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THE SUPERSTARS HAVE BARELY ENGAGED WITH HOUSING IN THEIR CAREERS

By Kieran Long

When I opened a weekend newspaper and saw Rogers Stirk Harbour + Partners' recently completed housing at Oxley Park, Milton Keynes, I almost choked on my cornflakes. It looks cheap, characterless, and as if it has been designed with the proportion of its cladding panels in mind, rather than an aspiration to make a piece of city. Even so, following Gordon Brown's proposal on 11 July to build three million new homes by 2020, it is one of a few projects the national press has held up as the future of housing.

I am reminded of Foster's Beanhill housing in Milton Keynes of 1973-7 (don't look for it on his website – significantly, it's not there), which was so badly built the council retrofitted pitched roofs. I'm sure Rogers' housing will last far longer, but the echoes exist. Foster, Rogers, Grimshaw and Hopkins have barely engaged with housing in their careers – they are a lost generation of architects that has allowed builders to control the debate around housing quality.

So what of today's UK-based superstars? As part of its current Global Cities exhibition (see *Review on page 46*), Tate Modern chose Zaha Hadid and Nigel Coates to propose ideas for the Thames Gateway. Hardly key figures in the UK housing debate. In Coates' and Hadid's world, prototypes are 'rapid', plans 'visionary', and the context beyond 'political and economic determinism'. It is a liberal arts approach to city making and is reductive and pointless. Rem Koolhaas' installation was less glib, but the fact his team was led by his head of press tells you how seriously he took it.

The UK has architects who are conducting research and engaging day-to-day with the difficulties of making housing. Their opinions are on pages 12-15. These are the people with the ability to create three million environmentally responsible houses to Lifetime Homes standards, and it would dignify the building type if the media and cultural institutions would take note.

CONTRIBUTORS



Rob Cowan, who reviews 'Robert Moses and the Modern City' on page 47, is the director of the Urban Design Group and author of the 'Dictionary of Urbanism'



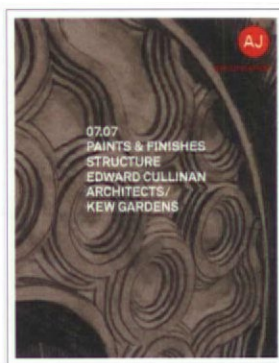
Anthony Coleman, who photographs the Building Study on pages 23-33, has exhibited work at Artsway Gallery in Hampshire and the Lighthouse in Glasgow



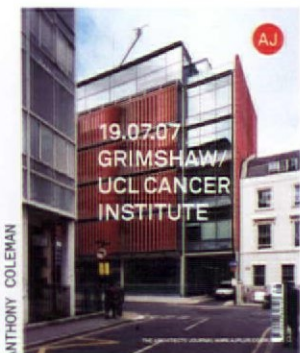
Kenneth Powell, who writes the Building Study on Grimshaw's UCL Cancer Institute, is an architectural writer and critic based in London



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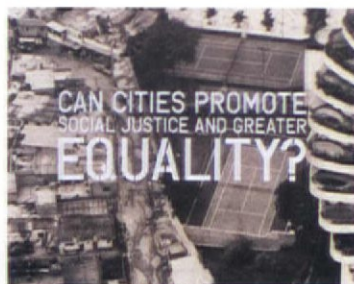
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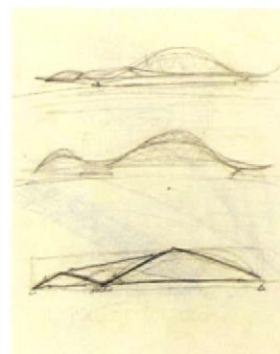
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- *University of Strathclyde*
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- *Hill Spink* – senior architects
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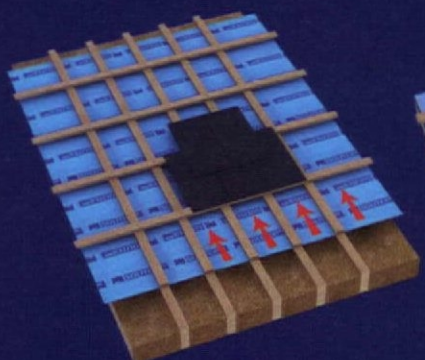
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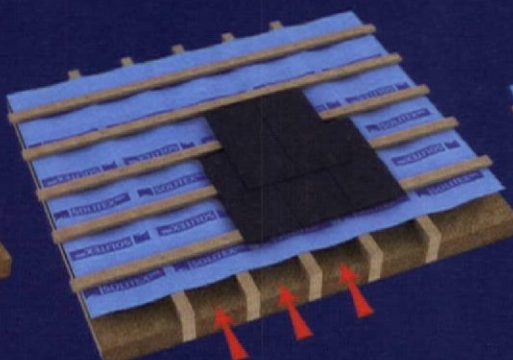
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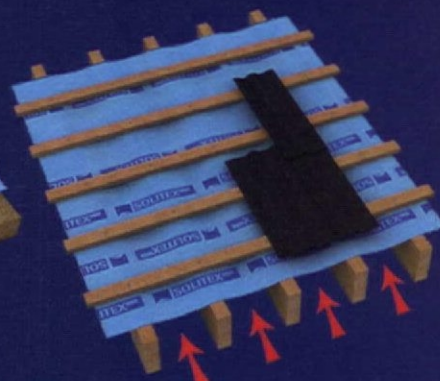
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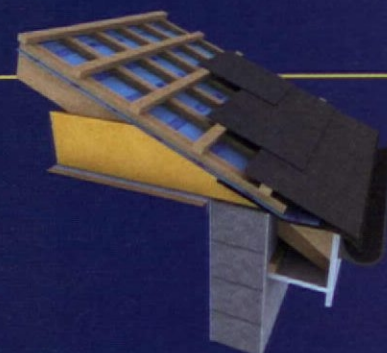
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FRIDAY 13 JULY

- **Hamiltons to masterplan Manchester Victoria Station**
- Fundraising secures refurbishment of Glasgow School of Art
- Zaha makes shortlist for art museum in Michigan, US
- Corb's Chandigarh 'being gutted by trade in artefacts'



THURSDAY 12 JULY

- **Gehry's King Alfred scheme in Brighton wins green light (right)**
- Leach Rhodes Walker aims high with Liverpool's tallest tower
- Austin-Smith:Lord wins planning for £16 million scheme to replace Guildford's Civic Hall
- Hopkins wins battle for Olympic Velo Park



MONDAY 16 JULY

- McAslan teams up with young talent for 2010 Shanghai World Expo joint entry
- Study into failing schools points finger at design
- **Feilden Clegg Bradley releases latest images of Bath Western Riverside scheme (left)**
- Glazing panel falls from Birmingham's Beetham Tower

TUESDAY 17 JULY

- Eric Kuhne reveals designs for Titanic visitor centre in Belfast
- Foster plans tower cluster for London's South Bank
- Atkins denies it will be hit by Metronet's financial problems
- **Austin-Smith:Lord reveals designs for Carlisle archive buildings (below)**



WEDNESDAY 18 JULY

- Foster to masterplan New York's Penn Station district
- Carey Jones' Gordon Carey becomes president of British Council for Offices
- **M3 wins major job in Waterford, Ireland's crystal capital (above)**
- Benson + Forsyth awaits go-ahead to redevelop Swansea's Glynn Vivian Art Gallery

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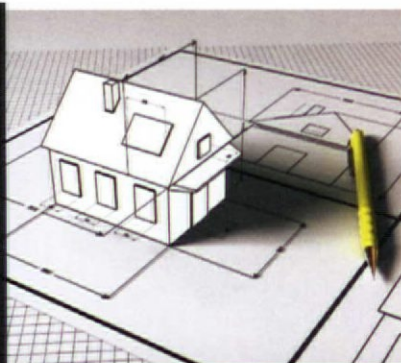


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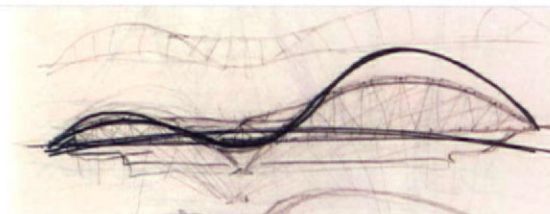
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1.



2.

1. Expedition Engineering and Spence Associates' winning North Shore footbridge entry

2. The Chris Wise concept sketch which he claims proves Expedition Engineering designed the River Tees bridge, not Spence Associates

BITTER ROW SPLITS BRIDGE TEAM

By Max Thompson

A war of words has broken out between Spence Associates and Expedition Engineering over who designed the proposed £15 million North Shore footbridge in Co Durham.

Relations between Expedition Engineering director Chris Wise and Spence Associates' Stephen Spence have hit rock bottom after the architect/engineer team won an RIBA competition to design the River Tees bridge.

Both parties are claiming that they did the majority of the concept design work on the scheme, which is starting on site today (19 July).

In 2003, Wise – the engineer behind London's Millennium Bridge – was invited by Spence to join him and enter the RIBA competition to design the footbridge – which will link

Tees Valley Regeneration's (TVR's) North Shore development with Teesdale – for client Stockton Borough Council.

But the relationship was shattered when, soon after winning the contract, Expedition, TVR and English Partnerships – which owns the North Shore site – decided Spence would not be novated to the Design and Build stage of the contract.

'We were moved out of the equation,' said Spence, who contacted RIBA's competitions office to lodge his concerns.

However, Wise was also taking action – and in an email to the RIBA he questioned the extent of Spence's role in the winning asymmetrical scheme.

In the email, Wise said: 'For all his skills as an architect, this natural, physical design

rationale is not something that Spence contributed to, or was able to contribute to at the level required.'

Spence, who is credited as concept architect for the scheme, said he had developed the models, montages and 'the bulk of the presentation that won the competition' – a claim dismissed by Wise.

'[Spence] is talking nonsense,' Wise said. 'Yes, he made models and montages, but the presentation was 100 slides in three sections. Spence did the masterplan, but the piece on the bridge, which was 60 slides, was by me.'

Wise added that the early concept sketches drawn up by Spence 'would not stand up on Planet Earth'.

Wise also showed the AJ his sketchbook, containing hundreds of concept drawings

of the bridge, which he said proved that he was the driving force behind the project.

But Spence countered this claim. 'All engineers have a bucket full of sketchbooks,' he said. 'We were the concept architect. We did not do the detailed design, but if Wise had been doing it, it would not have been the bridge it is today.'

Spence added that the row with Wise was irreconcilable. 'I wouldn't work with him again,' he said.

The elegant double-humped bridge, which is formed of two arches measuring 120m and 60m, is due to open at the end of 2008.



1.

SETH STEIN'S BEACH TOUR REACHES SOUTH AFRICA

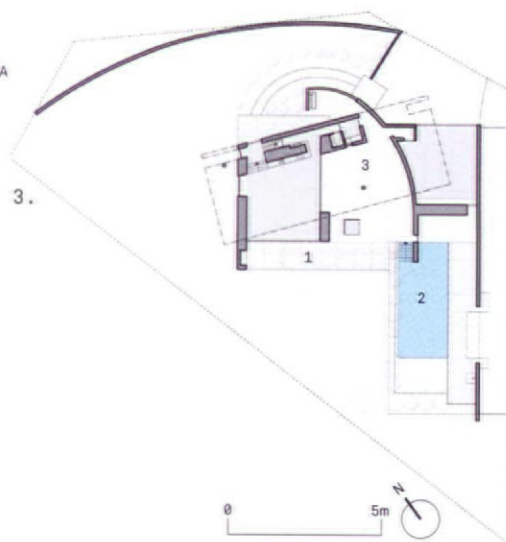
Dramatically perched on sand dunes in South Africa's Western Cape province, this beach house for a private client is one in a string of coastal buildings recently completed by London-based Seth Stein Architects. The beach houses are spread across three continents, with others in a Finnish archipelago, the Turks and Caicos Islands in the Caribbean, and Pencalenick in Cornwall. The South African house uses concrete as its main structural element – enabling a 40 per cent cantilever over the dunes – with copper wire-bound eucalyptus sticks making up the exterior sunscreens. This combination is, according to Stein, 'very elemental and very raw; the materials really fit its setting.' The bound sticks form moveable screens that filter light into the interior. Stein said: 'The eucalyptus sticks are widespread across South Africa. In this application the copper binding gives it a fine quality not normally associated with this type of material.'

By James Pallister

JONATHAN DE VILLIERS



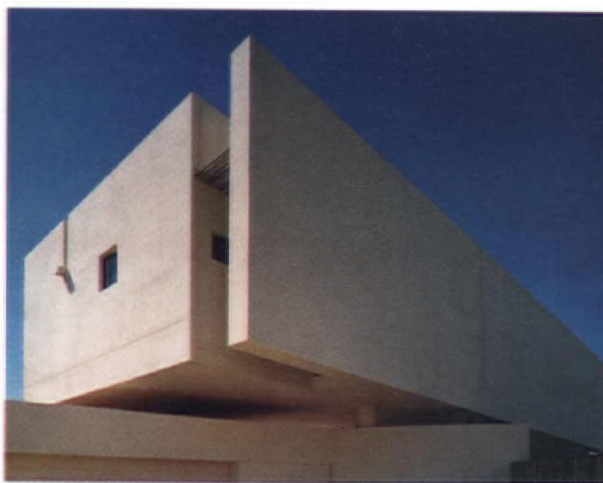
KEY
1 TERRACE
2 POOL
3 COVERED TERRACE AREA



1. Seth Stein's South African beach house sits within a large plot of sand dunes

2. The cantilevered first floor is set at an angle to the ground floor

3. Ground-floor plan showing terrace and pool



JONATHAN DE VILLIERS



Gordon Brown's aim to build three million homes in the UK by 2020 has led to fears of a flood of 'Noddy' housing sweeping the country

HOW TO SOLVE THE HOUSING RIDDLE

By Richard Vaughan

'The majority of what volume housebuilders produce is crap, and they are devastating our country,' says Keith Bradley, partner of Feilden Clegg Bradley Architects.

But with Gordon Brown's policy announcement last Wednesday demanding three million homes by 2020, there has never been a greater onus on volume housebuilders to deliver.

Now fears are being raised about the country becoming awash with box-like 'Noddy' houses. There are even mutterings of the mistakes made in the 1960s being repeated.

National House Building Council figures show that 45 per cent of all houses built in the UK are by 13 companies, and 60 per cent of those come from three firms – Barratt

Homes, Persimmon and the newly formed Taylor Wimpey.

That means one in three new homes built in the UK is built by just three firms who, to paraphrase Bradley, are not very good.

Communities minister Iain Wright claims that building more homes 'can, and must, go hand-in-hand with building better homes'.

He says: 'Well-designed homes are key to our vision for better homes. Homes that meet the needs of all members of the community; that can help address the challenges of climate change in developments that can be maintained so that spaces stay clean, safe and green.'

'The recent changes to policy guidance give a clear framework for the achievement of high-quality housing,' he

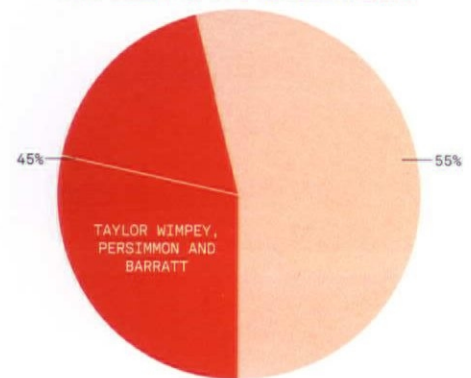
adds. 'And they set out clearly that local authorities should not accept design that fails to meet requirements.'

The new Planning Policy Supplements (PPS) have generally been seen to give greater support to better design in the housing debate. PPS 1 focuses on creating sustainable developments, while PPS 3 drives higher-quality housing through better design.

The problem, according to Matt Bell, CABE's director of campaigns and housing expert, is one of 'them against us', and claims changes need to be made by both architects and housebuilders.

'There has been a certain degree of snobbery from architects. Housebuilders will want an architect to work on a core design with fixed floor-plates, creating homes where

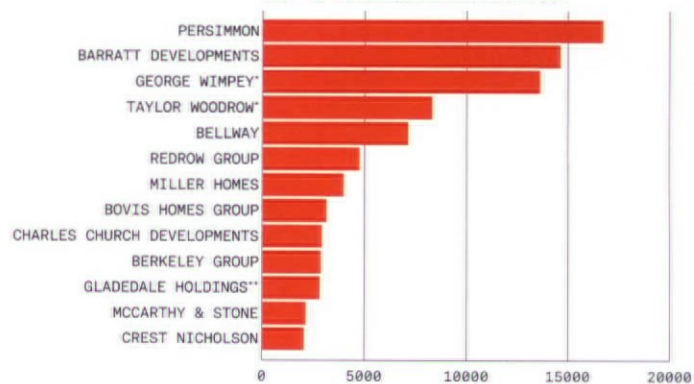
WHO BUILT THE UK'S HOUSES IN 2006?



TOP 13 HOUSEBUILDERS ALL OTHER UK HOUSEBUILDERS

SOURCE: NATIONAL HOUSE BUILDING COUNCIL

TOP 13 HOUSEBUILDERS IN 2006



*George Wimpey & Taylor Woodrow merged 3 July 2007

**2005 figure as is non plc

SOURCE: PROPERTY DATA

ordinary people live their lives,' he says.

'Housebuilders must get architects working with them from the beginning. If the floor-plates are agreed upon, and the design is right from the start, so much flows from there.

'Architects need to realise it's about the urban design, more than the design of the individual products,' adds Bell. 'They will be working with limited floor-plates, but if you mix good core products with good urban design the relationship can work.'

A mutual distrust between housebuilders and architects has developed claims Bell, and more pressure must come from the RIBA to push architects to put their services forward to the major volume housebuilders.

Bell has also called for the government to alter the

planning system, forcing planners to champion good design and punish badly designed schemes, hitting housebuilders' costs hardest.

According to Paul Davis of Paul Davis & Partners, housebuilders often see architects as being too interested in designing iconic buildings, which tends to frighten away potential clients.

'Maybe what should be set up is a competition to look at and refine housebuilders' existing plans,' says Davis. 'Perhaps a separate contest for inside, and one for the outside.'

But an underlying problem appears to be that many volume housebuilders refuse to see a problem with their design.

Indeed, Mike Farley the chief executive of the UK's largest volume housebuilder,

Continued overleaf

UK HOUSEBUILDING: THE FIGURES

The total number of homes in the UK in March 2005:
26,200,000

Number of new houses Gordon Brown wants by 2020:
3,000,000

Number of houses which need to be built a year between now and 2020 to meet Gordon Brown's predicted figures:
230,769

Number of houses starting on site in 2004/2005:
225,789

Number of houses built (both private and public sector) in:

1950: 204,200	1960: 309,200	1970: 319,000
1980: 155,100	1990: 164,200	2000: 144,667
2006: 225,789		

Source: Property Data



GRANT SMITH

Rogers Stirk Harbour + Partners' Home of the Future scheme at Oxley Woods, Milton Keynes



Alan Shingler
Sheppard Robson

Alan Shingler is practice head of sustainability and lead architect on the £60k house projects for Crest Nicholson as part of the government's Design for Manufacture contest.

'Crest Nicholson has bought into quality design at the highest level. However, the regions operate quite differently and if you are developing new products you need this support from the top.

'The Design for Manufacture competition brought together partners that probably never would have worked with each other. That was down to English Partnerships (EP) and, as a major landowner, it is in a unique position to push high-quality design.

'The contest was judged with the emphasis on design quality. Unfortunately, some sites are still judged simply on land receipts, so there needs to be more consistency

'EP's Carbon Challenge is the next phase in pushing high-quality design. It is a longer programme with more units and more partnerships needed.

'But in the next few years all the volume housebuilders are going to have to review their portfolios, to meet the Code for Sustainable Homes by 2013 and that is an opportunity for architects to get involved.'



Keith Bradley
Feilden Clegg Bradley

Keith Bradley is a partner with Feilden Clegg Bradley. The firm is currently working on housing at Gallions Reach in East London.

I am extremely worried. On the recent evidence the volume housebuilders will have licence to do what they have been doing over the last few years. People can be sold anything now, and they, and the planners know that. They [the volume housebuilders] are devastating our country.

If we are producing bad architecture and crap homes – and it is both – the legacy will be there forever and will just be passed down the line. CABE recently reported that 85 per cent of all new houses are poor and only 5 per cent are very good – that is depressing.

Part of the reason design is suffering is because land values are hugely inflated. Because of that we are getting cheap architecture, as housebuilders will not pay decent fees. We are not getting the calibre of architecture that new houses need, and that is scary.'

'If we are producing bad architecture and crap homes – and it is both – the legacy will be there forever'

Persimmon, merely said the firm 'places architectural form at the heart of our agenda' by using external architects local to their 25 operating businesses.

According to CABE, however, Persimmon has yet to agree to set up a design panel within the company to ensure higher-quality houses.

But, says Urban Splash director Nick Johnson, it is often the fault of neither the housebuilders nor the architects, but rather the valuation industry.

Johnson believes the value engineering involved in housebuilding is so constrictive that it strips people of the opportunity to pay more for something better.

'If the punter wants to pay extra, let them pay,' he says.

Likewise, developer Elliot Lipton, chief executive of First

Base, believes that its customers appreciate high-quality design and finishing and are willing to 'pay a bit more for it'.

Lipton also believes that the government has clearly shown the way it intends to go, especially with the work that CABE, English Partnerships and the Housing Corporation has been doing in the housing sector.

'But,' he says, 'Gordon Brown should realise that for the local authorities to hit the targets set by him. There needs to be an effective partnership between the public and the private sectors. We all have to step up to meet the housing needs,' he says.



Alex Ely
Mæ

Alex Ely is a director of Mæ, which specialises in urbanism and housing and has recently won a competition – along with Proctor and Matthews Architects – to design a £16 million housing scheme in Houghton Regis, South Bedfordshire.

'My plea is firstly that Gordon Brown and Hazel Blears will be brave enough to liberate some of the 90 per cent of England's land that is currently undeveloped so we can invest more in the quality and size of our homes [space standards currently being at an all time low] rather than paying a premium for a drip-fed, constrained land supply.

'Taking over the land of the cows will also have its environmental benefits – cows cause more greenhouse gas emissions than cars.

'Secondly, we need to denationalise development rights to enable us to build our own homes and encourage local authorities to embrace Local Development Orders so we don't have to rely on the poor-quality product built by an increasingly monopolised industry.

'Local authorities may now be empowered to build more social rented accommodation but isn't it more opportunity for affordable market sale housing we need?'



Robert Adam
Robert Adam Architects

Robert Adam is principal of his practice, which has worked on major housing developments including the traditional style Coed Darcy urban village in South Wales, and which was recently praised by CABE's Housing Audit for its Shepton Mallet housing development.

'Design only really goes up the housebuilders' agenda if it goes up the public agenda – and design can only go up that if there is a demand for it, namely when there is a surplus of housing.

'If the objective is only to get the product, design becomes secondary or even tertiary.

'However, architects are also to blame for the [poor] housing standards because they have disengaged themselves.

'They are not interested in what the public wants. People do just like simple, traditional design. Architects today are just producing silly things to prove they are architects.

'Housebuilders will make a few of these glass and steel homes to win awards then get back to their normal stuff.'

'Architects are also to blame for poor housing standards as they have disengaged themselves'



Ivan Harbour
Rogers Stirk Harbour

Ivan Harbour is project architect behind the practice's version of the £60k house – the Home of the Future – developed for Taylor Wimpey for a site at Oxley Woods, outside Milton Keynes.

'There's no straightforward answer to the question "how do more architects become involved with housebuilders".'

'Everyone involved in the process needs to make more of an effort. The public should demand better design; the government should incentivise better design; mortgage lenders should be prepared to support better design; and, as more housebuilders partner with architects, they will be well placed to deliver better-designed housing schemes.

'I believe design is moving up the housebuilders' agenda, particularly in response to concerns about social and environmental sustainability.'

'Taylor Wimpey has a genuine interest in pursuing the Design for Manufacture agenda. Our scheme at Oxley Woods demonstrates how it is possible for a team – including architect, engineer and contractor, working closely with the housebuilder – to respond successfully to a brief outlined by Design for Manufacture and achieve a design which is flexible enough to be further adapted in the future.'



Glenn Howells
Glenn Howells Architects

Glenn Howells has worked with Crest Nicholson and Berkeley Homes and has helped with CABE's capacity-building workshops as part of its Building for Life programme

'Problems stem from land directors having to make snap decisions, effectively crystallising the cost of the project and of the design at that point.

'Design needs to be fed in at the top because the development directors lower down are under the cosh to buy sites and get numbers through.

'There must be more emphasis and support for design at the beginning as it can't be added on at the end.

'It's up to architects to challenge the developer, and standard semi-detached housing types, because the agents aren't going to.

'We need to simplify the way social housing is funded, procured and delivered – perhaps a one-stop shop for housebuilders rather than the maze of RSLs and housing organisations.'

'It's up to architects to challenge the developer and standard semi-detached housing'

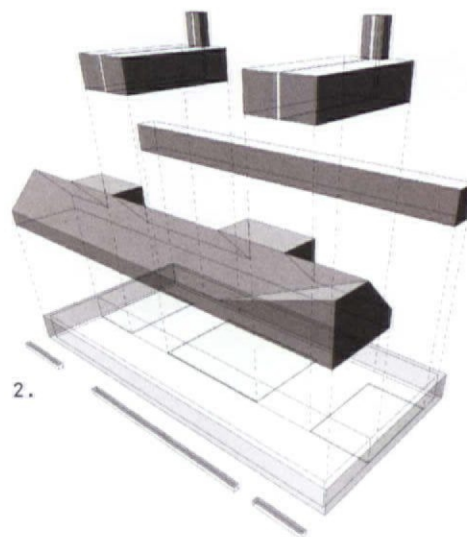


1.

NORD TAKES UP RESIDENCE IN THE HIGHLANDS

Glasgow-based Nord Architecture has unveiled these images of its competition-winning residential scheme for the Balvonie Braes exhibition site near Inverness – one of 27 designs chosen by contest organiser Highland Housing Fair (HHF). Based on Finnish housing expos, the site will showcase a raft of the nation's leading architectural talent, including Richard Murphy, Malcolm Fraser, JM Architects and Graeme Massie. HHF had originally earmarked Nord's plot for affordable housing, but expo chiefs redesignated the scheme as a private development on the key gateway site. This decision was taken, the organiser claimed, to stop the quality from being watered down. HHF spokeswoman Fiona Porteous said: 'It was our knee-jerk reaction on seeing the design. The whole building is in Caithness stone, including the roof, and we were concerned about possible value-engineering.' Nord's scheme comprises four three-bedroom homes, with all 'mechanisms' such as kitchens and wood-fired burners organised along a spine at the rear of the property. The expo is due to open to the public in August 2009.

By Richard Waite



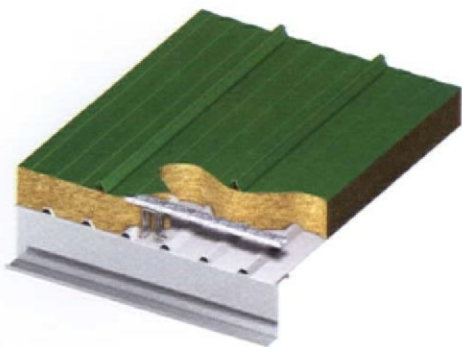
2.

1 & 2. Nord's residential scheme for the Balvonie Braes exhibition site will be clad entirely in Caithness stone over a timber frame

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'We want to use glass and steel and find a new English architecture'

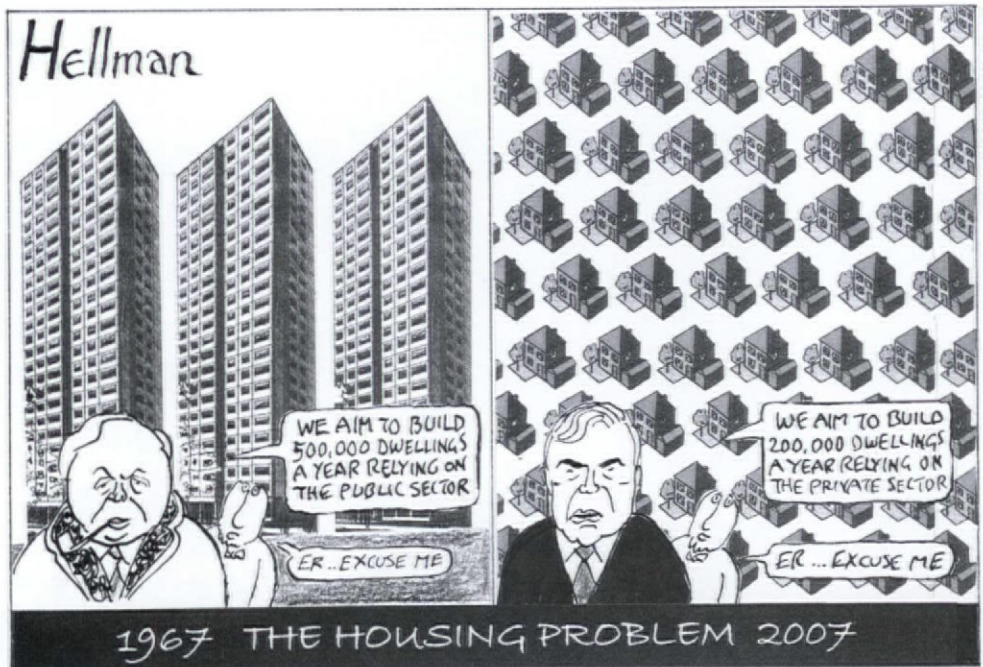
David Lock, overseer of the government's plans for five new 'eco-towns'.
Sunday Times, 15.07.07

'Glass and steel is a default position for the architectural profession, but it is fundamentally unsustainable'

Robert Adam. *www.telegraph.co.uk*, 13.07.07

'Out there on the estates, "eco" is the new "executive" as passive photovoltaic cells replace lanterns and coach wheels in the iconography of domestic wellbeing'

Stephen Bayley. *Observer*, 15.07.07



CHEQUE MATE

Bennetts Associates celebrated its 20th anniversary with a party on the 17th floor of its New Street Square scheme, for Land Securities. The huge development, comprising four buildings, is on the edge of the City of London, with great views. **Rab Bennetts** was reminiscing about the early days in practice, which coincided with a slump in the industry. He recalled refusing to open threatening letters from the bank in the hope that some work would come along – which it did, in the nick of time. 'That's the way to deal with those envelopes,' he advised.

MONTE CARLO TO BUST

Martha Schwarz and **Norman Foster** have entered a competition organised by the principality of Monaco to deal

with its space crisis. With every available square metre already occupied the solution is, Dubai-style, to build a new island. 'All the architects want to put signature buildings there,' Schwarz told the AJ conference on designing the public realm.

MOTOR MOUTH

Astragal hopped in a cab the other day and extracted some titbits of architectural gossip from the driver. 'That **Richard Rogers** dresses like a bloody gardener. What's with those bloody stripy cords? In fact, when I went to pick him up, I thought he *was* the bloody gardener!' Our font of Knowledge (geddit?) also reckons that when **Spencer de Grey** (who he had in the back of his cab) completed work at the British Museum, he had a stone laid inscribed along

the lines of 'Spencer de Grey, Foster + Partners'. When Lord Norm got wind of this, the stone was pulled up and Spencer's name scrubbed off. Oo-er boys!

BACK IN THE DAY

At the Bartlett Summer Show, Astragal sidled up to a tutor in his late middle age holding court to a gentleman of similar vintage. The tutor, who shall remain nameless, was enthusing to his companion about the merits of his students and their work. But, it seems, things just aren't as hip as they once were. 'In our day,' lamented the academic, 'we had people like **Eric Parry**. Do you remember when he got that magical bus and did that tour round the country? This lot are very good, but they would never dream of doing anything like that.'

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RIBA COMPETITION IS JUST OVER-HYPED EXPLOITATION

I read with great interest the announcement on the RIBA and AJ websites of an apparently worthy competition: 'Housing ideas and realisation, Bradford' (ajplus 05.06.07). Cryptic words within the body of the text – 'innovative', 'exploration', 'contemporary' – enticed us to read further. We then noticed the phrase 'testing out ideas for housing typologies common to the north of England', and our architectural juices began flowing. The practice chequebook was brought out without hesitation.

What arrived in the post the next day was perhaps the worst proposition we have received to date. Without going into specifics, it is safe to say it was Mongolian mutton dressed as British lamb. The con(test) ought to have been advertised thus: 'Architects required for exploitation, to sort out a mess the council has made of a couple of really mediocre properties in Bradford and deliver it (including their fees) within a totally unrealistic budget.'

I'm sure the RIBA isn't knowingly sponsoring the exploitation of architects. What do your readers think?

Amir Sanei, Sanei Hopkins Architects

CHIPPERFIELD MAKES ENEMIES IN WEST LONDON...

In your editorial (AJ 12.07.07) you lament the sad fact that 'architecture, it seems, is a profession of little mutual respect and courtesy.' Well, out here in the real world it is not very surprising to learn that architects are no nicer to other architects than they are to the rest of us.

Take, for example, David Chipperfield. He is currently trying to impose (on behalf of his enlightened clients, Candy & Candy) a block of flats fronting Kensington Palace, which has infuriated over 350 local residents sufficiently for them to plead with the council to turn down his large cube and save the much-loved Victorian frontages he can't wait to demolish. His lack of courtesy will win him no sympathy in De Vere Gardens.

Mr Chipperfield whinges about the lack of 'professional and intellectual solidarity'. Yet I don't remember him – or the AJ – complaining when Lord Rogers tried to sabotage Quinlan Terry on the Royal Hospital commission two years ago.

Mira Bar-Hillel, Evening Standard

... AND HIS BARCELONA SCHEME WINS FEW ADMIRERS

I'm not sure that you should be expressing value-judgements about different architects in your editorial (AJ 12.07.07). I'm even less convinced when I see Chipperfield's lumpy 'City of Justice' for Barcelona. The practice's own description, 'rigid and monolithic', seems most appropriate.

Brian Loudon, Bickerdike Allen Partners

SECTION 106 WILL NOT PREVENT BAD DESIGN

I am dismayed at the practice of dumbing down high-quality architecture wherever it occurs. But I am surprised anyone ever thought naming an architect in a Section 106 was an effective

SHOWCASE YOUR WORK IN SKETCHBOOK

The AJ is seeking submissions for its Sketchbook page. Submissions may be in any media and should capture a moment in the design process. If you would like your work to feature please email eriko.shimazaki@emap.com or write to the usual AJ address.

means of prevention (AJ 12.07.07). Planning law will protect the public interest in maintaining high standards of design; not the private interest of the architect responsible for that design.

Using a Section 106 agreement to ensure the continued employment of a particular architect or architectural practice is probably unenforceable. Clever drafting might get you round that, but like any other contract, a Section 106 can always be varied by the parties to it, but never the architect. Planning conditions may offer greater security, but they too rely on planning officers being bold enough to enforce them.

With some notable exceptions, local planning authorities have a poor record of rejecting designs that are not good enough, despite the requirement in PPS1 for them to do so. This is particularly the case with reserved matters and the discharge of planning conditions, where many authorities seem to think their hands are tied. The result is bad design slipping through unchallenged and good design being dumbed down.

The solution is for planning authorities to be better educated on design issues, to give them the confidence to stand up for good architecture at every stage in the planning process.
Matthew White, partner, planning group, Herbert Smith LLP

HODGE MUST THINK BEYOND THE PLATITUDES

I was disturbed to read in your interview with the new architecture minister Margaret Hodge (AJ 12.07.07) such a glib reference on her part to the Marquess Estate in Islington being 'an absolute disaster'. Just to refresh Hodge's memory, the Marquess Estate's architect was Darbourne & Darke, responsible around the same time for the Lillington Gardens Estate in Pimlico. That scheme was seen then as a way forward, creating high-density housing while staying relatively low-rise. I walked through it just the other day and it still looked good. It's on a human scale and clearly cared for.

I recognise that the Marquess Estate's history has been more chequered, but 'an absolute disaster' it was not. For an architecture minister to have credibility, they must think beyond the mantras that they're groomed to recite and take a broader view. I hope Hodge has the nous to do that.

Don Livingston, Kettering

Please address letters to: The Editor, The Architects' Journal, 151 Rosebery Avenue, London EC1R 4GB, fax 020 7505 6701, or email kaye.alexander@emap.com to arrive by 10am on the Monday before publication. The Architects' Journal reserves the right to edit letters.

The background of the advertisement is a close-up photograph of a carpet tile with an abstract, geometric pattern in shades of blue and purple. In the upper right corner, a portion of a modern office chair with a wooden seat and a metal frame is visible.

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GRIMSHAW/ UCL CANCER INSTITUTE



1. Rooftop view from the institute towards UCH's Euston Road Tower

THE BUILDING OPENS UP AN OFTEN OPAQUE AND PRIVATE AREA OF STUDY

By Kenneth Powell. Photography by Anthony Coleman

The estate of University College London (UCL) – the founding college of the University of London – is extensive and remarkably diverse, sprawling over much of central Bloomsbury. There is everything from converted Georgian houses to Short and Associates' recent, extraordinary School of Slavonic Studies. It is, however, the enclosed quadrangle fronting on to Gower Street, with William Wilkins' imposing decastyle portico of the 1820s, that provides the college with an impressive public image.

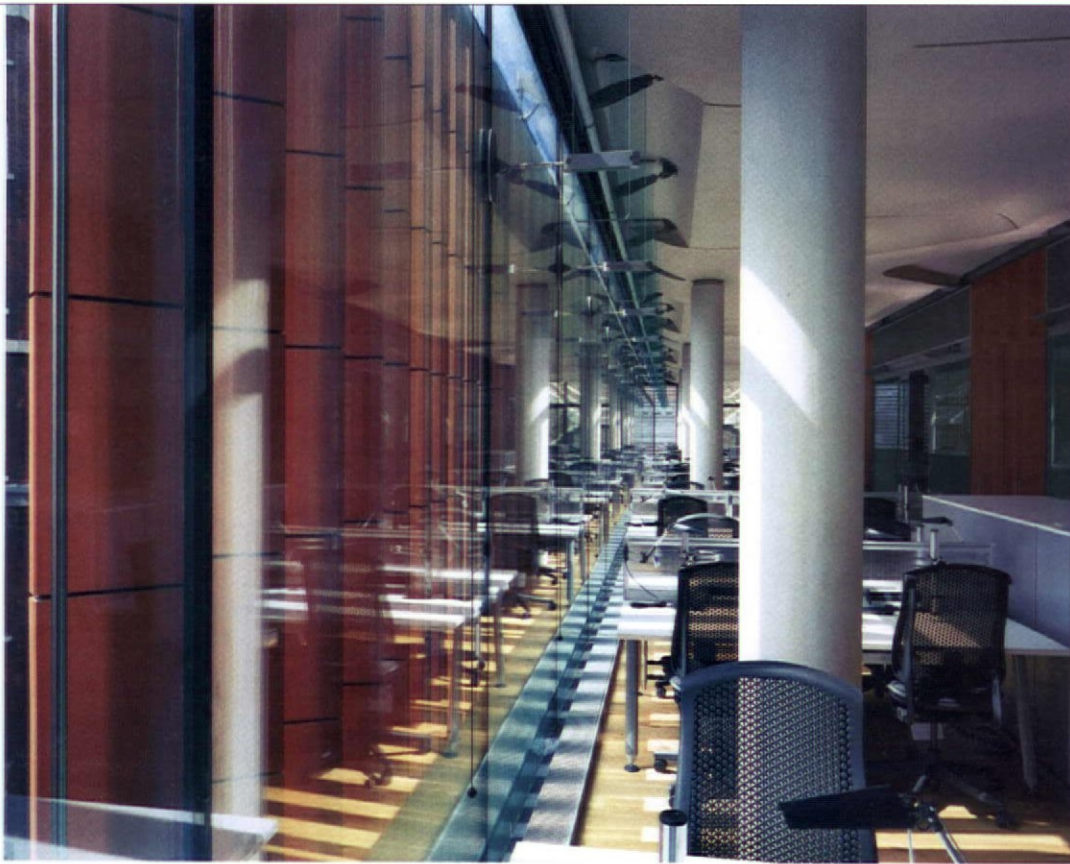
Facing the quadrangle on the western side of the street is Alfred Waterhouse's University College Hospital (UCH), completed in 1906, recently superseded by Llewellyn Davies' massive PFI-funded tower (2005) on Euston Road and converted into teaching space for the college. The spectacular terracotta-faced cruciform hospital building was completed by Waterhouse's son Paul, who went on to build the premises of the UCL medical school with his son, Michael, who in turn went on to work on further hospital buildings in the inter-war years.

The development of the new hospital provided the opportunity for a radical reassessment of UCH's property holdings. The demolition of Michael Waterhouse's nurses' home on Huntley Street, described by Pevsner as 'dour and reticent', provided the site for Grimshaw's UCL Cancer Institute, named the Paul O'Gorman Building in memory of a child who died of leukaemia. The £35 million project was won by Grimshaw after competitive interviews in 2000. The building is currently being brought into use by the college, part of a development programme intended to attract top

researchers and maintain UCL's position as one of the leading UK centres of medical research. It houses 350 scientists and contains 4,500m² of laboratory space on five floors.

Although the site, backing on to Chenies Mews, falls within the Bloomsbury Conservation Area, the demolition of the unlisted nurses' home was refreshingly uncontroversial. Part of the brief was the refurbishment and integration into the project of an adjacent Grade II-listed block by Paul Waterhouse on the corner of University Street. The budget for this part of the scheme was very modest, allowing for only a superficial makeover of the building. As Simon Moore, the Grimshaw associate running the project explains, Camden planners and English Heritage were keen to achieve a sympathetic conjunction between the listed building and the new insertion.

The entrance to the new building has been located at the point where it adjoins the reinstated flank wall of the listed building, the gap being filled with a sheer glazed wall which reveals the strikingly engineered staircase – a typical Grimshaw tour de force which is, in visual terms, the focal point of the building. Flanked by lifts, the stair is a highly economical structure with cast-steel treads cantilevered from a structural spine of precast concrete. Part of the return cornice of the listed building, torn off when the nurses' home was built, has been faithfully reinstated. One of the client's key aims was to procure a building with a sense of transparency and accessibility. As the Cancer Institute's director Professor Chris Boshoff explains, 'the building does something



2. The building's *raison d'être* is research: this is a 'write-up' area

exciting by opening up an often opaque and private area of study.' Cancer, he insists, already kills more than one in four of the population and is a matter of intense public concern: he and his team want the public to be informed about their work.

Maximum transparency for the glazed link is obtained by flat-laminated (not toughened) glass, secured with a system of clamps (rather than planar fixings) which, Moore admits, was inspired by the remarkable glazed facade on the low-rise wing of Seifert's Centre Point – a pioneering piece of glazing design in its day. Beyond the entrance area is a top-lit atrium, covered by an ETFE cushion roof, formed in the lightwell of the listed building. This serves as an interactive social space for those working in both buildings.

The *raison d'être* of the building is, however, research. In line with current thinking on laboratory design, the actual laboratory spaces, enclosed and highly serviced, with mandatory full air-conditioning, are separated from the 'write-up' areas, where the findings of research are analysed, discussed and recorded by researchers (who include senior figures in the field as well as postgraduate students). The laboratories are located in the central core of the building, with the write-up spaces facing west onto Huntley Street. The use of opaque fritting on the glass partitions dividing the two areas allows natural light to penetrate the laboratories. The write-up areas have timber floors, further underlining the division in function, and the use of timber acoustic panelling provides another element of warmth and

texture. Service areas are set along the eastern elevation, facing Chenies Mews.

A bank of offices for senior academics forms a 'bookend' at the southern end of the block, spanning the Huntley Street entrance to the mews, with views from the upper floors over much of the West End (tinted glazing is used on this elevation). The theme of openness extends to the provision of light and views for those working within the building – a contrast to the introspective character of many scientific research buildings.

If the element of demolition involved in the scheme was relatively uncontroversial, there was a desire to secure a building with some regard for context – Huntley Street contains, along with some grim hospital blocks (still in use but meriting replacement), a run of listed houses. The fixed terracotta louvres, which form a shading device on the street facade with its floor-to-ceiling glazing, clearly help to link the building visually to the listed Paul Waterhouse block and the old hospital building beyond, and give it a richly layered look.

Terracotta was, for Alfred Waterhouse, 'a new and exciting modern material'. It has once more become a fashionable material in recent years, popularised perhaps by its use in the work of Renzo Piano. Grimshaw uses it in a novel way: the louvre blades (permanently fixed in position on the basis of sunlight studies and creating a wave-like effect on the street facade) being threaded onto vertical stainless-steel tubes with rubber joints that allow the blades – each made up of seven separate sections – to flex under



4.

3.

3, 4 & 5. The entrance to the institute is next to a listed building by Paul Waterhouse, which has been retained as part of the scheme

load without damage. The effect of the suspended louvre bank is to provide controlled daylight inside the building while still allowing views out. Individual control of fabric blinds gives users the ability to exclude the sun when necessary.

The plan of the building is highly repetitive on the first to fourth floors, providing a clear diagram for servicing the vertical stack of laboratories. Write-up areas are pushed out beyond the grid line of the structural steel frame using coffered precast-concrete slabs – the architect compares the arrangement to sliding drawers. The ground floor steps back to respect the street line. On the fifth floor of the building, the long office area on the western elevation is replaced by an open terrace, which provides a break-out space.

Given the complex technology demanded by its function, the building's services are neatly contained within a minimum of rooftop extrusions – a contrast to the unsightly clutter that sits on top of many of the older UCL and hospital buildings in the vicinity. Each stack of laboratories is serviced by its own air-handling unit at sixth-floor level.

Grimshaw claims that elements of the building have been consciously generated by the imagery of biomedical research: 'Images of cells, wave patterns and the chromosome permeate the forms of the building.' The terracotta louvres have 'a rhythm that can be read as a vertical "bar code" configuration or genetic sequence image, but also reflect the waveform that is so significant to modern science'. Exposed concrete soffits are 'reflective of the

mechanisms and cellular structures of biology; they are literally scooped out where the material serves no structural purpose'. Talk of this kind may please the client, but is superfluous to a critical analysis of a building which does not depend on a concealed referential language to achieve success.

Medical research can have an inherent drama, even a romance. The public awaits new discoveries that will prolong lives and reduce human suffering. That drama was expressed long ago in Louis Kahn's Richards Building in Philadelphia, with its strongly modelled composition of laboratories and service towers.

In comparison, Grimshaw's Cancer Institute is a highly controlled and rational building, almost industrial in its ordered geometry and response to the Georgian street grid of Bloomsbury. With its clear expression of structure and careful integration of services, it is a building in the best Grimshaw tradition, and one where Grimshaw's concern for detail does not obscure the clarity of the diagram. In this it vividly suggests that medical research is not always dramatic – that it's more often a matter of exhaustive analysis and experiment than sudden flashes of inspiration.



5.



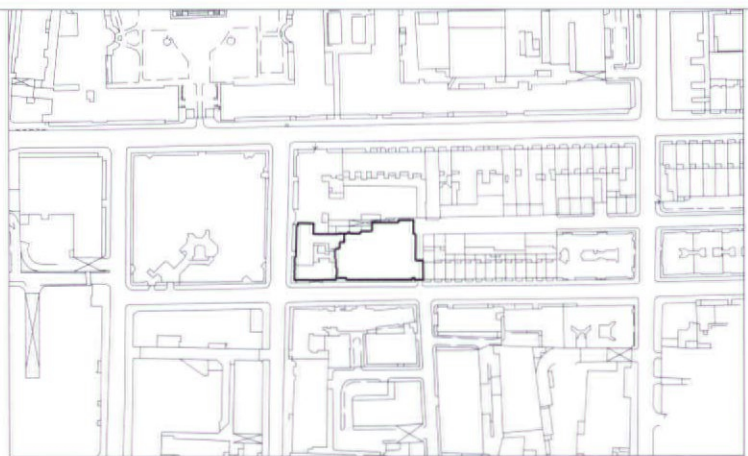


6. Terracotta louvres link the new building visually to the Paul Waterhouse block and the original hospital beyond

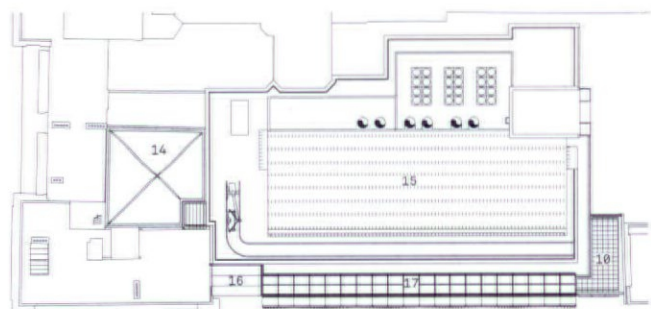
STRUCTURAL ENGINEER'S REPORT

The design called for the extensive use of visually exposed precast-concrete soffits and stair elements for the front-of-house areas. Construction took place above an operational sub-basement plant room which served the adjacent hospital within the congested central London site. The two existing buildings which were demolished to make way for the new building had similar height and load characteristics to the new build. This enabled the reuse of some existing piled foundations. The difference in plan dimension required new piled foundations to supplement the existing ones. To align the load paths between the new and old grids, storey-height steel transfer trusses spanning over heavily serviced areas of the sub-basement were used. This solution allowed the differences in geometry to be easily overcome while maintaining the existing ground and basement slab levels. This minimised the development works below basement level, allowing the sub-basement to remain operational at all times. The structural challenge of keeping within the building height limits and minimising on-site operations led to the adoption of a shallow precast-plank, steel-frame system that best met the aspects of the brief. Steel beams located within the planks provide support, and give a flat soffit to maximise the flexibility of partition layouts and horizontal service distribution. The key architectural challenge was the entrance and front-of-house areas, where the aesthetics of the 'white' acid-etched precast concrete were paramount, as was the need to minimise the impact of the structural depth as seen through the full-height glazed facade. These concrete elements were detailed without downstands or support projections. The use of 'hidden' cast-steel plates within densely reinforced concrete nibs was employed. This was achieved by working carefully with the precast subcontractor to develop 3D enforcement details which allowed the architectural intent to be maintained at critical connection points between column, beams and infill floor elements.

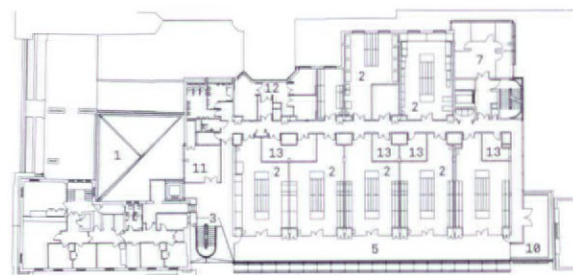
Malachy McNamara, Buro Happold



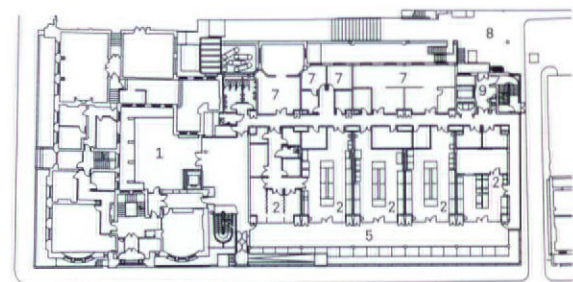
Site plan



Roof plan



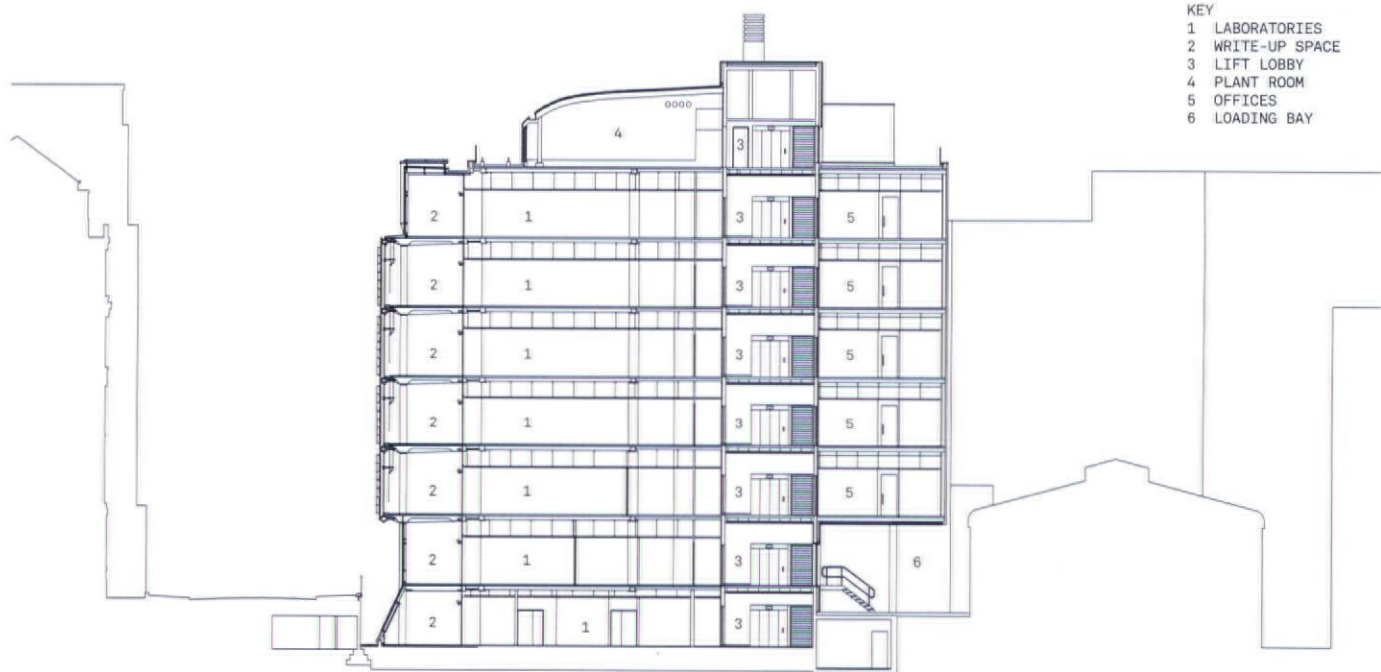
Fifth-floor plan



Ground-floor plan

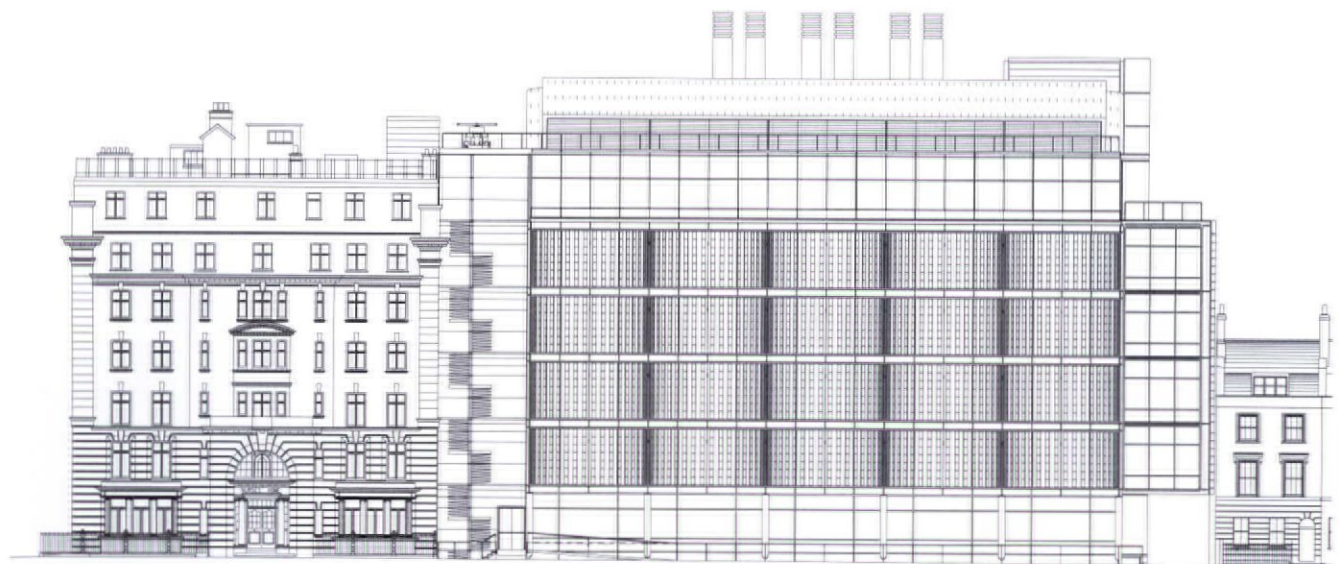
KEY

- | | |
|--------------------------|------------------------------------|
| 1 LIGHTWELL SEATING AREA | 10 ROOF TERRACE |
| 2 LABORATORIES | 11 MEETING ROOM |
| 3 STAIRWELL | 12 CATEGORY III MEDICAL LABORATORY |
| 4 ENTRANCE LOBBY | 13 SPECIALIST LABORATORIES |
| 5 WRITE-UP SPACE | 14 LIGHTWELL ROOF |
| 6 LIFT | 15 PLANT ROOM ROOF |
| 7 OFFICES | 16 GLAZED ROOF OF ENTRANCE STAIR |
| 8 LOADING BAY | 17 GLAZED ROOF OF WRITE-UP SPACE |
| 9 SERVICE LIFT LOBBY | |



- KEY
- 1 LABORATORIES
 - 2 WRITE-UP SPACE
 - 3 LIFT LOBBY
 - 4 PLANT ROOM
 - 5 OFFICES
 - 6 LOADING BAY

SW-NE section



Huntley Street elevation

0 10m

Credits

Start date

May 2000

Start on site date

July 2004

Contract duration

36 months

Gross internal floor area

8,832m²

Total cost based on tender sum

£19,673,616

Client

University College London

Architect

Grimshaw

Project team

Neven Sidor, Simon Moore, Kristina Ehlert, Jane Garrett, Christian Hönigschmid-Grossich, Nigel Raynor, Wenke Reitz, Jerry Tate, Karen Summers, Karen Turner, Malgorzata Haley, Andrew Perez

Structural engineer

Buro Happold

Services engineer

Faber Maunsell

Quantity surveyor

Gleeds

Project manager

Turner and Townsend/MACE

Main contractor

Shepherd Construction

Selected subcontractors and suppliers

Bespoke precast entrance stairs and concrete ceilings Decomo; external cladding GIG Fassadenbau; architectural metalwork Boundary Metal; lab furniture Waldner; ETFE roof Vector Special Projects; louvres Colt; windows Solaglass; single-ply membrane Robseal Roofing; suspended ceilings SCS; glazed partitions Optima; internal roller blinds, manually operated window and rooflight blinds Levolux; X-ray screening Wardray; limestone flooring Gormley

7. Lightwell between old and new

8. View down cul-de-sac towards the

offices on the south side of the institute

Cost summary

	Cost per m ² (£)	Percentage of total
SUBSTRUCTURE	54	2.4
SUPERSTRUCTURE	343	15.4
ENVELOPE	391	17.6
INTERNAL DOORS AND PARTITIONS	167	7.5
FINISHES	101	4.5
FIXTURES, FITTINGS AND EQUIPMENT	187	8.4
SERVICES	566	25.4
EXTERNAL WORKS	15	0.7
PRELIMINARIES	345	15.5
OVERHEADS AND PROFIT	21	0.9
PROVISIONAL WORKS	29	1.3
DAYWORKS	9	0.4
AGREED CONTRACT TOTAL	2,228	100

Based on contract sum.

Cost data provided by Phil Corbett at Gleeds



7.



8.

A PRECAST CONCRETE STAIRCASE AND A GLASS WALL

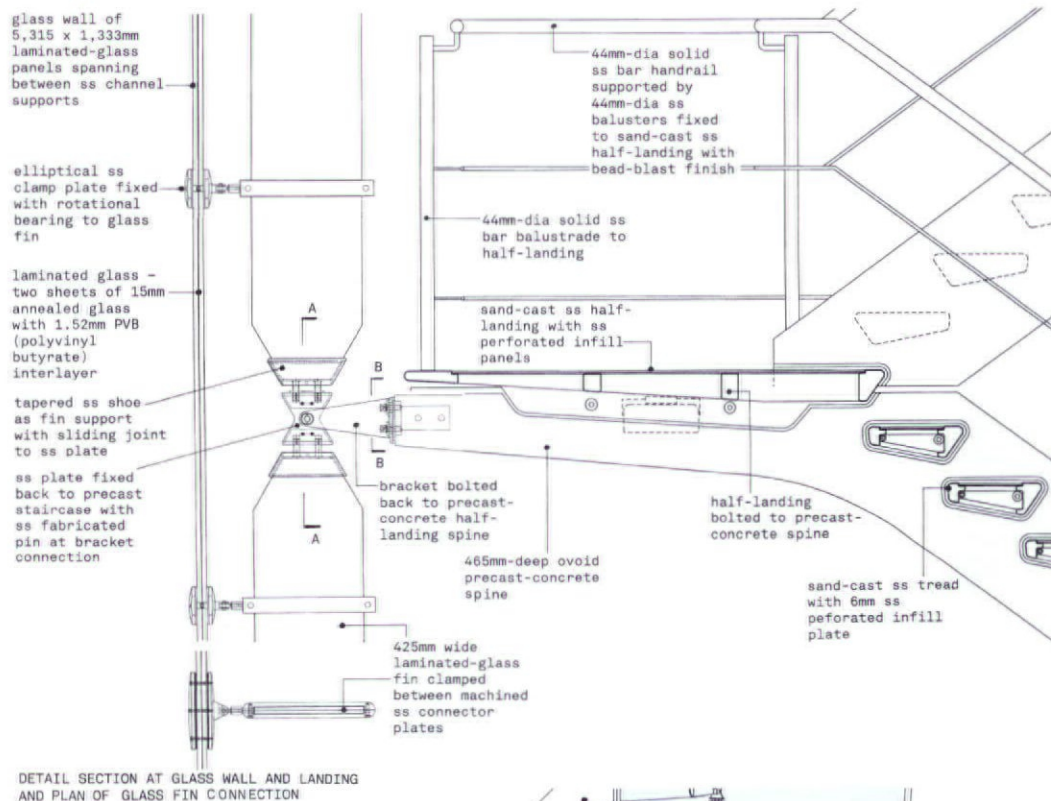
The staircase rises seven floors from the main entrance foyer; it is set behind a glass wall which spans between the wall of the original 1907 building and the new building. The staircase spine, a delicate ovoid of precast concrete, supports sand-cast stainless steel half-landing plates and treads with perforated stainless steel infill plates.

The glass wall consists of laminated glass panels of annealed glass. The 5,315mm wide by 1,333mm high glass panels span between stainless steel channel supports set in the solid adjacent walls. Horizontal joints are made with gaskets and silicone mastic. Lateral restraint (wind load) to the glass wall at mid span is provided by a vertical row of laminated glass fins; they have stainless steel connector plates clamped to them which are connected to the glass wall panels by rotational bearings and stainless steel clamp plates.

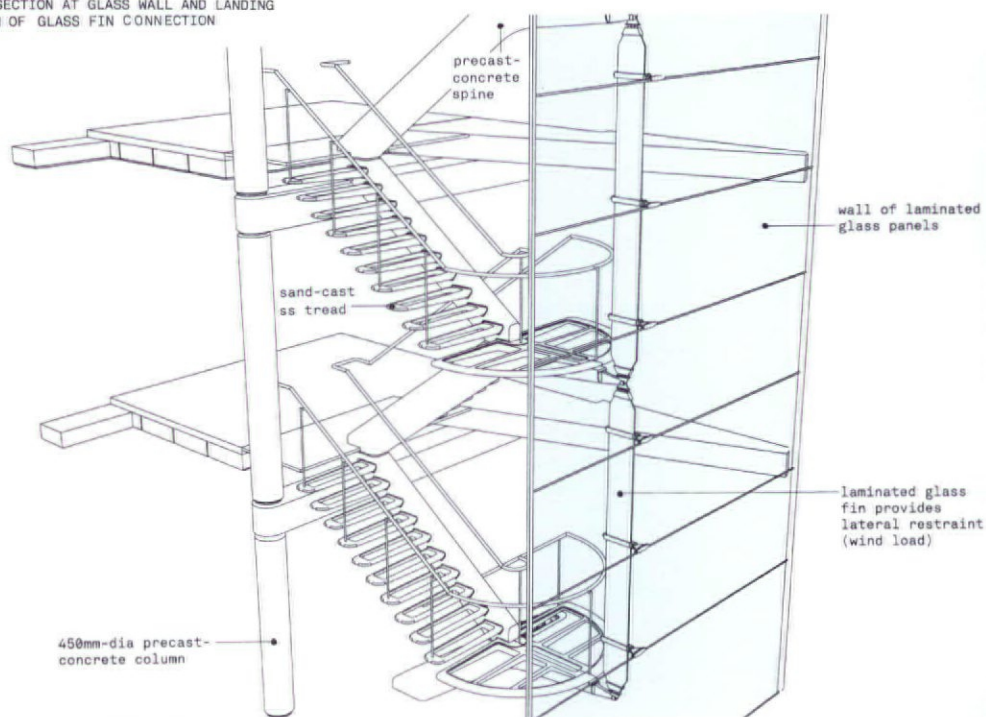
The glass fins are supported at each cantilevered precast concrete half-landing by a bracket. To accommodate vertical movement, the ends of the fins are housed in stainless steel shoes connected with sliding joints to a stainless steel plate. A pin joint at the centre of the plate allows additional movement.

The precast spine, of acid-etched white concrete with mica sand mix, was cast with threaded stainless steel inserts to which the treads are bolted.

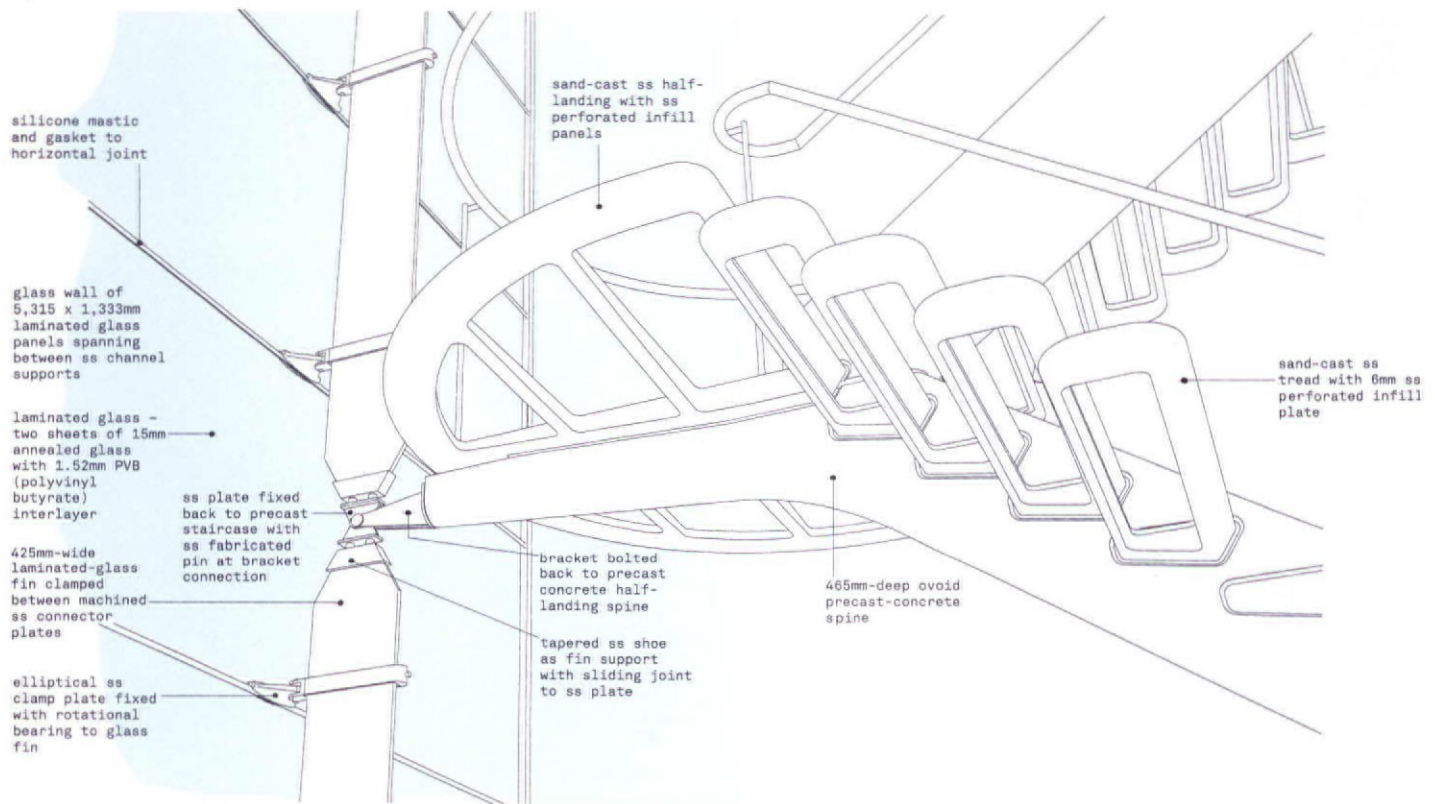
By Susan Dawson



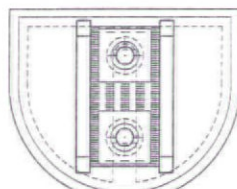
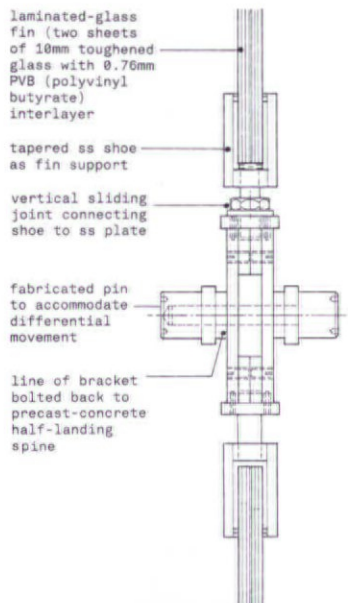
DETAIL SECTION AT GLASS WALL AND LANDING AND PLAN OF GLASS FIN CONNECTION



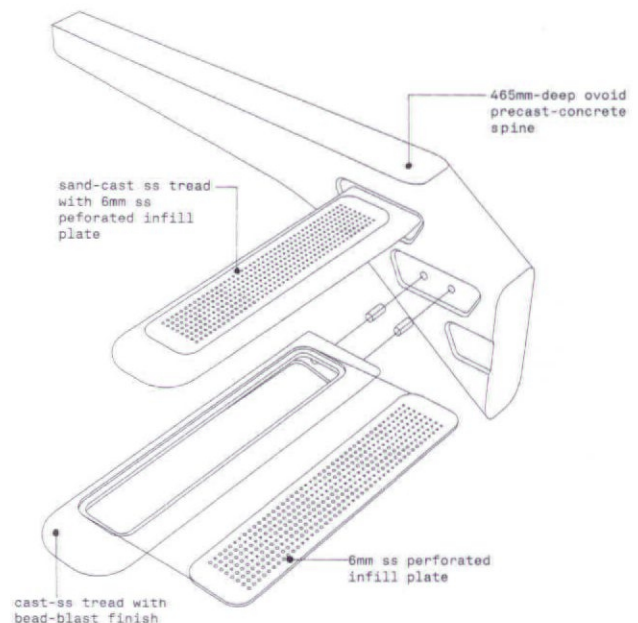
KEY PERSPECTIVE OF TYPICAL STAIRCASE



PERSPECTIVE OF GLASS WALL AND LANDING



PRECAST SPINE AT B - B



PERSPECTIVE VIEW OF CAST-SS TREAD

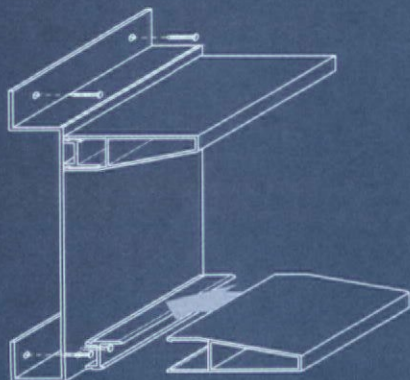
GLASS FIN DETAIL AT A - A



DETAILING THAT'S QUICK TO INSTALL

Bailey I-Line Snap-On enables architects to add horizontal and vertical detailing that can be installed using standing or mobile access.

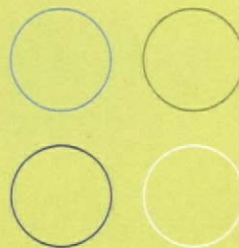
I-Line's web is attached to the building and the feature flanges snapped into place, making for fast and economical handling on site.



For more information call
01403 261 844



ENQUIRY 11 ON CARD
WWW.AJPLUS.CO.UK/AJDIRECT



Antron®
carpet fibre



Life can be tough for a carpet

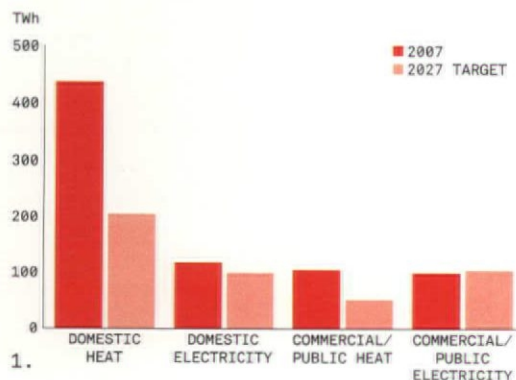


After 30 years, Antron® nylon remains a performance leader by demonstrated performance in; resistance to dry soil and liquid stains; pile height retention and resistance to matting, crushing and abrasive wear. www.antron.eu

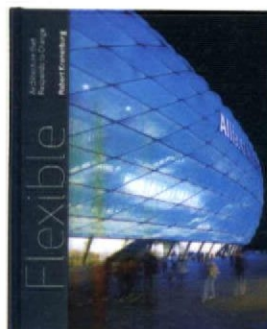
Antron® is a registered trademark of INVISTA.



ENQUIRY 16 ON CARD
WWW.AJPLUS.CO.UK/AJDIRECT



1.



2.

1. The Centre for Alternative Technology forecasts significant reductions in building energy use to meet its ambitious 20-year zero-carbon target (News)

2. A survey of 'flexible' architecture (Books)

THIS WEEK ONLINE

• NBS Shortcuts, which appear 10 times a year in AJ Technical & Practice, can also be found online. Shortcuts on induction loops and carpets are added to the website this week. Induction loops covers hearing loss, the merits of amplification, infrared systems, and the nature and installation of audio frequency induction loops. Read the carpets shortcut for information on manufacture and classification, as well as to ensure you have a proper base for laying a carpet.

• Other shortcuts already online are rainscreen cladding, door locks, glass and tree roots. See www.ajplus.co.uk/shortcuts

TECHNICAL NEWS

• Bennetts Associates' Peter Fisher reports for the AJ on the Centre for Alternative Technology's (CAT) 'ZeroCarbonBritain: An Alternative Energy Strategy', launched last week:

CAT presents a radical approach to climate change which, it says, would cut Britain's fossil-fuel emissions to zero by 2027, rather than the government's current target of 60 per cent by 2050. While the report will be criticised by some as unrealistic, it highlights the sheer scale of the problem and provides useful reminders for architects about priorities for the built environment. CAT argues that the solution to climate change is technically possible now and must become a political reality – it is being presented to several Parliamentary audiences. As the problem is industrial in scale, so is the envisaged solution. Most energy is to be generated from very large-scale (mostly off-shore) wind, tidal and biomass-fuelled combined heat and power, which is then distributed

via efficient high-voltage DC grids.

The emphasis of the buildings section focuses on vital issues such as better passive design, industry skills, construction quality, enforcement and testing, calling for a better understanding of building performance, in particular through using Building Energy Management Systems. It correctly identifies the introduction of EU Energy Performance Certificates as key to the enforcement and testing of actual performance. This will highlight the importance of sensible glazing ratios and designing for airtightness. Given the number of inefficient buildings now sprouting ineffective PVs and micro-wind turbines (including the London Climate Change Agency's own HQ) – it serves as a good reminder to architects of where the really big savings are to be made.

The full report can be downloaded free from www.zerocarbonbritain.com

BOOKS

Flexible Architecture that Responds to Change

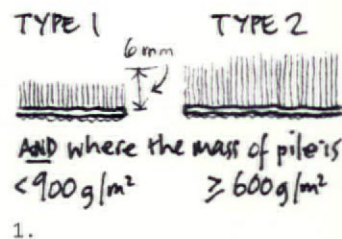
Robert Kronenburg

Laurence King, 2007, £30

This broad survey of everything that qualifies as 'flexible' architecture from a 21st-century vantage point provides a well-illustrated overview of an important subject, though readers may be familiar with many of the examples. The author's approach is one of breadth rather than depth, featuring buildings that adapt to different users and uses, loose-fit or 'open' building, buildings that physically change or can be relocated and those that interact with users. The book offers many precedents but could benefit from a more coherent argument about the importance of flexibility to current architectural practice.

MANUFACTURING, INSTALLING AND CLASSIFYING CARPETS

Written and illustrated by Austin Williams



In the latest in our series of NBS Shortcuts, Austin Williams looks at British Standards for carpets and their installation, and makes some recommendations for appropriate care.

'Do you want your underside felt, sir?' is a phrase you only hear in carpet shops. In fact, double entendres loom large where carpets are concerned. Whether it's running your fingers through soft downy piles, or having your weft warped, remember, when it comes to a good shag, sisal isn't important.

NBS General Guidance on floor coverings clarifies the distinction between 'base' and 'substrate'. Using the definition in BS 8203 'Installation of resilient floor coverings', a base is the 'supporting structure to which the floor covering is to be applied', whereas a substrate is the surface of that base, or underlay, on which the floor covering is laid.

Confusion is introduced by BS ISO 2424: 2007 'Textile floor coverings – Vocabulary'. It defines substrate as 'construction, integral with the use-surface... part of a textile floor covering directly exposed to traffic... and composed of one or more layers, which serves as a support for the use-surface.' Maybe that loses a little in the translation, but essentially, a well-laid base is an important ingredient for well-laid floor coverings.

For bases of concrete and screed, coverings must not be laid on bases with a relative humidity above 75 per cent and only when they afford protection from ground moisture or water vapour. And bear in mind that a 50mm-thick screed can take up

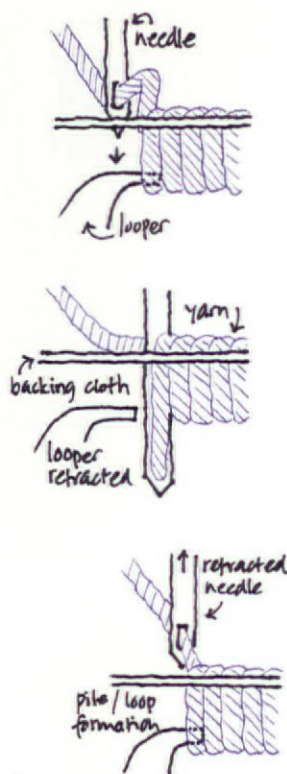
to two months to dry sufficiently and a 150mm-thick base, drying from one side, can take more than a year!

Where the relative humidity is too high, or there is insufficient construction programme time to allow adequate drying, a surface-applied damp-proof membrane can be considered to speed things up. The Contract Flooring Association's (CFA) 'Guide to Contract Flooring' states that surface damp-proof membranes 'should always be considered a last resort and are second best to correctly placed sandwich membranes and adequate drying times.'

Chemically-hardened bases or those treated with a resinous seal may deleteriously interact with flooring adhesives. Power-floated and trowelled finishes can also reduce bonding qualities. If in doubt, seek advice from the adhesive manufacturer.

Timber bases must be level, rigid, sound and dry and have reached a steady moisture content equivalent to that which will exist after the covering is laid. In situ applied wood preservative and flame retardant chemicals can adversely affect flooring adhesives and distort textile floor coverings. Be aware that such bases will require remedial treatment.

A fabricated underlay is essential where carpet is laid on plain or tongue-and-groove timber boards, oriented strand board (OSB) supported on timber joists, or on any particleboard board substrates with gaps between adjacent boards in excess of 1mm. Wood blocks may be a suitable base provided the blocks are clean, sound, firmly bonded and protected against moisture.



2.

USE INTENSITY	DOMESTIC		COMMERCIAL		LIGHT INDUSTRIAL	
	CLASS	LOCATION	CLASS	LOCATION	CLASS	LOCATION
Moderate/light	21	Bedrooms	-		-	
Moderate	-		31	Hotels, bedrooms, conference rooms, offices	41	Electronic assembly, precision engineering
General/medium	22	Living rooms, entrance halls	-		-	
General	22+	As 22 plus dining rooms and corridors	32	Classrooms, small offices, hotels, boutiques	42	Storage rooms, electronic assembly
Heavy	23	As 22+	33	Corridors, stores, lobbies, schools, open plan offices	43	Storage rooms, production halls
Very heavy	-		34	Multi-purpose halls, counter halls, department stores	-	

3.

1. Carpet classification is based on depth of pile as well as density

2. Carpets are made on a backing cloth: a looper holds the yarn on the underside of the backing cloth while the needle is withdrawn

3. Use classes for different wearing characteristics

CLASSIFICATION AND MANUFACTURE

Carpets are designated type 1 or type 2 (as shown in figure 1), although there are other significant and complicated classifications to provide a method of selecting suitable wearing capabilities with reliable appearance and performance criteria. The different levels of wear and appearance retention for different uses of carpets and carpet tiles are described in some detail in BS EN 1307 'Textile floor coverings – classification of pile carpet'. This relates to machine-made pile carpets defined in BS 5557. Needled/fibre-bonded carpets are covered in BS EN 1470 and BS EN 13297.












The BS EN 1307 classification system is widely accepted for commercial installations, and The Carpet Foundation has introduced a domestic carpet scheme known as 'Quality Mark', which lists a confirmed suitability classification for those that have undergone the flammability tests. In a minority of cases, BS EN 1307 provides incorrect classifications for machine-made pile carpets by ignoring the inherent inaccuracies in their production methods and the variability of the appearance assessment.

According to BS ISO 2424, 'tufts' are the length of yarn, 'the leg or legs of which form the pile of a carpet'. In general, tufted carpets are created on a pre-woven backing fabric. Here, the needle carrying the yarn pierces the backing fabric, pushing the yarn through to the underside (see figure 2). As the needle retracts, a hook or 'looper' captures the yarn, preventing it from being pulled back out with the needle and creating a loop on one side of the backing layer. An adhesive or latex backing layer is applied to

bind the tufts. Loop piles – so called because the wearing surface is made up of uncut loops of yarn – produce a hardwearing, textured surface. To create a cut pile, a blade follows the action of the looper cutting through the loops and leaving individual strands.

A tufting machine has a row of needles mounted in a needlebar running the width of the machine so that a full row of tufts is stitched in one cycle. The 'gauge' of the machine describes the needle density: for example, a 1/10in gauge has 10 needles to the inch. Some other examples of tufted carpets include: velvet carpet, otherwise known as 'plush' or 'velour' carpet, which is a cut-pile carpet using yarns with very little twist so the finished surface has no tuft definition; and shag-pile rugs, which has greater cut-pile length than normal and spacing between tufts. Shag-pile rugs tend to be fairly heavyweight and are usually manufactured in India, China, the US, Morocco and Israel. Woven carpets such as Wilton and Axminster are also created on a primary backing fabric but create the pile bonding structure in the weaving process.

The most commonly used fibres for contract carpets are: polyamide (nylon), which is extremely durable; polypropylene, which is very durable but lacks resilience; and pure new wool, which is durable and resilient. Blended fibres are attempts to mix the best qualities and costs of each of the individual materials. For example, an 80/20 (80 per cent wool/20 per cent polyamide) builds in the polyamide's durability and anti-static properties while retaining the feel of the wool. CFA states that the relative lack of resilience in polypropylene 'is of no consequence in a flat fibre-

stain treatment	artificial colours	bleach	oil grease wax shoe polish	vomit	red wine	oil paint	emulsion paint fruit juice	coffee	bubble-gum	nail varnish	ball point pen
											
1st attempt	1	1	2	3	4	5	1	6	7	8	9
2nd attempt	6	10	3	6	6		3				
3rd attempt				11							

KEY:

1 - COLD WATER; 2 - 'WOOLSAFE - APPROVED' SPOT REMOVER; 3 - 'WOOLSAFE - APPROVED' CARPET SHAMPOO; 4 - BLOT WITH TISSUES;
5 - WHITE SPIRIT; 6 - 'WOOLSAFE - APPROVED' WATER-BASED SPOT REMOVER; 7 - SOLVENT REMOVER; 8 - ACETONE; 9 - SURGICAL SPIRIT;
10 - RE-COLOURING KIT; 11 - 'WOOLSAFE - APPROVED' DISINFECTANT / DEODORISER

4. Remedial treatments for carpet-stain removal

bonded carpet, but when blended in up to 50 per cent by weight with wool in a tufted hard-twisted carpet, it adds bulk, stain resistance and significant cost reduction against an assessed acceptable reduction of the plus qualities of wool.' BS EN 1470 and BS EN 13297 jointly cover all types of needled coverings and, through a common scheme, establish levels of use classes ranging from 1 to 4 which indicate suitable use areas (as shown in figure 3).

RESILIENT FLOOR COVERINGS

Resilient floor coverings are normally sheet floor coverings falling loosely into four categories: plastics, cork, linoleum and rubber. If used in conjunction with underfloor heating or where adhered floors are laid in locations with regular warming by direct sunlight, the adhesive may fail and manufacturer's guidance should be sought. Building Regulations Approved Document Part B doesn't stipulate the fire rating of floor coverings, but it is advisable to use non-hazardous materials, especially on primary and escape routes.

Floor coverings produced from natural fibres such as sisal, seagrass, coir and hessian can be durable but are sometimes difficult to clean. Cork, the bark of the evergreen oak grown in Mediterranean countries, is a renewable material. Agglomerated cork floor coverings are manufactured from cork granules, a waste product of the bottle-stopper industry.

Austin Williams is the author and illustrator of NBS Shortcuts. For more information visit www.thebuildingregs.com

GUIDANCE ON SPECIFYING AND LAYING CARPETS

The Woolmark Company www.woolfurnishings.com
British Carpet Technical Centre and Cleaning and Maintenance Research and Services Organisation www.btgc.co.uk
Contract Flooring Association (CFA) www.cfa.org.uk
The Carpet Foundation www.comebacktocarpet.com
Woolsafe www.woolsafe.org

KEY READINGS

Contract Flooring Association, 'The CFA Guide to Contract Flooring', 2007
George Robinson, Carpets, Textile Book Service, 1972
Geoffrey H Crawshaw, Carpet Manufacture, CRC, 2002
British Standards Institute, BS EN 1307: 2005, 'Textile floor coverings - classification of pile carpet'

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British Standards Institute, BS 8203: 2000, 'Code of practice for installation of resilient floor coverings'
British Standards Institute, BS ISO 2424: 2007, 'Textile floor coverings - Vocabulary'
Derek Ward, Tufting, Textile Business Press, 1969
Bertram Jacobs, (1968), The History of British Carpets, CFR



12th September 2007 - Cavendish Conference Centre, London W1G

mixed-use

07

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Nick Shattock, Deputy Chief Executive, **Quintain Estates and Developments**

Dr Brian Raggett, Partner - Strategic Development / Planning, **Strutt and Parker**

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SAY, YOU WANT GOOD RESOLUTION?

On screen you can get away with quite low image resolution – maybe a third of that required by magazine art editors. This sometimes persuades practices that they can get away with original images of quite low and even crap quality. Maybe this is what happened with Armstrong Bell Landscape Design which, a while ago, asked us to check out its new website at www.armstrongbell.com.

It's a standard page with the usual stuff about the practice, awards and news, with a portfolio list across the bottom. Virtuously simple – but wordy. These text blocks border an image frame – the only thing that changes as you click on different project names below. Click on the National Gallery and you get crisp, well-saturated images.

Click on Lac de Senart, France, and you get a washed-out site plan. It's probably an intriguing scheme, but it's rendered unreadable by the arbitrary cropping of a larger drawing to fit the on-screen frame.

It's typical of a number of the projects: wimpy colours, images and perspectives not drawn for this tiny scale. And I swear that one scheme has sloping water. What a waste of landscape-design talent. sutherland.lyall@btinternet.com

AN OBJECT LESSON

In the summer of 2005 Margaret Tomlinson fell out with her builder. Iain Wilson agreed to construct a small kitchen and bathroom extension to her home in Easingwold, North Yorkshire, for £19,500, writes *Kim Franklin*.

Once work commenced she began to doubt his competence, and he was not confident that he would be paid. After several unfriendly exchanges, work stopped at roof level. Court proceedings followed. Tomlinson alleged that the concrete raft foundation was inadequate and claimed the cost of rebuilding. Wilson alleged that the contract had been wrongfully terminated and claimed damages.

The court case exceeded its original three-day estimate. During the adjournment, Tomlinson demolished the extension and called more expert evidence on the actual condition of the foundations. The trial lasted a total of six-and-a-half days. Before embarking on his judgment, the judge described the case as a 'particularly unfortunate example' of a small building dispute where there was 'no real winner'. Instead, the parties were set on a course of 'mutually assured destruction'. Whatever the outcome, the litigation was 'disastrous' for them both.

In the event, the judge concluded that although the raft foundation was defective, it could have been repaired, and that Tomlinson acted unreasonably in demolishing the extension. He found that, in breach of contract, the builders had been given their marching orders by Tomlinson and prevented from completing the work.

In reaching these conclusions the judge assessed the evidence of each of the parties. He found Tomlinson an 'evasive and dishonest' witness who denied receiving documents with such regularity that he wondered whether the Royal Mail had simply given up delivering her post. Equally, he found that Wilson had been present when the raft was laid and knew it to be a 'botched job'.

The judge also commented on the 'unusual and unfortunate' course of the expert evidence. Both parties called structural engineers who each produced pages of calculations which were 'incomprehensible to a non-mathematician', but led to opposite conclusions as to the adequacy of the raft foundation. The experts were unable to agree a joint statement beforehand and constantly produced fresh calculations, regulations, and sketches over the duration of the trial.

The final outcome? Tomlinson's claim was dismissed and Wilson recovered damages of £500. The costs of the action were not disclosed.

The judge concluded that this sorry tale should be an 'object lesson' to all involved, but what lessons can be learned? There are no universal answers but my top tips would be the following:

- only use contractors who inspire confidence. Even if they cost more, good builders are worth it.
- pay them. Unpaid builders can walk away from an unfinished project and bring a claim. Replacing them, while fighting them, is no fun.
- let contractors remedy defective work.
- preserve disputed defects until trial.
- gain expert technical and legal advice before starting proceedings.
- give alternative dispute resolution or mediation a go.

Ultimately, do not litigate over anything worth less than £50,000. As *Tomlinson v Wilson* (Judgment 11.05.07) shows, it is just not worth it.

Kim Franklin is a barrister and chartered arbitrator at Crown Office Chambers in London. Visit www.crownofficechambers.com

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DURABLE

[wood has time tested durability, having withstood the harshest climates]



MAIBEC

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PERFORMANCE

[risk of cracks and deterioration reduced by sealing and stabilizing the timber]

DURABLE

[highly resistant to decay, rot and fungus]

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[pre-finished product reduces the need for hand application of coatings]



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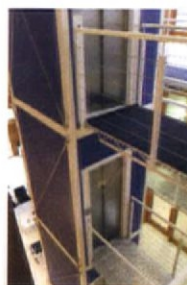
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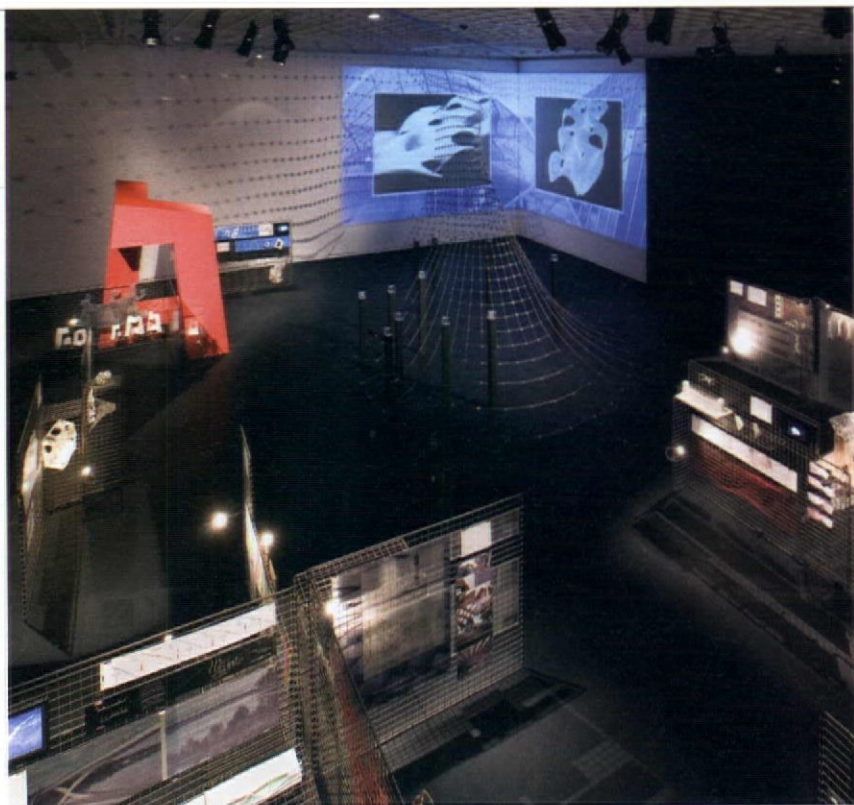
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www.stannahpassengerlifts.co.uk

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EXHIBITION

By Jeremy Melvin

Cecil Balmond: Unfolding New Dimensions. At the Louisiana Museum, Humlebæk, Copenhagen, until 21 October



1.

POUL SØCHARD/BRØNDUM & CO

In this first of a series of exhibitions called 'The Frontiers of Architecture', the Louisiana Museum highlights the formal innovations and research of structural engineer Cecil Balmond, especially his work with Arup's Advanced Geometry Unit.

Balmond's research into the relationship between form and number both predates the recent IT-generated formal explosion and shows the long ancestry of that relationship, which can be traced back to Pythagoras in 587BC.

Above all, for Balmond, form isn't static but the result of dynamic equilibrium, as seen in such projects as the Casa da Música in Porto, Portugal, and the villa in Bordeaux on which he collaborated with Rem Koolhaas.

The exhibition is in three parts. One area looks at

theoretical concepts, another at real projects, and both are hinged around the 'flux room', which is dominated by a large tetrahedron, with projected fractal patterns gliding across the walls. Three-dimensional fractals have eaten into one side of the tetrahedron, but all are similar to the parent form and follow the impeccable ratio of the golden section. The message is that an algorithmic fractal pattern can both create and destroy form – imbuing the sense of vulnerability, but also potential for protection that Balmond seeks to convey in the piece's title, *Petra*, recalling the hollowed-rock city in Jordan.

In a curving corridor-like space, the theoretical section starts with Pythagoras and Greek number theories, and moves through proportion and the Renaissance to contemporary fractals and the

fourth dimension of time. Single numbers imply unity; pairs mean duality; three gives the possibility of diversity, while four, as in a compass' cardinal points, suggests justice and harmony; and so on. Increasingly sophisticated mathematical theories broaden the range of possible relationships.

It's a dizzying array of ideas that demands a huge amount of information presented through video, drawing, diagram and text. For those without the time or patience, the hierarchy of exhibits highlights the important themes, summarised by Balmondian aphorisms: 'numbers give shape'; 'proportions are frozen instants of time'; 'form is a mathematical problem, growth is a physical problem'.

But the climax of the exhibition comes in the room entitled 'Networks'. Here, amid the reflections and shadows of a delicate filigree mesh, permeating this space with a subliminal message, are built and unbuilt examples of Balmond's work, including his collaborations with Koolhaas and Togo Ito.

Shapes weave and dance, or, as Koolhaas demanded of Balmond for his Bordeaux villa, 'fly'. Works with Ito include the 2002 Serpentine Pavilion in London's Kensington Gardens and an opera house on Taiwan, which seems to echo in curvilinear form some of the qualities of Petra – warping and distending into shapes that are both hollow and solid.

Unusually for an engineer, Balmond enjoys the potential of structure to convey narrative. His distortions of form create



CECIL BALMOND

2.

1. Part of Balmond's exhibition at the Louisiana Museum
2. The Serpentine Pavilion, London, 2002: a collaboration between Balmond and Toyo Ito

counter-intuitive effects that arrest and captivate. When unfolded over time or through movement they relate a story. This exhibition uses similar devices: it is formidable in its level of detail while grandly synthetic in its overall effect. Yet for all its inventiveness, there are times when the narrative depends on the equivalent of slightly intrusive plot devices in distended Victorian novels, such as the rainbow light in the 'theory' corridor to suggest unity in variety.

And a short foray into the adjacent exhibition of American artist Philip Guston puts this into context. In Guston's sparse black-line drawings of, say, a book or a building, is almost the entire territory of 'Unfolding': from word or number to form, from abstract idea to real object.

While this suggests a great artist's power to open avenues of thought in condensing actual physical information, it's also a reminder that art exhibitions have a huge advantage over architectural ones. Because it's so hard to include actual examples in the latter, buildings tend to be depicted in literal ways, to establish that the show really is about architecture.

But if 'Unfolding' is sometimes a little too literal, it's the effect that counts – the villa that appears to fly. And Balmond's exhibition helps to explain not just the thinking behind his effects, but why they are important.

Jeremy Melvin is a writer, teacher and consultant to the Royal Academy architecture programme



EDWARD DENISON & GUANG YU REN

CRITIC'S CHOICE

By Andrew Mead

On the latest biennial list of the world's 100 most endangered sites issued by the World Monuments Fund (WMF), Modern buildings include Louis Kahn's Salk Institute and Frank Lloyd Wright's Florida Southern College (AJ 14.06.07). But with the publicity that such well-known names generate, it's easy to forget earlier cases whose fate is still unsure. So a new show at the RIBA, *Asmara: Africa's Secret Capital of Modern Architecture*, is timely, exploring an entry on the list the WMF published two years ago – the Eritrean city occupied by the Italians in the 1930s, which still boasts a complete, albeit crumbling, ensemble of buildings (www.architecture.com).

That doesn't mean stylistic uniformity. Looking at the sunlit facade of the Cinema Impero of 1937 you might think you were in Miami, for Art Deco is part of the mix, along with Rationalist and Novecento buildings – the latter's Classical forms and shadowy arcades recalling the piazzas that Giorgio De Chirico painted 20 years earlier. Countering this nostalgia for an Italian past is Giuseppe Pettazzi's Fiat Tagliero Service Station of 1938 – its blade-like cantilevered wings more redolent of flight than a trip on an African autostrada.

Deciding now to cherish the architecture of a violent colonial regime clearly hasn't gone uncriticised, which the RIBA exhibition acknowledges, but its overall stance is that 'Asmara is being preserved because it celebrates the labour of thousands of Eritreans', and that its citizens today have annexed the buildings to their own ends. The useful brochure accompanying the show pursues this further.

Among the exhibits are some of Edward Denison's fine photographs from *Asmara: Africa's Secret Modernist City* (AJ 22.04.04), but also worth seeking out is Donata Pizzi's *Città Metafisiche: Metaphysical Cities* (Skira, 26 euros (£18)), which features 1930s Italian buildings in Libya, Ethiopia and the Dodecanese as well as Eritrea. They're photographed in all weathers, so rain-washed travertine offsets the expected blue skies, and while they may not be great architecture, they nonetheless make places that stay in the mind.

For forthcoming events visit www.ajplus.co.uk/diary

EXHIBITION

By Andrew Mead

Global Cities.
At Tate Modern,
Bankside, London SE1,
until 27 August



MARCUS LEITH/ANDREW DUNKLEY



In the installation of 'Global Cities' at Tate Modern, a mid-air walkway on temporary scaffolding stretches halfway down the Turbine Hall, gaining useful extra space for the exhibition. But given the mediocre displays on it, it's little more than a viewpoint for surveying the scene below, which is one of confusion. Not because the show revels in the chaos, energy and contradictions of cities, as 'Cities on the Move' did at the Hayward Gallery in 1999, but because it's so flawed in conception and execution.

'Global Cities' is a much smaller, reworked version of Ricky Burdett's 'Cities, Architecture and Society' at last year's Venice Architecture Biennale (AJ 21.09.06). Stressing architects' social agenda, that was crammed

with data, combining maps, diagrams, photographs and films in a survey of 16 international cities. At the Tate the cites have shrunk to 10, and instead of each one having a space to itself, as in Venice, they're coerced erratically into a new thematic structure: Size, Speed, Form, Density, Diversity.

Sadly these themes aren't clearly demarcated in the design, with the result that neither they nor the chosen cities come properly into focus.

Further inconsistencies don't help. Videos are shown in blacked-out chambers, which are papered externally with satellite images and short factual texts. On the outer walls of one room there's material on Istanbul and, inside, a film on Istanbul – logical enough. But on the outside of another is material on Tokyo and, inside,

a video on Cairo – the show keeps wrong-footing you.

Overall there's much less data than at Venice, where at least it was presented with visual flair – not here. In the mishmash are nonetheless some striking things, such as two photo series on Johannesburg – one by Guy Tillim of grim city-centre housing blocks, the other by Kendell Geers of suburban residents' security measures. But, with 10 cities featured and space at a premium, why include a film of artist Francis Alijs tapping out the rhythms of the railings around London's Onslow Gardens? Like several works by artists in the show, it adds little.

Suspended above the exhibition are billboards with solemn questions, such as 'Can Cities Promote Social Justice and Greater Equality?' But they

hang there forlornly because they're never brought to bear on the displays below. Future projects, which could supply some answers, are dealt with so cursorily that they're almost invisible. Zaha Hadid's *Form Informing Urbanism – Parametric Urbanism*, based on the Thames Gateway, is more prominent but its presentation is perverse – try reading long lines of white-on-black text at knee-level. Another Thames Gateway project, Nigel Coates' *Mixtacity* – a zoo of attention-seeking little models – is trite, with no sense that the forms have sprung from any study of the site. To say it's 'driven by an artistic spirit' is a cop-out.

It's indicative of a show that claims to deal with large issues but reduces them to entertainment – Tate Modern's main priority these days.

BOOK

By Robert Cowan

Robert Moses and
the Modern City:
The Transformation
of New York.

Edited by Hilary Ballon
and Kenneth T Jackson.
W W Norton, 2007.
336pp. £30



One of Robert Moses' middle-income housing schemes: Morningside Gardens in New York

'You cannot make an omelette without breaking eggs,' Robert Moses was fond of saying. The eggs were the neighbourhoods that stood in the way of the expressways that he justified with another slogan: 'Cities are created by and for traffic.'

Nicknamed Big Bob the Builder, Moses had an immense impact on New York in his reign as a public servant from 1934 to 1968. This magnificent work of scholarship reassesses his achievement.

The authors can't avoid looking back to Robert A Caro's Pulitzer Prize-winning 1974 book *Power Broker: Robert Moses and the Fall of New York*. In the early 1970s NY's prospects were poor, and Caro argued that Moses had a great deal to answer for.

Some 30 years later, with the city's fortunes seemingly

restored, the authors are more inclined to credit Big Bob with creating the infrastructure that has enabled it to flourish as a world city today. Owen D Gutfreund adds a note of caution, though. If Moses' final proposals for massive new expressways had not been blocked, he might have disastrously undermined the long-term sustainability of the city's core.

Moses believed that suburban drift and urban decay were the greatest threats to New York. His response was to build accommodation for the city's cultural institutions and for a major expansion of higher education; housing for the middle classes; and highways and bridges to give free rein to the car.

He had little concern for the poor, or for any

neighbourhoods that stood in his way. 'His preferred point of view for planning was from the sky, where people disappeared from sight,' the editors write. Moses vigorously promoted racial segregation in housing, believing that to be what the middle classes wanted and what investors favoured.

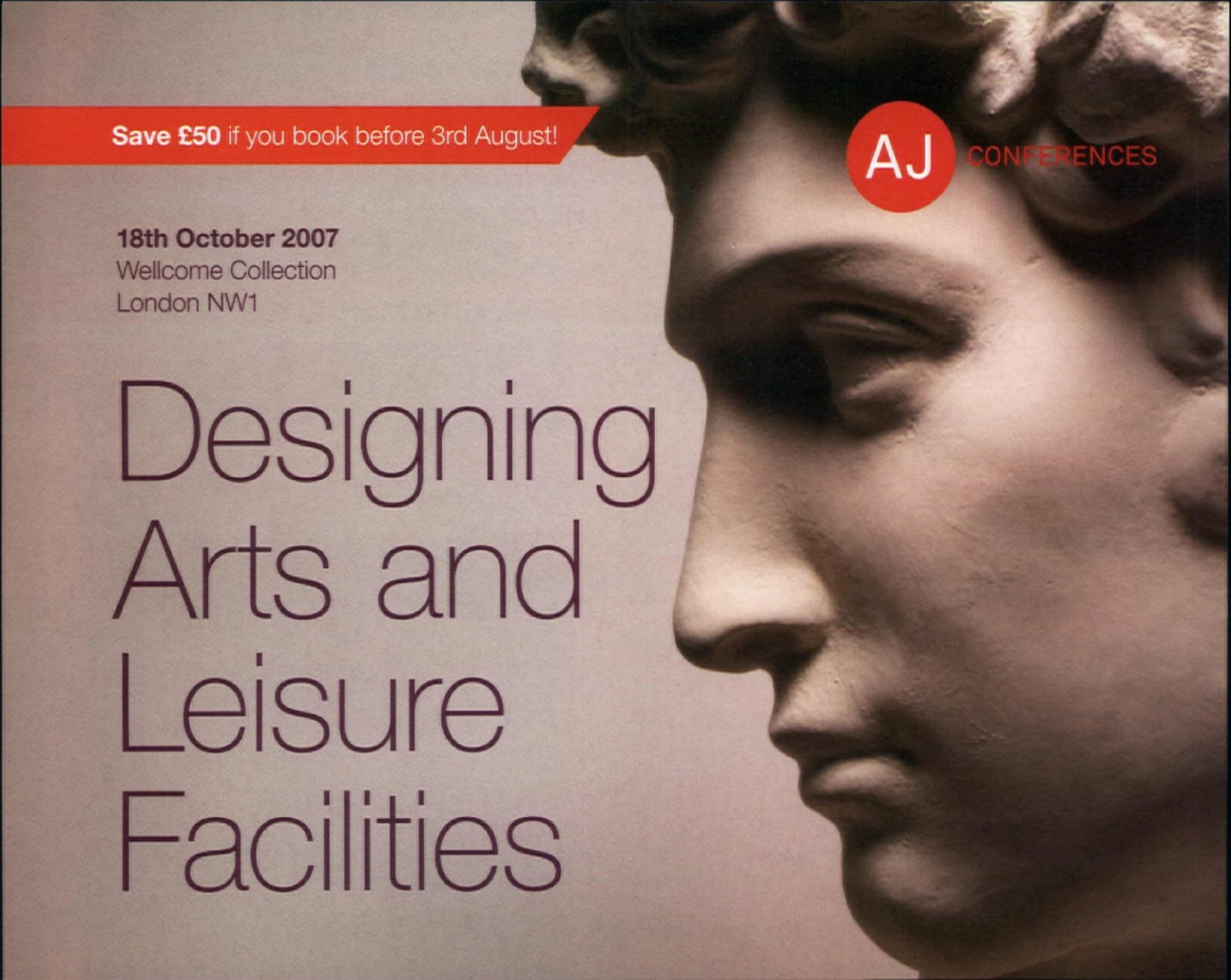
He was contemptuous of his opponents, classifying them typically as 'partisans, crackpots, fanatics', but met his match when his attempt to drive a highway through Washington Square was opposed by campaigners including a local mother by the name of Jane Jacobs – later to write the hugely influential *The Death and Life of Great American Cities*.

Robert Fishman notes that the successful defence of Washington Square 'first brought to the fore the issues

that now define American urbanism: the primacy of diverse neighbourhoods as the real essence of the city; the privileging of the pedestrian and mass transit over the automobile; the meaning and importance of public space; the value of the traditional streetscape; and the wisdom of the citizen over and against the top-down expertise of the planner.'

How can such a neighbourhood-based perspective be reconciled with the need for large-scale infrastructure? In May the UK government proposed a new independent planning commission to decide on major projects, so it seems the question is as urgent as ever.

Robert Cowan is director of the Urban Design Group



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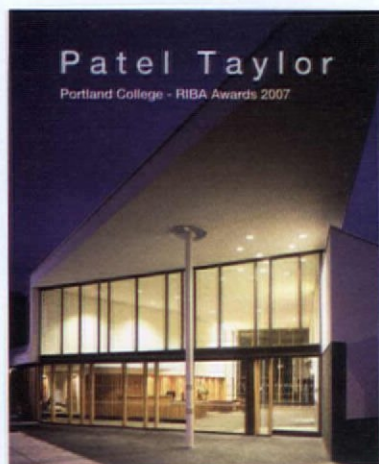
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Tenders



Sheffield City Council (SCC) has been successful in securing Local Enterprise Growth Initiative (LEGI) grant support from Central Government. The Sheffield LEGI programme has been established to stimulate entrepreneurial activity in some of Sheffield's most deprived neighbourhoods. To achieve this goal SCC has established nine delivery projects, one of which is 'Enterprising Neighbourhood Centres' (ENC).

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SCC is inviting expressions of interest from design teams, with experience of architectural projects that have involved developing managed workspace in neighbourhoods incorporating financial, social and environmental sustainability. Practices are being sought that have a track record of design excellence.

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Typically single, one-off residences with values of £15-80 million each having build cost budgets of £4-£20 million. The projects are speculative and the client's aesthetic is contemporary, calm and well-detailed for both striking new build and conversions of Listed Buildings. The projects are based in Kensington & Chelsea, or in west of London country locations including the Wentworth Estate and Henley-on-Thames.

Architecture

The partnership places great emphasis on design and detail at every level. The company uses its own building contracting firm to eliminate typical industry frustrations. Paperwork and meetings are replaced with time spent to properly design and detail projects and consider buildability issues at the earliest possible stage.

The people we're looking for

Fully qualified, experienced Architects who want to work on one project at a time and take responsibility for design at all levels. The positions may appeal to highly skilled practice managers who have found themselves managing others and want to return to design and detailing whilst retaining their status and pay, or those looking to further their career who are already working in this area. The ability to work in AutoCad is an advantage but training will be provided.

What we offer

Very attractive packages at above market levels, as well as a positive working environment where your contribution will be directly evident and recognised.

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With roots dating back to early 1900's, they provide Architecture, Design, Planning and Project Management services to a broad mix of clients. Current commissions include new offices/workplaces, volume residential, community, mixed use developments and masterplanning developments.

Having achieved substantial recognition in the market for the delivery of excellent architecture, this practice prides itself in creating buildings that demonstrate a thoroughness and quality in both design and construction.

An opportunity now exists for an Architect possessing RIBA or ARB affiliation accompanied with Microstation proficiency. Being able to demonstrate strong analytical skills and successful design experience within a commercial environment, you will also be technically proficient with the ability to plan ahead and meet deadlines.

The successful individual will undertake an integral role in the development of UK and European schemes, as such a fluency in a second language would be beneficial.

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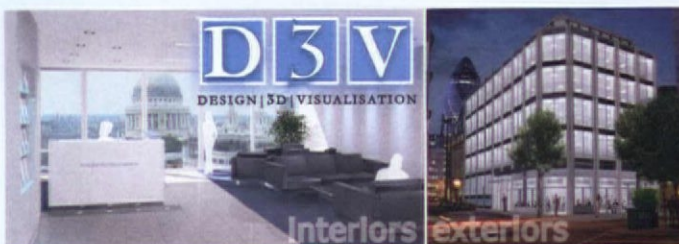
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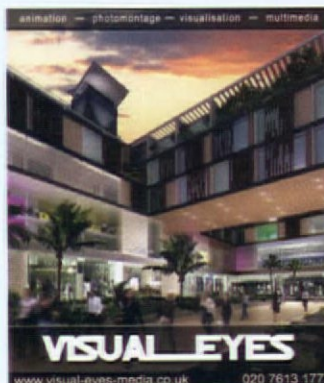
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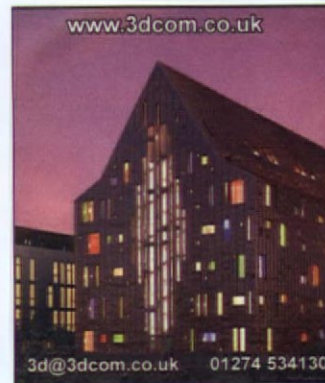
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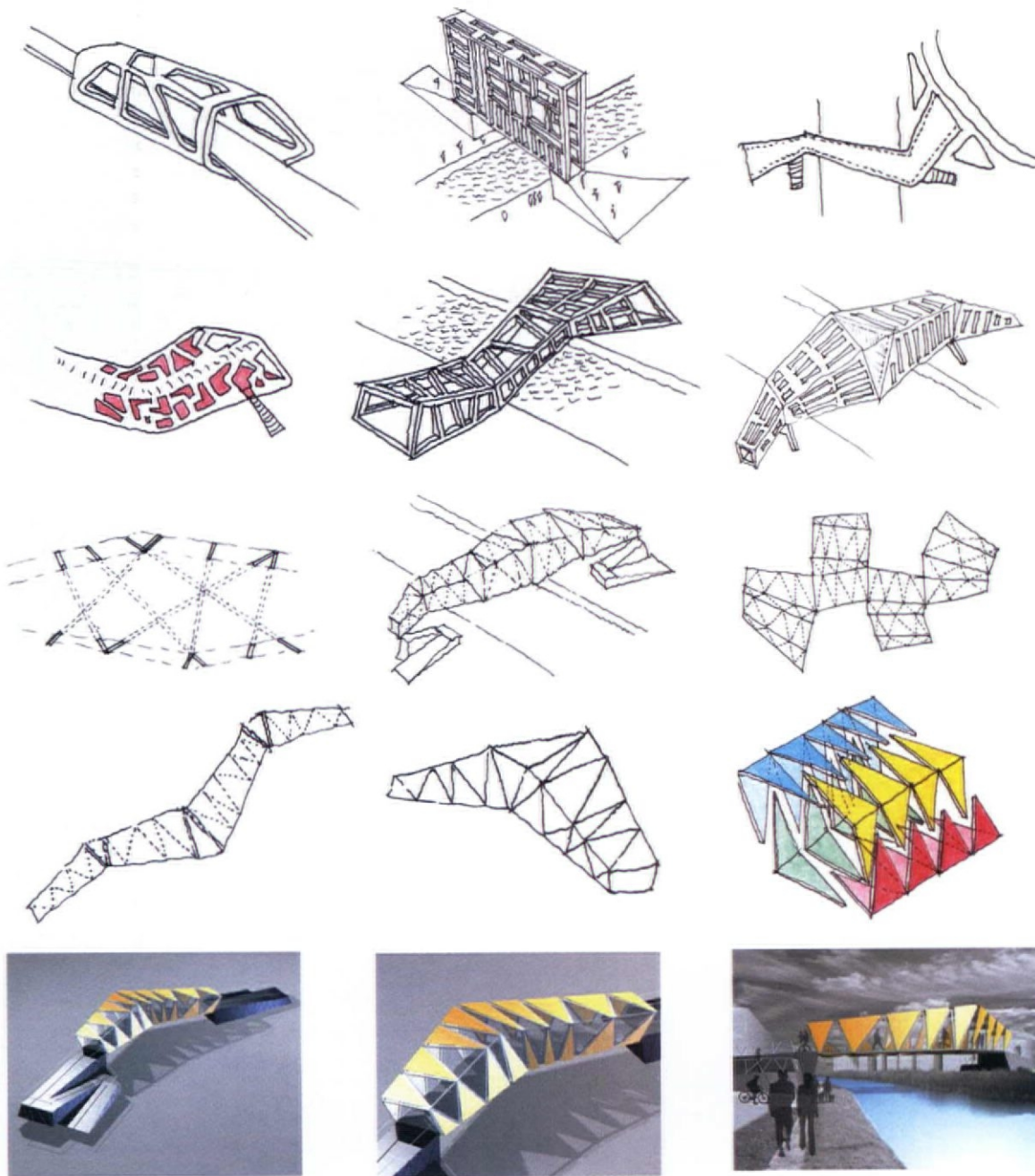
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Concept sketches for an open competition for a footbridge for Bootle, Merseyside. The thumbnails at the bottom of the page are extracts from the final scheme. By Chris Burrows of AWW

Respond to these panels at www.ajplus.co.uk/ajdirect

Readers may also obtain information about these products by filling in the enquiry numbers on an AJ enquiry card. Advertisers wishing to promote their products on these pages should contact Abigail Reed on 020 7505 6662.

SWS



AJ ENQUIRY 201

Scandinavian Window Systems (SWS) has supplied windows and doors for the RSPB's Environment and Education Centre at Rainham Marshes, Essex. The laminated timber windows were combined with high-thermal-performance glass and huge fixed panels to create the viewing area.

STOAKES SYSTEMS



AJ ENQUIRY 202

The new Brickfield Sports Hall in Plymouth features energy-saving cladding and a clerestory in highly-insulating Kalwall to create the ideal playing conditions for the centre's badminton and ball courts and gym workout areas. Kalwall diffuses natural daylight without shadows, glare or blinds.

INTEGRATED DESIGN



AJ ENQUIRY 203

The Fastlane Entrance Control range is designed to balance the aesthetic and security requirements demanded by today's architects and modern building design. The range includes optical turnstiles, tripods, entrance gates, speedgates, passgates and tailgate detection systems.

VELFAC



AJ ENQUIRY 204

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PASSIVENT



AJ ENQUIRY 205

Worden Old Hall in Lancashire, a Grade II*, 16th-century timber-frame hall, is being restored and upgraded to 21st-century standards with the help of Passivent. The Passivent Assisted Ventilation system allows outlets from several rooms to be combined into one discreet roof outlet.

TILE OF SPAIN



AJ ENQUIRY 206

Tile of Spain member Ceracasa was one of three companies awarded the prestigious Alfa de Oro gold award at this year's Cevisama fair in Valencia. Ceracasa won the award for its innovative Emotile system, which allows porcelain tiles to be personalised with digital decoration and special glazes.

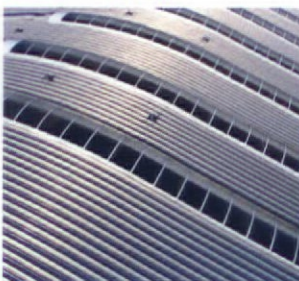
MARLEY ETERNIT



AJ ENQUIRY 207

Marley Eternit adds another innovation to its product range with the launch of Domino and Symphony, its new range of clay interlocking tiles. This range combines the natural clay look with the benefits of an interlocking tile. See www.marleyeternit.co.uk or telephone 01283 722588.

BRETT MARTIN



AJ ENQUIRY 208

Brett Martin Daylight Systems manufactured and installed the rooflights at Crawley's impressive new K2 Leisure Centre. Marvault HF barrel-vault rooflights provide good levels of natural daylight into the pool area and a 28.5m-long Xlok Ultra panelised rooflight comprises 28 glazing panels.



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