting facilities in nearby Bishop's Stortford).

The new village school at Takeley in Essex lies deep within the 840 new homes of the Priors Green estate. The old village school, its head and governors decided to move here.





They could have stayed put and seen another school parachuted into the new area, but as a foundation school Takeley has a certain independence from county decision makers.

It was an independence the governors were keen to assert when it came to commissioning a new school. As Building Schools for the Future was pulling the education estate into the 21st century, elsewhere in Essex the county was making its own changes to commissioning buildings. The design and build route was new to the council but it had the SmartEAST local authority framework with its list of approved contractors to back it up. School governor Mark Gaby is a civil engineer with Arup. 'I knew what the traditional D&B meant for the change process and cost of changes at a late stage,' he says. He was concerned about the risk – held by the school – and that teachers, unused to seeing a design on paper, might realise issues

around size and layouts too late. He hoped that a different route 'might allow time to play around with things and understand the design'.

Gaby's suggestions of an RIBA competition to find a design partner to fine tune a concept then going out to tender on a traditional route stalled; partly in the face of OJEU hurdles. 'It seemed like a design would be foisted on us,' says Gaby, 'That it would not be a real conversation.' A compromise was reached to run a mini competition among pre-selected contractors. The school recalibrated the selection criteria to 85% on design submission, engagement and interview and just 15% on cost. 'We were interested in the calibre of the design partner,' says Gaby. To stir up architects he alerted some of those involved on projects he admired and gave them the names of the shortlisted contractors. From there it was up to the practices themselves.

Sarah Wigglesworth Architects rang around and found receptive ears at May Gurney which was just expanding into building contracting. Wigglesworth suspects the practice was allowed a slightly longer leash on the contractor's first foray into buildings. A special Takeley School board game, devised by project architect Toby Carr, was the practice's calling card and its way of teasing out some of the things headteacher Mandy Line, Gaby and others at the school wanted. A short consultation morning with the potential client meant every moment counted.

This produced a form with a sense of the importance of reading (thus the library and story room) and the need for smaller teaching spaces that appear throughout the school in alcoves and niches and circulation routes opening out into a little pools of space for more concentrated individual learning. Gaby compares the consultation process to earlier





visioning workshops carried out for Essex County Council. 'They were no use whatsoever,' he says. 'We just got the old school described to us.' Line considers it more ruefully as an example of why architects are needed. 'When we were asked what we wanted from a perfect school the staff just wanted the school we had,' she says. 'We just had educational aspirations.' The briefing and schedules of areas prepared by Essex County Council as client advisor get no mention: at the high level this building is about the concept and aspirations of the school and its architecture.

An inner courtyard organises the school around it, with circulation on its edge and the canopied entrance looking onto it (Carr describes the efficiency of the plan as 'a block with holes in it'). The entrance is flanked by the school office-reception and separate music cum community room. Overlooking the courtyard a metal balustrade with holes bubbling up through it allows children to peer down from the story-telling deck. The courtyard seems a generous space for what is mainly a staff getaway but it also contains the footings for a future expansion with two

TOP LEFT: Early diagram of the school with the story space at its heart, under the eaves.

ABOVE LEFT: A handsome entrance cut into the brick of the building.

ABOVE RIGHT: Overlooking the central courtyard with the green panels showing where the building block has been cut into.

**'When we were asked what we wanted from a perfect school the staff just wanted the school we had,' says the head, Mandy Line. 'We just had educational aspirations'**

classrooms. Sadly, the strongly stated entrance is more symbolic than functional for pupils and parents who use the side gate in the playground fence at the beginning and end of each day.

Inside, the courtyard is lined with green Trespa panels. This treatment of facades that have been 'exposed' by cutting into the block is carried through the three courtyards shared by the classrooms. The school is proud of them but they are broken up with hard landscaping of bricks plus blocks to sit on as well as the schools table and chairs. In pride of place is an oversized, galvanised water chute directing nozzles of rain water into a pool in one courtyard – though it doesn't quite match the wild tigers, solar controlled deckchairs and superhero discos suggested by the children for the spaces.

Inside, the corners of the courtyards – like the budget – make a lot out of very little; those little reading spaces, the library, a teaching kitchen. Classrooms have an intense ground plane, packed with storage, recycled robots, drawings and kit, but lofty ceilings that lift the spirits. The classrooms look out at the green grounds. Windows, high and low, knock holes in internal walls and animate the 'corridor'



Starck, Design by Philippe Starck

A photograph of a modern bathroom interior. In the foreground, a white pedestal sink sits on a dark, glossy rectangular vanity unit. A chrome faucet is mounted on the wall behind the sink. Above the sink is a large, rectangular mirror. To the left, a white toilet is positioned against a wall with horizontal grey tiles. A black shelf with decorative items is mounted on the wall above the toilet. In the background, a white lounge chair is visible through an open doorway. A dark towel hangs on a ring to the right of the vanity. The floor is made of large, dark grey tiles. Sunlight streams in from the right, creating strong shadows.

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LEFT: The reception courtyard, capturing the summer sun, with windcatcher above.

BELOW: The halls offer slightly a defensive face to the playing fields, a little bit of future proofing against nearby Stansted Airport.



with snapshots of classroom life.

There is just one double loaded corridor: where Stansted Airport's second runway, should it ever happen, would bring the flight path alongside the school. Here the mass of the school halls defend classrooms from any future roar of planes. The idea is that the school can be naturally ventilated, with windcatchers kicking in if windows aren't opened. The windcatchers could also seal it against low flying aircraft.

Roofs rise over the circulation bringing top light through clerestories while oversailing the south facing facade and creating sheltered enclaves in the courtyards. Encased in aluminium with standing seams, the roofs make a low level landmark for this estate of 'traditional' newbuild homes. The brick base hunkers it down into the gently sloping topography of the site – rather in the spirit of the school's previous building despite the obvious differences. On the new school projecting headers and a soft tone to the red brick elevate it with a great deal of character. The practice imagined it as a new farmstead, a big building on the edge of an arable field – though those very fields have now been

covered in the houses of Priors Green.

What surprises both Sarah Wigglesworth and Essex County itself is that the building got built pretty much as designed. This seems in large part a tribute to the collaboration with May Gurney, its contracts manager Richard Clarke and site manager Paul Watling, who Carr describes as running a 'tight, organised site. They were good at flagging up issues and working out how to resolve them. That had a big effect on the project,' he adds. And the fact that May Gurney was involved from the start

**'The practice imagined it as a new farmstead, a big building on the edge of an arable field – though those very fields have now been covered in the houses of Priors Green'**

so was never forced into a position of taking on an unexpected design, seems critical – though perhaps it was not a recipe for business success as it has now pulled out of building contracting.

'Things that had not bottomed out in the construction contract drawings did start to cause pain,' says Gaby. Of course, there was a lot of cutting the coat according to the cloth. At Sarah Wigglesworth Architects' previous school, in Sandal Magna, Wakefield, the cost came out at £2,985/m<sup>2</sup>. At Takeley it was more than £1,000 less at £1,786/m<sup>2</sup>. At Sandal Magna kinks in the external envelope give a delicious playfulness but also set up expensive junctions. In Takeley rationalism has prevailed. Sandal Magna's exposed timber, brick and ply give way at Takeley to more 'standard materials' in Wigglesworth's words. Bland acoustic tiles reign over a lower layer of paint. With the coloured cladding and aluminium, it has a certain plastic insubstantiality that detracts from the poetry of the spatial moves. But looking at the building it is clear that invention and thought, fought so hard for by the school, have given it something special, even when the specification couldn't quite match. ■





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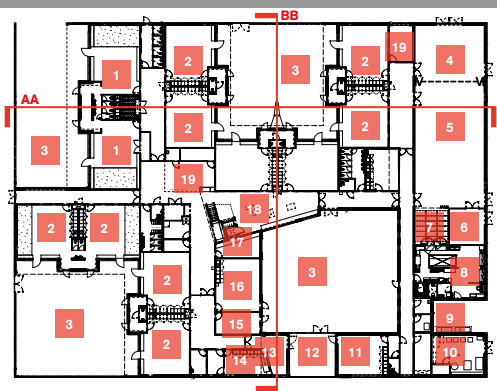
  
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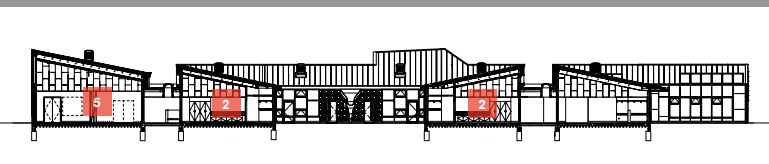
# DATABASE

TAKELEY PRIMARY SCHOOL, ESSEX

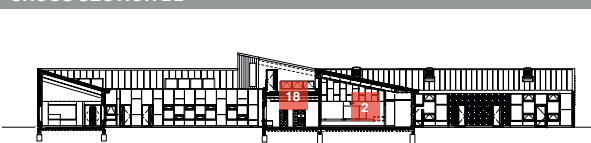
GROUND FLOOR PLAN



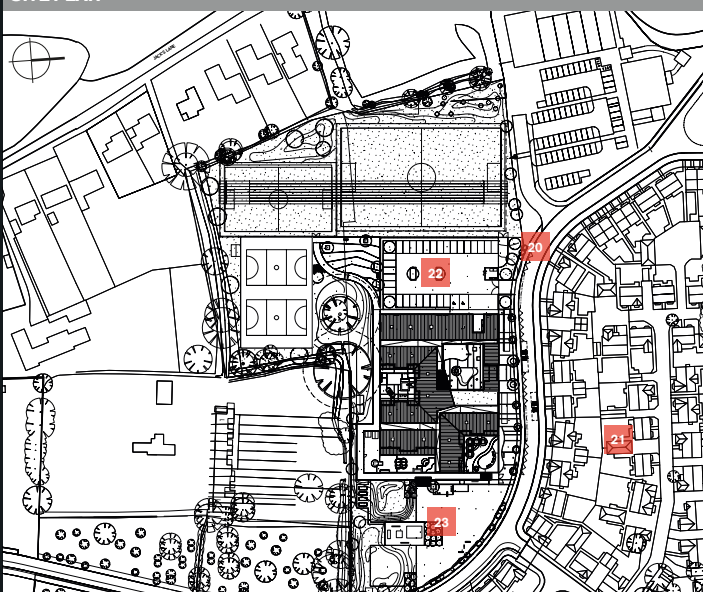
CROSS SECTION AA



CROSS SECTION BB



SITE PLAN



## KEY TO DIAGRAMS

1: Reception classroom	7: Dining store	13: Reception	19: Small group room/break out
2: Classroom	8: Kitchen	14: Admin office	20: Bennet Canfield
3: Courtyard	9: Loading bay	15: Head office	21: Priors Green Estate
4: Small hall	10: Plant room	16: Staff room	22: Car park
5: Main hall	11: Music/community room	17: Staff work room	23: Playground
6: PE store	12: Covered entrance	18: Library and story room	

**IN NUMBERS:** Contract cost £5.32m, area 2,163 m<sup>2</sup>, GIFA cost £1,786/m<sup>2</sup>, carbon emissions 15.96 kgCO<sub>2</sub>/m<sup>2</sup>, BREEAM Very Good, current number of pupils on the roll 258, capacity 330, capacity with planned extension 420, 1.5 form entry to expand to 2 form entry, form of contract NEC3 Option A





'SOMETIMES I AM NOT POPULAR,' admits Jackie Lowe. As principal architect at Essex County Council and client advisor, Lowe sees herself as a critical friend: on Takeley School that meant pushing contractor and architect to get the best building while offering the school reality checks along the way.

That, an extra consultant's fee and more site checks may not always have been welcome, but in fact Lowe worked mostly at the early stages of the project, explaining funding and methods and acting as a client advisor before Sarah Wigglesworth Architects was even a gleam in May Gurney's eye.

Lowe put together the tender document for the school to go to the SmartEAST framework at Stage B. Into it was fed site analysis and school visioning. The requirements of Building Bulletin 99 were amended to cover Essex's own criteria.

'We were trying to get the best and higher priority items delivered,' she says. In the tender documents the story space was an optional extra but everyone wanted it; and they did get it on the original budget. 'Problems always come down to money,' she says, 'so there was a point at detailed design where they couldn't get the finishes they wanted.'

But she is still proud of the process. 'I've never known scheme design at stage B to get delivered at stage K. I still can't believe we did that,' Lowe says. Open book contracting was an important part of it. 'It allowed exploration but no running away with ourselves,' she says. 'And there were no surprises, no resentment.'

Obviously the county has a stake in the process and the section 106 contribution was channelled through it so it was not simply a consultant for the school. 'The school wanted a high quality end product,' says Lowe. 'Whether funding allowed that I will stay quiet on.' But the money that was spent proved good value in her opinion. 'Takeley got its money's worth,' she says.

Because Takeley went 'so well' lots of the processes that were new to it been adopted for more recent projects. Tender documents, viability work and employers requirements will be used again. Unfortunately the design emphasis will not.

#### CREDITS

**Client:** Takeley Primary School  
**Project sponsor/client advisor:** Essex County Council  
**Architect:** Sarah Wigglesworth Architects  
**Project manager/QS:** MACE  
**Contractor:** May Gurney  
**Consulting engineer:** MLM (Structures, drainage, M+E, BREEAM)  
**Landscape consultant:** Capita Symonds  
**Acoustic consultant:** Sharpes Redmore

#### SUPPLIERS

**External brickwork:** Wienerberger Blended Red Multi Gilt Stock  
**Monopitch roof to classrooms and main hall:** Kalzip 400 Profile Stucco Embossed Aluminium Sheet with E160+5 E Clips  
**Roofing subcontractor:** Briggs Amasco  
**Coloured courtyard walls:** Trespa Meteon – assorted colours  
**Cladding subcontractor:** BR Hodgson  
**Windcatchers to main hall and classrooms:** Monodraft X-Air  
**Flooring to classrooms, circulation and admin:** Marmoleum Real – assorted colours  
**Acoustic ceiling tiles in classroom and halls:** Rockfon Sonar 1200x600 tile with an E15 Tegular edge  
**Bespoke furniture items in reception and library, classroom storage:** Benchmark products  
**Windows and curtain walling to classrooms:** Comar 9Pi  
**Window subcontractor:** Anglia fixings  
**Sanitaryware:** Twyford's Sola range  
**WC cubicles:** Total laminates  
**Internal doors:** Enfield Doors  
**Joinery subcontractor (including timber staircase):** Holness Joinery



## Service with Style

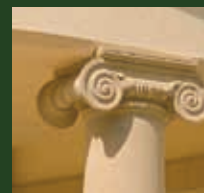
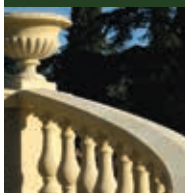
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# WORKING TOGETHER

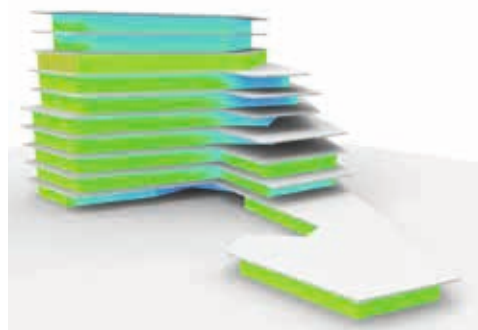
Great buildings need great people. Here we talk to nearly a dozen of the best collaborative consultants who will challenge and inspire in equal measure

## Environmental engineer

### Klaus Bode, Chapman BDSP

Klaus Bode likes colour. Not on himself, he is strictly dark and muted today. It is in his drawings that the colour hits you. Sitting at his desk he shows me numerous facades at the Toulouse School of Economics, each of which is delineated by colour to offer Grafton Architects different configurations of shading. 'We convert numbers to colours,' says Bode.

It is part of understanding how architects work. It starts even before the first meeting with getting to know their work. 'I like to read up and understand a firm's architecture,' says Bode. Then there is figuring out what a project is trying to do and the specific way that practices work, from thinking to delivering drawings. He has had plenty of practice, his work at Commerzbank and Potsdamer Platz in the 1980s stood him in good stead when he



ABOVE: Using technology to design out technology: studies into how far a floor plate has to go to ensure cool offices at Number 1 Airport Square, Ghana, by architect Mario Cucinella Architetto.



DAVID VINTNER



founded his own practice. This has continued to work with Foster + Partners, Rogers Stirk Harbour + Partners and Renzo Piano Building Workshop and their offshoots. 'Some architecture is more about allowing a moulding of a design by the environment,' he says. Some is less so: with Zaha Hadid Architects, for example, the philosophical ideas take precedence and the scope for improvement is in its details.

Bode has his own philosophy: use technology to design out technology. That means the end building should be less technologically dependent, though there might be a highly sophisticated process with a good dose of computing to test and decide on the solutions. At Number One Airport Square in Ghana the firm found that pushing out the concrete floor slab provided a far simpler solution than any added shading, though perfecting it so nothing was wasted took some analysis. He explains

how in Africa the practice is freed from thinking about technological solutions by importation costs and the high levels of tax it attracts, as well as maintenance and scarcity of spare parts. 'So we have to work with the architecture. We have to apply the laws of physics in a very rational way,' he says. 'After all, heat transfer goes the way it wants to go.'

It makes a stronger argument globally for the simple approach. 'We work in lots of different parts of the world,' he says. 'People in South America say what we show in Europe is very nice, but there we have money for it.' Then Bode tells them what BDSP is doing in Africa. Not wanting to be outdone by Africa has been a surprisingly strong motivator for Brazilian clients, says Bode.

And what about architects? Well, that is a question of trying to get inside their minds, or at least sit next to them in meetings! **EY**

#### Passivhaus consultant

**Sally Godber, Warm**

Father and daughter team Peter Warm and Sally Godber see their role as an investment in the industry. They are training their way out of a job. 'We don't hoard our knowledge,' says Godber. Her ideal model is to fast-track a design team with little low energy experience into designing a Passivhaus project, then by its third scheme just act as a certifier answering questions on the phone. 'There is a long time on induction

talks and working out how to present to allow people to grasp the concepts,' she explains. There is always pressure to slim down the pre-planning stage as it's risk for the client. But she wants to influence building form, in particular the simplicity (or not) of the heated envelope, and the amount of glazing. Much of the work is on housing, such as MaccreanorLavington's scheme in Rainham (below). 'Architects are doing an incredible job of picking up Passivhaus,' she says. **EY**



'Architects are doing an incredible job of picking up Passivhaus'



OMA

#### Security consultant

**Mark Rowan, QCIC**

From the heights of his favourite project, OMA's Rothschild Bank (above), Mark Rowan looks out over the City of London and many of the buildings his small firm has been instrumental in securing. He points them out with pride in the architecture he has enabled, as much as in his own work. Like everything, he relies on early discussions. 'We like to get in before the police's architectural liaison officer,' explains Rowan. The advice is free but can demand some ugly, unthought-out answers: bollards, cameras and razorwire rather than the more subtle multilayered approach Rowan prefers (pedestrianisation, engineered facades, hidden sensors). With a background in building services Rowan also delves inside the building, ensuring that, say, a lobby incident can be responded to immediately with a reversal of air flows and lifts stopping at the first floor. He really does love architecture, from Wren on. **EY**



'We like to get in before the police's architectural liaison officer'



CHARLES HOSEA

**Structural engineer****Jane Wernick, Jane Wernick Associates**

For someone who has weathered a profession with a low female intake and glass ceilings, Jane Wernick really hasn't done badly for herself. Running her own small practice with six other engineers, she works with the likes of Peter Zumthor and Zaha Hadid on the kinds of projects that would have bigger firms, such as her alma mater Arup, championing at the bit.

It was her experience at Arup that opened her eyes to working with architects at the earliest stages to get a sense of their design approach. When asked to set up Arup's Los Angeles office in 1986, she took engagement with architects to a whole new level. In the three years she was there she started teaching design units at

UCLA and SciArc before moving to teach at Harvard Graduate School of Design. She returned to London in 1989 to teach a unit with Götz Stöckmann at the AA.

Breaking out on her own, Wernick worked with David Chipperfield on BBC Scotland, Marks Barfield on the Kew Treetop Walkway and on the Young Vic with Haworth Tompkins. Her keen desire to get to the core of design thinking probably led to her firm winning all Alain Botton's 'Living Architecture' projects, which have seen her working on one-off houses with MVRDV and Nord (above). Most recently, she has been paired up with Zumthor on his 'Secular Retreat', and artist Grayson Perry and FAT for their bizarre 'gingerbread' house in Essex.

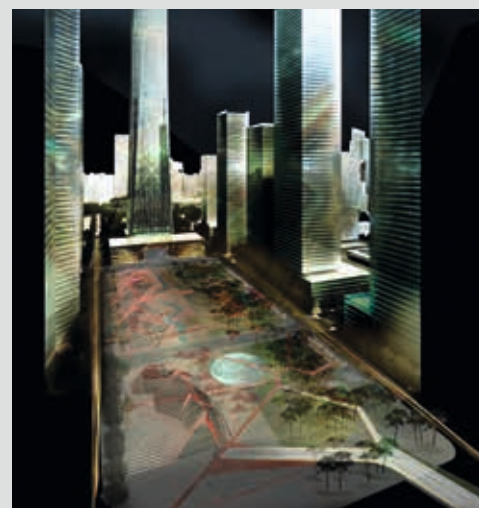
Despite using the latest software in the office, for projects like these, Wernick believes in the value of physical models. She cites the way physical modelling allowed the firm to reduce node sizes on the Kew Walkway, in a manner the fabricator would not have envisaged otherwise. They are being used for Zumthor's retreat too, but she admits that while working with him is stimulating, it's a slow process bringing his design within the client's albeit generous budget. This challenge thrills Wernick; the result, she says, will be 'extraordinary'. **CK**



**'It was her experience at Arup that opened her eyes to working with architects at the earliest stages to get a sense of their design approach'**

**Landscape architect****Eelco Hooftman, Gross.Max**

'We collaborate with lots of architects; if you put them all in a room together all hell would break loose,' says Eelco Hooftman. 'We work with them like we work with landscapes, responding to context.' Gross.Max's landscape design is often deeply interwoven with the architecture – like at the Evelina Academy with ZHA. Hooftman likes a strong concept to work with. For him collaboration comes in many ways: he teaches urban designers and architects at Harvard Graduate School of Design and landscape architects in his studios. In Berlin, transforming the old Tempelhof Airport is not just park design but urban framing – setting the standards for architects. In Beijing Park, Gross.Max's vision of a 500m long, 60m mountain (below) is being worked on by the Beijing Institute of Architectural Design. 'Architects working for us instead of us for them – it's ideal,' he jokes. But, whoever comes up with the concept, the way the building is sited is the 'guts' of any project. 'It is fundamental – I see architects working from the inside out and landscape architects from the outside in,' he explains. **EY**



**'I see architects working from the inside out and landscape architects from the outside in'**





DAVID VINTNER

### Architectural historian

**Kit Wedd, Alan Baxter Associates**

You don't think of architectural historians when you think of Alan Baxter Associates, but gathered in its offices in Clerkenwell, amid structural and traffic engineers, is a group which devotes itself to history. Project director Kit Wedd (above), most recently of English Heritage, has found it an eye opener to share an office with engineers. Her speciality in ceramics and surfaces has been enriched by discussions of structure.

'Often our team gets called in when a project runs into boggy ground on heritage issues. We have to reel back and open up a dialogue with the local authority,' explains Wedd. And what of team hierarchies? 'Sometimes the

**'Often our team gets called in when a project runs into boggy ground on heritage issues: We have to reel back and open up a dialogue with the local authority'**

architect is definitely the lead architect but sometimes they would be standing behind us in discussions.'

Much of the team's research is distilled in conservation reports for planning, with their carefully plotted significance drawings. Somerset House is opening its West Wing shortly with a beautiful Eva Jiricna staircase to complement William Chambers' Nelson Staircase. Wedd helped make the case for the removal of a slice of historic office space over four storeys in favour of this intensely modern piece as part of a strategy that included rescuing an original stair from interventions by the Ministry of Works back in the 1950s.

Wedd is proud that her work in East Ham with Rick Mather Architects helped shift the focus a little – away from the narrow justification for the demolition of one building for a new library and customer service centre, to a wider understanding of the historic value of the Edwardian civic campus, which is now embedded in the masterplan.

With a close eye on the detail, architects will also often call Wedd in when there is a change in specification in the offing.

'It can be helpful having someone to weigh things up for you,' she says. 'We know the best conservation practice and we can help stiffen sinews when it is difficult to hold the line.' **EY**

### Quantity surveyor

**Paul Davis, Davis Langdon**

'When you see budgets slipping out of hand, you still need to be able to ensure the financial deliverability of the job.' Paul Davis, director and head of leisure and culture at Davis Langdon, sums up the experience he's gained in 21 years at the firm. Presumably he'll be trusting his gut instincts on Herzog & de Meuron's extension to the Tate Modern, on which he is now engaged.

'It's good to grasp what's really important to world-class architects like this, and what can be dispensed with if necessary,' says Davis. 'Budgets can balloon, so benchmarking is important.' Especially here, he says. Budgets are strict, but there are real construction innovations. With 5.3m visitors last year, it's about a lot more than the cost of materials, and Davis knows that any decision could have wider ramifications. 'You need to be aware of potential knock-on impacts,' he says. 'Will a decision affect the spaces in use, phasing, the gallery's revenue generating capacity? They all need to be considered.'

This wider view of his role leaves Davis unfazed by BIM's measurement capabilities – a sensitive subject for your typical bean counter worried about their job. Davis sees the technology allowing the QS to draw on deeper skill sets. 'It's no longer just about measuring quantities – it's all about more imaginative ways of realising project value through optimisation.' **CK**



TATE + HERZOG &amp; DE MEURON



**'It's no longer just about measuring quantities – it's all about more imaginative ways of realising project value through optimisation'**

### Approved inspector

#### Michael Wadood, MLM

Michael Wadood is a practical man, trained as a local authority building control officer when there was no other kind. In private practice he is still very clear on his strategic priorities at the start of the project: fire and equal opportunities (from Part M to the Equalities Act). 'I look for showstoppers,' he says. He also looks for unnecessary precautions.

'I tell trainees that if you ask a question you always have to have two answers,' says Wadood. Though he will not venture into design if he is certifying a building, he wants to work with the designer's concept. The concept concerned boulevards and openness at the re-sited, renamed London Metropolitan University's school of architecture, CASS, in Whitechapel by Florian Beigel and the Architecture Research Unit. Wadood advised on doors and fire curtains and worked out the detail on protecting the primary means of escape.

And if you want some advice as an architect Wadood suggests you watch out for fire access when developing those backland sites. If you can't fit a fire engine through the site entrance you have to remember that fire hoses are just 45m long, sprinklers could win you a few more metres in which to build but this restriction can still send the viability of a development up in smoke. **EY**



DAVID VINTNER

'Though he will not venture into design if he is certifying a building, he wants to work with the designer's concept'



### Design consultant

#### Peter Stewart, Peter Stewart Consultancy

You might be forgiven for thinking that the interview has got off to a bad start when the interviewee is at pains to correct you from the outset about what you think they are. 'Although we work with them, and a lot of our business comes through them, we don't define ourselves as a planning consultancy,' says Peter Stewart, of the City of London based Peter Stewart Consultancy. So what are they exactly? 'It's hard to put it in a nutshell – effectively, it's a critical review of design and the project in context. Among other things we might look at its formal merits, its sustainability, Secured by Design and Section 106; our role varies from project to project and only emerges once we engage with it; but in effect, we act as an in-house critic to the architect.'

Being a critic is something Stewart should be well acquainted with. A qualified architect who worked at Squire and Partners for 10 years, he underwent a career change when he started working for the Royal Fine Art Commission. This went on to become New Labour's quango Cabe, where he took on the role of head of design review until 2005, when he resigned to set up his own professional consultancy.

Having design-reviewed schemes for many of the major players of the UK property development industry, his rollcall of clients and architects does not surprise. Most recently he's been working with Qatari Diar on London's Shell Centre development with the likes of Stanton Williams and Patel Taylor, and the contentious Chelsea Barracks scheme (above) – involving his old firm Squire and Partners

plus Dixon Jones. It would be good to be a fly on the wall in review meetings, especially as his job involves 'not just blindly agreeing with the architects'. Having to write independent assessments in support of applications, Stewart needs to be clear why he supports them. 'I'm used to being an expert witness on cases and having hostile barristers grill me – so I know that to support a proposition, I have to make a case in my own mind,' he explains.

He's certainly made a case to himself about London's tall buildings – he's an active supporter – so when asked about them, it's no surprise that he cites New York's Rockefeller Centre as his aspirational project. 'It does a group of tall buildings as urban design really well,' Stewart says. 'It's a true urban composition, done on such a large scale and with such conviction that it truly pulled it off.' But it's not only the highs that intrigue him, the lows do too. Canary Wharf and La Défense take note: 'It's also a great example of a private space that has been seamlessly appropriated into a city's public realm.' **CK**



'Our role varies from project to project and only emerges once we engage with it; but in effect, we act as an in-house critic to the architect'



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WILKINSON EYRE

**Project manager****Richard Young, Buro 4**

The relationship of project manager and architect has traditionally been the stuff of legend. Like in Star Wars when Darth Vader says, 'The servant has now become the master' before socking it to Obi-wan Kenobi; so the role of the architect has been usurped by that of project manager. Buro 4's Richard Young might balk at the comparison, but he must be aware it exists. 'I would hesitate to say that our relationship with architects isn't sometimes fractious,' says Young in measured tones, 'but most of the time it's fine. It's just about finding the best solution to take the project forward.' Young puts a different spin on the situation, adding, 'Change was needed because projects got so much more complex. What we offered was a client facing project co-ordination role, leaving architects free to concentrate on what they're best at – the design.'

Buro 4 set up in 1987, at a time when the UK construction industry was looking Stateside to management contracting and construction management – new forms of competitive procurement that seemed more suited to the

culture of Thatcherite deregulation. The firm has since carved a niche for itself in the commercial, residential, retail and end-user markets where property isn't the core business. Young says most of the staff studied project management, but the firm has always been about attracting different skill sets – hence quantity surveyors, civil engineers and, hell, architects. Here, they'll perform two roles, both as conventional project managers and employed directly by architects themselves, as strategic design team co-ordinators.

Recently the firm helped Wilkinson Eyre realise its 'Gardens by the Bay' in Singapore, (above) made 2012 World Building of the Year by Paul Finch's World Architecture Festival. He sees the project as a case in point justifying the project manager role, adding, 'There was a time when architects would have been expected to run this alone, but a £300m multi-faceted project is a completely different kettle of fish,' he says, adding that Buro 4 was recently appointed by King's College London to project manage Irish firm Hall McKnight's masterplan, who won the competition last year.

For Young, London's Stirling Prize nominated Angel Building, which the firm worked on for client Derwent London with AHMM, shows the best of what can be delivered when teams work together. A structured D&B project, the team went a long way down the design road before being handed over. Perhaps as a double-edged sword for architects, Young concludes: 'I'm a firm believer in the idea that if the design is explicit enough, it can always been handed over to a contractor to build.' **CK**

**Urban designer****Robert Rummey, Rummey design**

Robert Rummey is a hard designer to pigeonhole and that's the way he likes it. Trained in both architecture and landscape architecture, his firm Rummey Design practises both, but is best known for masterplanning, and has a separate division dealing with environmental design. But it is not a big practice – around a dozen people, sometimes more.

Collaboration, not surprisingly, is at the core of the business. On one of the longest-running Rummey-masterplanned projects, the Oxford Science Park, he found himself working with architects including ADP, EPR, Nicholas Hare, Proctor Matthews, RH Partnership, Ian Ritchie, plus several firms of engineers and a QS. His firm is instrumental in the design of the massive Wixams housing development in south Bedfordshire for Gallagher Homes, (below) and is working on a new village in south Cambridgeshire of 3,000 to 3,500 homes. 'Inevitably there will be several designers, and we'd expect to work with all of them,' he says.

Rummey also works with water engineers, has his own environmental consultancy, and has designed housing and mixed-use schemes – but it is the urban design/landscape work which mostly comes calling. Unlike most of the planning profession, for instance, this is someone who deals directly with developers but speaks the same design language as his fellow architects. It's a blend of skills more should emulate. **HP**



'Inevitably there will be several designers, and we'd expect to work with all of them'



'If the design is explicit enough, it can always been handed over to a contractor to build'





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## RISK AND REWARD

'IT'S STILL the most secretive profession. Medicine and law have accumulated a corpus of knowledge... but with the environmental science of buildings there's no library of rigorous, objective reflection – it's difficult to get real accounts of buildings and how they perform.' Cambridge University's Alan Short expressed his frustration last year (*RIBA* June 2012) at a profession he sees as loath to address the gap between a building's designed and actual performance.

So one imagines that the BSRIA's Roderic Bunn won't be holding his breath in the Soft Landings saga (p62), even though the new RIBA Plan of Work's 'In Use' section pays lip-service to BSRIA's three-year performance monitoring demand. Bunn discusses the liberating potential that such knowledge could bring to the industry, but admits the issue still smacks of a 'weary black comedy' – with which Short would agree. Appointed to develop an environmental strategy for the NHS Estate, itself no stranger to gagging orders, Short's spot-on when he says architects' reticence is down to nothing else than commercial sensitivities by firms desperate to keep their designs' under-performance out of the eye of scrutiny.

You may not sympathise – heed Angus Dawson (p64), where delay in completion of works on a residential development until after the 2008 crash left a contractor liable for the developer's financial loss. Imagine if that point of law got extended to a design's projected and actual running costs? You'd see architects keeping very watchful vigils over their buildings, with no PoW section in sight.

The shame is that it's the threat of litigation rather than joy of learning how things work that underpins it all. Short admits the path of all true innovation involves risk – Norman Foster's future might have been very different had Sainsbury not happily stumped up to reclad his leaking arts centre. Bunn wants an awards bash for 'Best Performing Building in Operation', and though I'd agree, this drama's more likely to be played out in a courthouse than Grosvenor House.

JAN-CARLOS KUCHAREK

CHARLES GLOVER

### FOUR SIGHT



#### Arthur High Back Booth

Lyndon Design shows what happens if you put a manipulate box around a .dwg of its 'Arthur' furniture range, fall asleep clutching the mouse, accidentally drag stretch it, wake up and issue the drawings to the fabricator without checking them. Result! [lyndon.co.uk](http://lyndon.co.uk)

#### Chambord Louis range

I thought Chambord was just a gag-inducingly sweet raspberry liqueur, but I stand corrected since seeing French firm Chambord's Louis sink range. They're slim, elegant and capacious enough to deal with any mishaps due to overindulgence of its syrupy namesake. [sinks.co.uk](http://sinks.co.uk)



#### Caltech Lifts

Dundee firm Caltech is enjoying celebrity status since two of its stairlifts got specified on the set of blockbuster movie 'Cloud Atlas'. They now join the hallowed ranks of A-Listers Samuel 'Elevator' Jackson, Going Downey Junior, Lift Pit and Escalator Jolie. [caltechlifts.co.uk](http://caltechlifts.co.uk)



#### Yorkon

The £18m Women and Children's Centre at North Middlesex University Hospital is believed to be the largest health facility to be built offsite, according to offsite specialist Yorkon. If you squint hard enough, it passes for James Stirling's Neue Staatsgalerie in Stuttgart. [yorkon.info](http://yorkon.info)

### DOUBLE TAKE : BITS OF FRITZ



You can't deny that nutty German artist Kurt Schwitters, with a penchant for ripping up newspapers, gluing down their strips and calling it a picture, invented a technique securing his fame in the canon of 20th century art. 'Merz' he called it, meaning 'shit' – a word he coined catching sight of a torn shred that used to read 'Commerzbank', while cobbling together yet another gesamtkunstwerk. However, the Nazis also thought his stuff a load of Schmitt, so he escaped to Britain to be promptly interned as a prisoner of war on the Isle of Man, where he continued to make his Merz in Manx. Settled in the Lake District in 1947, he was sent £1,000 by MOMA Trustee Edgar Kaufmann to do a piece in a Cumbrian barn. He set to work like a pig in Merz, but promptly died six months later – with only one wall done. For the Tate's Schwitters show, artist Adam Chodzko took as inspiration Kaufmann's commissioning of another artisan, Frank Lloyd Wright, designer of his Pittsburgh office (left). Using FLW's 1937 panelled room, Chodzko gave it the Schwitters treatment (right), pulling it to pieces and plastering its shards all over the walls of the gallery – in an artistic take on office partitioning. Yes, it's Wright alright, but not as we know it...



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JEROEN MUSCH

LEFT: The MVRDV glass barn uses state-of-the-art glass printing technology to reproduce a 16th century barn on a 21st century substrate.

BELOW: Internally, the effect read from the daylight outside is similarly marked.

#### ENVELOPE

*Is it a farmhouse, is it a glasshouse, is it new or old, solid or transparent? MVRDV's glass barn in the Netherlands is all these things and more*

# STONES IN GLASSHOUSES

Words Amanda Birch

**MVRDV'S LATEST BUILDING** in the south Netherlands village of Schijndel is perplexing to the eye. At first glance, you would be forgiven for thinking the architect had encased a historic Dutch barn in glass. Or, with a touch of irony, had designed a traditional barn with straw pitched roof, brick walls and timbered shuttered windows, and then enveloped it in a contemporary glass skin. However, it is not until the facade treatment is described in detail by Winy Maas, founding partner of MVRDV, that one gasps in wonder at how this illusion was achieved.

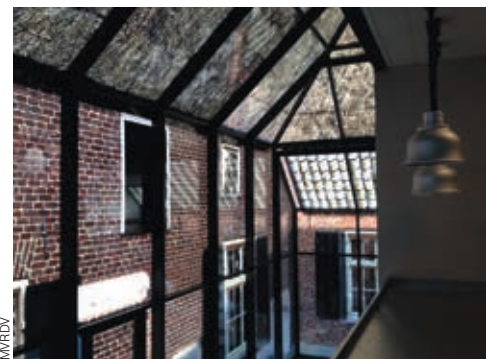
Photographs were taken of traditional farm buildings around Schijndel and painstakingly pieced together to create a typical 'Langgevel' – the Dutch word for Long Facades – farm building. The collage was then printed on to 860 individual glass panels which are connected on site to create the 'Glass Farm', possibly the first building of its kind to print high-resolution photos on to a glass facade.

'We have created a farm building that is 1.6 times larger than a normal sized farm building, so the door knobs are above me and I am smaller – I feel like Alice in Wonderland,' says Maas. 'I didn't want to build this type of

building literally because that would be done in Disney theme parks, but by doing it in glass, a material the client suggested, we have created a ghost farm, that memorises the surrounding farms. It has become an object of art that hovers between modernity and history.'

The 1,600m<sup>2</sup> three-storey structure, which houses shops on the ground floor; offices on the second and a fitness and health centre on the top floor, has had a long gestation. In 1980, Maas, who is from Schijndel, wrote to the mayor suggesting that something be done with

**'They wanted this type of building but it had to be built using traditional materials such as straw, tiles and brick – and glass, which was very important'**



MVRDV

the empty village square, where the Glass Farm now sits. The 60m by 60m site had suffered from bomb damage during the Second World War and since been cleared. It wasn't until 2000 that a new mayor adopted the idea of building on the site. MVRDV drew up many proposals, until in 2005 Maas was asked to prepare an outline proposed volume for the site.

#### Demand for glass

'When we had finished drawing, the volume of the building looked just like a traditional Dutch farm building,' says Maas. 'I asked if the town council wanted us to build this type of building and they said yes, but it had to be built using traditional materials such as straw, tiles and brick – and glass, which was very important.'

The architect then surveyed local farm buildings and decided the Langgevel was the most common. The long facades of 87 different barns were photographed and together with the footprint of each, a 3D image was then created of every barn. This allowed the architect to measure the length, height and width of the barns and work out an average size.

'We then realised that the average farm is



LEFT: MVRDV plays clever architectural games by dematerialising the glass facade to create a sense of the uncanny.

almost half the size of the volume we were working with and this is how the size of our building developed,' says Maas.

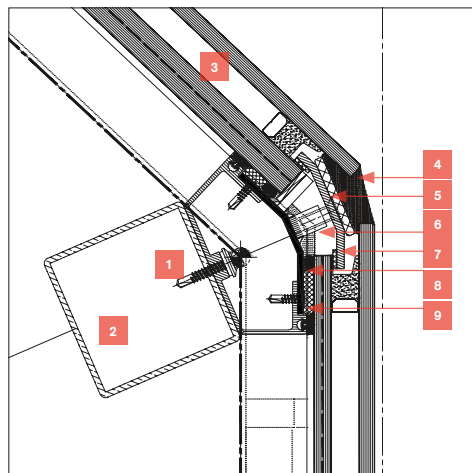
Maas didn't want to design a traditional barn building. With permission from the client to use glass the idea of creating a glass envelope evolved. This coincided with technical advances made in photo-realistic printing on to glass. MVRDV then resolved how to treat the envelope – photos of traditional barn elements (see box) would be printed on the glass.

The glass envelope of the building has a total thickness of 39mm. It is built up from the outside – of 8mm toughened glass with a printed inner, a 23mm air cavity and 2mm by 4mm layered glass with a high-performance coating. Glass panels range in size from 6cm by 40cm to 2.3m by 3.6m and each piece had to be numbered. To add to the complexity, the printer, which is in southern Belgium and uses ceramic ink, had to deal not only with different sizes, but also with varying degrees of colour for each unique piece. The printed panels were transported to an oven where the glass was toughened and the ceramic ink embedded in it.

#### Simple structure

In contrast to the complex printing process, building the structure that supports the glass facade was relatively straightforward. The 18m wide by 42m long and 14m tall main structure is composed of concrete columns and floor slabs and a steel structure. To support the glass panels the steel structure had to be very stiff, and accurate, allowing for a 2mm tolerance.

The glass panels are mechanically fastened to the steel by tiny aluminium screws and equally small steel plates, rotated 90° to fit into



#### KEY

- 1: TOPOX drilling screws at 350mm centres
- 2: 80mm by 80mm steel box section
- 3: Double glazed unit with photorealistic print on Face 2. 8mm outer pane, 15mm cavity, 17mm double skin inner pane, total thickness 40mm
- 4: Weather-sealing mastic
- 5: Closed cell insulation
- 6: VKK stainless steel bolt
- 7: Aluminium clamping
- 8: 8mm butyl coated foam
- 9: EPDM tape, 5mm thick

the cavity between the plates of the two double layers of glass. Black silicon helps conceal the connections and forms a weathertight seal. Behind every 20mm wide silicon seam are many of these profiles and it was critical that seams were as small as possible so the printed image could flow smoothly over the glass.

To emphasise the seamless envelope there are no gutters – so how does rainwater drain off?

'We thought water would run off the roof at an angle, but it stays on the glass,' explains project architect Gijs Rikken. 'So on the Glass Barn the water runs down to the building base and falls into a gutter buried in the soil.'

But over the door openings the architects had to make a concession to this seamless finish. Concern that rainwater would splash on to people's faces called for a 3mm wide steel strip above the entrance, which Rikken calls 'eyebrows'. This ridge directs water to the right and left of the door where it drains into a steel gutter at the base of the building.

On the higher section of the building where the offices are located, about 30% of the glass panels are fitted with insulation to ensure the barn meets the energy-efficiency requirements. Small slit openings have been made in the glass around the roof allow the building to be ventilated.

When the €2.1 m Glass Barn was unveiled in mid-January, it caused quite a commotion among Schijndel's residents. But Maas says it is now mostly a well-loved building.

'The building was psychologically a big challenge for me as it is in the village where I was born and my parents still live there,' says Maas. 'But we proved a big volume building can have a enough detail to fulfil the community's expectations. They now see the beauty of it and I think it gives them great pride.' ■

#### PHOTOGRAPHY

MVRDV commissioned photographer and artist Frank van der Salm to photograph details of local barns, such as windows, stable doors and brick walls, and asked him to shoot them in full sun. Hundreds of close-ups were taken of each detail and the best laboriously stitched together and manipulated to form one very high-resolution image. With so many details and such a large building, this incredibly time-consuming process took months to complete. On the glass facade are areas that Winy Maas calls 'the transition zone' – the transition between print and transparency. Some parts of the glass are blurred and others clear, to allow views of the merchandise in the shops. All these factors had to be considered when the photos were being manipulated.





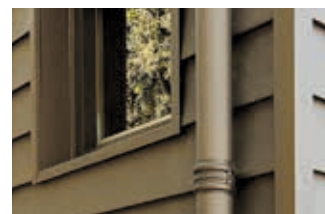
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# RIBA BUSINESS BENCHMARKING FOR CHARTERED PRACTICES 2012/13

Completing the benchmarking survey became mandatory this year, making the results a true reflection of practice in the UK for the first time. Caroline Cole sifts the data

## WORKING AT EXTREMES

**ARCHITECTURE IN THE UK** is a cottage industry, with a handful of big players: more than 30% of practices have no employees and more than half have fewer than five people. Only 10% amount to more than 20 and 3% more than 50; an almost insignificant percentage tops 150.

Although micro businesses clearly dominate the profession, more than 60% of fee earners work in practices of more than 20 people. So, while the predominant business model for an architectural practice is tiny, locally based and primarily residential, the bulk of the profession depends on large, national and international practices, with completely different business challenges, client base and project types. The two business models could not be more different.

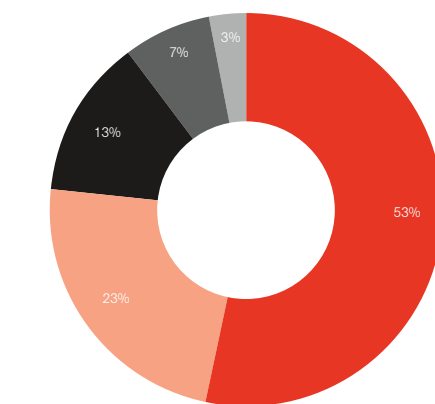
Regional diversity is evident across all aspects of this survey, with some RIBA Nations and Regions faring better than others. However, the most striking factor is the dominance of the South East in terms of number and size of practices: half the practices in this survey are in RIBA London, South or South East Regions and 45% of practices with more than 50 people are in the capital.

London also dominates in terms of reward: on average, an employed architect will earn more in the capital than anywhere else in the country and a partner or director can expect a salary more than 20% higher than his or her nearest rival in any other part of the country.

### Income and profit

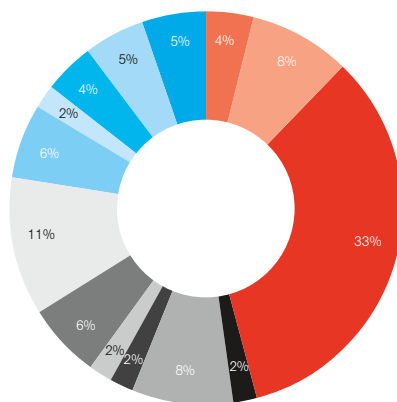
The profession generates a total income of £1.58bn. Of this, almost half is earned by practices with more than 50 people and only 17% by those with fewer than 10. Practices based in London generate half the total income.

The profession has written off a staggering



Participating practices by size

Micro Small Small medium Large-medium Large



Participating practices by region

East Midlands East of England London North East North West N. Ireland Scotland South South East South West Wales Wessex West Midlands Yorkshire

£22.2m in bad debts. This reinforces the need both for constant vigilance when it comes to monitoring work in progress, and to be strong about balancing deliverables with payments.

It is a pleasant surprise to see that average profit as a percentage of turnover is just short of 22% – substantially higher than the 15% benchmark. This is an encouraging headline figure, although the modest size of most practices and their modest levels of income mean that not even these profit levels translate into large sums of money for smaller practices.

Unfortunately, the figures conceal dramatic variations in fortunes. While there are many very successful practices, nearly 40% fall below the benchmark and almost 30% fail to achieve a profit of 10%; 13% break even or make a loss.

The interesting analysis comes when you see how profit margins fall as practices grow. Internal and external factors can explain this, but almost 60% of practices with 50 or more people fail to meet the benchmark; almost 40% make less than 10% profit and 10% make a loss.

In real money, the profit achieved by the larger practices is considerably higher than that achieved by even the most profitable smaller practices and so, practices with more than 50 people account for almost 40% of all the profit achieved by the profession. At the other end of the scale, 30% of practices – those with no employees – account for less than 4%.

Average turnover per fee earner is £80,000, rising in larger practices to just over £100,000. Average profit per fee earner is £17,300 and is highest for mid-range practices of 10–50 people.

### Business management

Reflecting the small size of most practices, the quality of financial monitoring and business planning is far from exemplary. More than 60% have no business plan and frighteningly only 13% plan beyond the current year. Given that time is what architects sell, it is of huge concern that more than a third of firms do not monitor how they spend their time. This improves with size, but even so, a quarter of practices with 20–50 people don't know how their time is spent.

However, the most damning figures relates to cash flow forecasting. More than 20% of practices with fewer than five people, and even some of those with more than 50, do not forecast cash flow. This really is inexcusable:



poor cash flow management is one of the most often-cited reasons why businesses fail.

### People and salaries

Equity partners or shareholder directors account for 17% of the people working in practices. As expected, this percentage rises in smaller practices to just short of 60% in those with fewer than five people. Associates and senior architects make up 19% of the workforce, architects and technologists 24%; students 15% and non-fee earners for 14%.

Only 25% of fee earners are women.

However, the breakdown of fee earning staff by seniority reveals the huge gender inequality within the profession. Of Part I qualified architectural assistants, 40% are women. Regardless of practice size, this percentage falls steadily through the ranks; only 12% of equity partners or shareholder directors are women. Even in practices with fewer than five people, females average only 17% of fee earners with equity; in larger practices the figure is derisory.

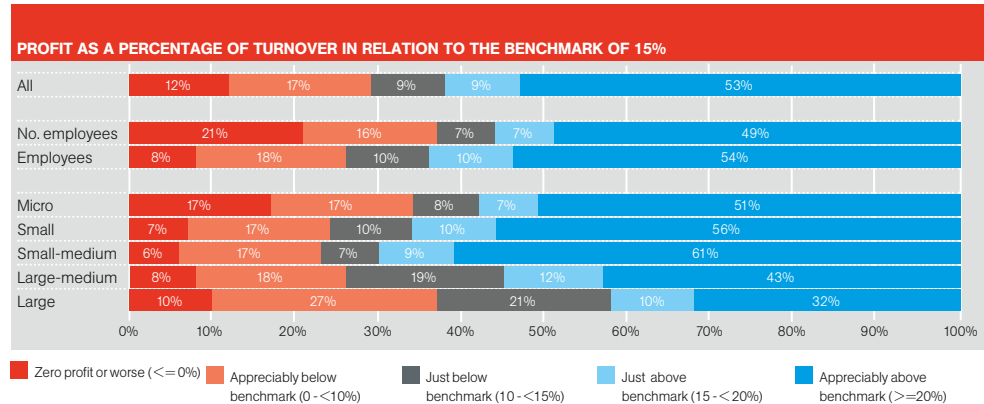
Throughout, the larger the practice the larger the salary. The average salary of employee architects rises by 23% in larger practices, while associates in tiny practices earn around 30% less than those in big practices. This means smaller practices need to identify other, less tangible, professional and life-style benefits to attract and retain the best staff.

Partners' and directors' pay varies hugely across the profession. Some achieve six-figure salaries, regardless of practice size, and in many locations across the country. However, rewards are generally higher in the larger practices: 54% of partners or directors in practices with more than 50 people take home £100,000 or more. By contrast, more than 40% in practices with fewer than five people earn less than £25,000.

### Winning work

Speculative design work is undertaken by 60% of practices and, shockingly, this percentage rises exponentially for larger firms. When architects themselves appear to place so little worth on the value they bring to projects, it is no wonder that profession is often undervalued by those that hold the purse strings. It is high time the profession got its house in order on this.

Despite this, half of all new projects are won through direct approaches, with no competitive



process, while 43% comes from repeat clients. About a fifth of new work is won via competitive fee bids where money is the only criterion. Disappointingly, especially for smaller, new practices looking to make their names, less than 1% is won through open design competitions.

The profession still focuses on delivering a full architectural service. But, perhaps reflecting clients' reluctance to commit to long-term contracts nowadays, 87% of practices offer design services to planning stage only. At the other end of the spectrum, just over 40% offer a standalone production information service and 18% offer contract administration. The only other service offered by more than half of the practices is conservation and restoration.

It is disappointing that only 6% of the profession's work is consultancy or advisory.

### Clients

The residential market accounts for a quarter of the profession's fees. Education accounts for 15%, while mixed use and offices are the only other sectors to contribute more than 10%.

Both small and large practices earn fees from private corporate clients, although the vast majority go to larger firms. However, when you look at the other client types the dichotomy between both ends of the profession really comes to light. Domestic clients account for 65% of fees in practices with no employees but only 16% in those with 20-50 people. By contrast, the public sector, with its tick box procurement routes and KPI driven delivery, hardly features in the lives of the smaller practices but accounts for more than a fifth of the fees in practices with more than 20 people.

Astonishingly, practices with more than 50 people now earn 27% of their income from contractor clients, which places them firmly in 'the construction industry' supply chain; a far cry from the patronage of domestic projects.

The total percentage of income from international projects is only 3%, although this rises to 7% for practices in London and 18% for those with more than 50 people.

### Conclusions

Given the diversity of the profession, the first challenge for anyone leading an architectural practice must be to define unambiguous aspirations, so that a business strategy can be put in place either to make the most of existing markets, or to implement the changes needed to meet any aspirations that involve growth.

The second challenge is to recognise that if growth is on the agenda, then simply being a great designer, or a good project runner, is unlikely to be enough. Few practices, regardless of scale, have chosen to invite non-fee earners into the boardroom, so architects leading practices with, say, more than 10 people, need themselves to develop the necessary business acumen and be prepared to spend a sizeable percentage of their own time off projects, nurturing the business.

For most, there will need to be a step change to move from simply being a successful architect to running a successful architectural business. ■

**Caroline Cole** is director of Colander, which analysed the survey for the RIBA. A report with more detail on the findings is sent to chartered practices and an executive summary is available at [architecture.com/benchmarking](http://architecture.com/benchmarking)



## INTERNAL MANAGEMENT

*Architects have shown great reluctance to commit to business plans, but all practices need one, especially those hovering between corporate and micro models, says Chris Littlemore*

## THE IN-BETWEENERS

**TWO BILLION POUNDS** of fee revenue in UK architecture is shared by 33,000 Arb-registered practitioners and 25,000 chartered architects. The vast majority are in 'small' to 'micro' firms according to CBI classification. The CBI has four categories of business: Micro, with 1-10 employees and less than £1.6m revenue; Small, with 10-50 employees and revenue between around £1.6m and £8m; Medium, with 50-250 employees and revenue of £8m-£40m; and Large, bigger again in each regard. The AJ100 group is almost exclusively medium, small or micro by this measure. Only a rare handful falls into the large category – even when combined with parent companies outside the UK.

While we may think architects are unique in this regard, we are not. This country's law and accountancy professions may have larger total fee revenues and so more professionals, but they have similar profiles of scale with very few large practices and a multitude of micro firms. Such scale differential is universal across the service sectors. The underlying difference between large and small is one of business management and control.

### Differences in scale

Having practised in small, medium and large scale businesses for the last 30 years, the advantages of scale are clear to me – but these come with a cost that can be supported by sufficient fee revenue from larger projects that require a large resource. Business support in marketing, CPD, management and finance, quality control, IT, HR and R&D all contribute to the large business model, enabling greater sector depth, geographic capability, and a wider mix of staff. In short the colour variety and complexity that comes from a large firm in my

view outweighs the relative simplicity of the micro practice intellectually, financially and in terms of capability.

There are however clearly disadvantages to large practice and traps for the unwary. The very process of growth and control of large numbers can be fraught with risk and itself requires resource. The knotty problems of financial scale, cash-flow, project profit control, long term funding and a generally commercial approach are difficult for many, who prefer the smaller 'lifestyle' business approach of the micro business. But all need some form of management and planning. The rigours of a commercial structure and control don't have to get in the way of creativity and the highly personal approach and contribution that can come from this model.

Addressing market issues and controlling management and cash-flow tightly provide the framework for successful practice. A small firm that starts to become larger (or vice versa) presents an issue for the medium sized group, which practitioners in this space should be aware of. There is a gap between the five per cent of chartered practices which employ 45% of RIBA members, and the massive 86% of firms employing less than 20 staff.

These firms face the toughest challenges, especially after four years of decline. As well as the basics of cash-flow management and cost control, a firm of more than 15 people needs rigorous systems of control and management and business support. These are similar in quantity and cost for companies 10 times this size. The businesses in the zone in transition are perhaps 'middle ground' practices which are neither 'corporate' nor 'lifestyle'. They have the requirements of the former, but often

cannot really afford to perform them properly, and so potentially lack efficiency and control. Nor can they react as quickly as a smaller group.

There could be 200-300 architectural firms in the UK in this category who are too small to profess large scale resource and capability, but are big enough to warrant and require all the systems of a corporate organisation. They perhaps find themselves trapped in this gap.

### Caught in the middle

They could be corporate wannabes hampered by lack of funding, succession, geography and growth; or they could be lifestyle wannabes wishing to shrink and specialise in a particular niche of building/client type or geography, but trapped by their own legacy of leases, debt and succession barriers. The middle ground practice faces the biggest challenge to address the fallout of the longest recession in living memory, the technological change of design delivery and competition in the market.

I am concerned for practices that are not rigorously managed, especially now. Many architects fear business planning and indeed 60% of practices have no plan, but it is needed more now than ever. Without plans, in our understanding of the word, we would be found professionally negligent in designing a building; yet these vast numbers of intelligent professionals are leaving their business matters, livelihood and ability to influence their own future to chance without a plan.

The only way to manage any business is by planning and constant modification, watching and predicting market needs and constantly controlling and adjusting. None of this is strange to anyone who has designed a building.

Whether in large, micro or middle ground practice, I urge all practitioners to spend some time on practice management issues: form a business plan in the short, medium and long term and constantly monitor and review it. Those in the middle zone are most vulnerable. There are many firms in this position. I sincerely hope next year's RIBA benchmarking survey demonstrates a vast uplift in awareness and presence of the business plan. ■

Architect **Chris Littlemore** is CEO at Archial, the UK arm of The Ingenium Group, which employs 225 architects and 780 staff globally and has a net turnover of £70m



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## PLAN OF WORK

*The RIBA Plan of Work 2013 puts more emphasis on post occupancy activities than has previously been recognised. How does Soft Landings fit? Roderic Bunn explains*

# EASY DOES IT

**THERE'S A NEW PHRASE** doing the rounds. Sessions at Ecobuild were full of it. The Green Construction Board is funding work into it. The Zero Carbon Hub has been given £380,000 by Eric Pickles to research it.

It's The Performance Gap. For those of us close to the subject, there's a certain weary black comedy about this. There's nothing new about the gap between how buildings are designed to perform and how they actually do. The PROBE building performance studies identified the problem in the mid-1990s. The Carbon Trust's Low Carbon Building Performance Programme of 2006 found the same. Despite funding a team of consultants to support the application of low and zero carbon technologies, the Trust was shocked to find that the benefits were often insignificant.

In 2011, the Technology Strategy Board started an £8m, four-year research programme to evaluate the performance of new domestic and non-domestic buildings. And guess what, it's finding similar things. So-called sustainable domestic dwellings, with their heat pumps, solar panels and mechanical ventilation, are catching the same disease: unmanageable complexity coupled with poor finishing off, inadequate commissioning, and utterly baffling control systems. The result is high energy consumption and alienated householders.

### Responsible aftercare

The solution lies in the way we procure buildings, in the contracts we use, in the way we work together, and, most importantly, in the way we manage the supply chain, and take custody of building performance. Unless that involves extending the project team's

### GET YOUR COPY OF THE PLAN OF WORK 2013

The RIBA Plan of Work 2013 will be launched on 21 May, available in three formats from [ribaplanofwork.com](http://ribaplanofwork.com):

- > A free overview publication
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responsibilities beyond practical completion, we will continue to deliver buildings that are only low energy on paper, not in practice. This is where BSRIA's Soft Landings comes in. Essentially, Soft Landings requires a project team to use a graduated handover that extends through and beyond practical completion into a period of professional aftercare. The framework defines better commissioning and handover routines, handholding of the occupants as they move in, fine-tuning alongside and beyond the defects period, and periodic post-occupancy evaluation to check how the building is performing against its targets. In other words, the project team doesn't disband and disappear with a cheque in its pocket at handover. Instead it takes responsibility for the performance of a building up to three years post completion. Most simply put, it finishes things off properly.

### Plan of Work

So will the RIBA Plan of Work 2013 support Soft Landings? On the surface, there's no reason why not. The process itself, devised by an architect, was structured against the

2008 Plan of Work. In any case stage M – even in the 1980s – always had sections for post-occupancy support. The 2008 edition changed this to sections L1 to L3. The question now is whether RIBA intends to enforce these aftercare elements in a new section simply called 'In-use'.

Early signs for the 2013 edition were good. The Green Overlay, developed by architect Bill Gething, was heavily inspired by Soft Landings. PoW 2013 has strong support for post-occupancy evaluation (POE). Soft Landings is referenced in supporting documentation that emphasises the continuous cycle of improvement that Soft Landings advocates.

But POE is really end-of-pipe validation. What's needed is far more emphasis on building performance evaluation at a project's inception. Architects need to embrace a culture of learning from experience, and use the outputs from structured building investigations to inform their design concepts.

### Structured successes

Early Soft Landings adopters are showing how this can be done in a systematic and structured way with tours of existing estates for large clients, interrogating what doesn't work and capturing actions at BIM gateway reviews.

This should be simple, as BIM and Soft Landings are complementary processes – which is just as well, because from 2016 the government will mandate BIM with a version called Government Soft Landings (GSL) for central government clients.

Soft Landings is the best chance we have of identifying the underlying causes of performance gaps and closing them down before they become insuperable problems. But how will we know that Soft Landings is closing the performance gap? In my view, its success might lie less with exemplary certification and more with the way the professions measure success. So, let's have Building of the Year awards based on evidence from post-occupancy reviews, and architects' websites reporting the results of their professional aftercare. ■

**Roderic Bunn** is manager of BSRIA Soft Landings. He is an evaluator for the TSB's Building Performance Evaluation and Innovative Refurbishment research programmes. Contact him at [roderic.bunn@bsria.co.uk](mailto:roderic.bunn@bsria.co.uk). Free Soft Landings downloads are at [softlandings.org.uk](http://softlandings.org.uk)



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## LEGAL

*Sometimes, exclusions of liability need to be specifically expressed, says Angus Dawson*

## REMOTE CONTROL

**DAMAGES FOR BREACH** of contract can extend beyond costs of redesign and repair. Architects should be aware that they can be held liable for much broader categories of loss, if these are reasonably foreseeable. The quantum of such losses may even exceed redesign and repair costs.

In the recent case of *John Grimes Partnership v Gubbins*, the Court of Appeal had to consider whether losses arising out of a fall in the market value of a development site could be recovered from an engineer, or whether such losses were too remote.

In this case, the property owner, Mr Gubbins, had obtained planning permission for a residential development. He engaged John Grimes Partnership (JGP) to design the drainage and a road on the site. Under the terms of its appointment, JGP was obliged to complete its work by March 2007, but the firm failed to do so. Over a year later, Mr Gubbins engaged a new engineer to redesign the road and drainage layout and apply for statutory

approval (which was subsequently received).

JGP brought a claim against Mr Gubbins for unpaid fees of approximately £3,000. Mr Gubbins refused to pay and, as a counterclaim, looked to recover the entire fee he had previously paid to JGP on the grounds that its work had been defective. He also claimed for the reduced market value of the development as a result of delay in completing JGP's design.

### Losses claim upheld

The Court of Appeal upheld the initial judge's findings that JGP had acted in breach of contract and that the decline in value of the development was recoverable.

JGP's argument that these losses were too remote to be recoverable was rejected by the Court of Appeal. The court was satisfied that JGP had been aware at the time it entered into its contract with Mr Gubbins of the proposed programme for the development. It had also known that the time of completion of the

development was likely to affect the value of the development as the market could either rise or fall. JGP could therefore reasonably be expected to know that a delay in completion of its services could have a knock on effect on the value of the development.

Specifically, the Court of Appeal held that there was nothing in JGP's contract to suggest that its liability for such reasonably foreseeable losses should be limited or excluded. There was nothing in the relationship between JGP and Mr Gubbins to suggest that liability for a change in the value of the development had been excluded or limited and it was not customary in the market for such categories of loss to be implied. There was therefore no bar to Mr Gubbins recovering the reduction in market value of the development site as a result of delays brought about by JGP's breach.

This case shows that if an architect wishes to exclude or limit liability for a particular category of loss which would ordinarily be recoverable, it will need to do so by express agreement. The courts will not otherwise stand in the way of a developer or client recovering losses which are the reasonably foreseeable consequence of a breach of contract by an architect. When entering into contracts, architects need to consider if there are any particular circumstances or categories of loss for which they consider they should not be held liable and address these expressly in their fee letters or appointment documents. ■

Angus Dawson is a senior solicitor at Macfarlanes LLP

## IN PLAIN ENGLISH

*Which consequences are reasonable to see and which are not can be tricky to assess*

## REASONABLE FORESEEABILITY

**IN THE CASE** of *John Grimes Partnership v Gubbins*, the courts considered whether a particular loss was 'reasonably foreseeable'. The general principle in *Hadley v Baxendale* is that a loss may be recovered if it is of a type which may fairly and reasonably be regarded

as having been within the reasonable contemplation of the parties when the contract was entered into as the probable (or not unlikely) result of the breach. The principle is split into two limbs: First, losses which arise naturally, according to the normal course of things, from the breach of contract itself; or second, particular losses which may reasonably be supposed to have been in the contemplation of the parties at the time they

made their contract as being a probable result of a breach of that contract.

The first limb covers losses which a reasonable person would ordinarily expect to flow from a particular breach of contract. The second covers categories of loss which may not ordinarily have been expected to have arisen as a result of the breach of contract but which both parties were aware of at the time the contract was entered into.

In *JGP v Gubbins*, the Court of Appeal had to consider whether there was anything particular in the contract itself or the commercial background of the case that implied that a particular category of loss should not be recoverable even though it may be reasonably foreseeable. The Court held, on the facts of the particular case, that there was nothing in this contract, or in the property market as a whole, to imply such a limitation.



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## REAL LIVES

*Sustainability, technology and new economic realities demand that architects find a different way of working, says John Worthington*

## A NEW WAY OF THINKING

**THE SCOPE OF** architectural practice has undergone dramatic change in the first decade of this millennium. 'Green architecture' is now recognised to be a part of a wider holistic approach to achieving sustainability. Information technology is changing lifestyles and corporate business models, resulting in innovative organisational structures and new building typologies. The banking crisis of 2008 triggered an exciting opportunity to recalibrate our institutions. I would argue that the last five years have been more than a deep recession: they herald a rethinking of the financial services economy and with it a realignment of values with the power of the civic society.

### Practice and process

You may be familiar with Zero Zero, whose co-founder David Saxby wrote a column for this page during 2011. It is a practice founded by architects trained in problem seeking, concept defining, solution framing, and communicating meaning, who have established an innovative model of practice that focuses on both process (oo:/Research) and product (oo:/Architecture). The practice has been prepared to question perceived wisdom and embrace upside down thinking. Unlike more traditional architectural practices it has not waited to be approached by potential clients who have already framed their problem, but has identified new needs, built alliances and helped shape solutions. As a young practice Zero Zero's distinguishing characteristics, which fuelled its success, have been openness and desire to work collaboratively; generosity in being prepared to engage and share ideas; an inquisitiveness combined with a calculated willingness to enter uncharted territory; and above all an

**'The founders have established an innovative model of practice that focuses on both process and product. The practice has been prepared to question perceived wisdom and embrace upside down thinking'**

entrepreneurial drive.

The founders studied together at Bath with a resulting trust and respect for each other's different attributes. Indy Johar, who leads research and strategy, has been prepared to rethink and find new structures for the emerging digital civic economy. Saxby, who heads architecture, has given expression to the new organisational structures through delivering buildings (SOAR Sheffield). They have gathered a diversely talented yet consistently focused team.

### Westminster Hub

Alice Fung's managerial and organisational skills, have turned the firm's investment in the Westminster Hub into a business reality. Located in London's West End, it is a business venture for the practice, its home, and above all a physical and operational expression of the concepts and values its members believe in. The Hub is a global network for co-working, with three locations in London, each with their particular culture, identity and mix of membership. Zero Zero has been involved with the organisational and spatial development

of the hub from its inception, partnering with Westminster Council Enterprise Unit for the creation of Westminster Hub, undertaking the design and now curating events and services to support the rapidly growing cluster of social impact enterprises. Within a year Hub Westminster has become a toe-hold for the new economy on the cliff face of the establishment and an icon for the civic economy.

Moving its architectural offering to the Hub (above) was a courageous step for Zero Zero. It is the antithesis of the image of the architectural office. The board room for presentations is a Wikihouse (another of its projects) and the rows of 'cad jockeys' in the 'studio' are instead individuals with laptops, working at a variety of settings, in a knowledge focussed ideas lab. Process and product work together, overlap and thrive on synergy.

Process and product have supported each other. Research has produced influential publications such as the *Compendium for the Civic Economy* or *Right to Build*, which have driven the conceptual thinking and given new meaning to the design approach while the experience of design delivery has in its turn provided practicality from experience to strategy.

### Powerful model

If Zero Zero can grow, mature and bring together the two cultures of design and management thinking it will have found a powerful model that no architectural firm has yet managed to achieve. As the firm grows and meets the opportunity of larger projects — oo:/ is a driving force behind the Government's £50m commitment to Tech City — it will be faced with the dilemma of whether the culture of strategy and organisational consulting is compatible with the demands and business imperatives of architectural delivery. In the world of product design, IDEO managed to find a new a successful business model, but the world of design works at a different scale to that of architecture. Zero Zero is prototyping a new form of practice. ■

**John Worthington** is co-founder of DEGW. He is a former chairman of Cabe/RIBA Building Futures and with Dickon Robinson and Caroline Cole authored *The Future for Architects?* He is a director of the Academy of Urbanism



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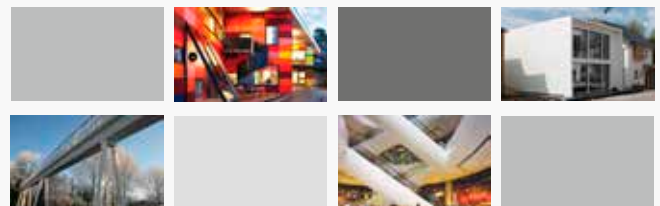
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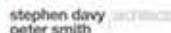


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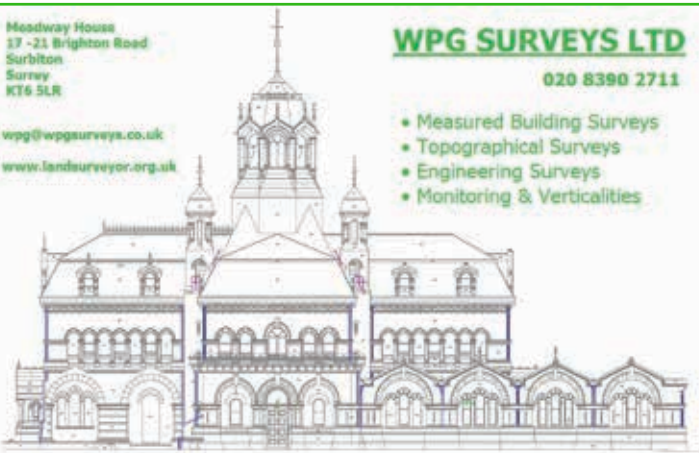


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- Supported by Wienerberger, the competition saw 44 young roofers, and 500 bricklayers battle it out to be crowned the best in their trade
- Wienerberger donated 43,625 bricks and 2,200 concrete plain tiles, hips and eaves for the competition's regional heats, which took place between April and September, and the national final in September

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### NATURA STRIKES A BALANCE AT ABRAHAM MOSS HIGH SCHOOL

Ruby coloured fibre cement Natura from Marley Eternit has created the striking visual centrepiece of the £17.5m rebuild and refurbishment of Abraham Moss High School in Manchester. Natura was specified by Ellis Williams Architects for the main four storey steel frame building that has a cantilevered section over the entrance area. Careful selection of lightweight, strong building components was therefore critical for creating this cantilevered design, along with contributing to the strict environmental aspects of the project.

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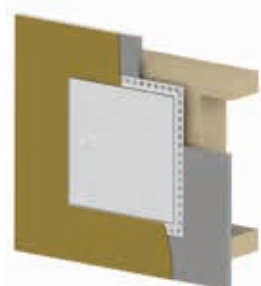
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#### NATURA IN LEAGUE OF ITS OWN AT UNIVERSITY COLLEGE SPORTS HALL

Natura fibre cement rainscreen cladding from Marley Eternit was instrumental in achieving planning consent for a BREEAM Excellent-rated sports centre at St Mary's University College in Twickenham. The £8.5m landmark building was officially opened by Lord Coe and will be used by University College students, members of the local community and athletes from four teams preparing for the London 2012 Olympics.

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#### FILA TO LAUNCH BEST-SELLING MP90 SEALANT IN NEW SOLVENT-FREE FORMULATION

Fila is launching a solvent-free version of its best-selling sealant - MP90. Part of Fila's Green Line, new FILAMP90 ECO is a penetrating stain proof for polished porcelain, ceramics, polished natural stone, terrazzo and crackle-glaze tiles. Like all Fila Green Line products, it has been developed with the environment in mind - but it also offers uncompromised performance and versatility. It is LEED-compliant and suitable for use on food contact surfaces. FILAMP90 ECO can also be applied both internally and externally - with some residual moisture - so offers a further benefit in terms of application time. New FILAMP90 ECO has a very low VOC content, is non film-forming and does not alter natural surface colour. The ready-to-use, water based treatment is applied undiluted with a flat brush or lambswool applicator onto a clean, dry surface. Excess product should be removed from porous materials after ten minutes, using a floor polishing machine with a white pad. On less porous surfaces, product should be left to penetrate for approx. four hours. FILAMP90 ECO seals, protects and promotes easy maintenance. As well as sealing a variety of kitchen and bathroom surfaces, it can also be used on surfaces requiring weather and anti-graffiti protection. It is available in 250ml, one litre and five litre containers. One litre of product provides approx. 30m² coverage on stone and 30-40m² coverage on porcelain.

T 01584 877286 E [filaUK@filachim.com](mailto:filaUK@filachim.com) W [www.filachim.com](http://www.filachim.com)



#### ICONIC STOCKPORT BREWERY TRANSFORMED WITH CAREA CLADDING

For the landmark £6 million conversion and new built extension of one of Stockport's most iconic buildings, The Royal Oak Brewery, developer Equity Housing wanted to create a stunning contemporary exterior. To create a contrast between the new buildings and the existing brewery building, a modern façade was required. Carea's cladding system met the precise requirements. Designed by TADW Architects and built by affordable housing specialist Southdale, the development is a combination of new build construction, demolition and historic conversion. Set to provide 51 affordable and high quality apartments, the development of the brewery is part of a wider regeneration of part of the town. To create a clear distinction between the original brewery building and the new extension, a range of cladding materials were specified. This included grey rainscreen cladding, white render, Terracotta tiling and Carea's Acantha cladding. Specified in grey Rhodes matt finish, the 14mm thick Acantha cladding was installed by specialist contractor Broseley Building Services. Forming a crisp contrast to the other cladding materials, the Carea cladding was used to create a base around the new extensions along with a vertical strip up the outer elevations.

W [www.carea.uk.com](http://www.carea.uk.com)



#### SAS INTERNATIONAL PRODUCTS CONTRIBUTE TO STRATFORD CITY WINNING ANOTHER GOLD MEDAL

SAS International is pleased to announce its involvement with the Stratford City Mall project which has won the Retail '2013 Interior Surface Design Award.' The project was shortlisted from 91 entrants and was awarded the title at The Surface Design Show, which took place at the Business Design Centre, London on Thursday 7th February. The categories were judged by leading architects and interior design specialists.

E [enquiries@sasintgroup.com](mailto:enquiries@sasintgroup.com)  
W [www.sasintgroup.com](http://www.sasintgroup.com)



#### FORMICA GROUP

Astley, one of the UK's leading creative signage manufacturers, chose VIVIX® exterior façade panels by Formica Group for the building frontage of the Morrisons Kiddicare stores in Nottingham, Merry Hill, Thurrock, Aintree and Rotherham. VIVIX panels ticked all the boxes of the brief - stylish, durable, and virtually maintenance free. VIVIX panels cause minimal environmental impact as determined by Formica Group's Life Cycle Assessment (LCA).

W [www.formica.com](http://www.formica.com)



#### SAINT-GOBAIN WEBER A+ RENDER

Weber.pral M monocouche render by Saint-Gobain Weber has been specified for a new development in Cornwall by Barratt-David Wilson Homes Exeter. This BBA accredited and BRE A+ rated render is ready mixed and through-coloured. Incorporating One Coat Technology, drying time is reduced by as much as 50% compared with a traditional two-coat system. Available in 24 colours providing a stunning, modern visual effect and a durable, weather protective finish.

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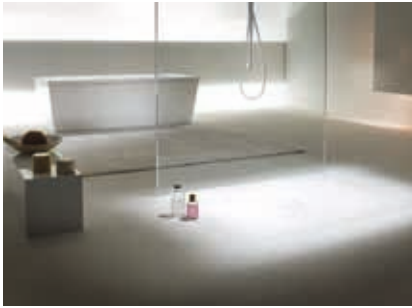
#### RUNDUM ORIGINAL CONCAVE SOLID OAK GARAGE DOOR

A solid oak Rundum Original concave garage door was specified on Downley House - a beautiful innovative home located in rural South Downs National Park and designed by RIBA competition winners Birds Portchmouth Russum. The use of oak and the concave design complements the natural flowing form of the landscape and the rest of the building. The door slides back along the side at an angle into the garage and is operated by remote control.

W [www.rundumuk.co.uk](http://www.rundumuk.co.uk)



CONTACT THE SALES TEAM ON: +44 (0)20 7496 8338 OR EMAIL [CLIVE.WAITE@RIBAJOURNAL.COM](mailto:CLIVE.WAITE@RIBAJOURNAL.COM)



#### KALDEWEI: RELIABLE PARTNER FOR SHOWER FLOORS

At the 4 star Radisson Blu hotel in Hamburg, the hotel management decided to replace all tiled shower areas in the hotel following problems with black spots and leakages. The new showers had to be of high quality, durable and easy to clean, and they needed to fit in with the hotel's modern design. In the end, the ideal partner for these renovations was found in Kaldewei. The affected rooms in the hotel were closed and all 252 tiled shower areas are now steadily being replaced. Cleaning and heavy use do not leave even the slightest scratch in the hard, pore-free surface of Kaldewei 3.5mm steel enamel. The surface without tile grout ensures lasting good looks and also improves hygiene properties. Using the right Kaldewei installation system, products in the enamelled shower surface range, such as the Conoflat, are easy to install and, if necessary, even to replace. Kaldewei therefore offers the customer a comprehensive one-stop solution – complete with a reassuring material guarantee of 30 years.

For stockists please contact Kaldewei.

T 0800 840 9770 E [info-uk@kaldewei.com](mailto:info-uk@kaldewei.com) W [www.kaldewei.com](http://www.kaldewei.com)



#### UPDATED RIBA APPROVED FLOORS SCREEDS CPD LAUNCHED BY FLOWCRETE

Flowcrete has updated a popular RIBA Approved CPD, which is designed to help specifiers get the level best from flooring screeds.

Entitled 'Floor Screeds – How To Avoid Failure' the presentation outlines the different types of floor screeds and their applications, identifies areas of failure, and offers advice on the avoidance of problems.

Aimed predominantly at architects specifying screed systems in commercial environments, the CPD also caters for construction managers and other property professionals.

Flowcrete's new screed CPD joins the flooring manufacturer's existing professional development programmes, covering underfloor heating, decorative resin flooring, industrial resin flooring and car park decking.

T 01270 753000 E [cpd@flowcrete.com](mailto:cpd@flowcrete.com)



#### INTERFACE, INC. AND THE ZOOLOGICAL SOCIETY OF LONDON PILOT IN THE PHILIPPINES HAILED A SUCCESS

Global carpet tile manufacturer Interface, Inc. and conservation charity the Zoological Society of London (ZSL) are celebrating the successful completion of a pilot project and the start of a commercial venture with both conservation and socio-economic benefits. The innovative collaboration, called Net-Works™, has been created to tackle the growing environmental problem of discarded fishing nets in some of the world's poorest coastal communities. By establishing a community-based supply chain for discarded nets, Net-Works aims to improve the livelihood of local fishers, while providing Interface with an innovative source of recycled materials for its carpet tiles. Discarded nets on the beaches or in the sea have a detrimental effect on the environment and marine life as they can persist for centuries. But, most nylon from these fishing nets is the same material used to make carpet yarn. The viability of the collaboration was proven between June and October 2012. After conducting research and working closely with local communities and NGOs, Net-Works established the infrastructure to collect the fishing nets, gathering one tonne (1,000 kg) of nets in the first month -and substantially cleaning up the beaches in four local communities near Danajon Bank, a threatened coral reef in the Philippines. Operations are now scaling up, with the intention of developing commercial carpet tiles incorporating the collected nets later this year.

W [www.interface.com](http://www.interface.com)



#### IMPROVING FACILITIES. TRANSFORMING ATTITUDES.

Mental health is racing up the political agenda and with around one in four people in Britain experiencing some form of mental health problem at some time in their life, many would say 'about time too'. The environment has a huge impact on recovery rates and in the drive to improve them, the government is investing heavily in facilities. The Design in Mental Health Conference and Exhibition (14-15 May) is for everyone with an interest in mental health.

W [www.designinmentalhealth.com](http://www.designinmentalhealth.com)



#### ANCON INVESTS IN RESPONSIVE WEB TECHNOLOGY

Structural fixing specialist, Ancon, has redeveloped its popular website, [www.ancon.co.uk](http://www.ancon.co.uk) to make it fully accessible to the growing number of mobile users now accessing the site via Smartphone, iPad, netbook and similar devices.

The new site is designed to recognise a particular device and automatically resize and alter the typography, and shift to different page layouts, to make it easy to read and navigate at the particular screen size and definition involved.

T 0114 275 5224 E [info@ancon.co.uk](mailto:info@ancon.co.uk)



#### ROCKFON PUTS OFFICE DESIGN IN THE SPOTLIGHT

In these challenging times, it is more important than ever for businesses to recruit and retain high quality staff. That means ensuring the workplace offers a productive and inspiring environment, with sustainable working practices. In order to better understand the role of office design, a panel of experts were recently brought together for a round table discussion, in partnership with Rockfon. The panel were challenged to discuss some of the key factors involved in creating the ideal working environment.

W [www.rockfon.co.uk/hub/office](http://www.rockfon.co.uk/hub/office)



#### ROOFLIGHT

Oxford practice Adrian James Architects were appointed to design this new-build property in rural West Oxfordshire. The project includes traditional materials to allow the building to blend into the surroundings yet the architect has applied a modern twist to the design, including a curved slate roof. neo™ rooflights were specified on the scheme due to their frameless appearance both inside and out. They complement the modern approach perfectly.

W [www.therooflightcompany.co.uk](http://www.therooflightcompany.co.uk)

## DRAWN IN

**THE CHILDREN'S LABYRINTH** at the 1954 Milan Triennale was expressly conceived as a synthesis of architecture, painting and sculpture. The centre, designed by BBPR, was occupied by a mobile sculpture by Alexander Calder and the curved walls featured graffiti by artist and cartoonist Saul Steinberg, whose shadow can be seen in this photograph along

with a detail of his work. The combination of architecture and the figurative arts was a constant preoccupation of BBPR which was very active in developing international contacts, especially in the post-war period.

Romanian by birth, Saul Steinberg had lived in Milan before the war, where he published cartoons for the humorous newspaper

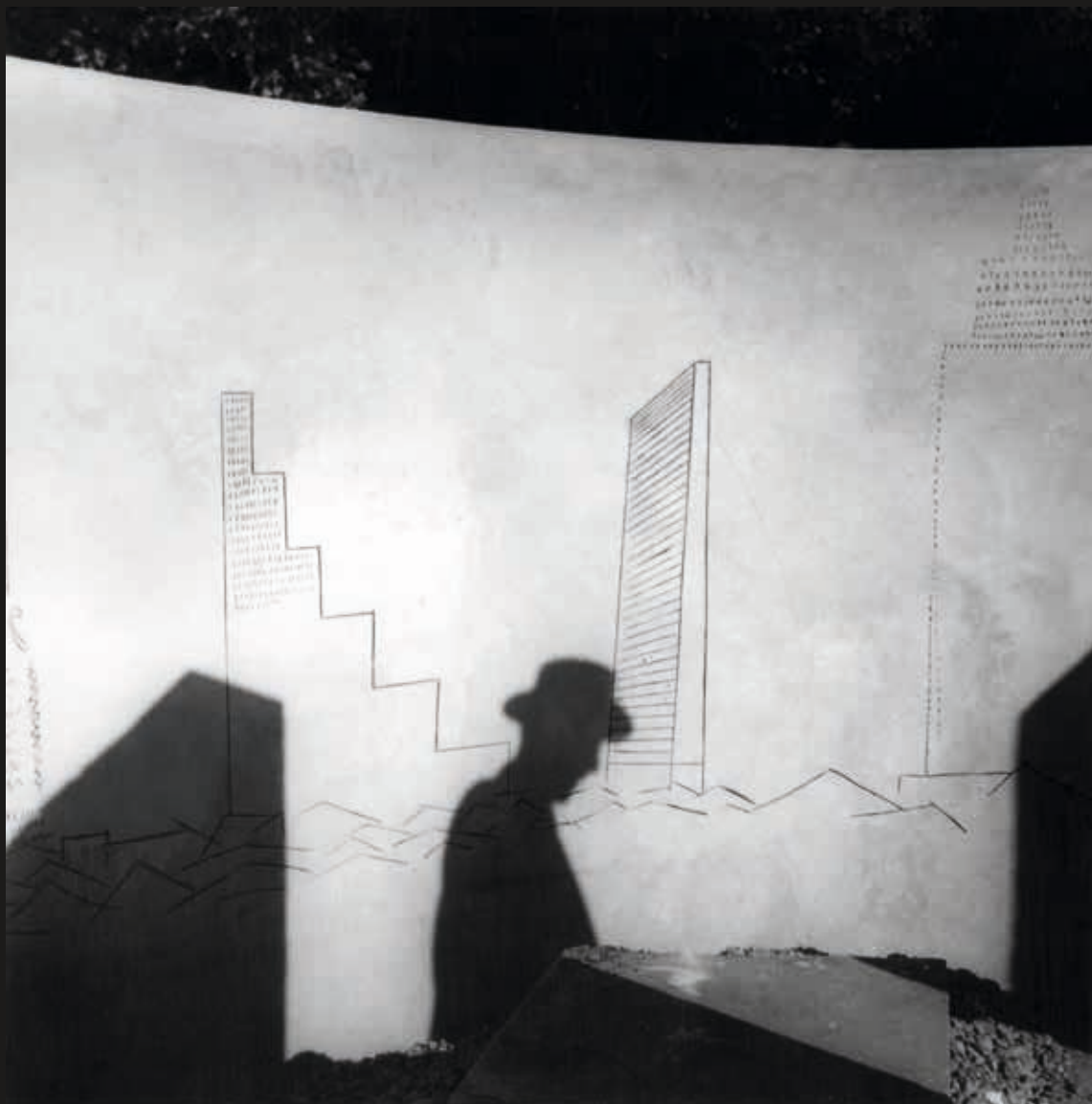
*Bertoldo* and graduated in architecture at the Politecnico. Forced to flee the country in 1941 following the introduction of anti-Jewish racial laws, he settled in the United States, where he became especially renowned for the cover images and illustrations he contributed to *The New Yorker*. However, Steinberg kept in touch with his fellow Italian artists and

intellectuals throughout his life and returned to Italy several times to work and travel.

Architecture remained a constant presence in Steinberg's drawings, and in 1958 he created a mural for the US Pavilion at the Brussels World Fair. ■

**Valeria Carullo**

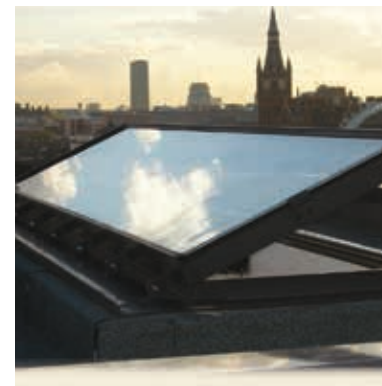
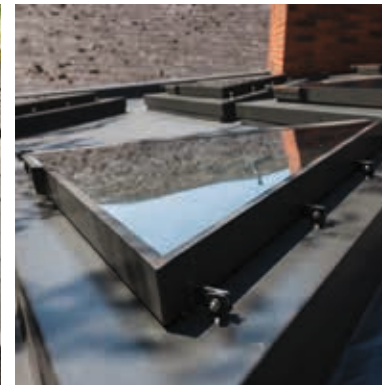
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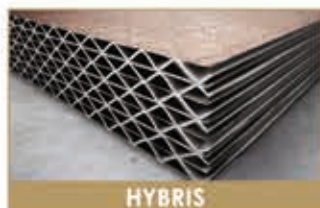


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