

The RIBA Journal

£7.95/€28/US\$30





16

Out in the sticks

Yesterday and today

Denton Corker Marshall's Stonehenge Visitor Centre unveiled

Traditional style gets a modern face at Allies and Morrison's Girton College addition

The odd couple
Architecture now
Contract billing
Come, friendly bombs

Why inventiveness is good business for Carmody Groarke
Current concerns and future trends examined
Changes to a contract can cost a small fortune

Chilling tales of war as the planners' friend

60

40

50 65

One system. Three design aesthetics. Eight product types. Infinite options.

IN NOVATION . IN SPIRATION

The only windows and doors you need



FINDONE



Three sash styles





modus® - The only windows and doors you need

It's new. It's innovative. And it leads the market in terms of looks, performance and value for money. You can create a whole range of different fenestration types and architectural styles from a single system.

Welcome to modus[®] - the UK's first fully integrated 75mm window and door system. Offering three sash styles, U-values of 0.7 and a 12-year guarantee*, modus[®] delivers the best of all worlds.

* applies to white frame profiles



Discover the full range of benefits modus® offers for yourself. Call **0800 988 3041** now – and receive your **FREE** brochure. Or email **modus@eurocell.co.uk**

Buildings



Comment 07

Daring to challenge is what changes history

College 08

Ancient barns inspired BDP's arts wing for Norwich City College

University

10

Granada's health faculty building gives Spain a rare treat of bringing a project to completion

School 12

Bolton School's new sixth form block holds to a radical tradition

Photograph

Christian Richters' shot of the Great Mosque of Djenne, largest mud brick building in the world

Faculty 16

Girton College's new Ash Court matches the materials, shapes and angles of its setting

Stonehenge Visitor Centre

The Stones reign on the plain again with a visitor centre that knows its place – distant, and perhaps a bit too unambitious

Refurbishment 26

DVVT's retrofit of a Ghent boutique makes a statement that goes beyond mere fashion

2

Intelligence



Q&A 31

Marcus Binney on saving Smithfield General Market

President's Research Awards ZEDFactory 32

Bill Dunster explains how details change the big picture

Bauman Lyons 34

Irena Bauman on the firm's Climate Change Adaption Strategy

Tonkin Liu 36

How the biomimicking Shell Lace Structure changes design

Adam Architecture 38

A book on the effect of global culture puts design debate in context

Economics 40

How will the profession look in 2025? The RIBA gathered five experts to thrash out the issues

Regions

Connecting academia and practice in Portsmouth

Benchmarking

For students, finding work is all about place

Plan of Work

Forget checklists, green design needs PoW tools

Legal 50

A change of contract terms could trigger a liability hit

Our office 51

Maria Smith raises a wry glass

3 Culture



Hugh Pearman

Goodbye to all FAT

The flâneur 55

Herbert Wright's on a power trip

Out there

Jef Smith finds the Japanese really know how to shop

Round here

57

Where to tell tales in Wales

President's column

59

Stephen Hodder on education and practice

Profile 60

Carmody Groarke's gallery for the RIBA opens next month, and though still young, the practice continues to surprise

Review

65

Opportunist planners saw a silver lining in the destruction of WWII

Obituary

67

Roland Paoletti, grand master of London's Jubilee Line Extension

Exchange

69

Opinion and comment from readers

Parting shot

76

Stonehenge, Wiltshire, as it was

On the cover

Stick-like columns and a perforated canopy evoke nearby copses at Stonehenge Visitor Centre

Photo

Peter Cook





RIBA ₩ Enterprises

RIBA Journal is published 12 times a year by RIBA Enterprises. The contents of this journal are copyright. Reproduction in part or in full is forbidden without permission of the editor. The opinions expressed by writers of signed articles (even with pseudonyms) and letters appearing in the magazine are those of their respective authors; the RIBA, RIBA Enterprises and the RIBAJ are not responsible for these opinions or statements. The editor will give careful consideration to material submitted — articles, photographs, drawings and so on — but does not undertake responsibility for damage or their safe return. ISSN 1463-9505 © RIBA 2009



An elegant solution to an age old problem.

Introducing Dolphin Dispeners' elegant and stylish solution to washroom design, a complete modular system hidden behind mirrored panels. Giving your washroom a stylish and uncluttered finish that until now we could only dream about.

Each modular system has its own set of sensor activated taps, soap dispensers and hand dryers. With a simple and quick release the mirrors lift up using hydraulic pistons to reveal easy access for maintenance and janitorial duties. The modular system promotes a 'plug and play' system, with only a need to provide hot and cold water and an electricity supply.

Dolphin Behind Mirror complete washroom system

Specifications:

- Elegant and clean design, fits into any project
- Easy access for janitorial duties, with hydraulic lifting panels
- Sensor activated taps, soap and hand dryers
- Multi-feed system, LED lighting. 'Plug and Play'





washrooms worth experiencing



1: Buildings

American theologian and intellectual Reinhold Niebuhr once said: 'Nothing which is true or beautiful or good makes complete sense in any immediate context of history; therefore we must be saved by faith.' This might have been the last thing on the minds of the people dragging bluestones from the Preseli hills in Wales to a desolate plain in Wiltshire to aid the building of...what exactly? But 4000 years on Stonehenge, this 'alien' object, forms part not only of the landscape

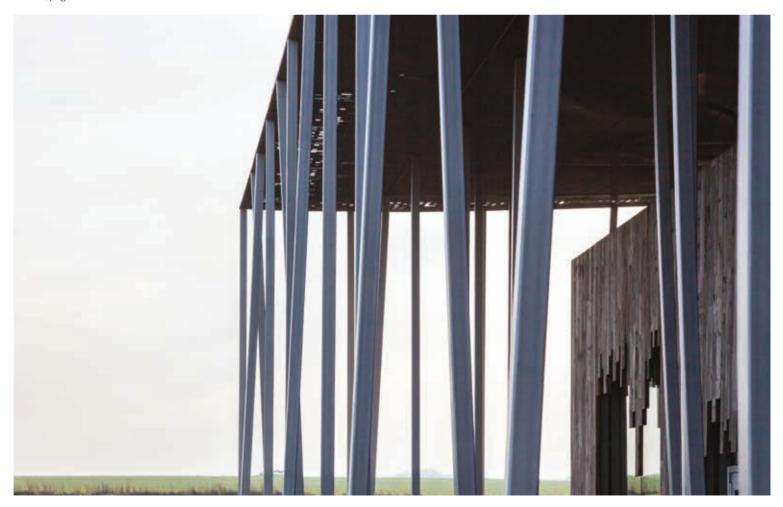
but of human consciousness itself. Not bad going for grunts with trunks and a hunch.

Gut instinct suggests the best way to approach the Stones would be by foot at sunrise, like the conclusion of a Hardy novel, but reality demands a welcome for the millions who visit; so the best aspect of Stonehenge Visitor Centre is its siting – totally invisible from the circle. This seems counter to the typically ego-driven notion of architecture – demanding visibility and attention, usual-

ly where other buildings exist, which raises the issue of context.

Architects are constantly challenged by when to work with the environment in which they are designing, and when to run counter to it. For the Albertis, Boullées and van der Rohes out there the will to spurn both context and tradition lies at the very core of their genius and changes history. For the rest, 50 shades of vanilla seems to present itself to the world as the least harmful alternative. •

Super-slender columns emulate copses on Salisbury Plain at Stonehenge Visitor Centre, page 20



Creative Arts Building, City College Norwich BDP

Words Eleanor Young
Photograph Kilian O'Sullivan

When the Learning and Skills Council crashed so did a lot of firms' work in education. BDP lost half the team working on the £110m masterplan for Norwich City College. But the college finally scraped some cash together – and gave BDP just 15 weeks for design plus 13 months on site. So what does a project look like that was based on a strong strategic foundation and then rushed through on a breakneck design and build programme?

BDP architect-director Wayne Head drew on the black massing and visible roof volumes of the ancient barns in Norwich city centre, and the highly glazed west walls of its churches. The form is stylish, even stylised; black extruded barns paired and cutting into the gradient of the site. Head fought hard for the wrap around weather boarded timber skin, with gutters hidden by a snowboard stop and special fire rated timber for the roof. It makes for familiar forms but does it truly belong to its immediate civic-suburban location?

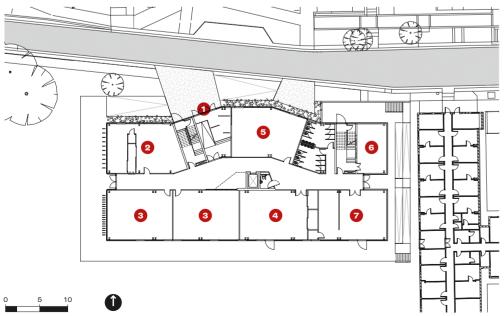
Punched square windows are set in the long forms. A ribbon of clerestory glazing at ground floor level give dancers both light and privacy. The west end wall is glazed. Its border is mirrored, doubling the lawn and trees at the front by reflection. Factory-finished timber fins on rods run down the facade, more here, less there, part rhythm, part shading.

The masterplan's north/south college axis is respected; the plan is pushed out to meet paths front on, inside creating a slip of atrium with light from above. This little bit of generosity gives the sense this building might have a heart – currently residing on the top floor where lovely fine art spaces under the exposed roof trusses team with life and look onto the garden via the glazed end wall.

The building should work for the long term future of the college, the first stage in the masterplan, should that ever be built. And forethought at this level seems to have allowed a knowledge of both city and college to imbue the design with powerful elements that have withstood the rigours of D&B. As well as much-needed quality teaching space the strong form gives the creative arts a presence the college had previously lacked.



Ground floor plan





IN NUMBERS

£4.5m total cost

2,700m² gross internal floor area

1,660m² scheme cost per m²

34.57

tonnes of co_2 emissions (estimated)

Design and build contract

Key to ground floor plan

- 1 Entrance
- 2 Fashion studio
- 3 Dance studio
- 4 Theatre workshop
- 5 Dye workshop
- 6 Plantroom
- 7 3D workshop

Left At its purest, end on, the form acts as a lightbox for the college's artistic activities. During the day the mirrored borders give an extra layer of life to this west facade.

BuildingsUniversity

Faculty of Health Sciences Granada University Mediomundo Architects, Seville

Words Jan-Carlos Kucharek Photographs Fernando Alda

With Spain still enduring painful recession, public budget cuts and a dearth of projects half-built or on hold, it is perhaps with some relief that Mediomundo Architects' €16m Faculty of Health Sciences has finally opened in the Moorish city of Granada, Spain. Part of a campus masterplan by architect Cruz and Ortiz, the 11000m² building combines schools of physiotherapy, nursing, podiatry and geriatric care. Nearby, about to open is the University's General Service Centre followed by the new Faculty of Medicine in 2015.

While looking wilful, the form is, claims the architect, the result of area zoning regu-

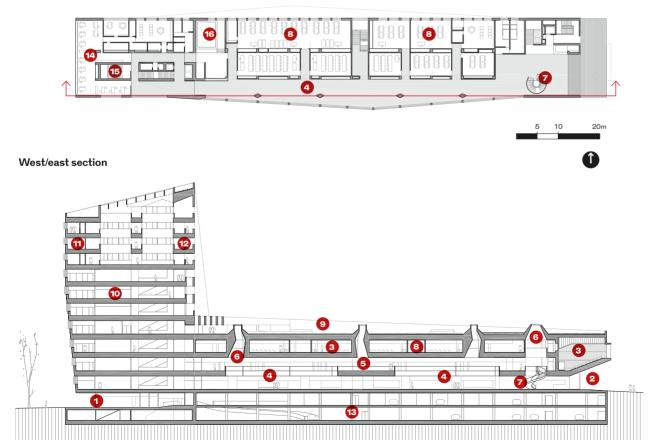
lations, allowing up to 10 floors (40m) on the west 'urban' side facing the street, but only three floors 130m further east into the body of the campus site. This is not an architecture of epidermis, flesh and bones – the white concrete form is both facade and structure, raw faces expressed internally and externally, driving its monolithic nature.

The length of the sloping site allowed the designers to 'stretch' the programme, creating interesting public areas in section. At ground level a long concourse with recessed mezzanine running along the south face connects classrooms with laboratories and hydrotherapy pool areas, lit from above with Corbusian light cannons. Bookending this is a refectory on the lower street side and the expressed concrete auditorium soffit, giving a rough-hewn, formal face to campus. Tucked behind this east elevation, a raw

concrete stair to the mezzanine lends less obvious articulation. Seminar rooms predominate on the tower's mid-levels, with research labs and academic offices at the top.

The need to house all the medical faculties on the restricted plot led the architect to create a dedicated public space for the building in the form of a walled roof garden, whose elemental nature seems to reference Le Corbusier's Unite d'Habitation - though one hopes it will be better used. Granada's cooler clime should make summer exposure here less challenging than that experienced in the height of summer in Marseilles. Intended to be planted with indigenous and medical plants, this rooftop physic garden should benefit from the Sierra Nevada's purer air, the factor that first attracted the occupying Moors up here from Andalucia's dusty, baking plains.

Ground floor plan



- 1 West (street) entrance
- 2 East (campus) entrance
- 3 Auditorium
- 4 East/west concourse
- 5 Mezzanine
- 6 Light cannons
- 7 Concrete stair to mezzanine
- 8 Labs/seminar spaces
- 9 Roof garden
- 10 Education spaces
- 11 Research labs
 12 Academic offices
- 13 Two level car park
- 14 Cafe bar
- 15 Stairs down to street entrance
- 16 Hydrotherapy pool





Riley Centre, Bolton School Cassidy Ashton

Words Jan-Carlos Kucharek Photographs Jon Bailey

The first Viscount Leverhulme, Bolton's most famous son, from humble beginnings as a grocer's son, founded a soap brand, that begat the model town Port Sunlight, that begat the multinational Unilever. He also gave an endowment that led to the founding of Bolton School, which merged the Boy's Grammar School and the High School for Girls. Designed by Charles Adshead in 1928 in neo-Tudor style, its red sandstone walls were built to emulate Oxbridge and, with two single sex blocks reflected beyond the gatehouse across an open space, to ensure never the twain shall meet.

Until now. Local conservation architect Cassidy Ashton, which has worked on the grade II school fabric for 25 years, had its commitment rewarded with the task of designing a new £7m, $1600m^2$ mixed sixth form block. After nearly a century, the Riley Centre finally unites the boys and the girls, and creates a third, ceremonial courtyard and new connectivity for the school.

The position of the new block is interesting. Lawrence McBurney, project architect, says the site was originally intended to accommodate the school chapel, but for lack of further funding it was never built. This left a windswept open area looking down the site, from where the boys and girls would fork to their respective entrances.

An evocation of MacCormac Jamieson Prichard's 1999 Ruskin Library at Lancaster University, Cassidy Ashton's elliptical extension closes off the view and links the two schools in a social way that the chapel could never have done. A steel structure clad in the same red sandstone ashlar, its ground level reception on the north side meets multi-use spaces that face the open ground beyond. A first floor common room and café are surmounted by study spaces above. This is all connected back to the original entrances to the two schools by glazed corridors. The transparent glazing counterpoints the darker tinted glass that was specified for the sixth form block. 'The intention was that this be very much be an object of itself; isolated,' says McBurney. Just like the planned chapel - but now a secular interpretation.



Right Rear elevation looking north from the arts block to the main body of the school.







BuildingsPhotograph

Great Mosque at Djenné, Mali

Photograph Christian Richters Words Jan-Carlos Kucharek

It's ironic that Berlin-based photographer Christian Richters chooses his image of the 19th century Great Mosque at Djenné in Mali as one of his personal favourites, for it has, in recent history, been far from hospitable to photographers. Following a 1996 fashion shoot for Vogue, which saw scantily-clad models brushing up against its famous mud brick walls, the town was reportedly so incensed that non-Muslims have been banned from entering the mosque ever since.

Richter's exterior image does, however, manage to capture the strange molten beauty of the baked ferey structure, its qibla (prayer wall), buttresses and minarets dotted

with its distinctive palm-stick toron, projecting 60cm from its face, facilitating access to the structure for annual repairs after the seasonal rains.

Old buildings have fascinated Richters from an early age. His first photographs were of these, rather than new ones, and after training with well-known German photographer Pan Walther, he went on to study photography at Essen's Folkwang School. Since 1985, he's been commissioned by a string of European starchitects. Richters observes that in this time he's seen 'national styles or identities replaced by global trends'; a measured Teutonic response that gives no sense of whether he approves or not. Perhaps in this case then, with his image of Djenné's towers rising from African sand, a picture really is worth a thousand words.

Following a 1996 fashion shoot for Vogue, the incensed town banned non-Muslims from entering the mosque











MEDITE MEDITE **TRADE**



ECOLOGIQUE (Zero added formaldehyde)



MEDITE FQ (Flooring Quality)



MEDITE TRICOYA (NEW Extreme Durable MDF) 50 year guarantee



MEDITE ULTRALITE



MEDITE PREMIER (All purpose)



MEDITE MR (Moisture Resistant)

We're continually evolving

Find your most extensive range of MDF from Medite. With over 35 years' experience in MDF, our research and development brings you a range that's extensive, innovative and sustainable.

For more information or a free product sample please visit **medite-europe.com** or call **01322 424900**.

Medite: Raising the standard of MDF





Perfectly pitched

With its sloping terracotta and colonnades, the new Ash Court puts a modern twist on Girton College's stripped down Victorian context

Words: Eleanor Young Photographs: Nick Guttridge

Allies and Morrison's Ash Court is in the back yard of Girton College, Cambridge. The front entrance is Alfred Waterhouse, a stripped down version of high Victorian for what was originally a ladies' college. Designed by three generations of Waterhouses, the college is set around courts, each lined with corridors, cloister style, with library, bedrooms and halls leading off.

Allies and Morrison has added Ash Court to its 2005 archive and library extension at Girton. Ash Court's 50 study bedrooms are built on the edge of the college's envelope of

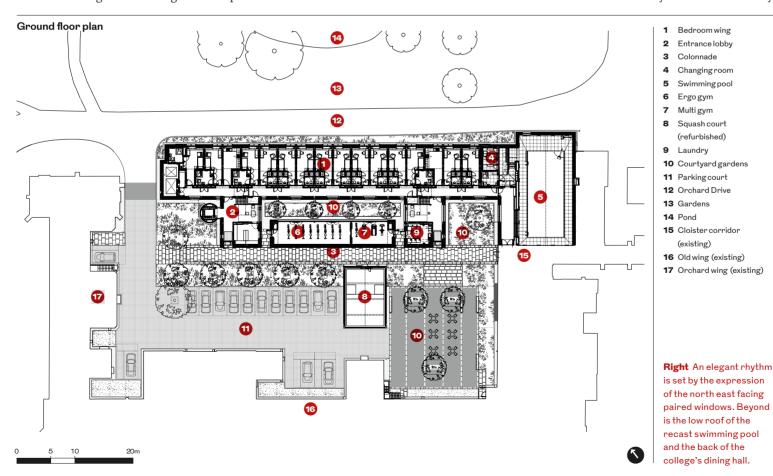
green belt exemption and in the context of the college's grade II* listing. They tidy up the service yard and address the college garden and fields beyond.

Looking out of the college the scale is grand, with bedroom windows paired and projecting, emphasised by the stone frames, zinc dormers and slabs of terracotta sloping out as oversized sills. It is a comfortable, handsome composition with the steeply pitched roof that echoes the 52.5 degrees incline of the older buildings.

On the inside the court retains the sense

of a muddle of infills. Projecting student kitchens (gyps in college parlance) are compared by project architect, Max Kettenacker, to the Victorian ablution blocks opposite, but they are rather scrappy with little windows, brise soleils and white panels. This side also includes a faceted, twisting, lift tower (rather nice) and a single storey gym (which feels like it is in the wrong place). They, and an existing squash court, are tied together loosely by a covered colonnaded walkway.

Given that it runs parallel to the accommodation corridor only a few meters away





BuildingsUniversity

Below left The foundations and basin of the Victorian pool were reused but from the water level up it was rebuilt — with just steel trusses as a reminder of the best of it.

Below right The staircases are economical in their structure and simple in their finishes. the walkway doesn't seem strictly necessary on a practical level. But Allies and Morrison felt strongly that the axis of brick vaulted Cloister Corridor – which runs past the heart of the college, the dining hall – should be continued, also linking the furthest wing to the rest of the college and defining the edge of the court. As a piece, this has an enjoyable rhythm, columns and timber slats on the underside soffit. And it gives the sense of continuing the line of rather lovely, simple single loaded corridors that run around the college.

Inside Ash Court the staircases and bedroom corridors also take their cues from these spaces, with white panels offering a more civilised face to the concrete soffit and a window seat by each paired door inviting

sociability. Concrete staircases are nicked into the structure for efficiency (the contractor was less keen, says Kettenacker). Neatly planned, well shelved rooms are monitored for temperature and CO_2 – when the vents are left open, and CO_2 levels are reasonable, the heating will turn off. A great incentive to remember to shut your vent before going out. The whole building is designed to Passivehaus standards, though there was no appetite to certify beyond BREEAM Excellent.

One of the hungriest parts of the design is the swimming pool which draws on the heat pumps. Built on the same foundations as the existing pool, it shares a style of much loved historic steel trusses in the building. It makes the back of this college truly worth exploring.

IN NUMBERS

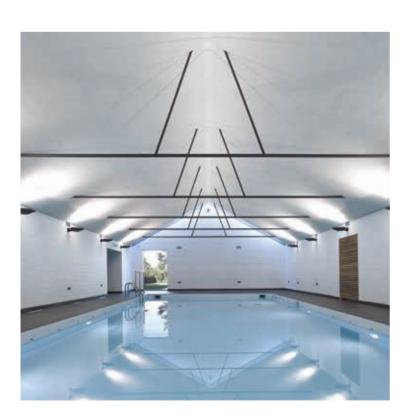
£6.5m construction cost

£2,440m² gross external area

£2,800

JCT Design & Build contract 2011

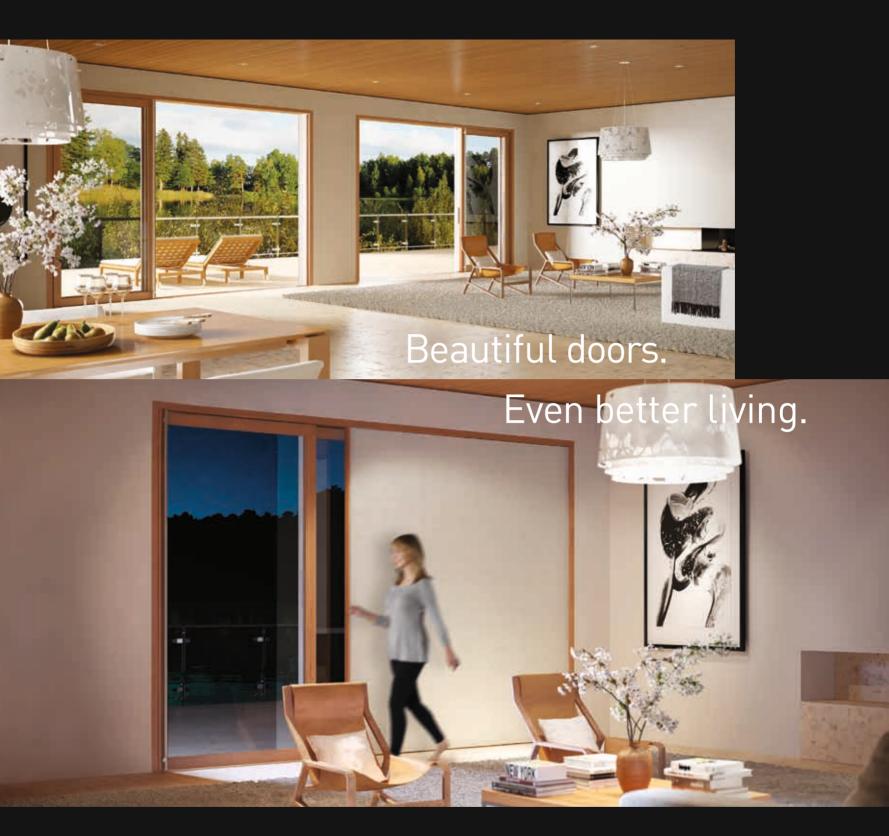
40%
reduction in CO₂ beyond
a Part L2A (2006)
compliant building





Credits Client Girton College, University of Cambridge Architect Allies and Morrison Main contractor Mansell, Balfour Beatty **Building services** engineer Max Fordham Structural engineer Fluid Structures **Project manager** Sweett Quantity surveyor Sweett Group Planting design Bradley-Hole Schoenaich Landscape Architects

Suppliers
Bricks Ibstock
Reconstituted stone
Minsterstone
Terracotta NBK
Architectural Terracotta
Windows Schüco
Zinc VM Zinc
Rooftiles Monier Redland



Introducing Centor Integrated Doors

These exciting new patio doors feature built-in screens and shades that completely disappear into the doorframe when not in use. So you no longer have to compromise the beauty and clean look of your home.

Beautifully designed for full control of sunlight, privacy, insects and airflow, with fingertip ease, Centor Integrated Doors enable you to enjoy indoor/outdoor living, all day, all year round.



Sticks and stones

Stonehenge finally has a visitor centre that gives the monument the isolation it deserves. Its new architecture is another story

Words: Hugh Pearman Photographs: Peter Cook



There's a particular type of very superior French motorway service station, quite unlike the workaday British equivalent. With good architecture and landscaping, these travellers' oases are conceived as portals to their region, encouraging motorists to leave the motorway and explore. In them you generally find a mini-museum of the Département in question, plus a shop stocked with regional gastronomic specialities and – of course – a good café/restaurant. The new visitor centre for Stonehenge on Salisbury Plain, by Denton Corker Marshall, is exactly like one of these. That is no disgrace.

Set in a hollow 2.5km west of the Stones and hidden from them by a wooded ridge, the new centre at Airman's Corner (memorial to a pre-First World War plane crash) is, like those French examples, designed to slow people right down from trunk-road speed so that they pause and start to appreciate and learn about their surroundings rather more intensely. The centre consists of two square boxes – one glass, one timber – beneath an oversailing roof. The timber box contains the museum and toilets, the glass one has café, shop and education space. Between them the space houses the ticketing booth and acts as a gateway through to the visitor shuttles (five sets of little carriages pulled by Land Rover) that take you over the ridge to the Stones – unless you'd rather walk. The slightly kinked roof, supported on a forest of slender steel columns, shelters these facilities and acts as a generous shelter around them. Its form echoes the copses of trees you find on the plain, but given its location might also be seen as referring to the wing and struts of an early

The graceful roof of the visitor centre evokes both a woodland copse and early aeroplanes.



Critique Stonehenge Visitor Centre





IN NUMBERS

£6.9m visitor centre cost

1515m²
visitor centre area

£4554 cost per m²

£27m whole project cost

2814m² canopy

211 columns

2.5km west of the Stones

900,000+ annual visitors

biplane. Its delicacy, culminating in very thin, perforated edges, contrasts with the more lumpen nature of the two blocks beneath it, which are set slightly off-grid relative to each other in an act of defiance against the purely symmetrical. The columns are a veil to these.

If it was just a matter of another visitor centre – surely a key typology of the postindustrial era – there would not be much more to say. These buildings have a particular task to perform, we know what functions to expect, and duly find them here, present, correct and acceptably packaged. But this one is for the greatest Neolithic monument of them all, coming right at the end of the Stone Age: the monument that shows the conscious beginnings of architecture and engineering in its partly dressed stone, carefully radiused lintels and interlocking construction. That's before you get to its astronomical exactitude and symbolic importance. Small wonder that Inigo Jones (see

p76) could not resist ascribing it to the Romans.

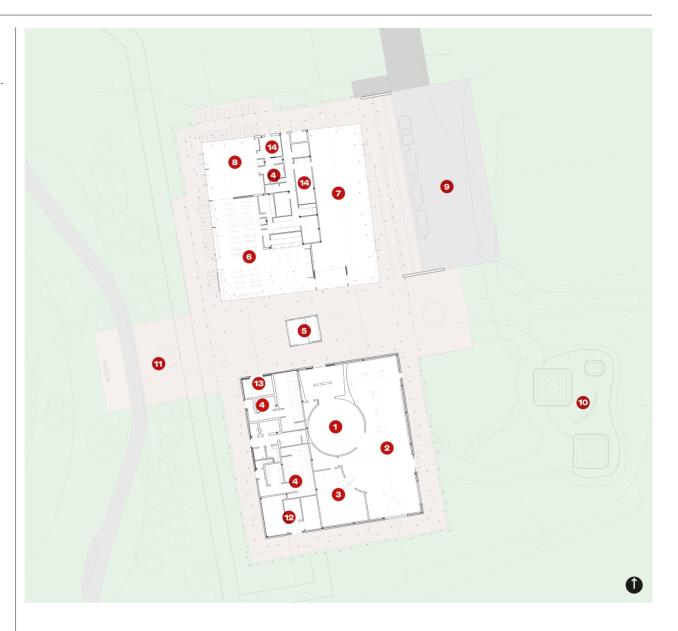
The problem of how to handle visitors to Stonehenge has rumbled on for at least 30 years, since the newly-formed English Heritage took it over from the former Department of Environment. The closure of one of the two roads that rush past it was first proposed in 1927. Its previous cramped visitor gateway building, next to a large coach and car park very close to the Stones, linked to them by a pedestrian underpass beneath the A344, opened in 1968 and by 1992 was described as a 'national disgrace' by the Public Accounts Committee. These days Stonehenge is a designated World Heritage Site, which made it even more disgraceful.

There have been successive competitions to resolve the problem. The first, won by Ted Cullinan in 1992, envisaged an earth-sheltered building on military land at Larkhill to the north. The army was unhappy about Top On arrival, the ticketing booth is straight ahead, café and shop on the left, and museum and toilets on the right.

Below Site plan shows the relationship of new building and parking to Stonehenge, and the removal of the A344.

Floor plan

- 1 Diorama
- 2 Permanent exhibition
- 3 Secure temporary exhibi-
- 4 Toilets
- 5 Ticketing
- 6 Café
- 7 Shop
- 8 Education space
- 9 Shuttle station
- 10 Outdoor display
- 11 Arrival point
- 12 Plant rooms
- 13 Membership sales
- 14 Stores



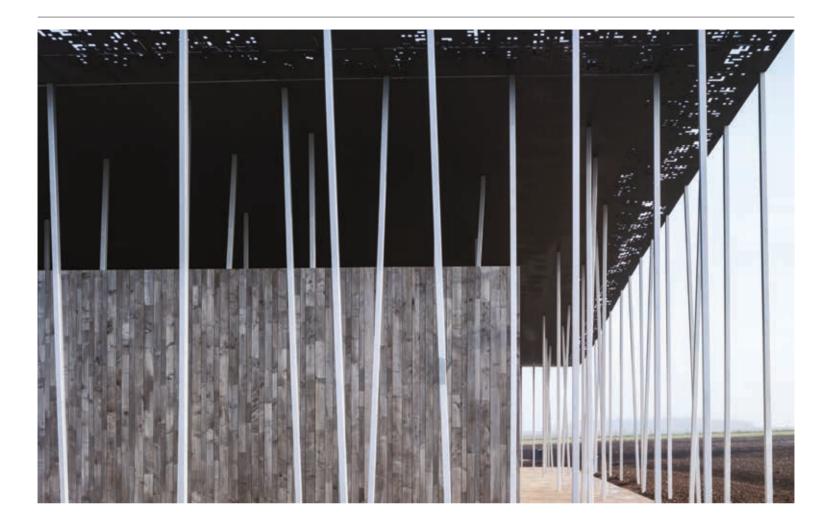
this. Cullinan later produced a masterplan for EH for the whole World Heritage Site and identified other locations. A second competition in 1999 for a PFI project to be operated with the Tussauds Group was abandoned by EH at shortlist stage. A third competition in 2001 was won by Denton Corker Marshall but funding depended on sinking the A303 main road – busier than the A344 but a little further away to the south – in a cut-and-cover tunnel. Although approved, the tunnel was abandoned on cost grounds and the design went down with it. Finally the Airman's Corner site was selected, a new design by DCM won planning in 2010, and it is this that has finally been completed.

It's fair to say that the general solution offered by Cullinan in 1992 – drop-off and bilaterally-split visitor centre at some distance from the Stones, with shuttle transport from there – is what has finally been built more than 20

years later, albeit on a different site and with a very different architectural expression. The A303 remains stubbornly on the surface of the Plain on grounds of cost - EH head Simon Thurley has vowed to continue the battle to put it underground - but at least the A344, which ran so close it virtually grazed the Heel Stone, has at last been closed at this point and returned to chalk downland. This also reconnects the processional routeway known as the Avenue from the River Avon to the Stones, aligned with the midsummer sun. The effect of this is enormous, even in the not-quite-finished state in which I saw it shortly before Christmas. The Stones have heel room at last. Having got so used to the subway under the road by the Stones, temporarily going through a subway under a field instead felt odd indeed. The subway will go but a minimal ticketing presence will remain on the old site.

There is more: since much of the land round here is

Stonehenge Visitor Centre



owned by the National Trust, the plantation on the ridge between DCM's new centre and Stonehenge is itself being turned into an interpretative viewpoint for the many earthworks in the vicinity. So the overall presentation and setting of the World Heritage site has taken a great leap forward, with English Heritage, the Heritage Lottery Fund and the National Trust working together on what is in total a $\pounds 27m$ project.

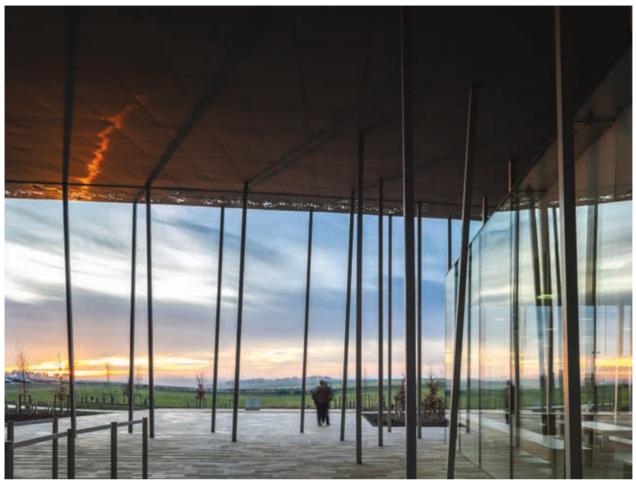
Of this, the visitor and exhibition centre accounts for some £6.9m, an ancillary building for back-of house activities £1.1m (expressed as a single-storey timber-clad beam, this sits behind a row of trees near the centre and allows the architect to keep the bulk of the main building down) and road alterations £1.2m. The visitor centre, while plainly a very conscious piece of architecture, steers clear of 'icon' status – very wisely, in view of the real icon nearby. Equally wisely, it avoids

any referential massive-stone or circular trickery, except inside. It sits lightly, with minimal foundations, on this archaeologically-rich ground. The forest of 211 slender square-section columns, distributing the weight of the roof, lean at various angles and look a little strange at the corners where they support almost nothing: there is no overhang. Some columns rise full height but above the two pods they are mostly in two parts to reduce penetrations, stub columns above the pods continuing the line of the columns inside.

The glass box benefits from costly low-iron glass which pays dividends: you get no green hue when looking out at an angle. The museum box is clad in pre-weathered sweet chestnut, untreated except for a clear fire coating where it is used internally. The planking is not sawn neatly round the various openings, but left ragged, a conceit that is irritating rather than satisfying.

Above left A sense of lightness is provided by the 211 columns and perforated edge to the thin canopy.

Above right You can't see the Stones from here, but the new centre has commanding views of the landscape.



Around the building, paving is of local limestone while inside, floors are of polished concrete. Acoustic ceilings look rather cheap, with square holes crudely punched through for the columns. The layout of shop and café is unexceptional: the interiors get rather more interesting in the timber museum box. There, you enter through a circular changing diorama of the stones through history and through the seasons (the solstices being rather important here). Then you are into the permanent exhibition which gives a potted history of the monument and how it was built. A secure conservation-grade gallery in one corner houses temporary exhibitions, entered through a huge radiused, centre-pintle revolving door. The opening show is 'How our ancestors saw Stonehenge': a history of histories, if you like, including that of Inigo Jones.

Outside, things will get a bit more theme-park. A rep-

lica bluestone on a sled will be joined by replica Neolithic huts, since we now know that there was a lot of habitation here. Archaeologically as accurate as possible I'm sure, but this does once again recall those French service stations with their hints of Asterix. As I left, I bought a couple of bottles of Stonehenge 'Heel Stone' beer from the shop. English Heritage may prize authenticity but it has no problem with souvenirs.

The big planning moves here look promising – we'll have to see if those five shuttles can handle the high-season crowds. The new building is – let's be honest – a bit of a let-down. You can't help thinking, 30 years' wait for this relatively low-key, perfectly adequate if not wholly successful piece of architecture? But I guess, in the context of the life of Stonehenge, this is just another temporary blip on the symbolic landscape. It doesn't show off too much and it does the job.

Client English Heritage
Architect Denton Corker
Marshall
Project associate Angela
Dapper
Structural engineer
Sinclair Knight Merz
M&E consultant Norman
Disney Young
Quantity surveyor
Firmingers
Planning supervisor
Chris Blandford Associates
Landscape architect

Exhibition designer
Haley Sharpe Design
Project manager Gardiner + Theobald
Main contractor Vinci
Construction UK

Chris Blandford Asso-

Suppliers

Canopy panels Massey

Timber cladding Associated Timber Services

SIPS Glosford Timber
Solutions

Acoustic ceilings Sto

WC roller shutters Paramount Doors

WC cubicles Thrislington

Cubicles

Brassware and hand dryers Lovair Glazing Vitrine Systems (north pod), Salisbury Glass (ticket booth) Zinc cladding Massey Cladding Solutions

Fashion icon

With some creative patching and stitching, DVVT's quirky Ghent boutique refurb steps out in style

Words: Marc Dubois Photographs: Filip Dujardin

A typical 'concept store' is formulated, developed and then repeated; with the result that the specific characteristics of its location are of no consequence. The existing interior is merely dismantled and replaced by a concept that doesn't often respect the identity of its setting.

The Twiggy store in Ghent, with its eccentric new interior and rear extension, is a little different. It isn't technically a chain store, and the owner personally chooses the clothes he

wishes to stock. It occupies a beautiful 19th century building in the city's historic centre, located on the axis from 'het Zuid', where Ghent's South Station used to be. The owner, with a keen interest in architecture, appointed Belgian architect De Vylder Vinck Taillieu (DVVT) to connect the three floors with each other to integrate the basement into the whole, converting it to a bona fide retail space.

This has entailed a few major structural

moves. In the first room to the left of the entrance hall, it involved removing the ground level wooden floor to create a double height space. The first floor door was cut in half, stable-door-like, to become a sort of juliet balcony. Everything else however was kept as is – even two chimney-breasts, one above the other (see p 28). With the old floor missing, these unchanged walls create a bizarre effect.

From a technical point of view, the ren-



Left The new staircase facing the rear courtyard of the Twiggy store alludes to the past building on the site by adopting its facade.

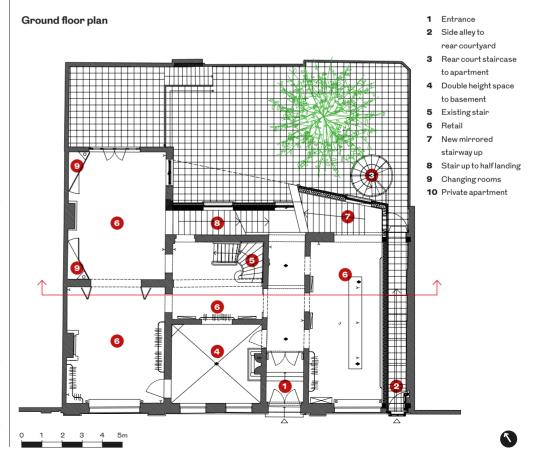
ovation wasn't complicated, although that's not the impression that greets the visitor. It was decided to keep the existing wooden staircase but the fire strategy required the construction of an alternative at the rear of the building, necessitating the demolition of an extension. The sectional view of this new internal staircase, which runs from ground to first floor, afforded a wide range of possibilities. Cast in concrete, its landings allowed the architect to anchor it back to the existing brick structure at only three points.

On the roof of this addition, another, outdoor, staircase was installed, allowing access to the second floor of the building via a spiral stair from ground level, and reaching a private apartment. The spiral staircase, indicated on the drawings, is not yet installed but is reached from the street by a small passage through the right side of the building. To reduce weight on the existing structure of this new rear facade, the architect chose a light timber construction that was rendered afterwards.

The unexpected formal element that the architects introduced was not to choose something new for this addition. Instead, the old measurements and placement of the rear side windows were copied and then 'projected' on to the new rear side facade. Even the same window type was sourced and copied. As a result, the only window that doesn't undergo formal 'surgery' is the one allowing daylight into the existing staircase. One might say it is a 'folded' facade, emulating the exact same facade composition. The architect says it didn't feel the need to make the new explicit or forget the old – and this ambiguity is picked up in even the smallest details.

In the interior, mirrors are used very creatively. The nine fitting rooms, made of plate glass, were placed in the corners, completely transforming the room and creating con-





BuildingsRefurbishment

nections with other spaces in the building. This combination of fitting rooms and mirrors was originally found at Norman Foster's Katharine Hamnett store in London, where he applied the same technique to create a sense of 'displacement'. DVVT also chose to work with mirrors in the new stairwell, making a duplication of stairs not only figurative but also literal. With the staircase's trapezium shaped form, the mirrors provide unexpected diagonal views. This gives customers a sense of fluidity and spaciousness without the need to demolish any walls.

New door frames are accented in bright red. In 19th century houses, built-in closets were often placed next to the high door frames, accessible from both sides; DVVT has also indicated these in red.

One may see the store as 'unfinished' or even a work in progress. The high room might make you think of compositions by Belgian surrealist painter René Magritte. But there is also some affinity with the work of Frank Gehry – in particular his additions to his own house, where he was able to let the materials speak for themselves. This is fore-

most in the design strategy of DVVT and seen in the firm's other projects. The architect kept its distance from perfectly decorated objects, avoiding a polished interior with a minimalistic finishing touch. For DVVT it is much more about searching for 'regular construction' through the adaptation of an existing context, with elements already present being embraced and used as part of the transformation. These ideas are very present in the Twiggy store. It might even be considered it a surgical intervention: not only is the design present during the renovation, but the building itself is too. Original plasterwork was kept, while other parts were given a light touch. New electrical tubes are placed over older copper ones - all these decisions create a strange graphic effect.

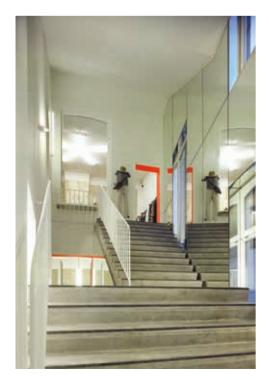
The aesthetic ideal of the 'raw culture' has gained importance since David Chipperfield's Neues Museum in Berlin. This ideal, where the dimensions of time and disintegration are accepted and implemented, could be considered as a 'third road' – one between the typical restoration and a showing explicitly of the new input compared with the old.

The architects of DVVT are not obsessed with counter pointing new and old as a kind of confrontation, a view taken by many architects. They underline ambiguity subtly.

DVVT's design is thus much more than a budget solution - it makes it possible to reveal the different layers of the building. It is even able to introduce 'surprises' into the construction. Partner Jo Taillieu has shown that a different approach to renovation is possible, and that it might help to develop a new way of thinking, with its own formal logic. The firm proved this with its modest but remarkable renovation of the Gallery Verzameld Werk, also in Ghent. The result is a building with a visible history, layered with new complex aspects. DVVT's view is that demolishing history is the worst possible approach to any project. That is why the Twiggy shop is a perfect example of a strategy whereby the building is first and foremost a starting point, only to be followed thereafter by more abstract design concepts. •

Marc Dubois is an architect and former professor at the Sint Lukas Architecture School in Brussels

Below The new rear stair meets escape guidance and connects the old building to itself in a new way. Its ceiling forms an external access staircase.



Below The main double height space showing the ground floor's 'stable door' exemplifies the space's reinvention.

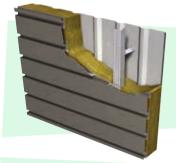


Structural engineer Ney + Partners Services engineering Melanie Pijpaert Main contractor/interior fit-out Matthiissens/Batsleer Carpentry Exterior Dm Interior Saelens Facade works Front Rainbow Masters **Back** Batsleen **Electrical services** Poly Technics Mirrors Qualiglas Van De Velde Balustrades Mebo Construct **Zinc** Van Severen Steel doors Bouwsmederii Noël Wooden doors Ramenco

Architect De Vvlder Vinck Taillieu

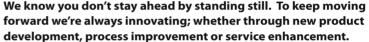


Our two most recent innovations are the new Opus panel and sinusoidal profiled sheet.



Opus is the new plank panel that is available as part of an Elite system, a LINEAR Rainscreen and a LINEAR Rainspan system, as well as being ideal for use as a soffit plank.

Investment in state-of-the-art manufacturing machinery enables us to provide the increasingly popular sinusoidal profile on a short lead time and at a competitive price.



Innovation provides you with roofing and cladding solutions that are as ground-breaking as they are practical and as valuable as they are cost-effective. Put simply we innovate to provide products that are relevant and useful to you.

Some of our recent product innovations include Vieo, Opus, sinusoidal cladding, integrated solar panels, transpired solar collectors, and a more efficient stainless steel halter for standing seam roofs.

A culture of innovation is present throughout our supply chain, with Elite Systems using only Colorcoat HPS200 Ultra® and Colorcoat Prisma® from Tata Steel. These Colorcoat® products are available with Confidex Sustain® to offer the world's first CarbonNeutral® building envelope and are certified to BES6001 Responsible Sourcing standard.

SELF STORAGE



Wentloog Corporate Park Cardiff CF3 2ER T: 029 2079 0722 E: sales@euroclad.com l: www.euroclad.com



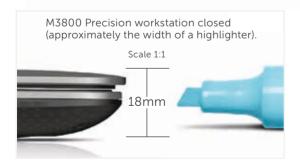






Real professional power from the thinnest and lightest 15" workstation.

Some apps sold separately, vary by market



Introducing the Dell Precision M3800.

At 18mm thin, you get the performance you need in the design you want. The thinnest and lightest 15" (38cm) workstation. Run your most demanding professional software. Feel the power of the next generation Intel® processors and NVIDIA® Quadro® graphics. Take your ideas as far as you can imagine. The Dell Precision M3800.

Ready for business



Windows 8 Pro is beautiful, fast and fluid. It gives you all the benefits of Windows 8, plus new levels of productivity, security, and mobility without sacrificing performance or choice.

Worthy of your best work. Dell.co.uk/precision or call 0844 444 3586

Call lines open Monday to Friday 8am to 8pm and Saturdays 9am to 6pm.





Intelligence





Context

Marcus **Binney**



Marcus Binney, President of Save Britain's Heritage, talks of its latest drive to preserve London's Smithfield market from largescale development

Planners at the City of London, which owns Smithfield, have approved the McAslan scheme, and Boris Johnson's backing it. Bit of a done deal isn't it?

So you went about putting forward your own proposal for the site?

Do you really think you can overturn the decision?

And if you do overturn it, do you think you can get the developer on board?

So you'll be meeting on the hustings this month?

It is only through the intervention of SAVE and the Victorian Society, and the public awareness campaign, that we are in the enviable position of having had the scheme called in by Eric Pickles for him to take a view on. The planners' opinion is that the McAslan commercial/retail proposal which won planning permission, is acceptable as long as it does 'less than substantial harm'. It's our aim to prove that it does very substantial harm.

There's no law against proposing something on a site, so we appointed Burrell Foley Fisher to put forward a market proposal. Eric Reynolds, who's behind the likes of Camden Lock and Borough Market, is consulting on it. With CrossRail and Thameslink stations here, there are more people concentrating on the area and far more demand for a bars and restaurants to serve that population - look at all the places that have sprung up around the meat market.

I have to think so. The Smithfield site is one of the great markets of Europe - a whole 19th century complex of lively silhouettes overseen by Sir Horace Jones - yet despite being in a conservation area, only their facades are protected. Even Ove Arup's 1963 Poultry Market behind it is grade II listed. Look what happened at Les Halles market in Paris. It was demolished without thought, but - too late - there was the public furore once people realised what the city had lost - and what it ended up with.

We've put in the application, so it's up to Eric Pickles; but if he decides in favour, I can't see leaseholder Henderson Global Investors changing tack. But perhaps we can change the view of the owner - we worked with Richard Rogers in 1989, when he worked up an alternative scheme for the apparently 'worthless' Old Billingsgate market, which made it viable for the City of London and saved it from demolition. When they sold it later, it went for a record price, so we live in hope!

SAVE will be there with The Victorian Society, Henderson Global Investors and McAslan - and hopefully the City's chief planning officer Peter Rees won't be. It's shaping up to be an epic clash... •

THE CASE FOR

John Mcaslan+Partners' scheme for leaseholder Henderson Global Investors retains the existing facades of the market but to creates a piazza behind it which fronts several storeys of office and retail. City of London chief planner Peter Rees said of the scheme: 'The architect has had to tread a fine line. It's a good balance between regeneration and conservation. The site is an ideal opportunity to bring new life to the area.' Criticised as 'shabbily hotchpotch' by its opponents, HGI director of property development Geoff Harris retorted by saying: 'The architecture is not shabby in any way. It's quite rude to say that."



Intelligence is now officially approved RIBA CPD. Look out for the icons throughout the section indicating core curriculum areas.



management

On the job learning

Every day, across the country, hundreds of practices are carrying out pieces of research that will never see the light of day. But here are some of those that have - and have been recognised for that work in the President's Awards for Research. From wall ties to adapting rooms for future climate and from super efficient material use to globalisation, we asked the authors for an idea of the impact on their practices and beyond





Designing & building It

Clima

Sustainable design requires a city-wide philosophy but its success will be determined by the smallest details

Bill Dunster, ZEDfactory

We started the ZED factory to work with industry and develop new ways of designing and constructing buildings.

Conventional architectural practice often had to work with tools and components already provided by an industrial and manufacturing base that is set up to meet the lowest common denominator. We thought the new super-insulated building physics model, and developments in building-integrated renewable energy systems, prompted a fresh look at construction component design. Add the thinking by groups like Best Foot Forward, on environmental footprinting and embodied carbon, and a hierarchy of design criteria emerges that can offer new insights on how to deliver a zero carbon lifestyle and workstyle.

We felt endless politically correct environmental checklists raised concern but offered no practical solutions – and certainly no advice on how to reach environmental performance targets. It was increasingly clear we would have to work on a bottom

up affordable supply chain to move beyond prototypes like BedZED into a roll out programme.

We then looked at how some technologies and principles could be shared across different climates and cultures, and which countries were already moving into volume production. The need to collaborate and share an international supply chain for high investment, low bulk and higher technology components has to be balanced by the need to reduce the environmental footprint by using local labour and materials. It became apparent that if we could establish a core range of technical solutions and products that solved simple environmental challenges in a number of countries, then tools could be developed to make it easy and economic to achieve the step change reduction in environmental footprint that probably has to be achieved over the next few decades. This process also creates employment, making low carbon technologies that often have good export potential - and the possibility of providing long term income and prosperity to the communities that adopt these ideas. If a city is expanding or regenerating its housing stock with thousands of new homes, or planning a new enterprize zone, it is easy to demonstrate the benefits of this approach.

So how does a new wall tie change the urban design of a city block? If all building surfaces could generate electricity, how would it change architectural form? Why should gardens not be on roofs? Why can't an urban park be placed above high density housing? How does the urban heat island affect street design? How could urban design change if solar electricity achieved grid parity? How could the latest battery technology change





public transport? Would electric vehicles change the design of homes and workplaces? Could we replace petrol stations with tradeable public batteries charged by renewable energy? Would this smooth out peak demand in a smart grid without incurring a toxic nuclear waste legacy? How could organic urban waste and agricultural waste sequestrate atmospheric CO₂ without combustion? Could we prevent the dioxins and health problems of incinerating household refuse and move towards a zero waste urban metabolism?

In collaboration with industrial partners, the ZEDlife programme is starting to challenge the idea that higher environmental performance is disruptive and expensive. For example our new HiminZED translucent building-integrated photovoltaic rooflight and rainscreen system is no more expensive than standard roofing and cladding products.

ZEDlife has been running for 10 years but has only just started. However, the first industrial collaborations are ready for launch, and will hopefully make it easier to engage both in climate change adaptation and mitigation. With the components in place we can start tackling all the previous questions. Zero energy bill housing is now being built in the UK despite unsupportive legislation. It is time for architects, urbanists, engineers and funders to rethink what can be achieved with what we already have - and perhaps to change the public perception of what is both possible and affordable today. ZEDfactory believes that if solutions are demonstrably available, people will ask for them.

Few clients can afford large multinational consultants on everyday projects, but a toolkit approach with quantified environmental performance could help inform decision-making. So we developed the ZEDlife supply chain to reduce construction cost, eliminate fuel poverty, create local low carbon employment, reduce air pollution, re-



duce traffic congestion, and maximise green open space with sky gardens. We're moving towards a major reduction in environmental impact while increasing the quality of life. We have improved each year with feedback from our communities for nearly 20 years and now have some very powerful, density related key performance indicators that can measure both environmental performance and the quality of life likely in new urban proposals.

Somehow, we have to collectively find viable alternative ways of living that leave fossil fuels unused in the ground. The alternative is runaway climate change. We cannot continue with business as usual until repeated environmental disasters force governments to take mandatory action. This challenge transcends political fashion or even economic downturns. It is vital to channel all post recession investment into low carbon jobs and infrastructure that uses the latest ideas and technologies. Let's upgrade tired businesses with new cost-effective products that make delivering a low carbon life and workstyle really easy. We need to change our industry.

If we leave this process too late, eco fascism is inevitable. The ZEDlife programme sets out to develop beautiful, life enhancing and commercially viable alternatives. We believe a new architectural language is emerging, and that the industrial collaborations already begun will create solutions that make higher performance possible within tight cost constraints – for any practice.

This takes time, research and considerable investment. At present ZEDfactory concentrates on local low carbon exemplar projects that give politicians the confidence to move up a scale. We look forward to moving into large scale collaborations with local partners and other practices.

Please engage with us.

ZEDlife won the RIBA President's Awards for Outstanding Practice-located Research



How does a new wall tie change the urban design of a city block... Could we replace petrol stations with tradeable public batteries charged by renewable energy?

Top, from left Showcasing zero energy: Shanghai Expo London Pavilion; The original 2002 BedZED (middle); and working with components from the bottom up: wall tie (right).

Opposite Atrium at Zhangwu Tourist Centre, China

IntelligenceResearch awards





Designing & building it

Climate

Instead of adding technology for sustainability, we found it can be simpler to design it out

Irena Bauman, Bauman Lyons Architects

The Climate Change Adaptation Strategy research project was the first undertaken by Bauman Lyons and it had a major impact on the way we think and practise.

Our research, funded by the Technology Strategy Board, focused on a 1930s art college in Doncaster, that we were already redesigning. There were numerous questions: by how much would the building overheat by 2080? What adaptations are available and how effective would each one be? Can they be implemented room by room as vacancies occur? Are these commercially viable and what is the payback period?

The learning curve was steep. We discovered design tools such as weather files that indicate likely weather patterns up to 2080 for every location in Britain, and probability scenarios that indicate likely impact of climate change according to the level of achieved reduction in carbon omissions.

Also new to us were the environmental modelling software, and the volume and complexity of data fed into the model.

Some adaptations, such as shading with plants, cannot be modelled by currently available software and some commonly used standards are out of date. These factors, plus the sheer range of variables and the fragile accuracy of some data, open modelling to error.

We developed a new taxonomy of some 20 potential adaptations, loosely categorised as fabric, ventilation, internal gains and behaviour change, and modelled them in many combinations to arrive at the most effective way to prevent overheating by 2080.

Stunning lessons emerged to undermine a design we were developing at the time, most significantly the proposal to include cooling in the building when the need for it could actually be designed out. The initial proposed design introduced air pumps to meet provision of renewable requirement. Such nonsensical decisions seem to be happening unquestioningly on many projects.

We established that it was possible to prevent overheating without mechanical cooling, even on the most exposed west elevations, through room-specific adoptions such as window shutters, increasing cross ventilation, increasing thermal mass, reducing the U value of glass, locating high occupancy rooms on the north side and shading courtyard space for hot weather respite.

Current legislation promotes ever increasing amounts of insulation and of air tightness. Everything that we are doing in commercial buildings locks us into dependence on air conditioning and, as temperatures rise, to higher carbon emissions and potentially unaffordable energy costs.

Since the 1980s architects have been complicit in creating a redundant stock of buildings. We could say that we did not know better back then, but what is the excuse now?

If I sound evangelical it is because I am. Our research highlighted that early design decisions are fundamental to integrating an adaptations programme into the maintenance cycles of the buildings. If this can be achieved, buildings can be future proofed while saving on running costs, reducing carbon emissions and securing commercially beneficial return on investment times.

There is no reason not to design with the

What is thermal comfort? 'That condition of mind which expresses satisfaction with the thermal environment' BSEN ISO 7730

future in mind except that most financiers, clients and their architects are focused on the short term and immediate commercial gains.

Once gained, knowledge cannot be unlearned. We have now trained ourselves in the use of DesignBuilder environmental modelling software and have reclaimed the early stages of environmental design – and the corresponding fees – from our services consultants. This will ensure we control and understand the data that is fed into the environmental models. We have developed office typologies that maximise the potential for retrofitting future adaptations within the maintenance cycle of the building.

Most important of all we are trying to face up to the impact of climate change and are taking responsibility for our actions in designing with the future in mind.

Climate Change Adaption Strategy was commended in the President's Awards for Research



THE ART OF HEATING



ELITE.

For Stockists Contact:

T: 0808 129 2224 | E: sales@carron.uk.net | W: www.carron.uk.net











IntelligenceResearch awards





Designing & building it

Climate

An accidental piece of biomimicry using seashells triggered a new work focus

Tonkin Lui

Hammered into a thin sheet, 31g of gold can cover an area as large as $16m^2$. What if architects designed just so with every material, as if it were extremely valuable and scarce? Nature always does. It creates lightweight structures of astonishing diversity and beauty – seashells for instance.

Before we discovered the Shell Lace Structure technique, our projects all led to a

different material and technical exploration through our design process, Asking Looking Playing Making. When exploring, with Ed Clark and Alex Reddihough at Arup, a cost-effective way to make strong three-dimensional forms for an RIBA competition for seaside pavilions, we realised we'd invented something by chance. Subsequent projects using the Shell Lace Structure have united story-telling and technical experiments in a single cohesive process. The discovery has given one aspect of our work a new focus, taking on a specifically biomimetic approach.

Shell Lace Structure is a single surface structural technique inspired by the evolution of seashells and the art of tailoring. The discovery was made possible through computer-aided design and fabrication. Experiments made the most of the available technology but they also used an intuitive hands-on approach, using paper and plasticine study models, establishing a new notion of craft through tailoring and assembling of laser-cut plates. Shell Lace Structure generates ultra-light, single-surface structures. Principles learned from seashells – such as

IN NUMBERS

110m total bridge length

16mm thickness of galvanised steel plate

165 tonnes total weight of steel





curvature, corrugation, and distortion – all lock in strength and stiffness, allowing plate thickness to be reduced to a minimum. With these principles, the tailored and joined thin cut sheets make incredibly strong, thin structures. Perforations, removing material in areas of low stress, further reduce their deadweight and help to articulate the thinness of the sheets, catching light on the surface, adding dynamism and delicacy.

In practice, Shell Lace Structure has been used to design 10 projects in three structural typologies – vault, beam and column. These range from a shelter built of 3mm thick stainless steel spanning 7m, to a competition entry for a ferry terminal with 18m tall columns made in 10mm thick steel plates, and a bridge proposal for China spanning 75m using 16mm thick steel plates.

Work undertaken through the four years of research is available on our website as an open source resource and could be useful to practising architects, teachers and students. The technique can be developed and modified in numerous ways with different flexible sheet materials, while the work can be seen as a vehicle for the realignment of a practice into an area that brings together a multitude of interests. Shell Lace Structure has made us look beyond the world of architecture both at the source of inspiration and in to an exciting field of collaboration. As teachers we have enjoyed the hands-on research, in the same way we would encourage our students to conduct the exploration. As practitioners we have gained a renewed sense of purpose and been encouraged to develop new skills and tools. The research has also brought us in contact with many like-minded people with a similar interest in structure and nature.

Our research has been disseminated through lectures, seminars and hands-on workshops in Japan, Taiwan and Britain. The work has appeared in publications and a number of exhibitions and has also brought the practice awards. We are working toward an exhibition and catalogue of the Shell Lace Structure projects, and have just begun conducting an MArch unit at the University of Westminster specifically to expand the evolution of the Shell Lace Structure process.

Shell Lace Structure research has made the most of the digital tools that have become available in the last decade. Though they are sometimes blamed for wilfully complex architecture that does not respond to simple Principles learned from seashells — such as curvature, corrugation, and distortion — all lock in strength and stiffness, allowing plate thickness to be reduced to a minimum

laws of physics and is costly to fabricate, they offer huge potential in design. If we liken the iterative design process, made possible by the speed and power of these tools, to the constant evolutionary process in nature, perhaps we can come closer to designing pure structures in the lightest, most optimum form.

Our journey has taught us to follow our instincts, looking forward as well as back. Digital and traditional methods need not be contradictory, but can reshape each other. Research is very important in creating space and time to experiment with seemingly unlikely partners, that of tailoring and seashells and of digital and analogue tools. The evolving holistic approach has allowed a great deal of architectural expression, as well as responsiveness to site, structural, climatic, and social parameters. Beauty in nature is closely aligned to effectiveness and economy, to use the least material to make the most efficient form, fulfilling the desired fitness for purpose. Shell Lace Structure may just be one place on this journey; aided by increasingly sophisticated tools we hope it will lead to a marriage of economy with delight. •

Shell Lace Structure was commended in the President's Awards for Research

GET THE CREDIT

So far, the UK research and development tax credit scheme has largely been overlooked by architects. Why should this be, given that practices undertake much innovative research? There is a misconception across the architectural and construction industries that the R&D tax credit scheme is largely irrelevant to practices, unless undertaken within the boundaries of formal R&D projects and departments.

Many architects simply may not realise that work that is part of their day-to-day activities could fall under the heading of R&D for tax purposes. Practices that qualify as small to medium-sized enterprises can expect a return of up to 25% of relevant costs, and larger practices up to 7%. The average claim for SMEs was £40,000 in 2008-9, rising to an average of £82,000 for those who had claimed regularly in the past.

If you pay corporation tax and are involved in innovating, improving performance or adding value to products and processes then it is worth finding out more — whether your research is planned, or designed to solve a problem. You would need to demonstrate how design activities have directly contributed to achieving an advance in science and technology. The main costs that can be claimed, for architectural practices, are those of staff, subcontracted services and materials and software.

To find out more see the RIBA's free (and simple) online guide to the UK's Research and Development Tax Credits scheme www.architecture.com/research. A few practices are already claiming the credits, and the guide includes case studies of those who have successfully claimed.

Intelligence Research awards





management

A study of the impact of global culture on architecture has relegated design debates to their place

Robert Adam, ADAM Architecture

Two principles underlie the study of history: that the primary drivers of change are social, political and economic; and that culture follows power. Changes in architecture and urban design will be secondary and to be properly understood must be seen in this context.

Most recent architectural histories focus on technology, philosophy and aesthetics. I set out to analyse the effect of social, political and economic events.

To be valid, this research had to be free from any preconceptions of what architecture or urban design should be. Some commentators assumed that I intended it to promote traditional architecture and urban design. It does not; it is simply for the advancement of knowledge. It is possible for a practising architect to view recent design history outside any style preference.

'Recent' refers to the period that began around 1992 and ended with the 2008 bank crash. Initiated by the end of the Cold War and the entry of Russia, China and India into the global market economy, this is often referred to as the Global Era. Consequently, I gave my research and subsequent book the title: The Globalisation of Modern Architecture.

It was also necessary to describe the longer history of globalisation and key issues affecting recent political and cultural thinking. For example, it is not possible to understand US foreign policy without understanding the Enlightenment, current architecture without knowledge of the birth of modernism, or the foundations of the Global Era without knowledge of events post World War Two. So the study stretched from the earliest period of human interaction to the 1980s. It is extended from 2008 by a postscript into the present and speculation into the near future. However, globalisation is treated only as a fact that has consequences.

As expected, the political and social impact of the expansion of the global economy and communication has influenced architecture and urban design. Some of this is obvious, such as the rise of the international star architect and the iconic building, digital technical advances and improved communication, and global practice. Less well understood are underlying drivers such as the mobility of capital, inter-city competition for global investment, the relationship between branding, corporate symbolism and global consumerism, cultural display and tourism, and the emergence of a global professional elite.



IN NUMBERS



the increase in number of global architectural firms between 1990 and 2006



proportion of Anglophone global architectural firms in

The increase in homogenisation of people and places is paralleled by the emergence of identity politics. Localisation is itself a response to global uniformity.

The new localism can be found in the break-up of nation states, the assertion of indigenous and cultural rights and the unfortunately-named 'glocalisation' of marketing. There has been a varied response: the development of critical regionalism beyond a rebuttal of post-modernism, visual eccentricity as an identity signal, environmentalism, and the heritage movement. Traditional design fits here. Possibly the most universally accepted design response is contextual urbanism.

This period has seen a shift in the global axis from North-Atlantic economies to the BRICs (Brazil, Russia, India and China) or major emerging economies. The 2008 bank crisis dramatically revealed the new global political and economic condition. This will affect architecture and urban design.

When the history of architecture and urban design are viewed from this perspective the partisan nature of current architectural debate seems trivial. Any phenomenon that exists in a period must do so because it is one of the characteristics of that period. Individual preference or disapproval of a design type will not change this. An understanding of how all aspects of design fit into a wider picture reveals the relationship between them, the underlying forces that drive them and emphasises the importance of diversity in a changing world.

The Globalisation of Modern Architecture: the impact of politics, economics and social change on architecture and urban design since 1990 was commended in the President's Awards for Research

TROVEX Hygipod

hygienic. modular. functional.

Constructed of a rigid core and encapsulated with Trovex hygienic cladding, Hygipod offers absolute cleanliness in a one-piece modular unit.



> Leading the way in *hygienic innovation*



Easy installation.

Hygipod is delivered prefabricated with hinged access panels to help eradicate on-site installation inaccuracies.



Ultra hygenic.

Hygipod is one of the most effective ways to minimise superbugs around wash points.



Simple accessibility.

Two hinged access panels as standard for ease of maintenance, with rounded corners for thorough cleaning.



Custom design.

State your required size and choose from the expansive Trovex colour collections.









Looking to the future

While we're all wondering where construction is heading, five experts mull the facts and indicators

Eleanor Young

Speculation about the economy and government news of investments and cuts can paint a confusing picture. So a recent RIBA initiative gathered five experts, deeply grounded in the research and practice of construction, to discuss where we are going.

Armed with figures from the Office of National Statistics, the RIBA's Future Trends Surveys and early indications of construction activity, the experts sat down to work out what the shape of construction might be in 2025, the government's horizon for its construction strategy, before homing in on the next six months. Around the table were Simon Rawlinson, head of research and insight at EC Harris; Richard Steer, chairman at Gleeds; Cluttons head of research, Sue Foxley; Adrian Dobson, RIBA director of practice; Aziz Mirza of the Fees Bureau; and, expertly chairing the discussion, Adrian Malleson, head of research at RIBA Enterprises.

So what will be the shape of development in the UK? As a global city, London will remain a place apart, ever expanding, enabled by infrastructure such as Crossrail Two. 'That will affect how people live and work,' pointed out Rawlinson. The current paradigm of village hopping as people move out

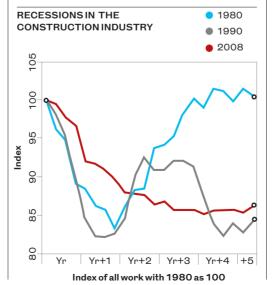
of the city, while still relying on it, shows no sign in abating, according to Foxley. 'There are areas of incredibly high potential value, as in East London, yet people who can move straight to Kent.'

The much heralded growth areas of Milton Keynes and Cambridge are still ahead of us, but Steer highlighted that it is these points of demographic pressure in the south east where it is hardest to get planning. A sure sign of a new market for professionals, including architects, as facilitators.

Set against the global city is the hub city, as seen in Calgary, Canada, for example, or potentially Schiphol in the Netherlands. These are not just places to fly in and out of, but are also places to meet and make use of contacts forged in this networked age. The group pointed to opportunities in the UK for Birmingham as centre of the rail network and, more significantly, Manchester Airport City which is investing £800m in creating a 'globally connected business destination'.

Changing professions?

There was much discussion of how the professions might change in the years to 2025. By becoming first facilitators, then collaborators, came back the answer. Foxley said that the nature of big regeneration projects, such as King's Cross, 'force people to work more collaboratively' – from planners of different local authorities to those in the technology, telecoms and media sector. 'All our jobs have changed tremendously,' said Foxley. 'We are covering the social side of it, the policy side, we're doing more multidisciplinary working. On the other hand we need



'The idea that you have to create a team anew every time is a barrier to performance and might need testing'

- Simon Rawlinson

more specialists.' Rawlinson drew an analogy with the film industry where the credits show an 'amazing array of specialist unique talent... the construction industry describes itself as fragmented but it is not fragmented in a creative way.' This contains some lessons for the production line analogy that is regularly cited. 'The idea that you have to create a team anew every time is a barrier to performance and might need testing. Then the question is: What is it about that film model that forces people to collaborate really effectively?'

Disruptive technologies

The government's Construction 2025 strategy has BIM at its heart. But how will it affect the industry more widely? Dobson asked whether the specialisation that it will require might affect the structure of the professions, as it has in advertising where a third of staff are now busy writing code. Architecture could, perhaps, see a similar shift.

It was clear that around the table few had picked up any excitement about BIM. Steer struck a cautionary note: 'We are starting at the wrong end. We are looking at how many square feet we need, when we should be looking at how much we can afford the energy costs on, then look at what we can afford to provide, how many square feet and how much it costs to build that, which is almost insignificant.' BIM could help with that.

So what of the occupiers? Foxley saw BIM as a methodology that has barely interested them so far. 'Unless the culture and the heart come with it, they want what they want – and might want to change the toilet halfway through,' she explained. In her experience, neither tenants nor even owners were asking for BIM. 'Property is an utter irritation to

most occupiers... although they are interested in [the process] for staff retention and interior colours, where they are quite particular.'

Rawlinson felt that: 'If BIM is seen as just a technology it won't deliver.' He compared it to electronic point of sale systems, which have nothing to do with getting cheap, varied stock on the shelves, but enable it to happen. 'You really need a big picture like this,' he concluded.

The next six months

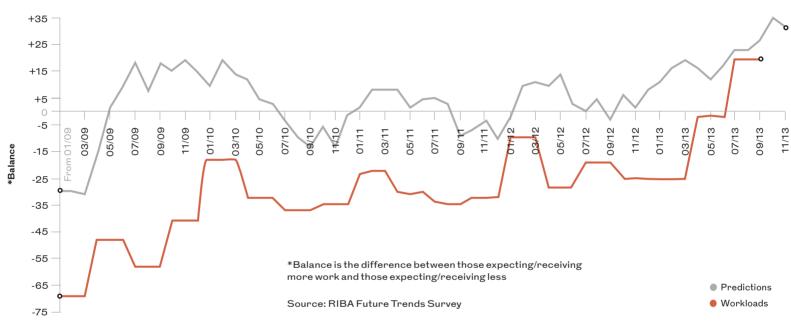
Moving to the smaller picture, the next six months, Aziz Mirza pointed out that the profession has been more optimistic over the

last year as measured by the RIBA's Future Trends Survey. They are most positive about the housing sector but less so about commercial, and see public sector work trailing. This is also reflected in workloads – which follow the general direction of the Future Trends Survey, though at a lower volume. The RIBA's Dobson reported that while London leads on workload revival, regions are also seeing increases more quickly than expected.

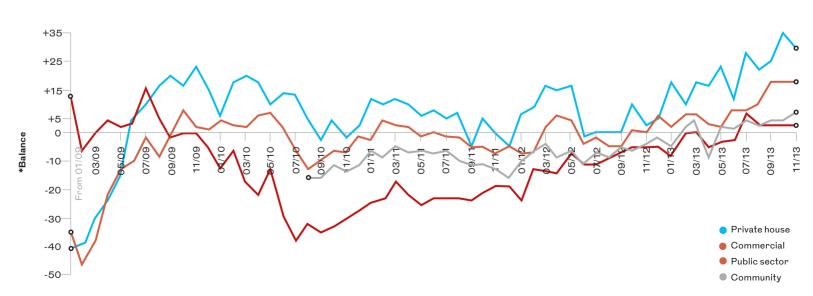
However, chair Adrian Malleson asked the fundamental question about underlying growth: how sustainable is it? Figures show it's fuelled by consumer spending, not export or manufacturing. Foxley agreed that confi'It's very difficult to turn round and say we are having a 25% fee increase. The client will just go to someone else'

- Richard Steen

WORKLOAD: PREDICTIONS VERSUS ACTUAL



SECTOR PREDICTIONS



dence is boosting spending but was clear that the upturn depends on the global economy and London occupiers remain cautious.

Given the importance of housing in driving early post-recession growth (as well as for housing people and as a political football), government intervention in the sector was seen as critical. But not, so far, either successful or imaginative. By stepping in on high loan-to-value mortgage provision they have merely acted as a market substitute. 'They are not supporting the supply side for a healthier balance,' said Foxley.

Where's the money?

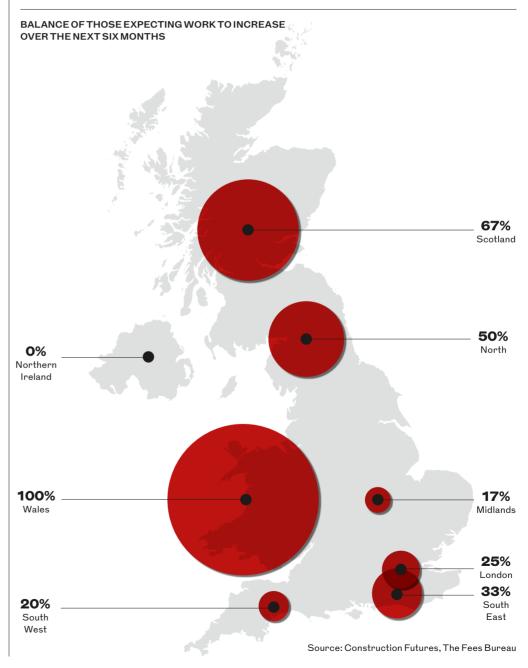
Beyond this, across all sectors, is the question of where money is coming from. Rawlinson pointed out the difference between short term project funding - always tricky to secure with investors wanting quick returns - and longer term finance, which has lost its historic leverage. There is funding for projects within the M25 corridor, mainly because investors are desperate to put their money in somewhere, given the low returns elsewhere. Those to watch, with money to build, are some cashrich housebuilders, and developers using their money and joint ventures to put together major schemes (such as the Walkie Talkie at Fenchurch Street) that make a demonstrable difference to their asset value.

So who will be the winners and losers? In architectural practice, the niche, front end, reputation practices were seen as continuing to be important (with their relationships with clients the key), combined with bigger practices which can deliver production drawings. Rawlinson thought it was individuals who would be winners. 'Professionals moving between organisations will mean the losers will be the principals,' he said. As large projects get off the ground in the next six to 12 months, those with experience will be in demand, with salary negotiations reflecting that. The missing generation of those who have not worked on major projects would be particularly noticeable in what could return to a war for talent, and the cushioning import of skilled European Union architects seems less likely this time around.

But Steer warned that fees are unlikely to follow. 'It's very difficult in our market to turn round and say we are having a 25% increase. The client will just go to someone else,' said Steer. 'You can lose on a pitch and think your competitors will never do it on

[their price], but because everything takes so long it can be three years before the client realises it and then it's not worth changing.' Foxley asked if a design premium on property would filter down to professionals. This is still a difficult issue and Rawlinson felt it remains a problem for long term relationships with clients. 'The real issue is process efficiencies,' he said. 'A rethink of how to do things for less money has to be the root of change in the next iteration of industry.'

So for those coming into the profession now, what would the advice be? 'Change careers to IT,' joked Rawlinson. But from the data and discussions it seemed safe to offer graduates some hope. 'If you're at the end of training now you are luckier than before. You're emerging into light rather than darkness,' said Dobson. Foxley advocated a solid grounding and then evolving your own niche, with Rawlinson advising: 'Think carefully about your route to influence. It is conventionally based on an idea of a hierarchy in a large practice, but you can be an absolute specialist in a very tight area which doesn't increase the management of large projects.' Steer rounded off optimistically: 'At the end of the day, it is a good industry.' •





Leading with innovation

A fabric first solution

The only roof window that fills the gap with an Integrated Thermal Collar.

Simply pull away the release tape to allow our unique **Integrated Thermal Collar** to expand, filling the gap between the roof and the window frame

All other windows depend on secondary fixing of insulation to prevent heat loss through this gap.



For more details on our **Future**therm Windows visit www.keyliteroofwindows.com





Touching the real world

A mentoring scheme that puts students into practices bridges the gap between academia and work

Below and right

A Beautiful Box designed by Part 1 student Aivita Mateika gets to grips with some of the reality of design.

Eleanor Young

A long standing complaint from practices is that students arrive without the knowledge needed for the office. At the end of their degree, making applications to practise for their year out, is a formative experience. Over the last 10 years the RIBA's South/South East regional office has been organising mentoring with practices in the critical autumn term of the third year. Schools across the region including Canterbury, Portsmouth and Oxford Brookes are taking part. Last year RIBA London began a similar scheme, based on the south east model, at Central Saint Martins which this year is running both there and at South Bank University.

At Portsmouth School of Architecture Colin Stansfield Smith's building is being run down, awaiting a transfer to a new home by Penoyre and Prasad. But the old building hums as students and practitioners arrive for an informal meet and greet session. On the top floor head of school Pamela Cole, who brought mentoring to Portsmouth three years ago, and Paula Craft-Pegg, in charge of the professional practice course, are ensuring that tables and chairs are comfortably arranged, cafe-style, for Meet Your Mentor.

'There was a gap in our students' experience,' says Cole. 'They have no work experience, but that's where they are heading.' Some groups in particular concern her. 'Lots of women are in this position. There is a lack of self-confidence in female students' ability to apply their skills in the workplace compared to males. It is a noticeable trend.' Given the way the percentage of women in architecture drops between university and

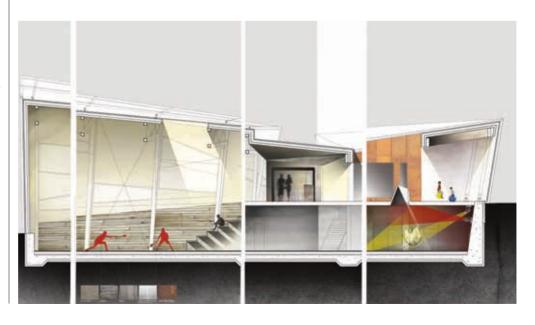
practice from around 50% of the total to below 40%, this is a live concern. Portsmouth tries to bridge the gap with mentoring, CV reviews and mock interviews, often involving many of the same practices.

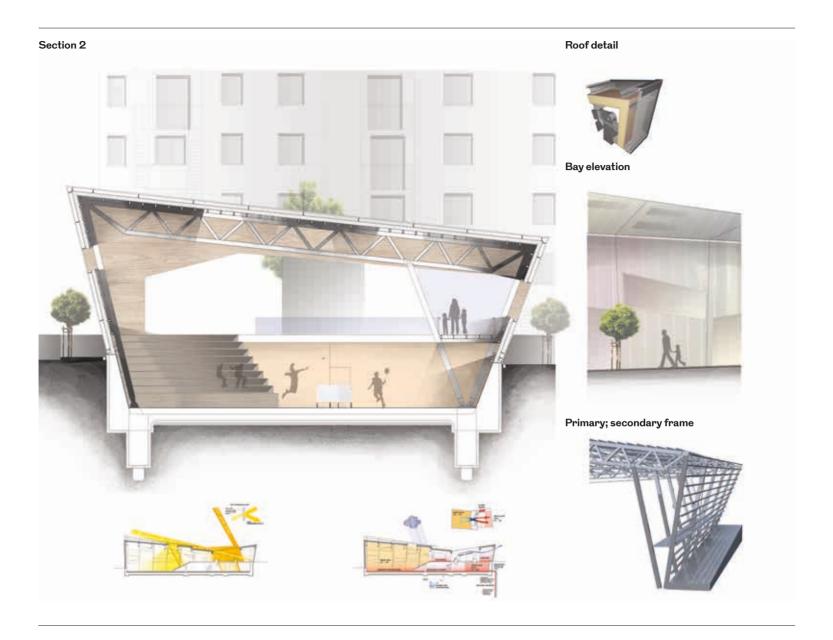
'Our employment statistics are very good: 82% in a recession,' explains Cole. But she knows that giving students a firm grounding in practice can increase their chances of a good job. The different values between academia and practice become clear quite quickly, which is important later when taking a project to a practice and getting an idea of what it might find interesting. 'People develop understanding through applying their knowledge; with mentoring they see a different point of view and different ideas. Otherwise they often respond with what they think we want.' Having an idea of the

aspirations of practice is essential, she says.

The influence of a different set of value systems has noticeable effects, particularly on CVs. Interestingly, for architecture as a discipline that already relies on practitioners for studios in particular, practice concerns are often parked at the door as studio leaders teach for the pleasure of a different level of engagement. 'Mentoring allows practitioners to talk in a realistic and enlightened way,' says Cole, 'and bring their values to the school.'

Jenny Petersen, of RIBA South/South East, explains that mentors' reasons for taking part vary. Some are keen to have a practical link to the school where they studied; others like a sense of giving back, or enjoy students' perspectives on their work, or even want insight into current education practice. She has also noticed, in recent years, firms





simply wanting to give practical help. And of course there is a small element of enlightened self-interest: 'We might get a student in over the holidays and it would be good if they knew us already'.

The ideal of a more intimate ratio that mentoring attempts to give students – two or three students to a practice is recommended – means it is not just the vocal one in the group that does the talking. There is little hierarchy, although some is inevitably implied by the practitioner/student relationship. 'They will be tested by their mentors, asked their opinion. And architects need to be able to give their opinion: it's all about developing confidence,' say Cole. Since the downturn in 2008 students' attitudes have changed and mentoring is seen as important on their CV.

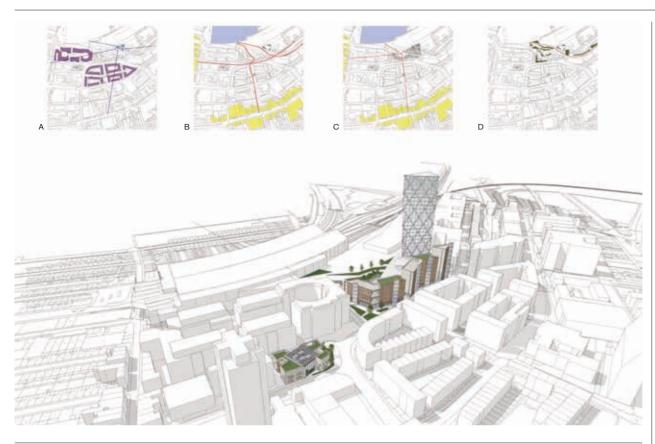
In terms of the professional practice course many students bring their experiences back to the studio. 'I hear students talking to each other about fee bids and clients,' says Craft-Pegg. The mentors come from many local practices – there are 27 working with Portsmouth, from sole practitioners to more corporate practices.

Not all students can get on the programme – there simply aren't enough mentors. But that means those students who are there are pretty motivated. And they have to be professional too. Even thinking about the three days that architects devote to showing students their business brings home the reality of practice to them. 'Suddenly students start to understand time costs,' says Cole. At the end students complete a diary of the

experience which is signed off by the mentor and forms part of the course. And the knowledge of teamwork and how practices are structured puts the professional course in perspective.

After a brief introduction to the scheme students and practices are ready to be paired off. I follow Edmund Ellert, architectural services manager property and infrastructure at Capita, down a corridor to a little room trailing a group of four students. Ellert is very aware of the disconnect between students and commercial awareness and that architecture is more of a vocation than any other construction profession. 'No primary school student wants to be a quantity surveyor,' he says. 'And how many other students would have all-nighters?' he asks. But this

Intelligence Regional practice



Left Lavinia Tarantino making a case in her Part 1 project, Urban Living, a new communal experience of space.

- A Landmark improving the legibility of the area and reintegrating site into its context.
- **B** New circulation axes to improve connectivity.
- C Economically sustainable with a range of public facilities in walking distance.
- D Environmentally sustainable, landscape to improve atmosphere and continue existing green route

mentoring scheme is where the 'output of the undergraduate system meets the business of architecture, which is basically there to provide the built environment.'

With his colleague Claire Williams and a mentee from last year, Zane Putne, who is now employed by Capita, Ellert will give students an inside view on Capita over the next programmed mentoring days, taking them on site, and to a progress meeting with client and engineer. They will also sit in on a design meeting and spend time next to an architect at their work station. 'It will give them a positive idea of why they are doing their CV,' he says. 'The working environment can vary so much, and with a diverse workload you have to ask what's in it for me,' he says. 'I hope it opens up that line of thought.'

Putne shares her experience as a mentor. Not only the value of having the mentoring on her CV but also the sense of reality it gave her. 'Even buildings that are your topic at university do not feel definite, it is like touching them in the dark,' she says. Her previous work with a four person practice was at the other end of the scale to work at Capita. And her Capita work did influence her academic work, if not feeding in directly. Her employment shows that the relationships do extend

IN NUMBERS

900

students through the scheme 2003 to 2012/13

250

mentors 2003 to 2012/13

> 150 architects

300 students

South/South East and London schemes 2012/13 beyond the necessarily constrained limits of the scheme. Mentors are encouraged to support their students beyond the basic schemes with crits and CV overviews, and students are encouraged to invite mentors to their end of year show.

Ellert has some big messages he wants to get across, about the business itself but first about being an architect. 'Your drawing is going to become a contract document; once you are qualified it is a demanding role as you are lead consultant in pre-construction phase and often after while on site,' he reminds students. In the mix are words like 'framework' and 'business plan' and a reminder that architects have to move towards an objective: 'You can't do without the Plan of Work, it stands you in such good stead getting from A to B.' And finally a message about clients. 'What are clients like?' he asks. 'Human like us, mostly.' Atim, Ayodeji, Bruna and Bruce listen with rapt attention - though hesitating a little when the questions are turned to them. It is a long way from their dreams of architecture, the passion and interest in drawing and making things that they all say brought them to this school. But it is the meat of what will make them into architects.



PORTSMOUTH PROJECTS

Portsmouth's Project Office gives students access to clients and live projects - a chance to gain real hands-on experience. In the past it has overseen or managed major building or design works in the city including the Hilsea Lido, the Isle of Wight Zoo, the University's own 3rd Space and the Bursledon Brickworks. It is now working on public consultations in Gosport (above) and running design charrettes for clients in isolated Hampshire villages.



THE ULTIMATE ONLINE SANITARYWARE SPECIFICATION TOOL

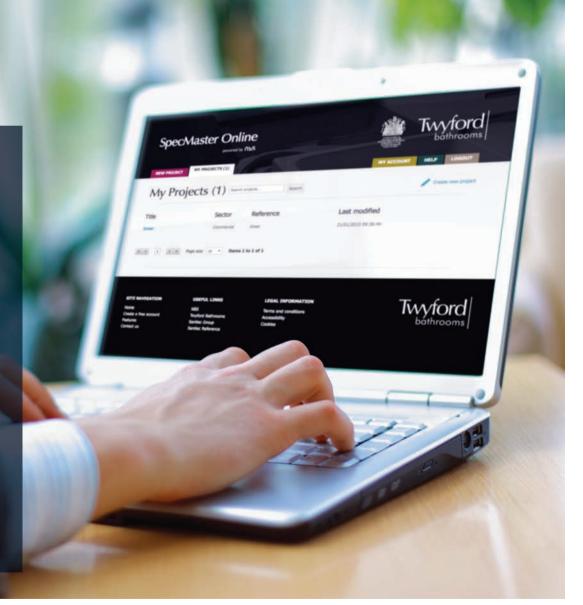
SpecMaster

www.specmasteronline.com from TWYFORD

SpecMaster, our new sanitaryware specification tool is now available. Register today by visiting www.specmasteronline.com

SpecMaster provides you with all the sanitaryware product choices and details you'll need for any project - including the latest designs and inspirational ideas from Twyford. The brand that, once again, leads the way in bathroom innovation. Built in collaboration with NBS (National Building Specification).

- Intuitive and incredibly easy to use
- Helps you create and manage projects
- Make accurate, complete and compatible choices
- Produces industry standard reports
- Securely share project details with colleagues online
- FREE to use with no software to install
- Compatible with NBS standards
- Easily exported into NBS Create



Register today for FREE at www.specmasteronline.com









Location, location, location

For Parts 1 and 2 students, finding employment is all about where you are

Caroline Cole

This is probably not a good time to be graduating from schools of architecture. Or is it? The answer is remarkably dependent on where in the country you want to work.

The results of the last business benchmarking survey for RIBA Chartered Practices show that London has to be the place to go: on average, a whopping 21% of people working in London practices are Part I or Part II graduates. No other RIBA Nation or Region comes close; next up is Wessex with 15% and West Midlands with 14%. Couple this with the fact that a third of all UK practices are based in London, and the capital's streets may well be paved with jobs for aspiring architects – at least when compared to other parts of the country.

North star

At the other end of the scale, the average percentage of the Part I or Part II workforce is only 6% in Wales and 8% in East Midlands, while North East, Northern Ireland, South and Yorkshire all average a modest 10%.

To ensure the city lights shine ever brighter, the average salary paid to Part Is in London is 7% higher than the national average. For Part IIs it is 4% higher; although North West pips London to the post: there, the average salary is more than 9% higher. All other re-

The marked regional differences, in both the number of placements and the financial rewards that graduates can expect, must be of concern

gions fall below the national average for Part II salaries, with Northern Ireland, Scotland and South West averaging the lowest figures. Part Is in East Midlands and the South East can expect to join their colleagues in London with above average wages but sadly, those in North East, South West and Yorkshire, are likely to be among the least well paid.

When it comes to money, it is of course important to factor in the higher cost of living associated with London. However, sala-

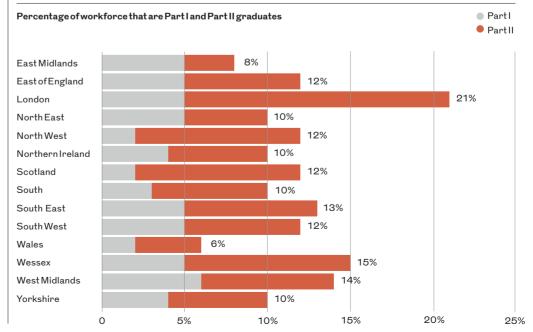
ries are not the only financial incentives offered and, while we do not know how bonuses are distributed across staff members, we do know that practices in London and North West compound their larger graduate salaries by offering some of the largest bonuses.

Lure of London

The marked regional differences, in both the number of placements and the financial rewards that graduates can expect, must be of concern – to the RIBA and those regions that are falling short of the average figures. There is no doubt that many of the brightest and best students will be drawn to London, draining other parts of the country of their talented, young professionals. To add to the lure, 50% of practices in London profess to offer graduate support programmes. In most other areas the percentage falls below 40%.

Surprisingly perhaps, the percentage of the workforce that is Part I or Part II does not vary much as practices grow in size: with the exception of micro practices (where the percentage falls below 10%) the average is between 15% and 17%.

However, there is a huge difference between the salaries (and add-ons) offered by the smallest and largest practices, with salaries for both Part I and Part II graduates increasing as practices get bigger. In salary terms alone, both can expect to average close to 20% more per annum in a practice with more than 50 people than in one with five or fewer people; add-ons could easily increase



this margin by a further 10%. These substantial salary differences must give worry: if the smaller practices are to interest the very best of the new generation, then they must find convincing incentives to counter the money on offer from their larger counterparts, especially in the main metropolises where the cost of living is highest.

Female factor

There is one other interesting point to mention: despite the fact that schools of architecture say that their graduates are 50:50 male/ female, less than 40% of Part Is and Part IIs in chartered practices are women. For Part Is, this percentage rises to a remarkable 58% in both Northern Ireland and Scotland but falls below 30% in East of England, North East, Wales and West Midlands. For Part IIs, none of the regions achieve 50% women: North East gets closest, with 48%, but Wessex is the only other region to exceed 40%. East Midlands, Scotland, South, West Midlands and Yorkshire all fall below 30%. Bearing in mind that the survey also tells us the percentage of women at the most senior position of equity partner or shareholder director is a mere 11%, it really is important that practices employing today's graduates create a profession that nurtures both sexes. Otherwise the profligate waste of female talent highlighted in this survey will simply continue. •

Caroline Cole is director at Colander Associates and author of the business benchmark report for RIBA Chartered Practices. www.colander.co.uk

Average salaries for Part I and Part II graduates

	Partl	PartII							
East Midlands	£20,682	£23,340							
EastofEngland	£19,403	£24,674							
London	£20,948	£27,991							
NorthEast	£16,981	£23,443							
North West	£18,952	£29,351							
Northern Ireland	Insufficient data	£18,880							
Scotland	£17,112	£22,831							
South	£18,697	£26,231							
South East	£19,687	£25,043							
South West	£16,755	£22,460							
Wales	Insufficient data	Insufficient data							
Wessex	£18,195	£24,873							
West Midlands	£18,274	£23,351							
Yorkshire	£15,842	£23,462							





External management

Clima

Forget the tickbox

Waiting for a final checklist won't embed sustainability into design but the RIBA Plan of Work tools can



Alan Shingler

Sustainability does not have to cost more provided a balanced and timely view is taken. Often a prescriptive retrospective checklist can increase costs and compromise design.

So the architect's role is pivotal in realising an optimised sustainable design. As we all understand in theory, good design fully integrates user function, building fabric and complementary, efficient engineering. Architects must grasp the consequences of balancing each of these drivers at each design stage, and not rely on others to measure the sustainable success of a project retrospectively using tick box headings. While tools like BREEAM and the Code for Sustainable Homes can help reduce carbon and set sustainability targets, they don't inform the architect about how to achieve optimised sustainable design or what to consider when.

So, with Bill Gething, the RIBA's Sustainable Futures group has aligned the Green Overlay with the RIBA Plan of Work 2013. This is intended to provide guidance at each design stage, prompting the architect to consider relevant sustainability targets at the right time.

Briefing is essential to define realistic targets and the new stage O prompts the architect early to define the project's parameters and set objectives that require continued commitment to measuring a design's perfor-

mance. The plan encourages a different way of designing based on outcomes. One example of this is 'Soft Landings' which is identified at Stage O, highlighting the importance of its impact at the early briefing stage as well as at handover and during the post occupancy stages.

Sustainability checkpoints along the way highlight headline considerations for each stage, a reminder for example to think about the reuse of existing building components. These trigger the timely consideration of sustainability targets for each stage of the project, to provide a robust understanding of issues that might in the past have been left to others or adopted much later in the process. A fully integrated approach is not possible if sustainability is seen as a 'bolt on' kit of parts; it only adds cost and reduces the building's performance potential.

Decisions during the early design stages not only define how the building functions but ultimately determine its efficiency. It is essential that the architect understands the consequences of these decisions, how to avoid conflicts and identify complementary passive and active design solutions.

An architect's first and major focus should be to reduce energy demand by fully using the building's fabric, considering control of embodied and active energy consumption. Influencing behavioural change through good design is part of this. The second priority is to harness natural resources through passive design and careful consideration of the micro climate. Good sustainable architecture balances client and end user requirements with a design appropriate to its function, challenges conventional approaches and seeks innovative ways to cut energy use.

Finally, the remaining energy demands are married with complementary engineering and matched against appropriate renewable and low carbon technologies. Each building response depends on its climate, function and end user brief.

The new Plan of Work is not intended to list hurdles for architects to jump through, but to prompt the designer to test key sustainability considerations with the design team at the right time, encouraging a collaborative, co-ordinated approach to making buildings more sustainable.

Alan Shingler is chair of the RIBA Sustainable Futures Group and head of sustainability at Sheppard Robson





External management

Procurement & contracts

Blame Game

Given the potential cost of liability for client losses, keeping a very close eye on your terms could save you from a large hit in the courts

Alistair McGrigor

One of the biggest battle grounds for an architect agreeing appointment terms is whether they will be liable jointly with another party for any losses incurred by a client.

Net contribution clauses are often seen as one way to alleviate this concern, but they may not always be the answer. There is also the question of what responsibility an architect should have for defective works, where it had an inspection role over works carried out by the contractor and its sub-contractors.

Failure to inspect

A recent case involving Hoare Lea as M&E engineer highlights the importance of these elements. Greenwich Millennium Village v Essex Services Group focused on the defective design and failure to inspect of an M&E engineer, but the same principles would generally also apply to an architect.

The case relates to catastrophic flooding of a new development on the Greenwich peninsula. It seems the chief physical cause was the over-tightening of a plastic nut on one riser and installation of an inappropriate valve in another. Damage amounted to ± 4.75 m and Hoare Lea was found liable for well over ± 1 m.

Liability was decided to lie at 40% for the professional providing inspection services and 60% for the sub-contractor who carried out the defective work.

Hoare Lea was liable for such a large percentage of the loss because it did not notice that the surge arrestor system it recommended was not correctly fitted in the works.

A key point noted by the judge is that the use of surge arrestors was, at the time, comparatively new. Only Hoare Lea (not the sub-contractor) had the requisite knowledge and experience of using these and should have taken more care to ensure the services contractors installed the system satisfactorily.

Role change

Hoare Lea's defence relied partly on a claim that its inspection role had been removed by the developer. However, it had continued (and continued to be paid for) carrying out the role. The warranty that Hoare Lea had signed in favour of the developer covered the services as set out in the appointment, and did not take account of any removal of inspection services. This is a key concern to be aware of if there is a substantial change to the architect's services on a project.

The warranty Hoare Lea gave the developer did contain a net contribution clause, which might have helped limit its liability. However, the judge pointed out that the net contribution clause referred only to other 'consultants', not to sub-contractors. As Hoare Lea was jointly liable only with sub-contractors, the net contribution clause did not affect the apportionment of liability.

Finally, one change to appointment documents often requested by consultants is to remove all references to 'ensuring' that something is done, to be replaced by an obligation to 'see to it' that something is done. The judge made the point in this case that the use of the words 'see to it' would not in fact help. Hoare Lea had specified a new and innovative design for the surge arrestors, and so had to 'see to it' that the parties constructing it understood how the new system would operate.

Alistair McGrigor is a partner with Nabarro

Hoare Lea's defence relied partly on a claim that its inspection role had been removed by the developer. However, it had continued carrying out the role

NOTICE OF ASSIGNMENT

You may occasionally receive one of these from a lawyer. It gives you notice of the assignment of the rights under a document (often, for example, a collateral warranty). These notices are required by statute, and without serving notice, an assignment of rights under contracts is not legally valid.

This should be distinguished from being requested to consent to an assignment of a document. In this situation you are usually entitled to refuse, depending on the terms of the document being assigned.

A notice of assignment does not entitle you to refuse to consent to the assignment. It merely puts you on notice that an assignment of the warranty is taking place.

Some notices are more complex and detailed than simple notices of assignment; in circumstances where you are being put on notice that a charge has been taken over the contract in question. Usually these set out that the funder has taken security over the contract, but require you to continue dealing with the original contract party in relation to that contract. However, the principle is the same, that the security is being made valid by serving notice to you that the security has been granted.



Party poopers

Happy New Year! Let us celebrate the ties that bind...



Maria Smith

Raise your objections – I mean glasses – and toast planning applications gone by with the traditional song All Land's Mine.*

I am a major landowner, Yes all this land is mine. I own half of this town and now, I'm dreaming of pound signs.

CHORUS:

For all land's mine, my dear, Yes, all the land is mine, I shall have my design my dear, For all land's mine.

I am a brilliant architect, It's at last my time to shine. I've landed this important client, now I shall have my design.

CHORUS

I am a planning officer, If you want my endorsement, don't beat your breast, pitched roofs are best, to guarantee consent. CHORUS

I engage the community, I love a questionnaire. For equal opportunity, is my duty of care.

CHORUS

I am a local resident, this plan's too avant garde. Yes, everyone I represent, Says not in my backyard.

CHORUS

I am an endangered species, and my family lives on site. You cannot cut down all these trees, you'll extinguish us outright.

CHORUS

I'm funding two per cent of this, I should have the final say. My money's worth ten times his, so build it yesterday.

CHORUS

I am a wily journalist, I see tensions running high. I'm positive, if I persist, I'll catch someone in a lie.

CHORUS

I am a local councillor I might grant, I might decline. I'm not much of a gambler, I'll just vote on party lines.

CHORUS

I chair the local planning committee, I'm fed up and bemused. You're all a bunch of nincompoops, Your planning is refused.

*Sung to the tune of Auld Lang Syne

Maria Smith is a director at Studio Weave

Go with the flow

Frances Woodgate has found a route to realising her ambitions

What is Fluid?

Fluid mentors under-represented groups in the construction industry. It aims to promote diversity and keep those individuals by helping them identify opportunities for career progression.

Why did you want to take part?

I found myself questioning what my next step would be, having been a project architect for five years. I heard about the programme through a discussion at a construction awards event. I thought I would really benefit from an independent perspective: I had a goal in mind, but it seemed unattainable, as it involved a lot of work out of hours.

Has it fulfilled your expectations?

Fluid gave me the support and guidance I was hoping for. My mentor, James, suggested I break my goal into stages to make it more manageable around my office work and volunteer commitments. His specialist background in conservation made him a perfect mentor for me, as I work almost exclusively on heritage projects. His advice was invaluable as it boosted my confidence and encouraged me to commit to positively my goal.

What next?

Following the happy distraction of my wedding, focus has returned to my goal, completing an application for conservation accreditation. I am passionate about working with built heritage and that will enable me to take on more responsibility and progress to a senior level. I have been inspired by personal accounts from other Fluid participants, and decided to re-enrol as a mentor. It would be really rewarding to offer the kind of support I have had; no doubt I will learn valuable insights from them in the process, which could make me a better colleague and manager.

Fluid is run by the RIBA's 'Architects for Change' forum and the Construction Industry Council. www.fluidmentoring.org.uk

Innovations meets

SPECIALLY TAILORED CONTACT DAYS WITH A FOCUS ON INNOVATION FOR ARCHITECTS. INTERIOR DESIGNERS. AND OTHER SPECIFIERS



Earls Court II London 29 - 30 Jan. 2014 2nd edition - 1pm-8pm



ARCHITECT @WORK THE NETHERLANDS

ARCHITECT @WORK LUXEMBOURG

ARCHITECT @WORK FRANCE

ARCHITECT @WORK **GERMANY**

ITALY

ARCHITECT @WORK



EXCLUSIVE TRADE EVENT

with over 300 innovations presented by manufacturers and distributors

STRICT SELECTION CRITERIA for an unseen offer

NETWORKING

in an exclusive atmosphere

EXPOSITION

Global Award for Sustainable Architecture 2007 > 2013 by Cité de l'architecture et du patrimoine/ Institut français d'architecture (Paris)

SIDE EVENTS

Concrete & Architecture

- < Exhibit selected by
- The SCIN Gallery
 < Installation by Matali Crasset
 < Images by DAPh
- < Seminars

SWITZERLAND WWW.ARCHITECT-AT-WORK.CO.UK REGISTER ONLINE WITH CODE 1650 C CREATIVE4.BE / 2005















3: Culture

Enfants Terribles

Architecture's menu will miss its helping of FAT



Hugh Pearman Editor

The most alarming thing about the news that the practice FAT is to split in the summer after 23 years was - good grief! - 23 years. That's a long time to be 'alternative'. Sean Griffiths, Charles Holland and Sam Jacob started off with stirring manifesto statements such as 'kill the modernist within', showed they were exceptionally mediasavvy with a wincingly accurate essay on how to be a famous architect, were very knowing and were wry and amusing about everything. Artists got paid better than architects, so they went in for public art commissions, and were among the first to open new seams of work for the profession. Time passed and they started to do real buildings. Not always just buildings, either. Proper landscaped places, given half a chance. They are, exceptionally good. All three are also considerable teachers and writers. They've cracked Yale.

So good were they, in fact, that from quite early on in their career when they appeared to be settling down mainly as architects, I wished they'd drop that silly name. Fashion, Architecture, Taste. It was a period piece, a postmodern joke. I wanted them to rebrand as Griffiths, Holland and Jacob, and get a

I wanted them to rebrand as Griffiths, Holland and Jacob, and get a brass plate by the door. Instead they named their office in a 1950s Clerkenwell block 'Appletree Cottage'

brass plate by the door. Instead they pretended for a while they were living some rural idyll and named their office in a 1950s Clerkenwell block 'Appletree Cottage'. They had an near-incomprehensible but deeply stylish website. It was as if they were purposely avoiding seriousness, denying professionalism, clinging to the 'maverick' tag. A bit like Will Alsop, who they get on well with.

And to some extent they succeeded. As late as October 2012, when we put their and Grayson Perry's design for a gingerbread-house Essex holiday home on our cover, we got a bit of flak from some (older, Modernist) readers. How dare we suggest this might be architecture? Never mind that the commission came from Alain de Botton for his 'Living Architecture' programme of distinctive buildings. It appeared that FAT (and Perry) still carried the power to shock.

It is a very modern outfit in one way, moving smoothly between the worlds of art, practice, theory, criticism and academia. And very conventional in another: Charles Holland is an RIBA member. When Sean Griffiths showed me round his Blue House in Hackney, I was struck by how Arts and Crafts-influenced it was, though he typically worried (or pretended to) that the interiors might seem too modernist. My favourite FAT project remains the tiny security guard's hut in The Hague, conceived as a seaside folly – a part-pyramid with a little house on top that is meant to periodically catch fire.

Why the fascination with a small trendy London practice with what might be seen as a disproportionately large media profile? Simple. FAT changed the architectural weather. It gleefully pursued a different course, and had fun doing it. It spawned imitators. Architecture needs diverse approaches and a questioning attitude to remain healthy and relevant. You may not like its work, but the profession owes it a lot for its 23-year experiment in doing things differently. We'll hear a lot more of them in their solo careers.

Stately sandstone buildings betray their youth only in their bulk and clean stonework finish Herbert Wright p55

Anyone who has been to the Palestinian occupied territories and seen the hundreds of miles of the TV surveyed and graffitied structure will surely agree that for those whose land it is built on. it is a grim, grim reality Martin O'Shea p69





Power surge

Herbert Wright's aflame with energy-driven ideas



Herbert Wright

When Azerbaijani capital Baku won the right to host the 2012 Eurovision Song Contest, it ordered a fleet of London taxis. Painted purple rather than black, they cruised the city, saying: we're arriving in style. And you'd step out onto a kerb that the city may well have just replaced with marble. Azerbaijan has petrodollars, you see. Hence developments like Zaha Hadid's curvaceous Heydar Aliyev Center, a tour-de-force that the West would now be hard-pressed to fund.

When oil bubbles up, cities transform. The pattern is often a belated burst of PoMo and crazy skyscrapers. Baku's done that, but better than most. Stately sandstone buildings betray their youth only in their bulk and clean stonework finish, and there's an elegance to the spectacular cluster of HOK's Flame Towers that dominate many views. Their form refers not to fossil-fuel flames but to local Zoroastrianism, to which fire is fundamental. Not quite the same flare will emerge in the blue tower for petrochemical company SOCAR by Korean architect Heerim, evoking a gas boiler's pilot light. Soon, Heerim will go total Dubai with its Full Moon Hotel for Baku, which will be a big disk.

Those aside, Baku may have tempered the energy boomtown tendency to go 'Ping! It's time for bling!' because it's been here before – it was the world's first oil boomtown. Pre-Soviet local oil business fortunes were spent on stunning buildings that used Euro-

No city is more restrained with oil money than dour Aberdeen. Abu Dhabi, of course, is building an island of museums pean classical elements in a mix-and-match sort of way. We call this Victorian version of PoMo 'eclectic', but it could be called PreMo.

No city is more restrained with oil money than dour Aberdeen. The only thing that's come up there recently seems to be more moss on the damp brutalist bunker of Covell Matthews' John Lewis store. Oslo is splashier, but likes splurging cash on new buildings for museums that are already housed in great old buildings. Abu Dhabi, of course, is building an island of museums, and Gulf cities generally are at last building general public assets – metros, stadia, etc – as well as vanity towers.

Not so in the newest petrodollar boomtown of Williston, North Dakota, where beefy dudes stream into town looking for fracking action. They're housed in 'man camps', Spartan quarters with strict rules like no alcohol. Like construction camps in the Gulf, actually. Nevertheless, permanent housing is booming in Williston. Photos suggest that architects who specialised in McMansions before the 2007 US sub-prime market collapse have been dusting off old designs. There may be lessons for London as it frets about how to house another million or more inhabitants. Perhaps we need some subterranean energy to get things moving.

There are vast amounts of it beneath London. Forget geothermal, or that heat in the Tube that keeps confounding Transport for London engineers. I'm thinking of pongy sewer gases like methane, which currently power merely a Victorian lamp-post in Charing Cross. Thames Water's giant new sewer project, now called the Tideway Tunnel, will be a superthick vein of biogas to tap. Here's a plan that's full of beans: let the energy sector loose on it, build vast man camps for the new energy workers on Boris Island-like polders, and send floating trains, like water rides at funfairs but longer, down the tunnel and out into the Estuary to service them. Suddenly, you've got a sort of vaparetto/Crossrail hybrid service as well as loads of new affordable housing. And if fatbergs cause delays on the line, nuclear submarines rejected by Scotland could be on standby to torpedo them...

Now I have the capital's energy, transport and housing crises all sorted, call me a cab − I have presentations to make! Wait, maybe I could crowdfund this... call me a fleet of cabs! Black or purple will do! ●

Trained physicist Herbert Wright is an architectural writer, historian and art critic

AFTERWORD

Having designed the tallest Art Deco skyscraper between Chicago and New York and grand theatres across the USA. architect C Howard Crane came to England. His 1937 monster exhibition centre here would become world famous. Its facade's sweeping style is Art Moderne - like Art Deco but simpler, and stressing the horizontal. Five heroic murals are mounted on it, and neon letters spell out EARLS COURT. All is set to go in a Farrell-masterplanned redevelopment, which could easily accommodate this facade. However, the local councils' planning document fails to list anything of Crane's as a 'heritage asset'. Frankly, that's monstrous.

Happy shopper

A new sort of retail/leisure outlet in Japan could have lessons for the UK high street

Jef Smith

Returning from Japan just as the consumer frenzy of Christmas began in earnest, and coinciding with more initiatives to revive the UK High Street, prompted further consideration of my visit to Klein Dytham's latest project in Tokyo for Tsutaya, a major player in Japan's book, music, and movie retail market.

The client's brief to define a new vision for the future of retailing and meet the challenges of online shopping was open and ambitious. As shown in the UK, this is no easy task.

The architect has created a competent and rigorously composed building for Daikanyama T-Site, cleverly incorporating the Ts of Tsutaya's logo into a decorative perforated facade (below). Outside, a beautifully considered balance of robustness and refinement

What makes this project most compelling is the way in which typologies combine to form a new hybrid which feels urbane and engenders a sense of vitality and diverse possibility



invites inhabitation of, not just movement through, the spaces. But this is definitely a building where the visceral experience is even more rewarding, an all-too-rare phenomenon. Clever material combinations and precision of execution (as is the norm of course in Japan) continue inside, while spaces link with clarity and consistency but also achieve their own identities around the richly configured centre of the complex, which includes lounge seating, bar, performance space, and sales of artworks and rare books.

But what makes this project most compelling is the way in which typologies of retail, bar, café, restaurant, convenience store, gallery and university library combine to form a new hybrid which feels not only urbane, but also engenders a sense of vitality and diverse possibility - not something I am used to finding in a retail environment. Key ideas include: careful selection of merchandise (described as curation, with some legitimacy - particularly effective around the main space); a high level of expertise demonstrated by the staff of each area (I enjoyed a long conversation about Japanese electronica in the music section and a delicious espresso Martini around the lounge bar); and range of special events throughout the day (the cookery demonstration and simultaneous children's storytelling contrasted vividly with a sub-culture's performance the night before).

This diverse activity is enhanced by opening hours of 7am-2am, and the visitor engagement creates a feeling of intensity and even community, albeit perceived with the awareness that most of the people here have at least some money to spend. However, it also seems to transcend this. It is far from the sterility and dead-eyed consumption of the mall and, most obviously, buying online.

When thinking how such ideas can be exported it can, of course, be dangerous to de-contextualise, particularly with Japan and its cultural differences. A recurrent theme in my discussions with Astrid Klein and Mark Dytham before visiting the T-Site was the persistent, deep rooted ability of Japanese culture to embrace 'the new' – not really a typically British characteristic. Nonetheless, there could be lessons here for many of our retailers, and even our high streets, if we can look beyond seeking the means of enabling an existing 'offer' to survive better, and, instead, look for more radical re-invention.

Jef Smith is at Meld Architecture

IN NUMBERS

40,000 empty shops in the UK (source Grimsey Review)

¥104bn

spent on books and magazines at Tsutaya in 2012

£37.3m

losses at Waterstones bookshops in 2012

Once upon a time

... a group of young architects made their dreams a reality, and reality made their dreams

StudioMitH

Conceived as a space for collective story telling, the Folktale Bothy is perched on a hill east of Aberystwyth, with views of the valleys, sea and a steam train route. At its centre is a pitted fire in a twisted chimney. The structure projects towards the valley, providing an exposed, cantilevered viewing platform for private reflection. Constructed of materials from the surrounding forest, it is the result of a desire by a group of architecture graduates to work physically and engage with materials.

We formed StudioMitH at architecture school, to centre a collective sensibility and 'do' something. Our education had deconstructed many of our preconceptions but we felt had stopped short of assisting us build a positive approach to architectural practice. After our Part 1, we began exploring this for ourselves – we are interested in ideas about counter design, based on social and ethical values, and challenging prevalent ideas of the architect as an artist in search of the Total Work of Art. We have architecture in common, but different backgrounds – philosophy, history, art, urban planning and carpentry – make our approach multi-disciplinary.

Motivated by this need to be doing, and a desire to experience the anthropological core of building, we sought a site – and, importantly, a client. This led us to Sue Jones-Davies, ex-mayor of Aberystwyth, actress and orator, whose family owns a piece of forest in the village Ystumtuen. Her passion to preserve the Welsh language and the herit-

The design for the Bothy was derived from the site and developed through 3D experimentation, play and our experiences of the forest. Designing and building was symbiotic age of the oral tradition, coupled with the forest, inspired a narrative of vernacular architecture, story telling and natural materials.

The design for the Bothy was derived from the site and developed through 3D experimentation, play and our experiences of the forest. Designing and building was symbiotic, taking place simultaneously.

Throughout the first six months of the build, we faced many challenges arising from using an unadulterated site and self sought local resources. Six tonnes of slate was gathered by hand from the forest bed to create two dry stone retaining walls. The ground space was hammered out of the monolith stone that runs through the hill. Western Red Cedar was felled, stripped, oiled and married to form columns and bracing for the reciprocal frame. Sitka Spruce was milled on site and charred in a burrow to make treated cladding.

Revelling in the adventure of the build, we designed the Bothy from within: it is fabricated from and built for the place. Its cyclical values were born from StudioMitH's experience, with our on-the-job experience built into the structure as we went.

The ascent to the Bothy is a breathless one, gradually revealing its angled timbers crowning a parabolic, striated black surface. Inside, cedar oil from the fire suffuses the senses. Planked seating is crooked but smooth to touch. Shadows from the fire dance across the structure's lipped casement and slip into the darkness above. A story begins to paint itself across the imagination. Pause, embraced by darkness. Stars flicker above and shadows swell below; a moment to pause for breath, and be. •

StudioMitH

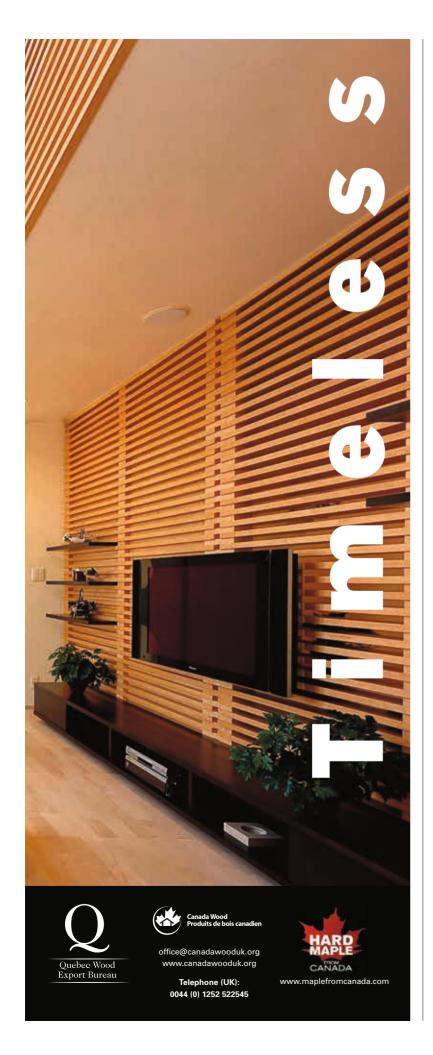


GHOSTS OF THE PAST

The site, in the small village of Ystumtuen, is a PAWS – Previous Ancient Woodland Site. This means that the Forestry Commission would ultimately like to restore it to the oak woodland native to the British Isles.

The site was extensively mined during the Roman period and some mines that have been found date back to the Bronze Age, meaning that the land has been worked and reworked over millennia.

The trees on site today were planted after Second World War, to re-stock timber supplies in anticipation of possible future conflict.



RIBA ₩ Bookshops

we help you build **Grey** matter

Books Contracts Information

Insightful advice superior service

ribabookshops.com



Common purpose

Awareness of the symbiosis of profession and education is driving the development of both



Stephen Hodder

The 1924 Congress on Architectural Education and the subsequent Oxford Conference in 1958 established the principle of an academically-based architectural education provided by universities. Admissions eligibility criteria were defined, and the foundations of the tripartite route (parts 1, 2 and 3) to qualification that prevails today were laid.

I believe that 55 years later we need a review of architectural education. 'Partial qualification' is perceived as failure, there is a lack of consensus on the balance of theory and practice, profession is separated from education, and there is poor conversion of part 2 graduates to registered architects. These problems are compounded by mounting student debt and the apparent privatisation of university education, and are set in an increasingly complex construction industry.

Revisions to the Professional Qualifications Directive voted by the European Parliament in October this year present a major change to the statutes drafted in the 1970s and 80s. The RIBA pressed for flexibility and for recognition of the complementary nature of academic study and practical training. The outcome is two alternative models

'It is simply no good for the profession to complain about the standard of education when those who have become skilled practitioners feel unable to collaborate'

- Leslie Martin, 1958

which will, potentially, create variations across the European Economic Area: either a minimum six year framework – four years' full time university study plus two practical training; or a minimum five year framework – all university study and no practical training.

It is important to understand that both frameworks are a minimum standard, and that in the case of the UK, there is no appetite to lose the synergy between education and practical training – although, confusingly, this will not make the five year structure unacceptable. The ramifications of both frameworks are now subject to legal clarifications, which will make the choices clearer.

Facilitated by the vice president of education, Roz Barr, and director of education David Gloster, December's RIBA Council received presentations from various heads of schools and others engaged with architectural education, with the intention of beginning an essential debate on reform. The suggested direction of travel proposes five key actions.

First, the framework for architectural education should be revised to enable delivery of an integrated award leading to registration. Secondly, the professional content of architecture should be embedded entirely within the integrated award. Third, within schools of architecture, teaching practices that contribute to curriculum delivery should be encouraged and developed. Fourth, advanced standing/conversion courses should be offered to holders of non-cognate and affiliated degrees (and architecture graduates from non-validated schools), although this would be subject to flexibility in eligibility criteria from professional or statutory bodies, and universities offering resources.

Finally, the pre-eminence of UK courses in architecture must be maintained and enhanced without loss of the creative intellectual, practical, and professional content informing progressive practice.

There are pivotal issues that will inform the future our profession: integration of professional matters within course delivery; restoring and enhancing synergistic relationships between practice and academia; structuring course delivery to allow a more diverse profession; above all, acknowledging, retaining, and enhancing traditions of innovation and invention which characterise UK architectural education.

May I wish all our members good fortune in 2014

DISCIPLINARY REPRIMAND

On 25 September 2013 the RIBA Hearings Panel found that Mr James Burrell RIBA was in breach of Principles 2.1 and 3.5 of the RIBA Code of Conduct in that he failed to apply the expected high standards of skill, knowledge and care in the management of his practice affairs, and that he failed to have in place effective procedures for dealing appropriately with complaints.

The Panel decided that the sanction for this be a public reprimand.

It seems there's no stopping the dynamic, imaginative duo that is Carmody Groarke, architect of the RIBA's new London Gallery

Words: Eleanor Young Portrait: David Vintiner

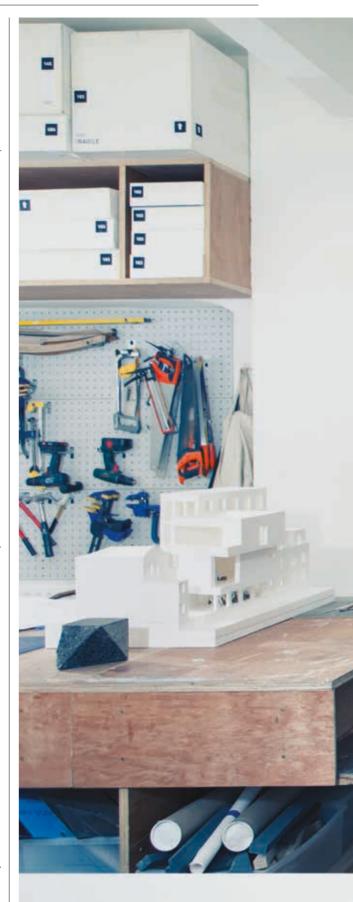
At the double

The table is large and square. As Andy Carmody intently talks through projects and ideas, Kevin Groarke ranges around, bringing this model, that sample, things we are discussing and things we haven't yet got to. Both give the task their full attention, serious and engaged but often with a little, conspiratorial smile as they compose an answer.

I was a little apprehensive at meeting Carmody Groarke. In mind were the cold clean lines of the pair's work, and one rather severe personal portrait. But seeing them in their little Soho studio in Denmark Street is quite different. There was a time when Carmody Groarke was rarely out of the news, entering this, winning that, designing a flat for one artist, a bar with another, Olympic Park dining with Bistrotheque. When the RIBA engaged the firm to design a new gallery at 66 Portland Place it seemed hard to discern, from the outside, who was patron to who. After all, art was in Carmody Groarke's DNA, having met working on sculptor Anthony Gormley's studio for David Chipperfield Architects. Now the practice is less in the news but its studio of 25 is working through a series of bigger jobs from Windemere's Steamboat Museum to a 45ha park in West London.

The studio is within earshot of Crossrail piledriving at Tottenham Court Road. Part of Soho and the antiquarian bookshop district of Charing Cross Road, the practice's little street is populated with music shops, saxophones hanging glittering in small windows. 'Friday afternoon is when we hear the tunes drifting up,' says Groarke. There is no sense of anticipation in the office about the new transport hub next door, just a resignation that it will ultimately mean moving out of the much loved studios as they get turned into an arcade. 'I know as architects we should look forward to new buildings,' he says. 'But…'

Nevertheless change is part of the firm's stock in trade. Its many small scale interventions can be read as harbingers of the new – a way to make a place work before it has had a chance to become a place. This has been the case ever since Carmody Groarke won the Parachute Pavilion in Coney Island, New York (2004). Seen in that light, much of its work takes on a more serious hue. Studio East Dining and The Filling Station (winner









Above Looking out to Olympic Park and beyond, East Dining just borrowed material and contractors that were already available on the Westfield construction site. A far cry from the original request for a wedding marquee.

Above 7th July Memorial in Hyde Park was a serious and potentially risky early project for the practice, being so high profile and fraught with meaning and emotion.

of RIBA London small project award last year) both brought life to places that were still being created, each as a short term project initially.

Both projects also took an entrepreneurial attitude to put together. Studio East Dining - a series of radial dining rooms on top of the Westfield Stratford shopping centre car park in east London, overlooking the Olympic Park site - began as a request to dress the interior of a marquee. The Filling Station was one of Argent's empty sites at King's Cross, perhaps an opportunity to use a marketing budget in a different way, suggested Carmody Groarke. So a restaurant using the foundations of the petrol station's shop emerged, with the canal wall removed so visitors could start to appreciate the site for what it was going to be - a live marketing campaign. The last two RIBA staff parties have started here.

'We have just emerged from a period when a lot could be built but there were not enough questions why,' says Groarke. 'Architects starting now are being critical, not in a green wash way, but in clear value decisions,' adds Carmody. 'If you're building a perma-

nent structure how do you do it as a background in the city? This economic cycle and the client who commissions it are not going to last forever.' This is a theme that emerges again and again: not shouty buildings but ones that work with the objects around them.

You begin to realise that, without sounding at all commercial, Carmody Groarke does speak the language of value, which must be attractive to clients. At the art fair Frieze, the practice took messy, noisy cafes into the park, clasping them around trees and leaving more space free for the 'premium' gallery spaces. At a British Land development in London's Regents Place, primarily designed by Terry Farrell and Partners, the job was for a coffee bar. Did British Land want the identity of the place to be in the hands of, say, Costa Coffee? asked Carmody Groarke. Surely it would rather it had its own identity? So the project became a pavilion, its square columns echoing the weighty Farrell colonnades alongside, with a telling delicacy. You can slip through or find yourself stopped by a spinney of columns, or sit on a cube under the rigorous grid that allows the desire line - while diverting it.

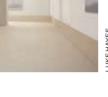
Over the years most London exhibition goers have no doubt experienced a Carmody Groarke exhibition layout. When they started, explains Groarke, few architectural practices did them. But Carmody Groarke saw the potential, work on quick turnaround projects with great material. An early one was Blind Light with Anthony Gormley at the Hayward Gallery, then Surreal House, Bauhaus at the Barbican, Postmodern at the V&A and, most recently, an exhibition in the vaults of Somerset House on the fashion legend Isabella Blow. Here they conjured up the nave of Christ Church Spitalfields where Blow brought together the fabulous milliner Philip Treacy and designer Alexander Mc-Queen in a grand catwalk show, both just out of college. Strips of abattoir curtains, and angled verticals of glass, split and complexify the space while backlit fibreglass alcoves drawn to a vanishing point show the silhouettes of a crazy collection of dresses.

It displays many of the practice's interests in the shapes, angles and verticals they are drawn to: rather like a linear drawing out of the plan. Rhythm and stripped classicism









Above Shrine to Isabella Blow and the clothes she loved at the Carmody Groarke-designed exhibition at Somerset House.

The model shop takes up around a quarter of the practice's Soho office: here, models for Windemere Steamboat Museum (above) and the RIBA's Gallery (below).

pervades Carmody Groarke's work, a likely legacy of David Chipperfield and the Germanic precision of some of his colonnades. But the pair have no appetite for this discussion, they spy accusations of gestural architecture. Instead, they present projects that do something different. Then comes a change of tack, showing how angles are used to align a main hall with a main view. The discussion is firmly closed by the arrival of the Maggie's Centre model on the table, with a slight bump. Skinned with vertical panels of glass fibre, pulled and kinked around the edges of the prefabricated boxes, the building is due to last just seven years on its site within Liverpool's Clatterbridge Cancer Care Centre.

Despite being temporary, this Maggie's Centre is one of a set of what Carmody describes as the more 'grown up' projects in the office. The studios they taught at the Bartlett and RCA have been dropped to concentrate on practice. It has meant the studio growing and a few desk moves. The upper floor of the long office is naturally split in two, the main team banked along the edges: all concentration and large screens. Having a nosey on this floor while their portraits were being taken, it was interesting to see how Carmody and Groarke have colonised an informal meeting table at the quieter end of the office, laptops folded down and a sense of their direct, concentrated, amusing talking partnership in the openness of the desk. 'One might speculate we are reasonably interchangeable,' says Groarke. While he might $appear \, to \, be \, the \, public \, face \, with \, his \, chiselled$ looks and easygoing manner it is clear they do a good double act.

Those grown-up projects have come at the right time. Being placed second on the competition list for Prague Library early in their career might have been a fillip, but to have won it would have been a catastrophe, too much to gear up for. Now they have the RIBA Gallery at Portland Place, London, where they are revelling in honing the detail of the sill handles. Due to open in February, the gallery's proposed site within number 66 was shifted by the practice to take advantage of the space of a light well. The RIBA connection may be what got it a place in the invited competition to remodel the RHS's headquarters in London's Victoria. Another particularly significant win was the Windemere Steamboat Museum - on a top quality long list for the RIBA Competition in 2011 including Niall McLaughlin Architects, Witherford Watson Mann and Terry Pawson Architects. 'All the practices were 10 years older than us,' notes Carmody. The gathered, pitched roof forms have grown since the competition and the firm has been looking at a folded, pre-patinated copper.

In January Carmody Groarke's proposal for the largest public park in London since Hyde Park goes to committee. In Hounslow, moments away from Heathrow Airport and on a green belt site, the 10m-deep proposed layer of park on the site would hide 15-20 years of gravel extraction. Using top down construction, the plan gives the underground space left by the gravel to storage, warehousing, data centres and so on. Carmody Groarke went for the open competition with Arup as engineer and Vogt Landscape Architects. It was selected as the most commercial.

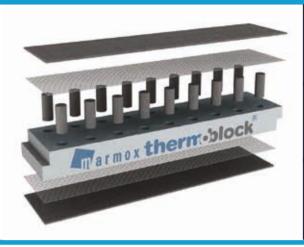
Andy and Kevin are proud of that.



The No.1 way to prevent thermal bridging

Simply replace the bottom brick/block layer!

- Thermally insulating
- Eliminates thermal bridge
- Use at wall/floor junction
- Replace brick/block layer
- Very strong (6.5N/mm²)
- Unaffected by moisture
- Helps achieve CfSH rating 4







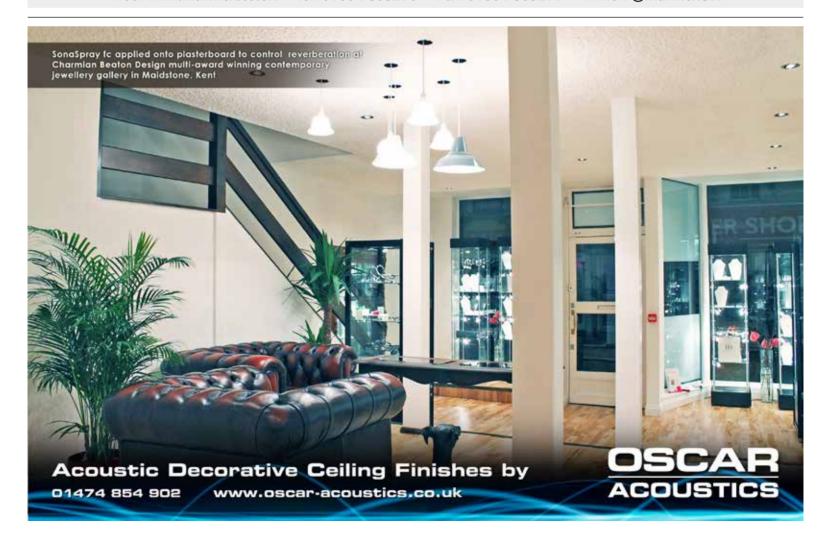




Marmox UK specialises in products relating to...

waterproofing • insulating • drylining • sound absorption • thermal bridging • fireproofing

Web: www.marmox.co.uk Tel: 01634 835290 Fax: 01634 835299 Twitter: @MarmoxUK



Oh what a lovely war

Conflict had its fans in the 1930s – as preparation for rebuilding planned cities

Hugh Pearman

'What has one to do to defy aerial warfare? The general staffs offer, in substance, the following verdict: according to the current state of urbanism, only those cities ... designed according to the model of the Radiant City will withstand aerial warfare successfully.'

Le Corbusier would say anything to get on, wouldn't he, especially in 1935, with the whole of Europe gripped by fear of aerial bombardment? He was gleeful at the looming conflict, which he saw as 'the providential lever for the necessary actions'. Flawed though his reasoning was – based on the idea that his tall narrow blocks presented less of a target, as if blast did not travel sideways – he was, as Düwel and Gutshow's book points out, only vocalising a common feeling among planners of the 1930s and 1940s: that Europe's cities were leftovers of history, and outright war would begin the needed clearances.

We have become very used to the phrase: 'The planners finished what the Luftwaffe began'. Absolutely true, of course, indeed it would have been odd if they hadn't, given the prevailing views of the time. British planners especially hated the 'unplanned' existing cities. The 1942 reconstruction maps of Exeter, for instance, are marked in three colours - red for the blitzed bits, blue for 'buildings of architectural merit' and pink for large areas described casually as 'outworn'. This was a normal official response: the authors of the 1943 County of London Plan, Patrick Abercrombie and John Henry Forshaw, took the view that the blitzed bits were just the start. 'London was ripe for reconstruction before



Below German plans for rebuilding Hamburg went way beyond the bomb-damaged areas. the war: obsolescence, bad and unsuitable housing, inchoate communities, uncorrelated road systems, industrial congestion, a low level of urban design...all these and more clamoured for improvement before the enemy's efforts to smash us by air attack.'

But this was not just a British – or Corbusian – response. One of the many good things about this book is the way it shows the desire for wholesale reconstruction right across Europe. Plans by German officials for the post-war rebuilding of Hamburg, for instance, involve demolishing swathes of undamaged property. Vichy France took much the same view. And Kassel's conservation planner Friedrich Bleibaum insisted in 1944 that although reconstruction in replica was desirable, it should occur only when sufficient records existed – which would have ruled out central Warsaw, rebuilt from paintings and photos.

Drawing up the plans is of course not the same as implementing them. The 1947 plans of Marinus Jan Granpré Moliere for Groningen – described here as 'the most radical assault ever contemplated by an urban planner on the architectural manifestations of the 19th century' – involved the demolition of many perfectly good, unscathed, buildings. Thankfully, his plan was rejected and Groningen, though unsatisfactorily rebuilt in parts, kept its evolutionary mercantile character.

This book, then, is a very detailed look at a particular moment when a world war was seized on with alacrity by planners and architects as a means to a Utopian end. Knowing what we know now, it makes the blood run cold. But it is absolutely fascinating.

A Blessing in Disguise: war and town planning in Europe, 1940-1945, eds Jörn Düwel and Niels Gutshow, pub DOM Publishers, £85.



The 1942 reconstruction maps of Exeter are marked in three colours — red for the blitzed bits, blue for 'buildings of architectural merit' and pink for large areas described casually as 'outworn'

take back control



Are you fed up with your night storage heating system?

- Want a simple to install alternative to oil gas central heating?
- Can your old system deliver warmth when you need it most?
- Modern Affordable heating
- Italian Aluminium design
- Fully wireless energy management system





Specify IntelliHeat products and receive 20% discount



intelligentheat.co.uk





Best design brands for RADIATORS **archiproducts**the worldwide source for architecture & design products

Obituary 67

Roland Paoletti 1931 – 2013

Influential architect whose wide experience made him the obvious choice to be architect in charge of London's critically acclaimed Jubilee Line Extension



Roland Paoletti's poetic interpretations on the distillation of architecture and engineering design, his cultured analysis and wide knowledge, inspired and uplifted all of us who worked with him on the long campaign to transform station design in London Underground through the Jubilee Line Extension.

Not only that team, but

the wider architectural community and all on whom Roland's influence had made lasting impact, were enormously saddened by the sudden news of his death.

Armed with the experience of designing 40 new stations for Hong Kong's Mass Transit Railway, and architectural values acquired by working with Pier Luigi Nervi for many years, Roland was invited by London Underground chairman Wilfred Newton to be architect in charge of the core team for the JLE, which would link the heart of London's West End with the Docklands and some of the capital's least prosperous areas. Having been away for 30 years, one of Roland's first priorities was to get to know the capital's architectural world, and to assemble the architectural team for the 12 (later reduced to 11) stations. He was very aware of the immense responsibility to persuade practices to take on the challenge of designing the defining station of the new millennium. The sensitivity and imagination required for Westminster Station, in the context of Big Ben, or to find a way of transforming the redundant gas site, in North Greenwich, for example, would have taxed anyone commissioning an architect. Roland knew he had to achieve this first essential step in a crucially short time, by making connections with the key individuals with whom he would collaborate.

Roland's brief to the assembled practices was that

station design would derive from the civil engineering solutions to allow commuters to move between platform and street in the most efficient way, while emphasising quality of space and light. His talks with individual directors and project architects early on, often visiting their offices with little warning, had fired the designers' imaginations. We were soon to see the results, as sketched proposals, brilliant drawings and cardboard concept models flooded in to the office. There was no stopping from then on. By October 1991, in a detailed presentation, Roland enthused the London Transport Design Policy Committee, chaired by Newton, and secured the station designs – albeit on the terms of deferred civil engineering co-ordination – which were to follow.

Away from the public, Roland led by example and, with the in-house team at Dacre Street, designed Water-loo Station and developed the line-wide station components. At the same time the team examined and reviewed station standards and the material performance used for the entire extension project. The design process was aided by 3D models and lifesize mock-ups. For 18 months we developed the lighting boom design in a full-size tunnel mock-up in the London Bridge railway arches.

All who worked on the JLE, no matter when or for how long, have been tremendously inspired and touched by Roland's wisdom and his personal influence. His witty and poetic anecdotes helped us overcome many a design or political obstacle.

Although a public figure, Roland remained very private after his retirement from JLE. He never mentioned the well-deserved accolades for his bold approach and great contribution to British architecture. Few of us knew even when he finally married Nora, whom he met in his twenties, at their local church in Wapping. Our warmest regards go to his and Nora's relatives.

Sui-Te Wu worked with Roland Paoletti at the JLE from 1991 to the completion of the Line in 2000, and was JLE project architect for Westminster and Waterloo Stations

In Memoriam

HUGH LLEWELYN DAVIES

ACK PLATT

ELECTED 1953, BUNTINGFORD, HERTFORDSHIRE

ROBERT BEST JACKSON

ELECTED 1955, PETERBOROUGH

RONALD RALPH JONES

ELECTED 1958, DORCHESTER, DORSET

ERIC IRVING LINTON

ELECTED 1959, ORMSKIRK, LANCASHIRE

SILVANUS ALFRED JOHN

SILVESTER ELECTED 1959, GLOUCESTER

IAN SMITH

ELECTED 1961, DUMFRIES

CHRISTOPHER COPNALL

BENNETT

ELECTED 1963, NESTON

PATRICK ATHOL HOULIHAN ELECTED 1965

JACK LYN

ELECTED 1966, BERWICK-UPON-TWEED

DAVID LEONARD WILLIAM SIM

ELECTED 1968, MILTON KEYNES, BUCKINGHAMSHIRE

JOHN EDWARD BARRY

ELECTED 1968 MILTON KEYNES

LLOYD FREDERICK STRATTONELECTED 1982, POTTERS BAR, HERTFORDSHIRF

ROGER SOUTHWORTH

ELECTED 1983, SHEFFIELD, SOUTH YORKSHIRE

ADAM WLADYSLAW WIKTOR

ELECTED 1984, EDINBURGH

GERALD RUSHWORTH BEECH

ELECTED 1947, ALRESFORD, HAMPSHIRE

DAVID BARWIS NICHOLSON ELECTED 1970, LONDON

JAMES ARTHUR LESLIE IRWIN ELECTED 1948, ILKLEY, WEST

JOHN LATHAM HARDING

ELECTED 1949, IPSWICH

VORKSHIRE

MARGARET ANNE FEILMAN ELECTED 1950

JAMES HOWARD BRYANT

ELECTED 1954, AUSTRALIA

CLIVE CHARLES PLUMBELECTED 1961, CHELMSFORD

To inform the RIBA of the death of a member, please email membership.services@riba.org with details of next of kin





CPD 2014

A programme of structured seminars in your n help vou meet vour CPD require

area to neip you meet your CPD requirements		Birming	Cambrid	Chelmsf	Crawley	Exeter	Gateshe	Leeds	Liverpod	London	London RIBA Portland	Manche	Nottingh	ading
Seminars	Bath	Bir	Car	Š	Cra	Exe	Gat	Lee	Ľ	Clerke	RIBA	Ma	N S	Rea
Changes and challenges for Building Regulations	10	24	19	04	20	16	12	05	13	22	11	12	22	11
	Apr	Jun	Jun	Sept	May	Sept	Jun	Mar	Feb	May	Mar	Feb	Jan	Sept
Leading the team with the RIBA Plan of Work 2013	15 May	05 Jun		08 May		10 Jun	10 Jul	18 Jun	10 Apr	03 Jul	13 May	09 Apr	25 Jun	30 Apr
Accessible housing: what makes good practice?	13	20	06	12	04	21	16	08	16	03	09	15	26	06
	Mar	Feb	Nov	Jun	Sept	Jan	Jan	Oct	Oct	Apr	Sept	Oct	Mar	Feb
Asbestos and other nasty surprises	02	23	17	27	20	11	10	16	18	08	21	17	23	10
	Oct	Jan	Jul	Nov	Feb	Mar	Apr	Jul	Sept	May	Oct	Sept	Jul	Jul
Managing client expectations: the architect's liability and the management of risk	17	27	03	02	16	11	11	17	20	27	11	19	22	08
	Jul	Mar	Apr	Oct	Oct	Nov	Sept	Sept	Mar	Nov	Feb	Mar	Oct	Oct
Clear communication: how to get your message across	06	23	23	10	01	25	09	03	20	30	30	19	24	06
	Nov	Oct	Jan	Jul	May	Feb	Oct	Dec	Nov	Jan	Sept	Nov	Sept	Mar
CDM Regulations: tools and expert advice for architects and designers	04	25	16	20	24	14	13	05	19	18	10	18	21	03
	Dec	Sept	Oct	Mar	Jul	Oct	Nov	Nov	Jun	Sept	Jun	Jun	May	Dec
Sustainable design + low carbon technologies = what do architects need to know?	13	22	01	23	26	08	15	21	17	16	25	16	23	18
	Feb	May	May	Oct	Jun	Jul	May	May	Jul	Oct	Nov	Jul	Apr	Jun
Integrating building services in historic buildings: developing harmony or creating contradiction	11	04	04	30	02	15	13	22	15	06	08	14	19	09
	Sept	Sept	Dec	Jan	Oct	Apr	Feb	Jan	May	Nov	Jul	May	Nov	Apr
Design intent to reality: closing the building performance gap	19	27	11	27	06	13	13	02	16	06	08	15	19	05
	Jun	Nov	Sept	Feb	Nov	May	Mar	Apr	Jan	Mar	Apr	Jan	Feb	Nov

www.architecture.com/cpd2014

Book your seminars today. Email cpdclub@riba.org

Venues and dates



Prices

RIBA/CIAT members £370+VAT Non-RIBA members £550+VAT

Pay-as-you-go (Individual seminars)
RIBA / CIAT members
£59 +VAT
RIBA student members

£15 +VAT Non-members £85 + VAT

Core Curriculum Topics

- Being safe Climate External management
- Internal management - Compliance
- Designing and building itWhere people live
- Context



Schindler proudly sponsors the RIBA CPD Programme



Exchange

Finely drawn

I enjoyed your November 2013 issue celebrating 120 years, and the chronicle of articles offering a diverse commentary on contributions to the journal since 1893. But I found no mention of the library. What emerged from that department from 1970 exercised a profound and admired effect on the reputation of the institute throughout Europe and the USA. Its Drawings Collection, sponsored by the Drue Heinz Trust, presented from 1972 to 1998 no less that 128 exhibitions in the named Heinz Gallery. This achievement was not matched in Europe or the USA, or indeed Canada, where Phyllis Lambert's Canadian Centre for Architecture modelled itself on the RIBA. Those who ran the Heinz Gallery had a free hand. Indeed the institute at Portland Place was often bemused as to what went on in Portman Square. Henry Russell Hitchcock regarded the celebrated daily lunches in the collection, supported by a donor and always full of VIPs, as the official mouthpiece for the institute's international reputation. Whether in Eugene, Oregon, New York or Washington DC, the Drawings seemed to speak and promote the institute.

John Harris

Former curator, Drawings Collection

Editor's note: Well said, and well done! However, our 120th celebration was of the magazine rather than the Institute.

Architects against the wall

While reading the somewhat confused 'Going up the wall' in the November RIBAJ (p 87) I kept wondering when Herbert Wright would mention the wall which currently divides a people from their lands and fellow villagers, a wall which, though judged illegal by the UN, creeps daily over olive grove and farm. I refer of course to the massive reinforced concrete wall being erected by Israel on Palestinian land. Mr Wright mentions George Harrison's 'wall



of illusion', but anyone who has been to the Palestinian Occupied Territories and seen the hundreds of miles of the TV surveyed and graffitied structure will surely agree that for those whose land it is built on, it is a grim, grim reality. Forget the Berlin Wall. Get to the West Bank and see where illegal occupiers really live behind a 'wall of illusion'.

Martin O'Shea, Bury St Edmunds, Suffolk

Practice isn't perfect

I would like to register my disappointment that the RIBA Journal has decided to deliver fewer articles relating to practice, technical and professional matters and is now predominantly about design and style.

The November and December issues have been dominated by awards and prizes and general reflections on design and architecture. There is no shortage of publications that focus on design and it seems the RIBAJ wants to join this group.

Calum Maclean, Inverness

Editor's note: Technical practice and professional matters are at the heart of our Intelligence section. We make no apology for having reduced this in December to clear space for the President's Medals: these represent the best emerging talent and future of the profession.

Signing off

The September issue legal piece about certificates (p 71) raises a crucial point on liability. It is not clear whether Strutt and Parker was architect for the whole project or was asked only to provide sign off certificates.

I have been approached in a similar manner by a developer to provide such services. I refused point blank to sign off works I had not been involved with either on site or at arms length, and stated that such a service would probably contravene my PII terms. Keep well clear of such involvement.

John T Pounder, London SE5

Tweetback

Re: Hopkins' World Wildlife Centre perched over an existing car park (December RIBAJ)

2B Landscape @2B Landscape

What a shame @RIBAJ. If not enough attention (specifically, enough budget) given to landscape architecture, ruins 1st impression of visitor!

Re: December issue
Fred Guttfield @
GuttfieldArc
Another beautiful @RIBAJ inc
stunning @woodawards
winners and @
BartlettArchUCL RIBA
presidents medal hat trick.
What more could you want?

Re: plans for Ikea to replace award-winning store by Chetwoods Mark Lomas @Mark_E14 Save Sainsbury's Greenwich. Award-winning sustainable building to be demolished







Follow us on Twitter @RIBAJ Find us on Facebook & Instagram

We welcome letters but retain the right to edit them: letters@ribajournal.com RIBAJ, RIBA Enterprises, 15 Bonhill St, London, EC2P 2EA

Architectural Ironmongery



Surveyors

THE ONLY CHARTERED SURVEY PRACTICE SPECIALISING IN MEASURED BUILDING & URBAN SURVEY FOR OVER 45 YEARS

Michael Gallie & Partners

RECORDING THE BUILT ENVIRONMENT

166® Tower Bridge Road, London SE1 3LZ (1):0333-240-1211 (2):0333-240-1169

©:enquiry@michaelgallie.co.uk W:www.michaelgallie.co.uk RICS

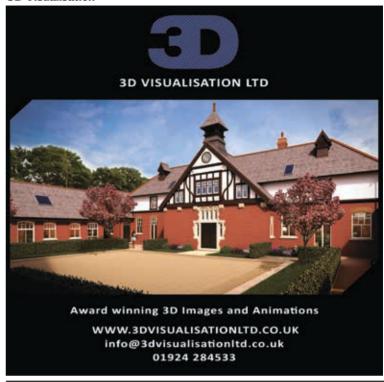
Architecture Lighting



Digital edition

If you are a current subscriber to the RIBA Journal digital edition then you will need to re-apply via our website at **www.ribajournal.com** or email **info@ribajournal.com** Remember if you are a member of the RIBA you get free access to our digital edition, all you need to do is apply online

3D Visualisation



Recruitment

Join



Interested in the bigger picture? Need a new challenge? This could be the opportunity you have been waiting for.

Technical Writer

Newcastle upon Tyne Competitive salary + bonus + excellent benefits

At NBS we have produced specification products for over 40 years, including the recognised national master specification system for the UK. As a Technical Writer you will:

- Contribute to the UK construction industry's standard specification system.
- Develop and maintain the NBS Plus library of manufacturer product specifications.
- Take responsibility for all technical matters relating to NBS Plus contracts and liaise with manufacturer clients.
- Work in a lively and dynamic atmosphere and be part of a technical team who are
 passionate about promoting best practice in the construction industry.
- Be one of the experts behind our market leading products.
- Be involved in the development of manufacturers structured information used in both NBS Plus and the National BIM Library.

If you possess excellent technical writing and communication skills and are capable of interpreting construction product information, make the right decision - join NBS.

For full details visit www.theNBS.com/careers or for an informal chat about the role please contact Drew Wiggett, Head of Product Information, on 0191 244 5505. For a copy of the job description please contact Human Resources on 0191 244 5500 or by email at <a href="https://htt

To apply send your CV and covering letter to recruitment@theNBS.com Closing date: Sunday 12 January 2014

www.thenbs.com www.nbsplus.co.uk



contact the sales team on +44 (0)20 7496 8338 or email clivewaite@ribajournal.com



C: Mark Bowman T: 01634 835290 E: mark@marmox.co.uk W: www.marmox.co.uk

Title: Part L and Thermal Bridging in Floor/Wall Junction Designs

The seminar focuses on complying with the thermal bridging aspects of 2013 building regulations and achieving a good CfSH rating. Heat losses through junction designs are determined and methods to improve the energy efficiency are discussed and compared.

HunterDouglas

T: 01604 766 251

E: info@hunterdouglas.co.uk W: www.hunterdouglas.co.uk

Title: Wood Ceilings: The Beauty and Benefits

Created to help architects and specifiers gain a clearer understanding of how such a traditional building material translates to contemporary design and architecture; covers the aesthetic and practical uses for wood and the wide design flexibility available to the specifier. It also highlights how the use of wood supports responsible design and provides an important guide to the performance standards that can be

met through the use of wood systems.

HENDERSON

T: 020 685 9685 W: www.comar-a

E: projects@parksidegroup.co.uk



E: gsmith@pchenderson.com E: pjones@pchenderson.com

Title: Sliding & Folding Door Gear – Specification and Design

This CPD is part of the RIBA Core Curriculum

Attendees will discover the benefits, features, functions and applications of sliding and folding door hardware in residential, industrial and commercial projects. They will also learn what common problems to avoid and what tools can be used in order to specify accurately, whilst taking into consideration new developments in hardware technology, security accreditations and environmental standards.



C: Simon Barratt E: sap@faber.com

Title: Solar Shading Solutions

Through this CPD users will learn about the effects of solar radiation on the indoor climate of a building and how that impacts on the energy balance of that building. The CPD includes some of the key factors that need to be considered when specifying internal and external solar shading solutions, including the seasonal changes and the aspect and environment of the site itself. The CPD also provides an overview of current EU regulation and the requirements of LEED and BREEAM.



Specification Managers:
Ian Lomas T: 07799034852
E: ian.lomas@kingspan.com
Darrin Andrews T: 07880400227
E: darrin.andrews@kingspan.com

Title: Introduction to Raised Access Floors

A 40 minute face to face presentation. This CPD covers the following points:
Introduction to Kingspan Access Floors
History of raised access floors
What is a raised access floor system
Features/Benefits of raised access floors
Applications, Finishes, Installation, Specification guidance, System selection and criteria
Summary.



T: 020 685 9685 W: www.comar-alu.co.uk E: projects@parksidegroup.co.uk

In two RIBA assessed seminars, Comar, one of the UK's leading aluminium systems companies, outlines:

Title 1: Stand & Deliver: a Study of Curtain Walling

The design of curtain walling, it's properties and how it is used by specifiers. This seminar aims to offer an understanding of the points of H11 in the NBS specification system, and how best to make use of it.

Title 2: Designing Functions & Reliability into Entrances

The issues that influence the function of main entrance design and technology. This seminar aims to offer an understanding of how user expectation influences door design and links this with hardware selection, entrance configuration and floor finishes.



- C: Sean Parr
- T: 01543 443000
- E: cpd@geze.com
- $\mathbb{W}\text{:}\, www.geze.co.uk$

Title: 1 Removing Barriers to Access

Provides guidance for the use and specification of door control devices so that doors do not become obstacles. Now completely updated to include the latest standards and legislation.

- Title: 2 Safeguarding Pedestrians from Accidents at Power Operated Doorsets - EN 16005
- Title: 3 Designing Effective Heat and Smoke Ventilation
- Title: 4 Glass Door Assemblies Selection and Specification



C: Gareth Dixon, Russell Calder

T: 44(0)207 940 0000

E: gareth.dixon@havwoods.co.uk

E: russell.calder@havwoods.co.uk

Title: The use of wood flooring in sustainable architecture

Provides an understanding of the ecological benefits of specifying wood and the main legislation involved; different types of wood flooring construction, installation methods and the difference between oiled and lacquered finishes together with indicative cost comparisons.



C: cpd@zehnder.co.uk

T: 01276 605800

F: 01276 605801

E: sales@zehnder.co.uk

W: www.zehnder.co.uk/specification

Title: Radiant Heating and Cooling

The radiant heating and cooling CPD from Zehnder explains the technology further and examines the benefits the system can offer in comparison to traditional methods of heating and cooling.



Junckers Sports Floor fornew MyPlace Facility

Junckers premium Sports Flooring System has been installed at MyPlace Aston, a new youth facility. Designed by Associated Architects for Birmingham Youth Services, the £5M project received funding from the Government's £240M MyPlace programme.

The facilities include a multi-use sports hall featuring Junckers' SylvaSport floor over the New Era levelling system providing a complete solution and conforming to all required standards. The use of semi-transparent coloured polycarbonate cladding allows the sports hall to be naturally lit during the day while in the evening, LED lighting becomes a wonderful feature.

Junckers sports flooring systems simplify specifier choices by combining player safety with outstanding ball response, cost-effectiveness and ease of installation. The product of high level research and development, Junckers floors can be found in world class facilities all over the world.

w: www.junkers.co.uk

t: 1376 534 700



Fernco Environmental is evolving into Cource One Environmental

Effective from January 1st 2014, Fernco Environmental, suppliers of water management and infrastructure repair products, has been renamed Source One Environmental Ltd. The new name reflects that of their US-based sister company also owned by the Fernco Group, which trades within similar industries. The change creates a powerful global brand with presence in North & South America, Europe and Australasia. W: www.sle.co.uk



Eurobond launches BIM library

Eurobond Laminates has launched BIM files for its range of stone wool cored internal and external wall and ceiling composite panels. It includes material colours and COBie datasheet parameters and the designer is supported by a wide range of construction details. The files are available in a number of file formats to help ensure that the majority of BIM users can benefit from using them. The new BIM files — which include those for Europanel, Rockspan and Firemaster — are available via the company's new website at: w:w:www.eurobond.co.uk

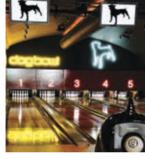


Traditional Flooring Uk and Granwax score a ten-strike with Dog Bowl Manchester

With its gleaming wooden floors and ten-pin bowling lanes, Dog Bowl is the newest addition to Manchester's city centre. Housed in a unique building with an arched roof, the striking structure was in need of modernising. Traditional Flooring UK Ltd was called in to renovate the floors.

Although a new installation, the floor had been fitted in a converted building with existing railway arches dating back to 1901. The project involved using a full damp proofing membrane throughout, and full levelling screed to deliver moisture-resistance, uniformity and consistency. The process involved sanding and repairing the floor, followed by sealing with environmentally friendly oils and resins. Granwax's Hardwax Oil was chosen for its superb wear capabilities, its ease of use and maintenance. This finish is a blend of natural oils and waxes that offers exceptional durability and resistance, and is ideal for floors with high levels of footfall.

w: www.granwax.com t: 01773 541177 e: info@granwax.com





Eurobond is first UK panel manufacturer to achieve responsible sourcing standard

Eurobond Laminates is proud to announce that it has gained the prestigious accreditation - BES 6001 Responsible Sourcing of Construction Products - for its entire range of stone wool cored internal and external wall and ceiling composite panels. It becomes the first UK composite panel manufacturer to achieve this significant standard.



Sig Roofing supplies natural slate for historic house restoration

The restoration of the roofscape of Raasay House – a Scottish Category Grade A listed building on the Isle of Raasay, has been completed using natural slate supplied by SIG Roofing Supplies, the leading supply chain partner of roofing materials in the UK. Specified by Wittets Architects in Skye, approximately 917 sq metres of SIG Roofing's SIGA 110 natural slate was laid in diminishing courses to restore the roof of this historic 17th Century landmark.

W: www.sigroofing.co.uk





A house built by pupils - and a little help from Makita

Over one hundred 14-year-old pupils and staff at the Burlington Danes Academy, London have volunteered to be involved in a project, master minded by Roderick James Architects LLP, to build a fully-functioning timber frame house on the academy's grounds.

Makita, Britain's number 1 professional power tool manufacturer, has provided drills and impact drivers for the pupils to use throughout the 12-18 month build, as well as practical training by Makita's full time trainers in the safe and correct use of these specific power tools. A selection of other high performance tools including jig saws, sanders, planers and mitre saws will also be provided.

w: www.makitauk.com

Product update 73



Helvar announces final phase of 70W led driver platforms

Helvar has added the third and final stage to its 70W LED driver platform which follows on from the international success of the 30W LED driver platform. The third phase is designed for high bay applications, making it ideal for warehouse, storage facility and large atrium applications. The dimmable DALI version features smooth and flicker-free dimming performance from 1%-100% . w: www.helvar.com



Spectral Lighting launches energy efficient STORA

Spectral Lighting has released STORA, its latest ultra-efficient LED luminaire. The fitting provides 102 lumens per watt and creates a striking light effect by using an innovative microprism diffuser.

Designed around the company's JEP fitting (voted a top 10 LED luminaire by Lux readers) STORA is a stripped back variation of JEP that provides an affordable introduction to the Spectral oeuvre.

W: www.spectral-lighting.co.uk



Gerflor

More than 8,000m² of Gerflor's Tarasafe™ range of specialist slip resistant vinyl safety flooring was specified for a £37.1 million flagship of a Scottish school building programme. All the Tarasafe flooring at Lasswade was impregnated with Sanosol® fungistatic and bacteriostatic treatment and incorporated Gerflor's unique SparClean® treatment, which eliminates dirt traps and cuts overall maintenance costs by reducing the need for cleaning materials. e: contractuk@gerflor.com



Nvelope clads Morrison store

NVELOPE, the rainscreen cladding specialist, has supplied a support system to a new Morrison's store in Abbeydale, Gloucester. The new 70,000 sq ft store features NVELOPE's NV3 mechanical concealed fix supportsystem to support the external cladding. Gloucester County Roofing Ltd supplied the supermarket with the NVELOPE support system which consists of brackets, L profiles and a horizontal rail and cleat.

w: www.nvelope.com



Xtratherm

Insulation manufacturer Xtratherm has published a briefing note on Building Regulations Part L 2013. Coming into force in April 2014, the changes are outlined in the comprehensive publication giving clear indications of what is expected of designers and builders.

The introduction of the new FEES standard will have a significant impact on how we insulate buildings. Better U-values are required in walls, floors and roofs; but significant emphasis is placed on how the insulation is jointed and detailed in the form of thermal bridging detailing. Your FEES score for your design has been visible on your SAP report for some time, but it will be a new concept for many. However a 'Recipe' for compliance is included within Part L, that if followed will meet the requirements.

Dowload The briefing note from w: www.xtratherm.com/resources/publications



Dulux Trade 'unlocks potential' to celebrate a decade of ColourFutures™

Fresh opportunities and potential in the modern world are set to inspire colour and design in 2014, according to the latest research from Dulux Trade. As part of its 10th ColourFutures™ guide which outlines colour trend predictions for the year ahead, the paint manufacturer has identified 'Unlocking Potential' as the key concept for the next twelve months.

 $w\hbox{:} www.duluxtrade.co.uk/colourfutures$



Nora

nora® is the only manufacturer of rubber floorcoverings approved by RIBA to hold CPD seminars. Our iPad based, interactive seminar looks at the technical and aesthetic aspects of specifying resilient floorcoverings, the properties of rubber and the quite unique design impact that can be made to an interior in the key markets of Education, Healthcare, Offices and Public Buildings when using a product of this nature.

t: 01788 513 160 w: www.nora.com/uk



Cost-effective Optima L canopy range is launched by Armstrong Ceilings

In line with the trend for exposed soffits, a designer canopy system that combines excellent acoustics and light reflectance with cost-effectiveness has been launched by Armstrong Ceilings. The Optima L Canopy range is exceptionally easy and quick to install and has also been enhanced with the addition of two circular options to complement one square and a small and a large rectangular option.

w: www.armstrong-ceilings.co.uk



Ideal Commercial Boilers

Leading British Manufacturer Ideal Commercial Boilers has been creating heating solutions for over 100 years, all of which have been uniquely designed for the UK marketplace. The Evomax is the company's flagship high efficiency condensing boiler model, offering one of the highest outputs of any commercial wall hung boiler on the market. t: 01482 492251

e: commercial@idealheating.com w: www.idealcommercialheating.com



Marley Eternit

Marley Eternit is demonstrating the inspirational roof designs that can be achieved with its range of clay plain tiles through the launch of a new brochure and interactive flipbook for architects and specifiers.

With the widest range of UK manufactured clay plain tiles on the market, Marley Eternit is launching the new brochure and flipbook to showcase the versatility of clay as a roofing material, as well providing the tools and support to make design and specification as straight forward as possible. This includes a design detailing section for key features such as turrets, eyebrow dormers, curved roofs and vertical tiling, as well as access to a range of technical support, including a library of CAD drawings and specification tools such as Tilefix and Specite. The new clay inspiration brochure and flipbook contain details of Marley Eternit's extensive range of colour, texture and camber options. They also demonstrate how the tiles can be used to create beautiful clay roofs across different building sectors, adding traditional charm to heritage and refurbishment projects or contemporary character to modern designs.

w: www.marleyeternit.co.uk/clay t: 01283 722588



Interface announces participation in Healthy Seas cross-sector initiative

Interface, a leading carpet tile manufacturer and environmental pioneer, has today announced its participation in the 'Healthy Seas, a Journey from Waste to Wear' programme - a new initiative designed to address the growing environmental problem of marine waste. Interface is the first flooring company to participate in this global programme. w: www.interfaceflor.co.uk



Universal range of doors make a dynamic switch

Shropshire based PVCu window and door fabricator, Universal Trade Frames, has recently begun working with hinge manufacturer, SFS intec, to enhance the technical performance and styling of its doors. The fabricator company, which uses the Spectus Elite 70, was approached by SFS intec and following a comprehensive hinge demonstration, became clear of its exceptional visual appeal, operational reliability and long-term security function.

w:www.utfl.co.uk



Mapei system specified for Royal Albert Hall refurbishment

A Mapei system has been successfully incorporated as part of a refurbishment program at the world famous Royal Albert Hall. Designed by Originate Architects, the refurbishment process included repair and preparation of the existing substrate and installation of 300m2 of Victorian Encaustic tiles. On behalf of main contractors 8build, Classic Formai refurbished flooring in main door 12 entrance, the box office and bar area. w: www.mapei.co.uk



New Bi-Fold Showering from AQATA

AQATA, the leading UK designer and manufacturer of premium quality shower enclosures introduces two new shower enclosures for 2014. The Spectra SP480 Bi Fold Recess option (shown) and the Spectra SP481 Bi Fold Corner option are characterised by beautifully designed bi-folding doors which offer great space saving solutions for small bathrooms. The new enclosures feature minimal styling and clean lines which add to the feeling of light and space.

w: www.aqata.co.uk t: 01455 896 500



IDS boosts the choice and availability of ex-stock FSC® certified laminates for customers

Underlining its commitment to environmentally friendly products, IDS has substantially increased its offering of FSC® certified laminates that are available exstock. IDS stocks in excess of 300,000 sheets of laminate for sale into the commercial, shopfitting and furniture manufacturing sectors and 100,000 of that total are available with FSC certification ex-stock.

w: www.idsurfaces.co.uk



AluK systems specified for School

AluK (GB) doors, windows and curtain walling systems have been supplied for the refurbishment of the Maes Yr Yrfa School in Cefneithin, Wales. Specified by Lawray Architects, in collaboration with Kier Group and Nolan Commercial. AluK's aluminium building systems were installed throughout the school building. The SL52 Curtain Walling System, the 58BW Window System as well as the GT55 NI Door System were used throughout the entire wing. w: www.aluk.co.uk



Be sure to specify an MCS 012 approved mounting kit

By the end of March 2014 any mounting kit used to install solar panels on a pitched roof must comply with the Microgeneration Certification Scheme's MCS012 as one of the main eligibilities to qualify for the Feed-in-tariffs. To ensure that it was ready for the introduction of this scheme, the BBA invested in a new test rig so that the weathertightness and resistance to wind uplift tests could be performed.

So avoid to a rush of applications as the deadline approaches, the BBA advises that manufacturers make contact as soon as possible.

In addition to MCS012, the BBA can provide product approval to the requirements of the other Microgeneration Certification Schemes (MCS):

Solar Heating Collectors (solar thermal systems), Solar PV (photovoltaics), Micro and Small Wind Turbines,

Heat Pumps, Biomass Micro CHP (combined heat and power)

w: www.bbacerts.co.uk t: 01923 665300 e: contact@bba.star.co.uk



Concorde expands award winning spotlight range

Architectural lighting specialist, Concord is continuing to expand its high-end spotlight offering with the introduction of two brand new variants to its multi-award winning Concord Beacon range. The Concord Beacon Minor and the Concord Beacon Wallwash continue to break the mould with advanced LED technology, coupled with enhanced optics to create stunning lighting schemes across numerous applications.

w: www.concord-lighting.com



Schueco Jansen exhibiting at Arhitect@work

Leading steel systems supplier Schueco Jansen is exhibiting at Architect@Work, a specialist 'contact days' architectural event that takes place in London at the Earls Court Exhibition Centre on January 29-30 2014. Visitors to the Schueco Jansen Stand will see systems that reflect the event's emphasis on innovation, in particular the company's Janisol Arte Renovation Window . w: www.schueco.com



Mapei partners with Domus at second London showroom

Mapei has once again partnered with Domus at its second London Specification showroom in W1. Situated in Eastcastle Street, 'West 1' is an inspirational and practical space that spans 6,000 sq ft, across two floors. It includes an extensive range of Mapei product systems, demonstrating the installation of Domus' tiles, mosaics and wood flooring.

w: www.mapei.co.uk



Interface launches dedicated hospitality offering in Europe.

Interface is preparing to launch a dedicated hospitality offering in Europe following its successful roll-out in the US. Interface Hospitality will launch a number of products aimed at the hospitality market later this month, including Planks - narrow rectangular tiles that can be used on their own or with Interface's flagship square carpet tiles. The company also has plans to launch a customisation programme. w: www.interfaceflor.co.uk



Cembrit Westerland Puts the Fizz into Old Cider Works!

Cembrit's Westerland fibre cement slates have been supplied to a new housing development on the site of the old Cider Works near Taunton in Somerset.

Combining a top quality appearance with BRE A/A+ rated performance they create the perfect finish for the modern design of the homes, whilst still giving the natural slate appearance at a significantly lower price.

t: 020 8301 8900 e: sales@cembrit.co.uk



New ceilings guide from Armstrong helps specifiers see the wood for the trees.

A complete guide to its portfolio of wood systems has been launched by Armstrong Ceilings. The new brochure has been introduced to help architects and interior designers select from an extensive range of statement tiles and systems designed to combine a natural and luxurious look and feel with high-performance building linings. w: www.armstrong-ceilings.co.uk



Bushboard ups the design ante with its Nuance range of bathroom surfaces

Bushboard's Nuance range of bathroom surfacing offers waterproof wall panels, worktops and upstands in laminate and solid surfacing. The range is an ideal alternative to tiles as there are no grout lines to clean and the products combine high performance with easy installation.

e: help@bushboard.co.uk w: www.bushboard.co.uk



Franke adds a larger single bowl sink to its best-selling Basis Fragranite range

Franke has added a new model, the BFG 611-970, to its popular Basis Fragranite kitchen sink range to meet a growing market demand for a large and capacious single bowl. The reversible Basis BFG 611-970 single bowl model boasts a spacious bowl dimension of 450mm x 420mm with a generous denth of 200m.

t: 0161 436 6280 w: www.franke.co.uk



Tarkett announces the deployment of phthalate-free technology across its residential and professional flooring product ranges

 $Tarkett - worldwide \ leader in innovative flooring and sports surface solutions - announces its decision to use phthalate-free plasticizers in its vinyl flooring production in Europe in 2014. As part of Tarkett's commitment to greater sustainability and eco-innovation, these new phthalate-free products* have been designed to improve indoor environment and air quality. The phthalate-free plasticizers selected by Tarkett are approved for food contact containers and can be used for toys intended to be placed in the mouth by children.$

"Our eco-innovation program and commitment to sustainability are built around providing our customers with the very best products. Our aim is to offer more comfortable, healthy and people-friendly indoor spaces, without compromising performance and design experience," explains Anne-Christine Ayed, Executive Vice President Research, Innovation & Environment for Tarkett Group. "The launch of this new generation of resilient flooring products sets another milestone on Tarkett journey towards environmental sustainability and will encourage the industry to follow in the coming years." w: www.tarkett.com



Editor **Hugh Pearman**

Executive editor

Eleanor Young

Senior editor

Jan-Carlos Kucharek

Sub-editor
Alysoun Coles

Digital editor Sara Loane

Art editor
Patrick Myles

Advertisement manager Richard Tomlin +44 20 7496 8329

Business development manager **Midge Myatt** +44 1902 851 645

Advertisement executive **Clive Waite**

Production manager **Pete Songi**

Adminstration assistant Chloé Ricketts

Director of media

Jonathan Stock

Telephone +44 20 7496 8300 Fax +44 207 374 8500 firstname.surname@ ribajournal.com

Stonehenge Wiltshire, 3100 BC

Stonehenge (see page 20) is undoubtedly one of the most evocative and mysterious sites in the British Isles. Until relatively recently, as seen here in Ralph Deakin's 1920s photo, one could wander freely among the stones. Various interpretations of its meaning and function – which remain uncertain to this day – have been suggested throughout the centuries. One of the most fascinating was advanced by Inigo Jones, who in 1620 was commissioned by James I to produce a study of the monument. Jones's conclusions were printed in 1655 in the first book entirely dedicated to the subject, The most notable antiquity of Great Britain, vulgarly called Stone-Heng on Salisbury Plain, re-

stored by Inigo Jones Esquire. He claimed Stonehenge was a Roman temple dedicated to the sky-god Coelus, and based this theory on his own conjectural reconstruction of the monument. The plan he drew demonstrated that a regular geometry underlined the configuration of the stones and that the inner circle formed a hexagon. To validate his theory, Jones sought out other Roman buildings that had, in his opinion, been designed to similar plans and proportions. However, an interpretation of Stonehenge as a Druid temple – advanced shortly thereafter – prevailed, and was only dispelled in Victorian times. •

Valeria Carullo

RIBA Journal www.ribajournal.com Published for the Royal Institute of British Architects by RIBA Enterprises 15 Bonhill St London EC2P 2EA

Printed by Acorn Web Offset Ltd in association with Logical Connections





creating light in any space

high specification flat roof skylights

Sunsquare Limited offer a range of skylights including solutions for fixed units, hinged opening with both electrical and manual opening mechanisms, roof top access, and walk-on skylights. Sunsquare Limited, sales@sunsquare.co.uk, New brochure now available.

Award winning design by Dan Brill Architects www.danbrillarchitects.com



For more information telephone 0845 226 3172 visit www.sunsquare.co.uk

Sunsquare Limited