

Give your 'esis

As an architect are you consta-Let the Roc y offer you

nt make your projects stand out?

he edge

- Truly unique contemporary designs
 - 3D modelling support •
 - Bespoke design service
 - Advanced material technology

Visit www.therooflightcompany.co.uk or call 01993 833108

Further innovation on our stand at 100%DETAIL 21st to 24th September, Earls Court, Londo

ENQUIRY 11 ON CARD WWW.AJPLUS.CO.UK/AJDIRECT the Rooflight Compan



EDITORIAL

Magazine of the Year Best-Designed B2B Magazine Redesign/Relaunch of the Year Magazine Design Awards 2005

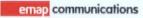
THE ARCHITECTS' JOURNAL 151 Rosebery Avenue, London EC1R 4GB

Editorial enquiries 020 7505 6700 Editorial fax number 020 7505 6701 Email firstname.surname@emap.com

Editor Isabel Allen News editor Ed Dorrell (020 7505 6715) Senior reporter Richard Waite (020 7505 6636) Working details editor Susan Dawson (015242 21692) Reviews editor Andrew Mead (020 7505 6717) Technical editor Hattie Hartman (020 7505 6711) Art editor Sarah Douglas (020 7505 6705) Assistant art editor Eriko Shimazaki (020 7505 6704) Chief sub-editor Angus Montgomery (020 7505 6708) Sub-editor Katie Bacon (020 7505 6707) Editor, AJ Specification / Online Ruth Slavid (020 7505 6703) Assistant editor, AJ Specification Will Hunter (020 7505 6716) Managing editor online Barrie Evans (020 7505 8609) Editorial administration Angela Newton (020 7505 6700) Anna Robertson (020 7505 6700) Marketing executive Tara Ryan (020 7505 6745) Publishing director Jonathan Stock (020 7505 6744) Managing director Ben Greenish (020 7505 6827)

Regional sales managers
Samuel Lau (020 7505 6746)
Katie Deer (020 7505 6743)
Account manager
Brad Davies (020 7505 6743)
Account manager
Brad Davies (020 7505 6706)
Telesales manager
Lucy Herdsman (020 7505 6873)
Senior account executive
Robert Warnock (020 7505 6835)
Account executive
Gemma Knight (020 7505 6662)
Group sales manager
Midge Myatt (01902 851645)
Commercial manager
Malcolm Perryman (020 7505 6698)
Business development manager
Toby Redington (020 7505 6634)
Recruitment
Laura Tilling (020 7505 6803)
Terry Roll (020 7505 6737)
Advertisement production
Leanda Holloway (020 7505 6741)

Back issues: 01344 404 407



The Architects' Journal is registered as a newspaper at the Post Office. ©2005. Published by Emap Construct, a part of Emap Communications Ltd. Printed in the UK by Headley Brothers Ltd. Origination and colour reproduction by Graphics (Kent), Sidcup, Kent

HIGHLY SKILLED PEOPLE HAVE DELIVERED A DEVELOPING TECHNOLOGY

By Ruth Slavid

CABE's depressing report on secondary-school design (ajplus 04.07.06) has a dreadful sense of inevitability. We may talk about design values, but our new buildings are still not good enough. What could be more dispiriting than the description of 31 per cent of schools as 'partially good'? And the first wave of schools delivered under Building Schools for the Future (BSF) looks to be no better. This is no surprise, given the recent rumblings of discontent about BSF, which is aimed more at avoiding risk than at ensuring quality. Small practices have already expressed fears that there will be no place for them, and the whole set-up seems designed to stifle creativity.

The mandarins at the DfES could do worse than to look at this week's AJ, to see that there is still room for imagination and risk-taking today. Rem Koolhaas' buoyant bubble pavilion (see pages 41-43), which opens this week, is the latest example of brave public patronage from the Serpentine Gallery. Only once has it overreached

itself, with the proposed 'mountain' by MVRDV. The Serpentine's version of caution has been to acknowledge the probable complexity of its projects and so to settle on and stick with Cecil Balmond, one of the most talented engineers around. Doubtless public procurement rules would preclude the DfES from doing likewise.

Glenn Howells' Savill building shows a similar level of canniness (see pages 25-37). As Jay Merrick writes: 'A chance has been taken here, although there is no hint of this.' The Crown Estate and the architect have used highly skilled people to deliver a still-evolving technology, and the concept has remained intact despite budget changes.

If those charged with delivering our schools fail to develop a similar level of courage, many of today's pupils will only see such decent design on days out. The message they receive about their own importance will not bode well for their engagement as citizens of tomorrow.

CONTRIBUTORS



Matthew Springett, whose sketch is featured on page 58, is the design director of Springett Mackay Architecture and visiting tutor at the Bartlett School of Architecture



Deborah Singmaster, who reviews a book on C R Mackintosh's period in France in the 1920s on page 45, is a writer and co-director of Footnotes Audio Walks



Neil Bridge, whose photographs of the Savill Building feature in the Building Study on pages 25-37, is a photographer for Vogue and the Guardian, among others

CONTENTS



P. 25 GLENN HOWELLS



P. 18 JOHN PARDEY



P. 45 MACKINTOSH

NEWS

7Weekly digest/online news

11

Alain de Botton puts theory into practice and turns developer

16 - 17

Will Alsop is set to make his US debut with Yonkers scheme

18

John Pardey's 'Apple' tower bears fruit in Dublin

AGENDA

12 - 13

Andrés Duany explains his plans to take New Urbanism into the Scottish Highlands

14

With a planning victory for Wilkinson Eyre's controversial Brighton Marina development, things are looking up on the south coast

BUILDING STUDY

25 - 37

Glenn Howells' Savill Building in Windsor Great Park

38 - 39

Working detail: a clerestory with an overhanging gridshell roof

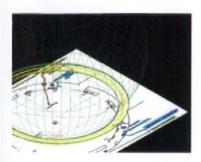
TECHNICAL & PRACTICE

41 - 43

OMA and Arup's pavilion at the Serpentine Gallery

44

Legal/webwatch



P. 41 **SERPENTINE PAVILION**



P. 12 ANDRÉS DUANY

SUBSCRIBE

- ·Go to www.ajplus.co.uk/subssignup;
- . Call 0870 830 4959; or
- · Email aj@subscription.co.uk

A £129 subscription (students £89) includes:

- · The AJ every Thursday;
- · AJ Specification every month;
- ·Access to www.ajplus.co.uk and www.ajspecification.com;
- · Six breaking stories in a daily email alert



P. 16 **ALSOP**

REVIEWS

45 Charles Rennie Mackintosh's travels and paintings in France

46 The architecture of 'radical Classicist' Quinlan Terry

47 The story of the De La Warr Pavilion. Critic's choice

REGULARS

20 Astragal and Hellman

22 Letters

58

Sketchbook: Matt Springett

JOBS & CLASSIFIED

48

Top five jobs:

- · Hilton Hotels: manager architecture and design
- · GSS Architecture: senior architect
- · Barker and Associates: architect
- · Roger Cou: project architect
- Julian Bicknell & Associates: architect

55

Classified advertising

AJPLUS.CO.UK

- · Peter Davey praises Vancouver at www.ajplus. co.uk/peterdavey
- · Daily breaking news at www.ajplus.co.uk/news
- · More than 550 buildings at www.ajspecification.com
- · More than 70 events at www.ajplus.co.uk/diary
- · Competitions at www. ajplus.co.uk/awardscomps
- · The latest jobs at www.ajplus.co.uk/jobs

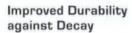
ThermoWood®

www.thermowood.fi



Improved Dimensional Stability

Reduced Equilibrium Moisture Content



Consistent Colour through the piece





Resin removed

Reduced Thermal Conductivity

Environmentally friendly

FINNISH

ThermoWood

ENQUIRY 15 ON CARD WWW.AJPLUS.CO.UK/AJDIRECT





12th September 2006 Cavendish Conference Centre, London, W1G

designing with renewable energy

Successfully incorporating renewable energy into the built environment

Speakers from:

- Airtricity
- ZedFactory
- Alexandros N. Tombazis and Associates
- Christer Nordström Architects
- PRP Architects
- Oxford Brookes
- Energy for Sustainable Development

To Register: Tel: 0845 056 8069

Email: constructconferences@emap.com

www.ajrenewables.co.uk/aj



BREAKING NEWS DAILY / WWW.AJPLUS.CO.UK

All the news you need from the world of architecture breaks daily on www. ajplus.co.uk. To get your news first activate your online subscription at www.ajplus.co.uk/activate
For login details call 020 7505 8623

MONDAY 3 JULY

- Wilkinson Eyre finally wins go-ahead for contentious Brighton tower (see page 14)
- Wembley set to miss yet another construction deadline in September
- Architects sought for overhaul of Northern Ireland's notorious Maze Prison
- Dartmoor Tor stair-lift plan branded 'bonkers' by conservation group

THURSDAY 29 JUNE

- CABE backs John Lyall's potentially controversial waterfront scheme in Liverpool
- Competition launched to find an architect for new Chichester museum
- British Construction Industry Award shortlist unveiled following record entries
- Make's success continues with Middlesex Hospital overhaul

FRIDAY 30 JUNE

- Early James Stirling Brutalist building wins listing upgrade (right)
- 'No Seaside in Scotland' pledges New Urbanist Duany (see page 12)
- Sheppard Robson's Suffolk College proposals not pulled, insists client
- Move to save Gehry's Hove towers 'may not be enough' as plans stall again





- Building Schools for the Future gets a hammering from CABE...
- ... as first batch, by Wilkinson Eyre, takes major step forward
- Rem's Serpentine Pavillion readies for take-off (left)
- Dublin skyline set to grow as U2 Tower soars upwards

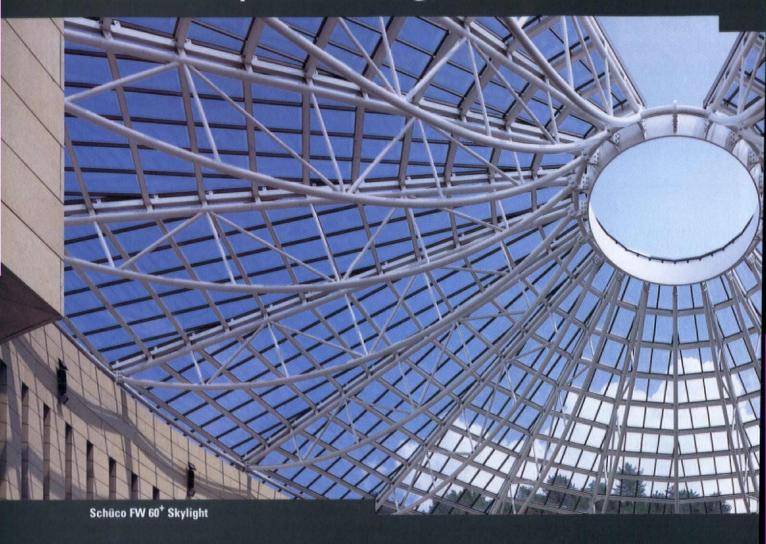


WEDNESDAY 5 JULY

- Bryan Avery reveals Southampton proposals to rival Spinnaker (right)
- New report to Gordon Brown calls for 'reform not revolution' in planning
- Massive swathe of central Portsmouth housing faces wrecking ball
- John Thompson sent back to drawing board for second time in Edgware



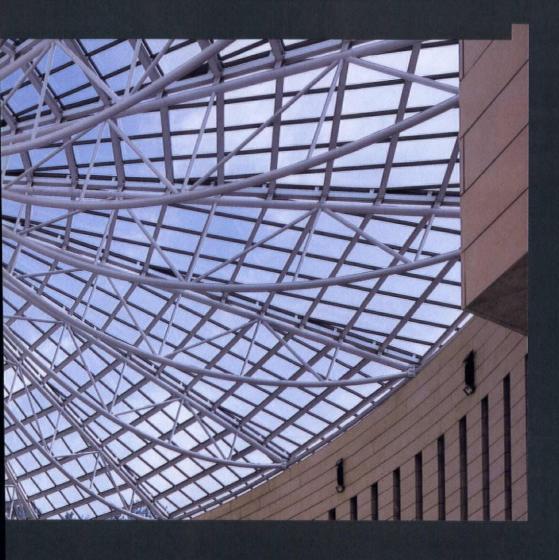
Blue sky thinking



- When architect Mario Botta designed a soaring dome, 25 metres high and
 40 metres wide, to cover the central piazza of the Museo d'Arte Moderna
- in Trento, he needed a creative partnership to help realise his vision.
 Schüco International provided the solution: their FW 60⁺ thermally
 - insulated, aluminium mullion and transom skylight system, with narrow face widths of 60mm, delivered precisely the right combination of
- elegance and strength. Schüco innovative thinking made simple.

₩ Schüco International

Whitehall Avenue, Kingston, Milton Keynes MK10 0AL Telephone 01908 282111 Fax 01908 282131 www.schueco.co.uk



Inspired by the Roman Pantheon, the dome spans 40 metres with ahminim mullion/ transom system (narrow face widths of 60 mm)



ENQUIRY 14 ON CARD WWW.AJPLUS.CO.UK/AJDIRECT

schüco

Creative design on the outside







Alsecco FS





From straightforward render to bespoke finishes, from new build to renovation work, Alsecco provides the widest choice of colour, texture and application options available today. All external wall insulation systems will help you meet strict Part F and Part L requirements while the new Alsecco FS gives added protection against the potential fire risks associated with Light Gauge Steel Frame Construction.

Contact us for our latest technical literature on facades and external wall insulation.



Alsecco (UK) Ltd. Meaford Power Station, Meaford, Stone, Staffs. ST15 0UA Tel: 01782 374066 Fax: 01782 374067 www.alsecco.co.uk

ENQUIRY 17 ON CARD WWW.AJPLUS.CO.UK/AJDIRECT

mixed-use schemes 20

Discovering the right formula for successful mixed-use design





27th September 2006 - The Brit Oval Cricket Ground, London

Key speakers from:

Land Securities Argent Group Allford Hall Monaghan Morris Fletcher Priest Sheppard Robson **Building Design Partnership** Lawrence Graham

Discounted rates before 14th july

To register: Tel: 0845 056 8069 Email: constructconferences@emap.com Online: www.ajmixeduse.co.uk



AJ BOVIS AWARD WINNERS 2006

John Spanswick, chairman of Bovis Lend Lease, presented prizes at the AJ Bovis Lend Lease Awards for Architecture dinner at the Royal Academy last week. He is pictured with CJ Lim (right), winner of the Grand Award for the best architectural work in the RA Summer Exhibition, and Patrick Weber (far right), winner of the best submission by a first-time exhibitor.



AMES BOLTO

DE BOTTON BECOMES DEVELOPER

By Ed Dorrell

The king of pop philosophy Alain de Botton is set to test out his amateur architectural theories for real by building a residential development.

After the massive television and newspaper exposure of his latest book, *The Architecture of Happiness*, the writer is setting up his own property company.

De Botton is putting together a firm called Praxis
Developments and is searching for a 2ha plot on which to build a housing scheme.

He plans to use this site as a way of demonstrating his theory that commentators 'often have the right idea' but are powerless in the wake of the housebuilders who still build the majority of homes in the UK.

De Botton told the AJ that he would commission 'four or five practices', picked by competition, to work on the scheme under the jurisdiction of a masterplanner.

'Following my book and TV series, I was challenged by a number of people to stop commenting and start doing something instead,' he said.

'Their criticism hit home – and I have since been exploring how to start a property development company with an explicit mission of using first-rate architects.'

He said he would use the site, which would be inspired by West 8's Borneo Sporenburg low-rise housing scheme in Amsterdam's docklands, as a 'test-bed for certain financial, ecological, aesthetic and other challenges'.

De Botton added that his plot must be within half an hour's journey of London, must already have outline planning permission and must fall within the boundaries of a sympathetic local authority.

De Botton's move to develop has been welcomed by architect James Gorst, who worked with him on the television version of *The Architecture of Happiness*.

'There is certainly space for the talented amateur in this kind of business,' Gorst said. 'Honestly, Tony Blair is a professional politician and look what a mess he's made of Iraq.

'There is a long tradition of the amateur dilettante doing well in this business,' Gorst continued.'Most of Georgian Bath and London was built by people like [de Botton].'

FROM SEASIDE TO HIGHLANDS

By Ed Dorrell

Andrés Duany, creator of Seaside

– the Florida town as famous for
pioneering New Urbanism as it is
for its Disneyesque conformity –
is now looking to Scotland. The
AJ caught up with him in London.

The traditionalist is a fascinating psychological type in the contemporary intenational architecture scene. It must be near-impossible to reconcile being a member of the conservative establishment in lay society with being very much an outsider in your own profession.

This dilemma all to often triggers resentment of the dominant mainstream Modernists, who refuse to see traditionalists as equals

Andrés Duany – the architect behind Seaside in Florida who is about to design a huge New Urbanist settlement in the Scottish Highlands – is a classic example. He doesn't really try to disguise his frustration that the architectural world doesn't see things as he does.

What makes matters worse is that Duany used to be a Modernist. Indeed, he was educated by a liberal dose of Team 10-ers at Princeton. He even went through the process of climbing the ranks and becoming a partner of Florida practice Arquitectonica. And then... BANG! – he was won over by Leon Krier. This was no small matter for Duany – it was nothing short of a Road to Damascus conversion.

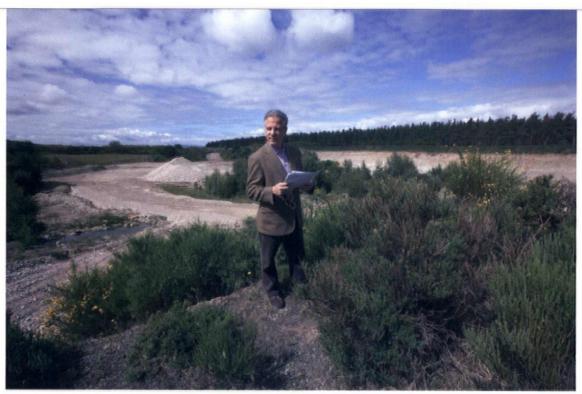
It all started when Duany saw Krier lecture in 1979. Two weeks later he was no longer a Modernist. He describes this 'journey of enlightenment' in a wonderfully American way; all emotion, all centring on himself. God knows what his therapist makes of it...

'Leon was an incredible speaker when he was in his 30s,' Duany says. 'I came away thinking it was like what Lenin must have been like.

'What's interesting is that the first emotion you feel when faced with it is anger and frustration. I was furious. Leon was challenging everything I believed in and I was very, very angry with him for doing it.

'Sometimes when I lecture now I make a young architect angry with me and, although they're clearly furious, I know I've made a connection with them. It's amazing.'

As a good convert, Duany proceeded immediately to become one of the founding fathers, along with Krier, of the Congress for a New Urbanism.



New Urbanist Andrés Duany is masterplanning a new community near Inverness, Scotland

This organisation has, rather frighteningly, been described as 'the most important planning or architectural movement to come out of North America in the 20th century'.

With his wife, fellow architect Elizabeth Plater-Zyberk, Duany also set up DPZ, an office that has become one of the world's leading 'New Urbanist' firms, with work on five continents. 'Our immediate decision in 1980 was to take Krier's ideas and give them a specifically American feel,' he says.

The result was Seaside, which famously featured as the backdrop to Hollywood blockbuster *The Truman Show*.

DPZ and Duany's New Urbanist friends are currently on the rise in the States, largely because of their speedy move to fill the planning vacuum in New Orleans and Mississippi following the Hurricane Katrina disaster last year. Duany describes this huge rebuild as 'the Superbowl of planning'. Nice soundbite.

Miami-based Duany has come to the UK not just to see the AJ and to deliver a lecture at the RIBA (last Tuesday), but because of the huge project which DPZ has agreed to masterplan for a vast site on the outskirts of Inverness. The project – Duany's first UK scheme – will deliver a new town of 5,000 homes south of Tornagrain, which will also include schools, shops, pubs and restaurants.

But, Duany says with conviction, this will be no Seaside in Scotland. Just as the architecture of Seaside in Florida fits exactly into the architecture of the place and the era, it would be ridiculous to build something like Seaside in the Highlands,' he says.

Some 50 per cent of Duany's team would comprise local architects, planners and engineers. 'I myself cannot become an expert in this,' he says. 'That is why we basically graft on to people who have lived here all their lives; they are the experts.'

But what will this new town look like? Will it be a pastiche of the Scottish vernacular? 'No,' Duany answers firmly. 'Although strictly speaking I can't tell you yet because I need to speak to the people who are going to live there. My feeling is that it will be a mix of styles. There might be some traditional homes and there might be some Modern homes. We will give people a choice.

'It is important to remember though that Modernism is a form of nostalgia; nostalgia for the future. It is a pastiche of a revolution that never happened.'

One of the most fascinating things about Duany is this insistence that he hasn't rejected the Modern Movement outright. There are apparently Modern buildings in Seaside – 'It's just that you don't get to see them in films,' he says.

There is one thing that Duany is entirely unequivocal about however. If f*cking hate Post-Modernism,' he says.

Duany's persuasiveness is compelling, and I feel it is time to wrap the interview up before he turns me into a believer.

I think I escaped unscathed, but watch out – a Duany-style conversion could strike any of us at any time...



Wilkinson Eyre's controversial Brighton Marina plan has finally been approved

THE SOUTH COAST IS LOOKING UP

By Clive Walker

Brighton and Hove's vote of confidence in Wilkinson Eyre's controversial £235 million skyscraper at Brighton Marina sets something of a precedent for tall buildings along the city's famous shoreline.

Predictably, conservationists have vowed to continue opposing the scheme – despite the planning subcommittee's nine-to-three mandate in favour of the 40-storey tower last Fridau.

But while the likes of Save Hove are getting hot under the collar, let's not lose sight of the fact that Brighton Marina, as it stands, is something of an architectural desert in dire need of regeneration.

Moreover, as the tower's convoluted journey through planning shows, Brighton and Hove is not about to become another high-rise hell like Marbella – even if Frank Gehry gets the green light for his troubled towers project on Hove seafront.

'Gehry has been put through the wringer, demonstrating the rigorous nature of the city's planning department,' says Wilkinson Eyre associate director, Giles Martin, about the Californiabased star's troubled time on the south coast.

Besides its landmark tower, Wilkinson Eyre's proposal includes 853 eco-homes – 14 per cent less than originally envisioned – along with a series of new bars and restaurants and a mechanical swing bridge creating a 2km walkway around the marina.

This is a fairly radical revision of the architect's original masterplan, submitted for approval in November 2004. Although the scheme gained the unequivocal support of the council's planning assistant director Martin Randall, it failed to convince Brighton and Hove councillors and was refused a year later. The scheme sank on four key points: its siting, layout, height and visibility.

Eighteen months on and Wilkinson Eyre has finally managed to win the city's hearts and minds by removing three key buildings from its original masterplan and significantly increasing parking and leisure provision.

Randall told the AJ, 'It's not been an easy process but the density issues are dealt with and the tower will be a catalyst for revitalising the marina.'

Throughout the saga conservationists such as Save Hove's Valerie Paynter have vociferously opposed the project, claiming it is out of keeping with Brighton and Hove's coastal style. Yet CABE, English Heritage and even the council's conservation and design team have repeatedly said the development will not detract from the city's wealth of historic architecture.

Naturally Paynter remains fiercely opposed, but she conceded the latest version was a 'nice piece of design', albeit 'totally out of context'.

Wilkinson Eyre's tower looks set to start on site within a year. Although Gehry's proposal languishes in the shallows of planners' in-trays, the latest move in favour of tall buildings should pave the way for more towers in the future.







www.colorcoat-online.com

Confidex® offers the most comprehensive guarantee for pre-finished steel products in Europe. Providing complete peace of mind for up to 30 years.

FREE with Colorcoat products - HPS200°, Celestia° and Prisma°,

Confidex® is simple to register and is offered directly to the building owner.

Unlike other guarantees, Confidex® covers cut edges for the entirety of the guarantee period and does not require mandatory annual inspections.

Call the Colorcoat Connection® helpline +44 (0) 1244 892434

NEWS IN PICTURES

THE US BRACES ITSELF FOR ALSOP

Will Alsop is to make his American debut with this scheme on the Hudson River in the city of Yonkers, around 5km north of New York. The \$100 million (£54 million) project, by the newly formed SMC Alsop, aims to radically transform a derelict power-station site abandoned during the 1960s. At the heart of the redevelopment will be a new 25-storey residential tower with its own wind turbine. There are also plans to build a red museum block at the base of the tower next to the empty plant, originally designed to power electric trains running into New York's Grand Central Station in the early 20th century. It is hoped the scheme, for developer the REMI Corporation, will 'introduce new life' into the neglected waterfront area next to Glenwood station. Yonkers, dubbed 'the backvard of The Bronx', is best known as the birthplace of actor James Cagney. Landscape architect Martha Schwartz is also working on the project, due for completion in 2008. By Richard Waite



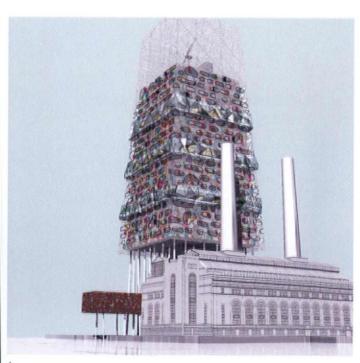
2.



1. Concept sketch for museum at base of tower 2 & 3. The scheme aims to redevelop a run-down powerstation site in the city of Yonkers, New York State 4 & 5. A 25-storey residential tower will form the heart of the project

1.





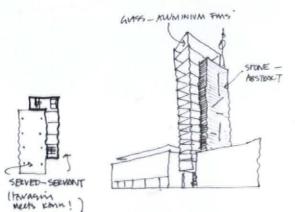


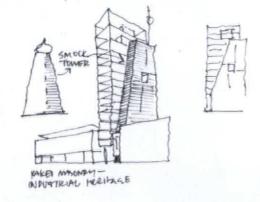
5.

NEWS IN PICTURES

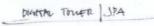








3.



- 1. The tower will be part of the Digital Hub masterplan
- 2. The facade is inspired by the Apple Mac G5 computer
- 3. Concept sketch

PARDEY'S APPLE TOWER BLOSSOMS

John Pardey Architects has been asked to design this 16-storey tower as part of the HKR Architects-led Digital Hub development in Dublin. The 65m-tall office building will become the focal point of the multimillion revamp of the 1.3ha plot in the run-down Thomas Street area of the city. According to Pardey, the glazed element of the new tower takes its inspiration from the Apple Mac G5 computer. Meanwhile the blue-grey Carlow limestone wall, which will wrap around this 'glass box', will echo the brick mass of the nearby Guinness brewery's smock tower - an abandoned windmill at the heart of the scheme. Expected to be given the go-ahead in September, the development will create 269 new apartments and 13,000 m² of retail and leisure space, as well as digital media incubation units.

By Richard Waite



Ash & Lacy offer complete roofing and cladding envelope solutions, beautifully finished with the Ashzip standing seam – a system which delivers more than meets the eye:



- A proven one-stop integrated roofing package including your perimeter details, rainwater goods, fixings and spacer systems
- Design flexibility with tapered, curved and waveform configurations
- Full height halter system for use on pitched and curved roofs
- Cost, performance and programme certainty
- Expert technical and operational advice throughout the project
- BBA approved

For a copy of the Ashzip brochure...

...or to arrange an appointment with one of our sales team...





...visit www.ashandlacy.com or call now on 0121 525 1444

'Musicians can jam, artists can doodle, actors can improvise, but when architects try to loosen up, they usually end up getting sued'

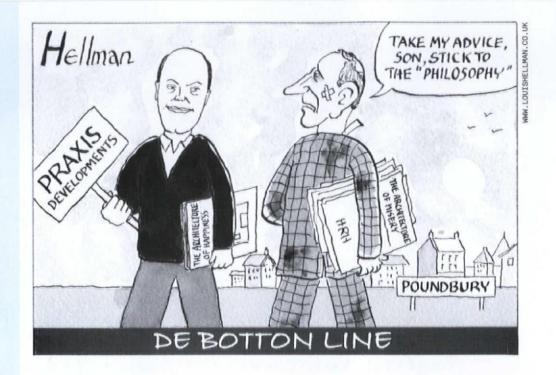
Steve Rose. Guardian, 03.07.06

'To my
unschooled eye
these buildings
have emerged
pre-botched
by compromise,
swollen with
expediency and
profit seeking'

Novelist Jonathan Lethem on Frank Gehry's huge Brooklyn skyscraper scheme. Guardian, 27.06.06

'Briefly thrilling as a spectacle, but brow-slappingly wrong-headed'

Michael Kimmelman on Jean Nouvel's Quai Branly Museum. New York Times, 02.07.06



GUARDED INTEREST

To one of the more interesting of the RIBA's recent council meetings. On arriving at Portland Place, the first thing Astragal noticed was the burly security guards, looking somewhat out of place in the serene Art Deco surroundings. Was there some celebritu present? No. of course not. The goons were on site because the BNP's own Peter Phillips, RIBA presidential candidate, had decided to turn up to council. While there was absolutely no trouble, with campaigners staying away and Phillips on his best behaviour, the very presence of the heavies did add a certain je ne sais quoi to proceedings. As the assembled councillors left the chamber for lunch, Astragal overheard one particularly hefty guard whisper into his walky-talky, 'Council

has broken. I repeat; council has broken.' The drama.

TOILET HUMOUR

One of the lesser-known highlights of the Season is the oh-so-civilised AI/Bovis Summer Exhibition awards at the RA. This year's event was no different, with many of architecture's grands fromages in attendance. Those gathered included Chris Wilkinson, Robert Adam, Alan Dunlop, Will Alsop, Max Hutchinson, guest speaker John Gummer and winner of the best-in-show prize CJ Lim. Notable for his temporary absence was Patrick Weber, the winner of the best newcomer category. It seems Weber chose just the wrong time to head for the little boys' room. 'And the winner is... he's in the toilet.' Cue much hilarity - schoolboy humour will always out.

TOWER OF DECEPTION

The RA bash also saw Chris Wilkinson circulating his 'concept model' for a 'hypothetical' tower – insisting he had no real plans for a skyscraper in London. Of course it didn't take long to discover the design does actually have a planned home – it is hoped it will sit next to lan Simpson's Beetham Tower on Blackfriar's Bridge Road. That's if it ever makes it through planning...

THANK EWE VERY MUCH

Oh and one other thing. Well done to **Peter Murray** and Co at the London Architecture Biennale. Some 75,000 people attended events in the capital over the week and an astonishing 10,000 turned out for **Richard** and **Renzo**'s great Sheep Drive. No mean achievement.



Roofing solutions for a new generation

Today's investment in education is providing long-term opportunities for our future generations, enabling them to improve their quality of life and generate greater prosperity.

Sarnafil, the leader in single-ply roofing systems, is working with specifiers to provide innovative design solutions for the education sector that will inspire and encourage for decades to come.

Whether new build, refurbishment, large or small, exposed or green roofing, Sarnafil provides proven performance and low whole life costs, with a firm commitment to sustainable development.

Whatever the design, Sarnafil roofs can be expected to last in excess of 40 years and are complemented by a stringent Quality Management System and the industry's mos comprehensive guarantees.

Sarnafil brings together expert specification support and advice, trained contractors, quality products and systems to help you realise your vision.

For further information about Sarnafil roofing or case studies within the education sector, contact us today or visit us at www.sarnafil.co.uk

Sarnafil – World Class Roofing and Waterproofing

Sarnafil Ltd.

Robberds Way, Bowthorpe Norwich NR5 9JF Tel: 01603 748985 Fax: 01603 743054 e-mail:roofing@sarnafil.co.uk www.sarnafil.co.uk





Sarnafil Division

ENQUIRY 20 ON CARD WWW.AJPLUS.CO.UK/AJDIRECT

LETTERS

MY SYMBOLISM IS NOT SUPERFICIAL - LIBESKIND

I loved reading your article about the Lubetkin Prize winners (AJ 29.06.06); it certainly evoked the entire ambience!

I was however startled to read that you felt that the symbolism that I use in my buildings is superficial. Certainly I consider true symbolism relates to site and history (such as the Jewish Museum in Berlin, the Imperial War Museum in Manchester and, of course, the 1,776ft spire of the Freedom Tower) and is expressed in buildings, each one of which is an attempt to make a contribution to architecture beyond mere form-making. Daniel Libeskind, by email

OWEN RISES TO THE ARCHAOS CHALLENGE

The Archaos executive set an interesting challenge in its letter when it asked RIBA presidential candidates: 'What strategy would they take to tackle the issue of student pay in architectural practices?' (AJ 22.06.06). I am pleased to respond.

Students leaving Part 2 often work for less than minimum wage – particularly when working on competitions for larger practices (the minimum wage act states that all hours worked have to be taken into account when calculating an hourly rate). This practice is clearly unfair not only on graduates, but also on the many smaller practices trying to win competitions while fully compensating all their employees. Although the RIBA would need to be absolutely certain of the facts first, the institute should certainly consider withholding Chartered Practice status from any practice treating its students in this way, and should also be willing not to publish or give awards to any such practice for, say, a two-year period. Finally an appropriate clause on employment practice should be included in our Code of Conduct.

However, the issue of low pay is one that affects the entire profession – and economic sustainability is central to my manifesto. Architects' salaries are appallingly low given the value we add and the skills and experience we provide. The profession needs a value-based fee scale so that practitioners and practices – both small and large – are properly compensated for their services. I believe this can be achieved by linking our fees to the new Planning Gain Supplement proposed by the government (which is basically a development tax on increased land values following the grant of planning permission), and would love to take on this challenge! Valerie Owen, RIBA presidential candidate, by email

BALMOND BLOCKED MY BUILDING TOO

I was amused to read your story about Cecil Balmond's objections to a small residential development in Crouch End (AJ 29.06.06).

My modest proposal for a site on the other side of Chateau Cecil was met with the same treatment from the engineer. Balmond acknowledged the ingenuity of the design in his letter of objection to the planners, but still insisted that the derelict garages on the site should not be replaced with a small Modern house. Jaimie Shorten, London N16



AHMM TAKES SPECIAL HOMEBUILDERS AWARD

Latitude House in Camden, north London, is one of the projects that helped Allford Hall Monaghan Morris win the AJ Special Award for the best portfolio of entries at the National Homebuilder Design Awards. See the 64-page NHBDA Judges' Report, included with this week's issue.

THE ARB'S RESPONSE IS ACADEMIC

The job title 'head of education, ARB' (AJ 22.06.06) really says it all, but Mr Levett ices the half-baked Soviet-flavoured cake when he protests: 'We [the ARB] have had no complaints from the EU... or from the government.'

As Mandy Rice-Davies might have said: 'Well, they wouldn't, would they?'

M P West, West & Partners, London

ROYAL FESTIVAL HALL ACOUSTICS SOUND FANTASTIC

Re: Alan Kennedy's letter (AJ 15.06.06), it must be stated that the acoustics of Jean Nouvel's Lucerne Concert Hall are very bad – full of echoes, and many seats are miles away from the orchestra. The architecture of the hall is a tremendous break from the rest of the building – of course a concert hall should and can have a certain amount of surprise – but Nouvel's building is overspectacular and overloaded!

With regard to the Royal Festival Hall (RFH), I do not share Kennedy's opinion. Apart from many alterations (which must be amended), the RFH remains the highlight of the 1951 Festival of Britain. Its acoustics are first class: just think back to the days when Andrés Segovia's guitar music could be heard even from the endmost parts of the auditorium.

London should be proud of its RFH, and certainly doesn't need a new hall.

Bryan Cyril Thurston, Switzerland

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



Your new palette in permeable paving



The extended Priora range

If Henry Ford had been commenting on sustainable urban drainage he might have said "You can have any colour you like as long as it's grey". With more and more projects requiring a SUDS solution, you need a less monochromatic approach.

Enter the new, extended Priora range:

- · Tegula Priora, with the traditional aesthetic qualities of Tegula
- · Mistral Priora, with the modern aesthetic appeal of Mistral
- · Olde Priora, with an authentic rustic look

More colours. More block sizes. With new Priora there are now many more ways to create inspiring landscapes that incorporate this innovative SUDS solution.

Priora is just one of the surface drainage solutions provided by Marshalls Water Management. It's one of the more colourful ones.



For your FREE Priora swatch book, call

0870 241 4725

or visit the new, interactive, Priora site at www.marshalls.co.uk/priora

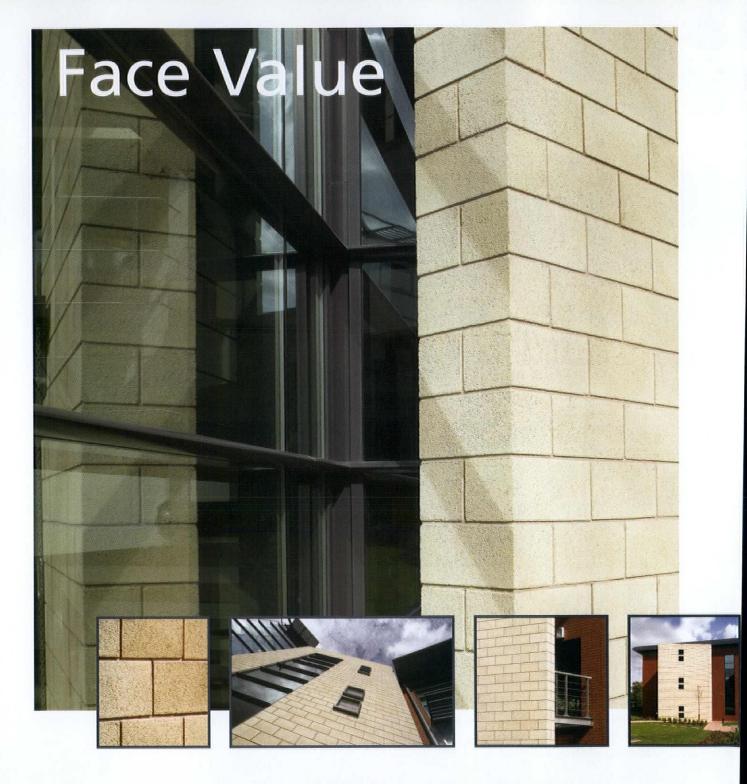
ENQUIRY 18 ON CARD WWW.AJPLUS.CO.UK/AJDIRECT



water management

Transforming Britain's Landscapes

PARJ06A



Facing Masonry from Lignacite

Parklands Rubery Great Park Commercial Offices, Midlands Architect: Aedas TCN

Lignacite, Facing Masonry Product: Original Weathered Cream

ENQUIRY 22 ON CARD WWW.AJPLUS.CO.UK/AJDIRECT



Lignacite Norfolk House High Street Brandon Suffolk IP27 0AX T: 01842 810678 info@lignacite.co.uk www.lignacite.co.uk

GLENN HOWELLS/ SAVILL BUILDING



1. The latticing resembles a giant sheet of tripe made of wood

THIS IS NOT BLING, NOR EVEN DUCHY ORIGINAL

By Jay Merrick. Photography by Neil Bridge

Established in 1990, Glenn Howells Architects has offices in Birmingham and London. Key buildings include The Dream Factory in Warwick, the UK's first purpose-built theatre for young people; the Market Place, an arts centre for Armagh City & District Council; and Timber Wharf, Manchester, a residential development for Urban Splash. Current projects include the conversion of The Rotunda, a Grade II-listed Birmingham landmark, into 234 apartments; and the Aspex Art Gallery, at Portsmouth's historic docks.

Three domes, sinusoidal, ultra slim in elevation. The Savill Building in Windsor Great Park has, with some elegance and a sheepish nod to Brunelleschi, lifted the timber gridshell into the mainstream of architectural practice in Britain. The building is referred to by its architect Glenn Howells and the royal demesne's Deputy Ranger Philip Everett as 'iconic'. This serially unfortunate term reflects its brandmark qualities, but this is not bling, nor even Duchy Original, architecture. The design process was exploratory, the commissioning was an act of faith, and the detailed outcome was not predictable.

A chance has been taken here, although there is no hint of this. The Crown Estate Commissioners' £5.3 million investment seems akin to a blue-chip each-way banker at Ascot. More than a decade since Frei Otto, Richard Burton, Buro Happold and Edward Cullinan created Britain's first radical green timber buildings at Hooke Park, and three years after Cullinan and Happold contrived the Weald and Downland gridshell in Singleton, this structural form has been rendered credible in Surrey; it is expected to lift annual visitor numbers by a third, to 450,000.

To the Modernist eye, the Savill Building makes the structures at Hooke Park and Singleton appear, respectively, arcanely pagan and charmingly eco-warriorish. The response is questionable, but the reason for it is plain to see. While the Savill Building's canopy dominates the elevation like a flattened, silvery arabesque, scribed by an artist with languid asymmetry in mind, its secondary features – glass, steel and brick – are not in the least recessive; they want to be noticed, their difference is accentuated. The Modernist geometry and materials meet, and have reached hybridised agreement with the oak, plywood and Kerto LVL, crafted into the canopy section by Green Oak Carpentry.

This fusion of materials and typologies, which looks pretty seamless in the finished building, was hazardous during the design process, the on-site changes in detailing and – to put it mildly – the budget adjustments. The building's insouciant cadences have effaced the occasionally tortuous truths of its erection by main contractor Verry Construction. The Savill Building is a British first, and firsts do not come cheaply, or easily. Everett notes that Howells' original canopy proposal was too big and expensive, and that on-site negotiations were often 'interesting'.

It is also clear from the experience of the Savill Building that, in the medium term, fusing timber gridshells with the usual suspects of the Post-Modernist pattern book will remain exploratory. The combination of materials and the ambitious extension of previous gridshell geometries depended upon moments of *ad hoc* democracy in decision making, which characterised the

26 AJ 06.07.06



2. The approach from the car park allows a cursory glimpse of the canopy

construction process in a fillet of countryside whose idylls have never been associated with architectural experimentation.

The Great Park covers 2,020ha to the south of Windsor. More than half of this is forested and the public areas are mainly woodland or open grassland. The Crown Agents' design brief required that timber from the park be used where possible, so oak and larch were duly sourced: the oak was used for the canopy's outer rainscreen, flooring and key non-structural external features; larch suited the laminated grid lattices and their blocking pieces.

The park still seems imbued with a faintly Edwardian ambience: Smith's Lawn, Blacknest Gate, the Valley Gardens and Virginia Water are still the purview of the Ranger, the Duke of Edinburgh. The origins of Virginia Water's modern expanse can be traced to 1621, when the expertise of the Dutch engineer Cornelius Vermuyden stemmed a breach in the Thames embankment at Dagenham. Vermuyden's parkland-drainage scheme at Windsor was approved by the Duke of Cumberland, who was the third son of George II and the Ranger responsible for transforming this swathe of Surrey bogland into much of today's park.

The Savill Building resets the whole experience. The successive beech arbours that crowned the garden were unsuccessful as scene-setters and the latest, planted after the 1987 hurricane, was felled to open up space for the Savill Building. The original visitor centre will now be demolished. Howells has achieved an ordered sense of procession by familiar means. The approach to the building is from the car park on the northern side, which allows

a cursory glimpse of the canopy; it is the delicate-looking edge we notice, but the fuller form remains obscure. This is the result of a kind of compression – the only compression in the programme, which otherwise recalls Norman Foster's charmingly idealised sketch for Stansted Airport: you walk in, you walk straight ahead, and you get on the aircraft.

Here, you walk in, you walk straight ahead, and if you wish to avoid retail or information hazards, you leave the building across a wide stone-flagged terrace (there is still time to falter and sit down for tea, or buy impossibly healthy-looking plants) and debouch straight into the park's first grand declivity. The initial compression is achieved by two grassed and juniper-planted berms, either side of the entrance, that draw the gaze to a central point; the berms also preface the wave-form of the canopy, which can only be fully appreciated from the southern side of the building.

Beneath the canopy, Howells has kept display and other functional structures to a minimum – he thinks of them as scattered items of furniture in a pavilion, rather than as forceful demonstrations of internal architecture. It is the underside of the canopy that engrosses, bringing to mind the designer Thomas Heatherwick's remark that 'the eye likes to reach out and touch things'. That the eye does so here is due to the canopy's scale, sense of movement and detailing.

Howells describes the canopy as 'like a duvet being fluffed up'. The middle-class connotation must be countered by the fact that the latticing – the geometry compressed here, extended there,

KEY
1 GARDEN ELEVATION
2 RHODODENDRON
3 BRICK WALL
4 HA-HA
5 OAK-CLAD GRIDSHEL

5 OAK-CLAD GRIDSHELL ROOF

6 ROOF SUPPORTS 7 GLAZED FACADE



3. Key elements of the project

and always veering asymmetrically – also resembles a giant sheet of tripe made of wood. The nature and effect of the architecture is produced by calculated combinations of material, and they are founded on the details of this duvet. The pairs of blocking pieces dividing the larch chords are discontinuous: the gapping accentuates the sense of craft and handiwork, and establishes a certain rigour, evident in the minimised steel and timber sections. The language even tallies with the steel sliding pin-joints that connect the top transoms of the full-height glazing along the building's southern facade to the canopy.

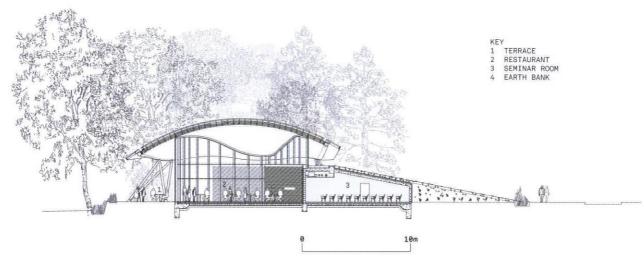
Buro Happold's contribution was of critical importance. The practice's gridshell expertise dates back to its involvement in the groundbreaking expression of Frei Otto's plastic 'hanging chain' gridshell at Mannheim. At Windsor, the gridshell was erected on raised scaffolding, covering the 90 x 25m plan area of the canopy, then dropped in a series of precisely cascaded 'adjustments', relating to 200 datum points; these, in turn, referred to a single arced setting-out line, in plan, near the building's centre line. In its pre-dropped form, the gridshell was a symmetrical lattice with a 1m grid, made up of 80 x 50mm larch sections.

The grids were originally to have been triangulated with steel cables. Fortunately, this materially clumsy idea was superseded by something more self-effacing. Schauman birch plywood was applied to the shell's upper surface — and there is something truer, simpler and less flagrantly *über technik* about the canopy as a result. A surprisingly floppy 'spaghetti' of oak sections — long lengths that

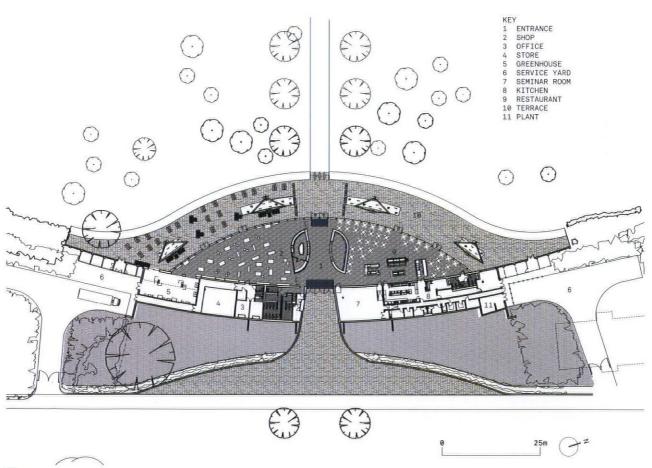
were finger-joined on site in poly-tunnels – was attached directly to the raised seams of the aluminium water barrier, fixed to the gridshell's plywood sheathing.

A key issue was the canopy's load concentrations, and their dispersal. This required a gear-change in timber materials: LVL sections were bolted to the edge sections of the gridshell, then connected to in-plane steel fins on the structural ring-tube, girdling the undulating edge of the canopy. The tube, welded on site in 12m sections, was just 2mm out when the two ends were joined — a 'fantastic achievement,' according to Happold's project engineer Richard Harris.

How easy it all looks from the south: the silvering canopy; the thin mullions and the peculiarly satisfying wall — made in local brick the colour of a port wine bibber's nose — which curves gently through the northern side of the plan to create back—of-house spaces between the main volume and the berms. Even the four quadruped steel supports for the ring-tube on the south side manage to present themselves as graphically secondary to the gestural primacy of the canopy. However, Glenn Howells admits, ruefully, that he had wanted to paint them black rather than pale grey. What a very close call, for he would have then rendered the whole facade, with its darkened glass panels, too dense to carry through the sense of craft that defines the Savill Building. His recollection that Brunelleschi always coloured architectural structures grey in his drawings gives this important about—turn a certain wry authority.



4. Section



5. Plan



30

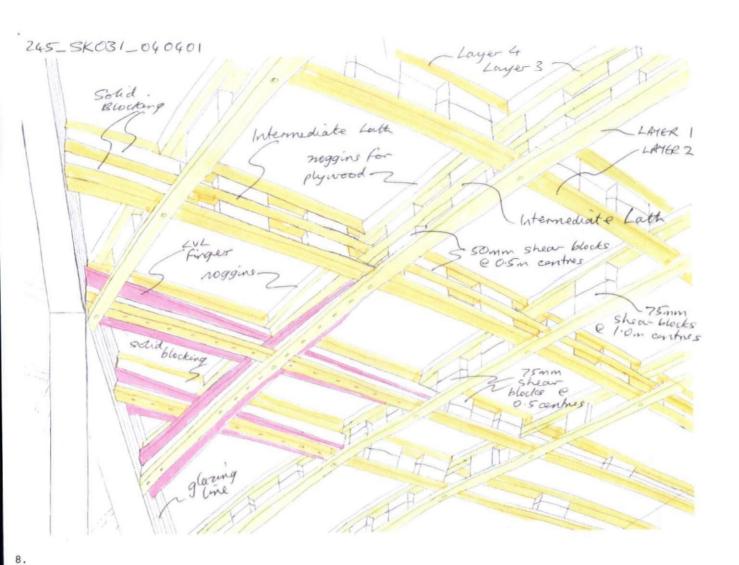


6. The gridshell is contained within a steel ring-tube on quadruped steel supports



AJ 06.07.06

32



7. Structures beneath the canopy are functional and kept to a minimum

8. Sketch showing the gridshell construction





STRUCTURE

Gridshell structures are light and efficient but their structural form is undeniably complex. The unique attributes of a timber gridshell mean that even this double-curved structure can be built with a minimal use of materials, giving very efficient coverage of space. Unlike gridshells made of steel or concrete, which require many different complex curved shapes, the repetition of structural elements means a timber gridshell can be made from a set of straight, prefabricated, identical components. As such, this gridshell uses 80 x 50mm sections of larch timber in a regular 1m grid. Ideally, a gridshell would be supported firmly all around its perimeter, but to allow for a more dramatic building with wide openings on to the garden, the Savill Building's gridshell has to be contained within a steel ring-tube, supported at several discrete points. This perimeter ring contains the internal forces of the structure and provides points of contact for the supporting quadruped legs, also made of steel. As a result of this design, load concentrations on the Savill structure had to be considered carefully. Initially, the concept included steel cables to triangulate and brace the shell in its plane. But, to save cost and make a more elegant structure, cables were omitted. So, the plywood covering, which is needed to support the external raisedseam roof, provides the strength and stiffness needed in the plane of the shell. In supporting roof loads, this in-plane structure is just as important as the more visible laths. The structure's own weight is easily carried by the timber and, with no other loads applied, the stresses in the laths and the plywood bracing are very small. More severe loading conditions. such as wind and snow, had to be considered, with the structural plywood helping to transfer the extra forces through the domes or valleys of the roof, to the steelwork and the foundations. Richard Harris, Buro Happold

9. Graceful undulations of the timber roof

Costs

Cost analysis based on contract sum. Costs refer to gross internal floor area.

01	ID	OT	DI	JCT	-11	п	_
51	ıĸ	31	ĸι	16.1	ш	ĸ	_

Foundations/slabs £183.33/m²
Reinforced concrete; Volclay DPM and tanking system

SUPERSTRUCTURE

£292.49/m² Frame In situ reinforced concrete £707.53/m2 Roof Front of house - timber gridshell, comprising four layers of larch, ply decking, insulation, aluminium standing-seam roof and Crown Estate oak rainscreen. Back of house - RC slab, green-roof system and 250mm topsoil £13.06/m2 Rooflights Glazing Vision double-glazed automated rooflights External walls/brickwork £52.50/m2 100mm block inner leaf, 65mm Rockwool insulation, 35mm cavity and 102.5mm brick outer leaf £219/m2

35mm cavity and 102.5mm brick outer leaf
Windows/curtain walling
Steel mullions and structural double-glazed units
with floating heat joint
Internal walls and partitions
Back-of-house brickwork included in external
walling element. Facing brickwork, 25mm mortar
joint and 100mm blockwork inner leaf
Internal doors
£21.08/m²

Internal doors
Natural oak-veneered doors

ruturur our remeered door

INTERNAL FINISHES

£16.67/m2 Wall finishes Plaster and paint finishes to back of house Floor finishes £90.52m2 Ceramic tile Crown Estate oak flooring £150/m² (not in contract sum); Back of house: carpet to offices, £62.50m2 epoxy paint to storage areas and corridors £33.76/m² Ceiling finishes Back-of-house suspended ceilings; plasterboard with paint finish, supported upon MF system to public areas; hygienic ceiling tiles to catering areas

FITTINGS AND FURNISHINGS

Mechanical services	£211.64/m²		
Electrical services	£136.58/m²		
Communication installations	£11.11/m²		
Builders' work in connection	£11.11/m²		

PRELIMINARIES AND INSURANCES

Preliminaries, overheads and profit £443.51/m²



Cost summary

	Cost per m2	Percentage
	(£)	of total
SUBSTRUCTURE	183	8.9
SUPERSTRUCTURE		
Frame	292	14.3
Roof	708	34.6
Rooflights	13	0.6
External walls	53	2.6
Windows	219	10.7
Internal walls	28	1.4
and partitions		
Internal doors GROUP ELEMENT TOTAL	21	1
GROUP ELEMENT TOTAL	1,334	65.1
INTERNAL FINISHES		
Wall finishes	17	0.8
Floor finishes		
Ceramic tile	91	4.4
Crown Estate oak	150	7.3
Back of house	63	3.1
Ceiling finishes	34	1.7
GROUP ELEMENT TOTAL	355	17.3
SERVICES		
Space heating and	212	10.3
air treatment		
Electrical services	137	6.7
Communication	11	0.5
GROUP ELEMENT TOTAL	360	17.6
TOTAL	2,049	100

Credits

Tender date
17.11.03
Start on site
11.10.04
Contract duration
70 weeks
Gross internal floor area
1,800m ²
Contract
GC/Works/1 Without Quantities
(1998). Two stage tender
Total cost
£4.8 million
Client
The Crown Estate
Architect
Glenn Howells Architects
Structural engineer
Engineers HRW
Quantity surveyor
Back Group
Services engineer
Atelier 10
Project manager
Ridge and Partners
Timber engineer
Buro Happold
Roof design consultant/
subcontractor
The Green Oak Carpentry Company
Contractor
William Verry
Landscape architect
Landform Consultants



10. Sketch of the Savill Building in its landscape

WORKING DETAILS / SAVILL BUILDING

A CLERESTORY WITH AN OVERHANGING GRIDSHELL ROOF

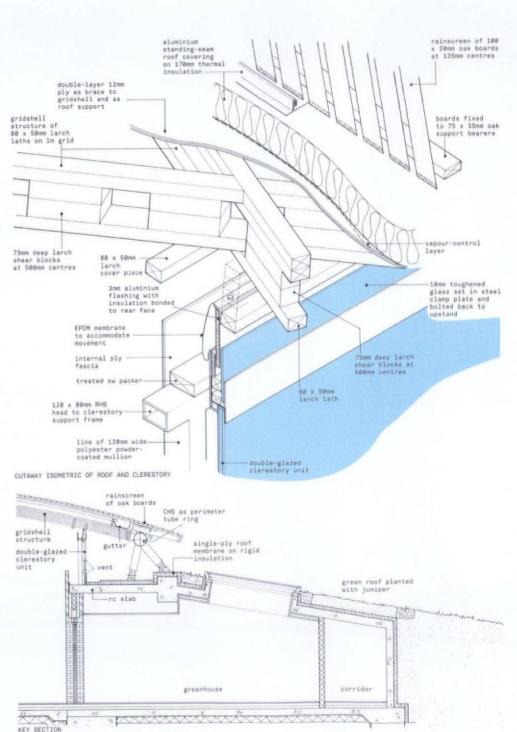
The building (90 x 25m on plan) has an undulating gridshell roof, formed of 80 x 50mm larch laths separated by 50mm- and 75mm-deep larch shear blocks. The gridshell is braced with a double layer of pluwood which supports an insulated standing-seam aluminium roof covering and a rainscreen of 100 x 20mm oak boards at 135mm centres, which are fixed to 75 x 35mm oak bearers; the standard seam clips of the aluminium roof were adapted to support the bearers.

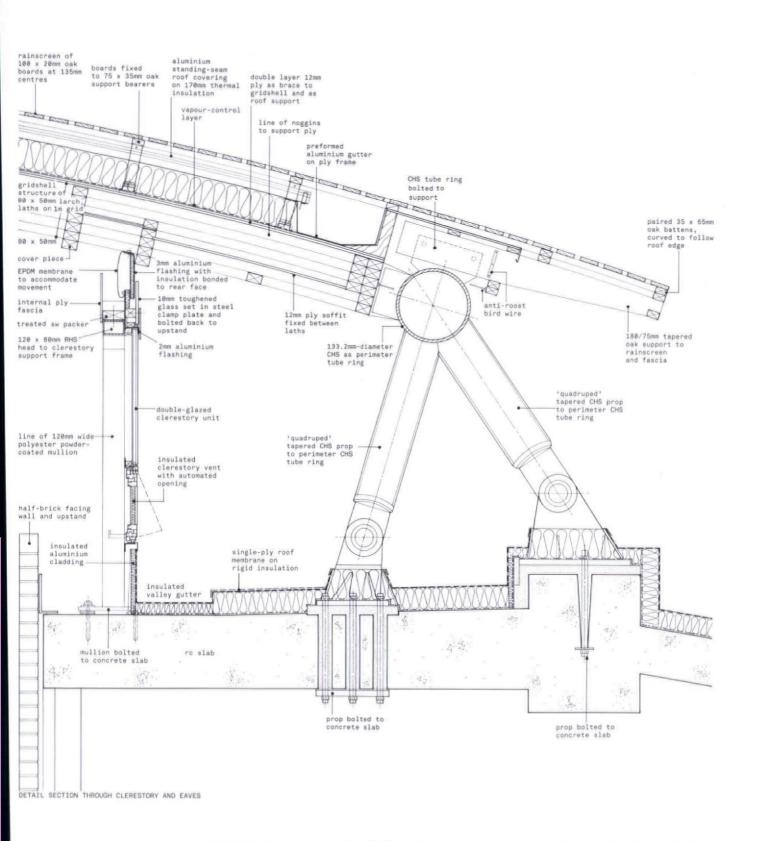
The glazed main entrance is set between two sloping 'banks', concrete-slab structures enclosing the greenhouse and other 'back of house' functions. They are planted with juniper and rise to a glazed clerestory. The gridshell roof extends over it, incorporating at its edge a CHS tube-ring, containing the internal forces of the structure.

To accommodate the very considerable deflections of the roof (plus/minus 100mm), due to snow load and wind forces, the clerestory glazing frame is cantilevered from the concrete slab, incorporating an EPDM movement joint at the head. Inside, the joint is screened by a ply fascia, and outside by a strip of 10mm toughened glass in the same plane as the glazing.

Rainwater drains along the standing seams of the roof into an inset gutter, then discharges on to a gutter at the clerestory's base and drains underground by means of a syphonic system.

By Susan Dawson





"It's been brilliant – far exceeding our expectations, we'll be back with a significantly larger stand in 2007.

"We came with a completely open mind and although I thought we would be busy, we were rushed off our feet for the full five days. It was our first time at Interbuild and to be honest, I've been overwhelmed at the number of leads we've picked up."

Ian Guest, Henkel Building Systems.

Systematically building business at Interbuild 2007

Henkel Building Systems is just one of the many companies that enjoyed great success at Interbuild in 2006, the home of building. As well as structural products, trucks, tools, internal products and services, it's the place where buyers from every facet of building come to you to see what's new. Some of the hottest topics in 2007 will be sustainability, off-site solutions, energy efficiency and housing regeneration. And, with dedicated show areas, Interbuild 2007 will reflect this.

Last year, the show attracted an ABC audited 44,436 visitors, with a combined buying power of at least £16.19 billion, over five days. So if you want to meet your market, make sure you're here. Call 020 7505 6783 now to reserve the stand that suits you best. Space is strictly limited and you simply can't afford to miss out.

For more information and to book your stand now call 020 7505 6783.

You'll be in great company. Here are just some of the exhibitors who have already booked their space for Interbuild 2007

Ohra Regalanlagen Gmbh. Stakapal Ltd. Akw Medi-care Ltd. Cci Specialist Supplies. Marble Building Products. Wedi Systems UK Ltd. Traditional Products Ltd. Rhino Products Ltd. Volkswagen Commercial Vehicles.
Configure Limited. Straight Lines. United Electrical Products Ltd. Birch International Carpets. British Hardwoods, Foresbec UK Ltd. Matrade, Polyflor Ltd. DD Heating Ltd. - Heatline. Edincare. Environmental Seals Ltd. John Guest
Speedfit Ltd. Willibighe Ltd. The Radiator Company, Tractpipe (Omegafiest) Ltd. Tudol International, Uniconal. Viliavent Ltd. Winkler Enchnik Gmbh. Wolf Gmbh. Addagrip Surface Treatments UK, Barcham Trees
Plc. Elements Europe Ltd. Energy Saving Trust. JJ Smith & Co. Kondor Bathroom Pods Ltd. Opods Ireland. J & JW Longbottom. Monodraught. Nulok Roofing Systems UK, Okpol UK Ltd. YBS Insulation Ltd. Asia Insulation. Ancon
Building Products, Architects Registration Board. Barbour ABI, Corporate Image Media. Durisola. Emap Glenigan. Ggr Glass Services Ltd. Helical Systems Ltd. J & J Carter, Lloyds Timber Frames Ltd. Safety Letterbox Co. Ltd.
Spider Bott Company, Stakapal Ltd. Stalok Terminals Ltd. Stira Folding Attic Stairs Ltd. The Building Centre. T Cards Direct. Axminister Power Tool Centre. BEA Fastening Systems Ltd. Bosch Ltd. Fein Power Tools UK Ltd. ITW
Construction Products. Monument Tools Ltd. Napit. Rollins & Sons Ltd. Rubi UK, South Survey Ltd. Sycamore UK Ltd. Tacwise Rapesco Group Ptc. Toolstation. Topcon (GB) Ltd. Eleco Software Ltd. Potton Ltd. Radiant Control Ltd.
Ltd Pratley & Partners. Matz Carterias. Scoop. Ltd. Unique Window Systems Ltd.







28 October – 1 November 2007 NEC · Birmingham · UK



The home of building





Sunday 28 Oct to Thursday 1 Nov 2007 Birmingham NEC www.interbuild.com

THIS BALLOON IS NO ORDINARY BALLOON

By Hattie Hartman



2



 ABS plastic rapid prototype study model
 Computer rendering of the pavilion and gallery based on actual dimensions

The Serpentine Gallery's architecture pavilion programme likes nothing better than a challenge, and its biggest challenge is one-upping itself. After convincing a reluctant Oscar Niemeyer to participate in 2003, two years later the gallery turned to Dutch practice MVRDV who proposed, rather than a separate pavilion, to roll a lawn up and over the gallery itself. This proved ambitious even for the Serpentine, so Álvaro Siza and Eduardo Souto de Moura stepped in to the breach with a spider-like timber structure in 2005. This year, OMA in collaboration with Arup, which has participated in the pavilion programme since 2001, has proposed an ephemeral 'non-pavilion': a translucent inflatable roof canopy which floats over polycarbonate walls with no apparent structure.

The enclosed area of about 350m² houses the usual cafe and flexible seating which can accommodate up to 300 people for evening programmes. In good weather, the roof can be raised 4m above the walls. The balloon's height, which is 24m when open, is taller than the gallery roof.

Arup associate Tristan Simmonds, of Cecil Balmond's Advanced Geometries Unit, a veteran of Anish Kapoor's red Marsyas in the Tate Modern's Turbine Hall, describes this year's pavilion as 'extremely complicated'. Almost every detail is bespoke and, as always with the Serpentine pavilions, the telescopic time frame requires the designers to double as project managers during construction to make it all happen. There is no time for trials and mock-ups, so the design team has to go with its best guestimates of what will or will not work. With a movable inflatable structure

which is responsive to wind and weather conditions, there are even more than the usual number of variables.

To understand the technology of balloons and airships, Arup went to Lindstrand Balloons, collaborator of Richard Branson. But, of course, OMA's balloon is no ordinary balloon. Not only is it asymmetrical, but it is also not designed to flu, so that most balloon data which is based on stratospheric conditions. is irrelevant. Responding to a nearby tree on the site, OMA gave the balloon a dimple. The final form of the balloon, according to Simmonds, is partly sculpted and partly 'found form'. Starting with OMA's abstract architectural form, Arup developed 3D software called 'nip and tuck', which incorporates the stiffness and tensile properties of the balloon fabric and manipulates them to find forms that do not exceed the strength of the fabric and are sufficiently resistant to the wind. In the early stages, OMA was looking for a more spiky, Sonic the Hedgehog form, explains Simmonds, but this proved difficult to achieve. The final form is more mustical, reflecting Balmond's influence.

STRUCTURE

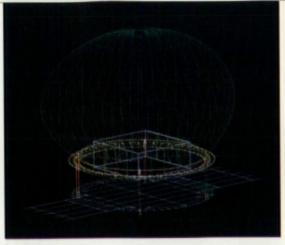
A steel floor platform, made up of perforated metal decking over lightweight structural steel, provides a base for the pavilion at the same level as the Serpentine Gallery floor. The 30m-diameter balloon sits on a 5m-high polycarbonate drum, made up of two circular walls of polycarbonate panels, 1.6m apart. The café and all the infrastructure and services sit within the void of the wall, which is made up of 55 segments. A bespoke polycarbonate mullion assembly, located at approximately 1.2m centres, provides the support for the open-cell polycarbonate panels that form the wall.

Hidden within the wall is the pavilion's primary structure, which consists of four 305mm steel columns on screw piles, designed to restrain the balloon's three-tonne uplift. The four columns support a ring-beam, also located within the translucent wall cavity, which acts as a bumper for the balloon when it is in the down position. The ring-beam has 55 short arms, or brackets, which support cables that run through each polycarbonate mullion and maintain the wall's vertical position. Arup Associate Carolina Bartram explains that cables were chosen because they would be the least visible through the polycarbonate wall, which is illuminated from within at night.

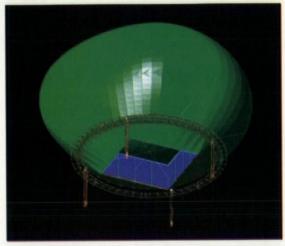
Other details were adapted from the worlds of ballooning, airships and sailing to enable the roof canopy to be raised and lowered. Rotating circular pulleys found on boats, called sheaves, are used to guide the ropes up and down. A 'flower pot' detail, a four-sided steel bucket lined with nylon, was developed for the tethering point at the top of the four columns to guide the cable into place during windy conditions. Four synchronised winches on electric switches are used to move the canopy up and down, which takes about one minute. Seven stays, tied to Platipus anchors, provide additional restraint for the canopy, spreading the load so that reinforcing patches on the canopy could be eliminated.

The fabric, selected to maximise translucency, is a fine polyester mesh, laminated between two layers of clear PVC. The location of seams in the fabric and the cutting pattern were established using the 3D model. Inside the canopy, a clear horizontal PVC membrane, fixed to the canopy's interior surface using high-frequency welding, separates the helium in the top from the air below. Because the sun makes the helium expand, the bottom compartment is vented to maintain a constant internal pressure that keeps everything taut. The canopy does not leak, but the balloon exterior slowly transmits helium, and it is anticipated that the canopy will need to be topped up about once a month. All the pumps, as well as lighting, are in the void between the walls.

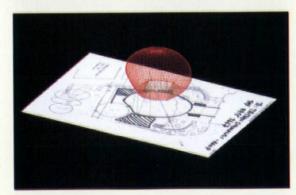
A 10m² aluminium frame is recessed into the underside of the roof canopy to create an enclosure for the space below. The ceiling of this recess is made of ETFE to provide a clear window into the underside of the canopy. As the internal pressure of the balloon will cause the ETFE to bulge down, a system of 25mm polyester belts is located on approximately 900mm centres to hold the ETFE in place. The vertical faces of the ceiling recess are printed with graphics by artist Thomas Demand.



3.



4.

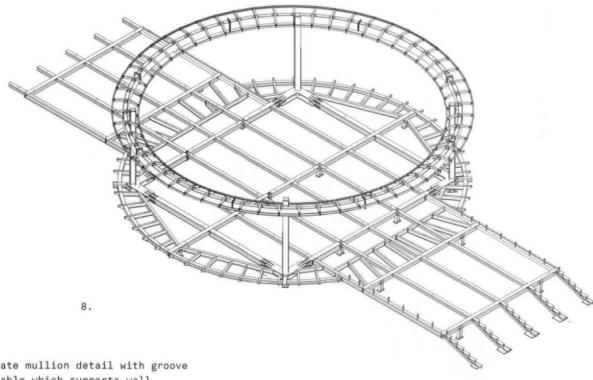


5.

3. 3D model for fabric and steelwork4. 3D model showing recessed ceiling enclosure, ring beam and columns5. 3D model of balloon superimposed on site plan to lay out tethers







6. Polycarbonate mullion detail with groove for tension cable which supports wall

- 7. Early exploration of a more spiky form for the canopy
- 8. Isometric of steelwork

GOLDEN TIME FOR MODERN TECHNOLOGY?

Another architectural pillar wobbles. Some recent work reported by the monthly web magazine '.net' (www. netmag.co.uk) suggests that the Golden Section does not work in website design in fact the study by a couple of Teesside University psychology buffs persuades '.net' to conclude about the Golden Section that 'when it comes to websites, forget it'. D'Arcy Thompson addicts and other people worried by this conclusion have to pony up £17 to read the full study that I fancy was ultimately funded by you and me. Still, a not-allthat-helpful abstract is at www.tinyurl.com/goxuk.

Thinking of buying any new PCs in the immediate future? Hold off. The Register, that wonderful, cynical daily read about IT folk, recently reported that both AMD and Intel, makers of the majority of central processors in PC machines, are to slash their prices in late July. Expect UK retailers to pass on the cuts as slowly as they dare. The same Register reports that the annual mobile phone throwing contest is to take place on 20 August at Tooting Bec Athletics Track. Adult participants only: probably in recognition that no selfrespecting teenagers would want to part with theirs. The world-record throw is 94.97m. sutherland.luall@btinternet.com

THE WEMBLEY WAY

Barristers involved in long cases sometimes entertain themselves by challenging each other to use incongruous words and phrases in their submissions to the tribunal, writes *Kim Franklin*. The hard-pressed judge is then surprised by unlikely references to 'Agatha Christie', 'chocolate swiss roll' or 'nasturtiums', while the counsel in question collects their prize later, usually in the pub.

A recent high-profile Technology and Construction Court judgment reads as if the judge took these diversionary tactics to heart and incorporated the spoof references into his judgment. Scattered through its 200 pages are such phrases as, 'signature arch', 'Sheikh Abdullah Al Rushaid', 'Project Trafalgar', 'Chinese Ministry smuggling operation' and 'Armageddon Plan'. These are not, however, the work of a fertile forensic imagination. They are all elements of the bumper bust-up between two construction giants with a national emblem at its centre. I am referring, of course, to Multiplex's dispute with Cleveland Bridge over the steelwork for the National Stadium at Wembleu.

The steelwork contract, which was let in September 2002, was troubled almost from the start, with both parties blaming each other for delays and poor performance, notably with regard to the stadium's

signature arch. In early 2004, the Cleveland Group's board, including its chairman, Sheikh Abdullah, met and hatched 'Project Trafalgar'. This was a four-point plan, which included stopping work on the grounds that Multiplex had repudiated the contract. At the same time, Multiplex was working on its 'Armageddon Plan', to replace Cleveland with another steelwork contractor.

While the parties manoeuvred, the on-site problems proliferated. The Chinese steelwork fabricators were unable to process part of the steel in time and raw steel had to be shipped back to China. This difficult operation was hampered by the Chinese authorities, who were puzzled by such large quantities of untouched steel travelling halfway around the world and back. Multiplex's man in Shanghai reported that the Chinese suspected a smuggling operation.

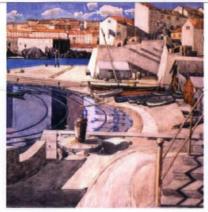
The parties attempted to resolve their differences in a supplemental agreement, just before the arch was raised at the end of June 2004. Multiplex seriously down-valued Cleveland's works in two certificates issued in July. When Cleveland objected, Multiplex referred the dispute to adjudication. Cleveland asserted that Multiplex was in repudiatory breach of contract, so stopped work in

August 2004 and both parties started court proceedings.

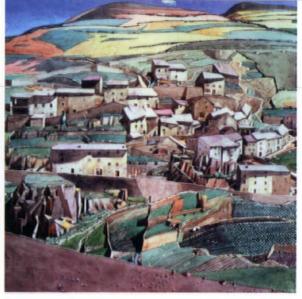
Mr Justice Jackson tried 10 preliminary issues, which he decided in a lengthy judgment comprising 16 parts. One of the central issues was whether Multiplex had repudiated the contract so as to entitle Cleveland to leave site. The Judge found that Multiplex ought to have consulted Cleveland before issuing the offending certificates, but that its failure to do so was not a repudiatory breach of contract. It was, he said, a strategy which was 'ruthless but lawful'. Cleveland was not, consequently, entitled to treat the subcontract as finished or to stop work. This is not the end of the story but on this occasion, it seems, Armageddon triumphed over Trafalgar.

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

REVIEW



1



2.

BOOK

By Deborah Singmaster

Monsieur Mackintosh: The Travels and Paintings of Charles Rennie Mackintosh in the Pyrénées Orientales 1923-1927 By Robin Crichton. Luath Press, 2006. £15

1. The Little Bay, Port-Vendres

2. Fetges

If you are wondering where to take your next holiday, Monsieur Mackintosh may provide inspiration. When Mackintosh and his wife Margaret set off for France in 1923, they were in frail health and had very little money. Mackintosh's architectural career was over; the Architectural Review had recently dismissed his work as 'curiouslu old fashioned'. But, as described bu Robin Crichton, a Scottish film producer, the French adventure was to prove a quiet triumph in terms of creative achievement and personal happiness.

Their first visit was experimental. They started in Perpignan, travelling through Amélie-les-Bains, perhaps in search of a cure for Margaret's asthma, then on to Palalda and Prats-de-Molo, before turning back to Collioure. After a flying

visit to London, they returned and continued exploring. In the winter of 1925, they settled at the Hotel du Commerce in Port-Vendres. The town was a busy commercial port, in contrast to nearby bohemian Collioure. The Mackintoshes kept to themselves. Mackintosh liked to paint in solitude and never mastered French.

Thirty-eight watercolours survive. Apart from a few flower paintings, they are unpeopled landscapes or townscapes, stylised planes of form and colour attractively crowded together. They would have made powerful posters.

Mackintosh often exercised artistic licence, moving a lighthouse into view, repositioning a rocky outcrop or adding an extra layer of houses to strengthen a composition. Margaret

described the region as 'this lovely rose-coloured land', (or was it him? Crichton seldom says which of the two he is quoting). However, the colours Mackintosh used are much colder: Celtic grey, blue and especially green, a colour to which he was addicted: 'that's one of my minor curses – green – green – green'.

Monsieur Mackintosh is a clever package – part art book, part biography and part travel guide. Contemporary and archive photographs of the views Mackintosh painted are printed alongside reproductions of the watercolours, and Crichton describes the history and traditions of the towns the couple visited. The works are numbered in the text and these numbers reappear on maps of suggested itineraries at the back of the book, but not next to the

actual reproductions, so you have to do a lot of page flipping to link maps to images. This may be irritating when using the book as a guide.

In his brief commentary, Crichton has brought the elusive Mackintosh to life: his irascibility with wind, flies and idle local lads; his eccentricity – he had a predilection for corduroy trousers ('splendid stuff... for rock, gravel, stones or mossy green turf'); and his deep love for his wife.

If you had mentioned Mackintosh's name in Port-Vendres a few years ago, people would have thought you were referring to a computer. No longer. The final link in the Mackintosh heritage trail is now officially on the map.

Deborah Singmaster is co-director of Footnotes Audio Walks

Terry's Ionic Villa in London's Regent's Park

BOOK

By Colin Davies

Radical Classicism: The Architecture of Quinlan Terry By David Watkin. Rizzoli, 2006. £35

David Watkin is mostly right about Modernism, although comparing it to the Taliban, as he does in the introduction to this book, is perhaps going a little too far. 'The spirit of the age' has become a cliché; the rejection of tradition and the insistence on novelty now seem tiresome and wasteful prescriptions; and 'truth to materials' is a 19th-century idea that is passing into history.

There no longer seems any good reason to forbid a disjunction between the facade of a building and its interior. Ornament, once a crime, is now being enthusiastically revived by progressive young architects everywhere. This reviewer, for one, is not about to use Modernist arguments to attack Quinlan Terry, although this is clearly what Watkin expects.

Reviving the Classical tradition is a perfectly reasonable aim and for Terry it seems to be a genuine vocation. He deserves his success and, as this lavish book shows, that success is considerable. He has built dozens of houses for rich clients in England and the USA, as well as several urban and commercial projects, including the well-known Richmond Riverside. He has been called in to make additions and alterations to nationally important buildings like Chelsea Hospital and 10 Downing Street, and has even designed a Roman Catholic cathedral in Brentwood.

Terry's knowledge of Classical architecture is deep because it is practical, not bookish. He and his son Francis travel the world, measuring and sketching real buildings, and then apply what they have learnt. Watkin dutifully lists all the references and precedents. Brentwood Cathedral, for example, has an entrance portico borrowed from James Gibbs' St Mary le Strand (Gibbs drew inspiration from Pietro da Cortona), an arcade from Brunelleschi's Ospedale degli Innocenti, and a marble bishop's throne, based on the one in San Miniato al Monte. This is not design in the usual sense, but neither is it copying. It is good old-fashioned composition, and there is nothing wrong with that.

But, the fact is that the cathedral looks a little similar to a railway station. Like everyone else's architecture, Terry's is sometimes good and sometimes not so good. To call him, as Roger Scruton did recently, 'our greatest living

architect' is absurd. You could only come to that conclusion by disqualifying all the non-Classical architects, which would leave a field of about four or five. And even then?

The photographs in this book are often more beautiful than the buildings themselves and one is left wishing that the architecture was less earnestly correct and less po-faced. There is a black-and-white photograph on page 113 of the book of Hanover Lodge in Regent's Park, built in 1827, but remodelled in 1911 with what Watkin calls 'incongruously high roofs'. The image stands out because it shows a humorous and characterful building by a Classical revivalist of real flair: Edwin Lutyens.

Colin Davies is a professor at London Metropolitan University



BOOK

By Kenneth Powell

De La Warr Pavilion: The Modernist Masterpiece By Alastair Fairley. Merrell, 2006. £29.95

The De La Warr Pavilion at Bexhill-on-Sea remains one of the most unlikely Modern Movement icons, beached in a visually and architecturally mundane South Coast resort the late Victorian creation of the local landlord, the Seventh Earl De La Warr. No match for Eastbourne, let alone glamorous Brighton, in terms of its visitor appeal, Bexhill nevertheless had a progressive edge. It was the first British resort to allow mixed-sex bathing. By the early 20th century, a cinema was in operation and motor races took place along the seafront.

It was the Ninth Earl who launched the pavilion project with a competition that was won, in 1934, by Mendelsohn and Chermayeff. It was a highprofile affair – submissions by Oliver Hill and Max Fry were unplaced. The appointment of

Mendelsohn and Chermayeff, described (exaggeratedly in the case of Harrow-educated Chermayeff) as 'aliens who have found it advisable to flee from their own land', was unpopular in some quarters.

After a brief flowering during the 1930s, the De La Warr Pavilion quickly lost its gloss and by the 1970s seemed doomed. Fairley's book is a celebration of its renaissance, managed by John McAslan + Partners, and culminating in a triumphant reopening earlier this year. The competent (if brief) text tells a familiar story, but the wealth of drawings and photographs, showcased by exceptional standards of design, make a book of broad appeal to enthusiasts of the thirties.

Kenneth Powell is an architectural journalist



CRITIC'S CHOICE

By Andrew Mead

With its intricate steelwork, suspended in mid-air, it could be a Constructivist fantasy from the V&A's current Modernism show, but it's for real. Pictured above is part of the Arecibo Space Telescope in the jungles of Puerto Rico, which Dan Holdsworth has photographed for his exhibition at the National Maritime Museum in Greenwich, entitled At the Edge of Space. Captured in long exposures at different times of day, the telescope recurs in one of three series of images, the others devoted to the European Space Agency spaceport in French Guiana (from where Ariane rockets are launched) and the spectacular Northern Lights, glowing green above the snowbound landscapes of Iceland and Norway.

Whether singly or en masse, Holdsworth's large colour prints are striking. Though they focus partly on human constructions 'at the edge of space', what they mostly convey is awe in the face of natural phenomena and cosmic distances. In this, Holdsworth's sensibility is not so different from that of the Romantics a couple of centuries ago – he's the Caspar David Friedrich of our high-tech age. The show continues until 7 January 2007 and there are several related events, among them a panel discussion with architect Paul Shepheard as a contributor (www.nmm.ac.uk/newvisions). A rewarding monograph on Holdsworth was published last year (Steidl, £19.99), which includes an earlier series of photos he took of Bluewater shopping centre. Ablaze with light beneath a lurid sky, it's straight out of one of J G Ballard's dystopian fictions.

Bluewater is hardly the most auspicious omen for the future development of the Thames Gateway, which is the subject of *Turning the Tide* – the latest New London Architecture exhibition at the Building Centre, 26 Store Street, London WC1, until 2 September. It will show who's involved, what they are doing and where, as well as what they ought to be doing,' it explains (www.newlondonarchitecture.org). At 8.30am each Wednesday during the exhibition's run, there will be a talk at the Building Centre featuring key players in the Gateway, including *Terry Farrell* (12 July), the GLA's *David Lunts* (16 August), and chief executive of the Thames Gateway London Partnership, *Eric Sorensen* (30 August).

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



THE ARCHITECTS' JOURNAL 151 Rosebery Avenue, London EC1R 4GB

Display advertising 020 7505 6823 Recruitment advertising 020 7505 6803/6737 Advertising fax number 020 7505 6750

Deadlines Bookings/copy 5pm Monday Artwork 12pm Tuesday Cancellations 12pm Monday





FUTURE

Future Systems require an architect with 2 years work experience post Part 2 to work on specific projects. Competency in AutoCAD and Rhino is a requirement. Please apply in writing to only Carlotta Poggiaroni.

Future Systems The Warehouse 20 Victoria Gardens London W11 3PE

carlotta@future-systems.com

www.ajplus.co.uk/jobs QUALIFIED AND RIBA PART I & II ARCHITECTS

JOBS ENQUIRIES

With experience in traditional architecture to work as part of a team on a new exciting mixed use project.

REQUIRED

John Simpson and Partners 29 Great James Street London WC1N 3ES

info@johnsimpsonarchitects.com

R D RECRUITMENT (RUGBY) LTD

Laura Tilling 020 7505 6803 laura.tilling@emap.com Terry Roll 020 7505 6737 terry.roll@emap.com



T: (01788) 572841

kim.shreeve@rdrecruitment.co W: www.rdrecruitment.co.uk

Ref: 0606-101 **Architectural Technicians** £ Competitive Bedfordshire Permanent

My client is looking for experienced Commercial Residential Technicians preferably with an MBIAT qualification. You must be familiar with all aspects of building construction and have grounded experience of production drawings, dealing with Building Regulations, works on site, good design awareness and presentational flair.

Senior Architect/ **Associate Partner**

Northampton

With offices in Northampton, Kettering and Bristol, we are a very successful broadbased practice with an enviable "blue chip" client list. We are now looking to appoint a truly outstanding and highly experienced senior architect who will be based at our Northampton office.

The successful candidate will be able to demonstrate an excellent track record and will have an impressive portfolio. He or she will become an Associate Partner, the leader of a young, talented and vibrant team, and a member of our senior management group.

In return we offer a substantial package with excellent future prospects.

Please apply in writing with your CV and examples of recent work to:

David Allsop BA, DipArch, RIBA, GSS Architecture 35 Headlands, Kettering, Northamptonshire, NN15 7ES. Tel: 01536 513 165

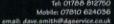
E daa@gotch.co.uk.

www.gotch.co.uk

GSSARCHITECTURE

We are an Equal Opportunities employer

Please contact Dave Smith to discuss these and many more exciting jobs on: Tel: 01788 812750 Mobile: 07810 624036





South West Vacancy

My client le a busy practice based near Exeter with a great reputation for the quality of their projects within the Residential and Educational sectors. They are currently seeking a Technician with 3-4 years experience to join them. Ideally your background will be within a related sector, but candidates with any relevant UK experience will

Staffordshire Vacancy

Technician/Job Runner

Vac ref 0607-001

recombination of Number 1997. This client is a medium sized generallet practice with elight bias towards Residential and commercial projects which represent aproximately 75% of their workload. They are now seeking a Technician/Job Runner with a background gained in any Architectural discipline. What is important is your ability to liaise with clients and subcontractions as well as producing high quality designs on Autocada In return for your skills the client is able to offer long term career and development opportunities as they continue to expand over the next 5 years.



David Wilson Partnership Architecture ~ Landscape Architecture ~ Building Surveying

Project Architect, North Devon

Small, busy practice needs ARB registered architect with proven job running experience to work on schools, community and health projects Good communications skills are essential. Key role in a growing practice. For more information email:suzannah@davidwilsonpartnership.co.uk tel. 01271 374485,

www.davidwilsonpartnership.co.uk David Wilson Partnership, The Old School, Ladywell, Pilton, Barnstaple, **EX31 1QT**

David Wilson Partnership is an Equal Opportunities Employer

WEINTRAUBASSOCIATES

We are seeking talented, energetic Qualified Architects and Architectural Assistants to assist with design and production work on our growing portfolio of projects in the UK, Europe, USA and UAE.

Prior experience with residential, hotel, commerical, mixed use and or high-rise developments would be a benefit.

Applicants must have good design, techinical, and management skills along with a high proficiency in AutoCAD. 3D modelling and computer generated visualisations skills would also be a plus.

Please send current CV along with representative samples of work to: Ms. Susan Smith, Weintraub Associates, Britannia House, 11 Glenthorne Rd, London, W6 0LH tel: 0208 735 6555 email: susan@weintraub.co.uk







ENGINEERING A SUSTAINABLE FUTURE

SENIOR MECHANICAL AND ELECTRICAL ENGINEERS

ENGINEERS who read the AJ?

Yes, that's who we want to hear from. Why? Because we work with Architects to integrate the engineering services into their concept designs. We have to be interested in the architecture if we are to make a useful contribution. We have to care about the whole building, not just the services.

Since our formation in 1994 we have built an excellent reputation in niche areas, offices, museums and galleries, historic buildings, super-yachts and superhomes. We are at the forefront of sustainable design and integrated home automation and are involved with some of the finest buildings and homes in the country, and elsewhere.

We have offices in London and Liverpool and our main production office is in Stafford. We have vacancies in all three offices for Senior Engineers with proven successful track records in consultancy and design of building services. We are also interested in hearing from Intermediate and Junior Engineers who think they have the exceptional skills we require.

These are career appointments with a modern employer who has a policy of wealth creation and fair distribution to its staff. Top salaries are offered with advancement to Director level available for the right people.

WE ONLY EMPLOY THE VERY BEST - OUR CLIENTS EXPECT NOTHING LESS

CV to Jean Ferguson by email or write to: -Bob Costello Associates Ltd Britannia House Eastgate Street Stafford ST16 2NQ

Tel: 01785 247300 Fax: 01785 248123 Email: mail@bca-consulting.com

LONDON - STAFFORD - LIVERPOOL



...it's what you'll have working for Hilton

Hilton Corporation is the leading global hotel company operating more than 2,700 hotels worldwide in over 80 countries.

An opportunity has arisen for the position of

MANAGER ARCHITECTURE & DESIGN

A competitive salary and benefits will be offered to the successful candidate

We are looking for a personable and practical architect with excellent commercial skills to join the professional Europe & Africa Technical Services Department team based in Watford, London. The job will involve co-ordinating and managing new build and refurbishment projects in Europe & Africa (excluding the UK).

The following are mandatory requirements:

- · Fully qualified RIBA/ ARCUK status
- · Minimum 5 years Post Part III RIBA experience
- · Strong education qualifications followed by varied commercial background
- . An interest in travelling to European countries on a regular basis
- · Advanced ability in computing plus good freehand design ability (eg sketch planning)

In addition the following requirements are also preferred:

- . Fluent in one or more of the following languages; French, German, Spanish or Italian
- · Hands-on project management experience including financial responsibility
- · An interest in leisure design including contemporary hotel interior design

To apply, email your CV in POWERPOINT FORMAT (max file size 5mb) containing full contact details, education, experience, examples of work and why this position would suit you to: technicalservices@hilton.com

Closing date for applications: FRIDAY 21st JULY 2006.

www.hilton.com

Strictly no agencies please

The world's most famous hotel brand



A Clerkenwell based job agency set up by Architects for Architects

Funky hotel design! £25,000 = £55,000 p.a.

A fantastic design practice in Bloomsbury are looking for a talented project architect & a number of Part II assistants to take a prestigious hotel scheme recently won in competition through to completion. Great long term prospects & working environment. Autocad an advantage.

Mix it upt £32,000 - £40,000 p.a.

One of the leading housing architects in the UK with fantastic offices in EC1 are looking to build a team of architects, technicians and Part II's with mixed use experience. Great opportunity to work on some of the capitals most high profile projects. The office prides itself on promoting a good live/work balance. Autocad an advantage.

Jain the major players. £40,000 - £50,000 p.a. + great annual bonus.

An ambitious practice of 120 in zone 1 are looking to appoint project architects to work on their industrial sector projects. Applicants must be capable of seeing projects through to completion & must have strong client facing skills. Previous experience within this sector an advantage. Fantastic opportunity for career progression with great payl Autocad.

To view a comprehensive list of vacancies & to register with us please visit www.bespokecareers.com or call us an 0207 24 24 909.

www.4-architects.com Tel: 01323 749200

Architects / Technologists Bristol £Comprehensive Pkg This well-established and very successful design practice with a wide range of interesting and exciting projects. Would like to appoint an Architect and architectural Technologist to join their

friendly office. Job Running skills and client liaison experience would be a benefit. Excellent career opportunities and competitive salary to match.

Ref: 3441 (Philip / Mark)

Technician / Technical Co-Ordinator Herts Our client is a long established bespoke developer with a reputation in the luxury residential sector for excellent designs, imagination and build quality. Which is the hallmark of every development. An exciting opportunity has

arisen for an Architectural Technician or Technical Co-ordinator with a residential grounding to join them. Either from an architectural practice or a developer/construction background. If you are considering a career move or want a better package please call us in the strictest confidence for more information. Ref: 3440 (Mark / Phil)

£28K - £42 Plus Pkg Architects / Assistants West End

Top London Award Winning International Practice. A wide range of excellent design projects, in house training and regular CPD opportunities. Microstation skills would be an advantage but not essential.

Ref: 3429 (Philip / Mark)

Recruitment Consultants

Eastbourne

£A deal to suit you

Architectural or Construction no upper earning limits, relaxed office, 2 mins
to the beach, 30 secs to the bar, 2 mins to the station, loads of good
restaurants and things to do. Must have at least 6 months experience.

(Good Part 3 Experience) Architectural Assistant Berkshire

Unique opportunity with a specialist house building company dedicated, to creating homes of the highest calibre. Building approx. 80 homes each year within the Home Counties. You can expect to get involved in all the aspects of the design and planning process to negotiating with local authorities and consultants regarding planning issues and applications. Ideally you will have gained some work experience from the residential sector. An attractive salary and valuable benefits package is available Ref: 3439 (Philip / Mark) including a company car or allowance.

We have over 61 Contract - Freelance Posts PAYE - LTD Weekly Pay jobs@4-architects.com



Northamptonshire/Oxfordshire/Warwickshire borders

Rurally based, with projects across all disciplines, we have 2 permanent positions in this busy practice.

Project Architect

At least 2 years post part III experience, with a track record in residential projects.

Senior Architectural Technician

At least 5 years experience preferably MCIAT or working towards it. CAD skills and experience of working on multiple projects is essential.

Both positions will require an ability to manage projects, workloads and work with a range of clients, running projects from inception to completion.

Please send a cv to

Email: Enquiries@rogercoy.co.uk

Roger Coy Partnership

Bricknells Barn Lime Avenue

Eydon

Northamptonshire

NN11 3PG

Phone: 01327 260585 www.rogercoy.co.uk



your next career move



Career opportunity with this award-winning Architectural practice. Our client is a well respected, medium-sized company, that has recently been specializing in the design and build of residential apartment blocks and housing. Candidates should be pro-ficient with AutoCAD and fully up to speed with the **UK Building Regulations**

Our client is a major, multidisciplinary, construction company with several offices around the South of England. They are looking for an experienced architect to play a lead role on a range of residential projects. This is a real opportunity for the right candidate to make an impact towards the development and expansion of the Winchester office. Good salary and a car on offer.



Six month contract, producing working drawings for varied planning applications. Flights and varied planning applications. Flights and Accomodation provided. Excellent golf and fishing

t: 01489 898140

e: arch@matchtech.com w: www.matchtech.com



Barker & Associates

Chartered Surveyors



Architect/Architectural Technologist

Busy design office, require an experienced professional to expand its CAD department and ultimately take charge of architectural drawing production under direction of the design Partner.

The ideal candidate should have extensive experience of a wide variety of building types. In addition they will have sound technical/regulation/CAD knowledge and the ability to lead a team producing design and technical drawings for small, medium and large projects concurrently, including education and conservation fields.

This is a senior position with potential for Company progression, attracting a commensurate salary package.

Please apply with CV to: Mrs. Donna Wagstaff Barker & Associates, Waggoners Court, The Street, Manuden, Bishop's Stortford, Herts CM23 1DW Tel: 01279 647111 E-mail: dwagstaff@barker-associates.co.uk www.barker-associates.co.uk

An Equal Opportunities Employer

crawford partnership

Crawford Partnership is a small, expanding, design led practice looking for talented and enthusiastic Part 1, Part 11 and recently qualified architects to work on an expanding portfolio of exciting projects in the UK.

Applicants should ideally be North London based and be able to demonstrate exceptional presentation skills with 3D CAD abilities and an understanding of building regulations.

Please reply in writing or by email with a CV plus A4s of your work to:

info@crawfordpartnership.co.uk 1a Muswell Hill N10 3TH 020 8444 2070 www.crawfordpartnership.co.uk





JULIAN BICKNELL & ASSOCIATES seek both technical and architectural staff to work on a number of exciting new houses in the UK and abroad both in the office and on site. All candidates should have an interest in, and working knowledge of, traditional design and construction. They should be competent in both hand- and computer-drawing techniques, with experience

in the preparation of detail design drawings and contract documents.

Communication skills in Russian and Japanese may be helpful. JBA's new offices are close to Richmond Station which is well served by both Underground and SW trains.

Consult www.julianbicknell.co.uk; then e-mail with examples of work to info@julianbicknell.co.uk; fax 020-3274-1080 or ring 020-3274-1070



Urgently required: AN ARCHITECT

A young enthusiastic architect with experience in the residential sector and in refurbishment and repair of existing buildings is required to join a busy building surveying practice working in north/central London and the Home Counties on a variety of projects. Candidates must be fluent in AutoCAD and capable of working off their own initiative with good working knowledge of building contract procedure. The post will carry an attractive salary package depending upon age and experience. Candidates should also be able to commence work promptly.

Please supply CV's to: simonlevy@slasurveyors.demon.co.uk or telephone 020 8207 6100



Architectural Technician

€45,000 + Benefits -

Our client, a major player in the Irish market, has expanded and needs you to join their team of Technicians. This practice is design led, so you will be involved in projects from inception to completion. There are exciting promotional prospects available within the practice.

Naomi Cassidy 1, +353 1 643 7400 e. ncassidy@bbtireland.com Ref: NC136

£40,000 - Belfast

Our client, one of Ireland's leading multi-disciplined consultancies, seeks a Chartered Landscape Architect. You are required to be fully qualified to MLA, with good organisational and presentational skills. Duties include managing projects from inception to completion. You will also liaise with other disciplines, training and overseeing junior members of staff. Vincent Weir t. 02890 261 684 e. vweir@bbt.co.uk Ref: VP:7593



beresford blake thomas

www.bbt.co.uk

₹₽€

BST operate as both an Employment Agency and an Employment Business

Small busy Architectural practice in Reading is seeking an Architectural Technician who is experienced in the residential sector and capable of preparing working drawings to building regulations The candidate will be expected to work with minimal supervision, have at least 4 years experience and be educated to degree level in Architecture/Technology. A good working knowledge of AutoCAD is required.

Salary range £22K - £25K, dependent on experience/qualifications.

Please send CV to: info@keenpartnership.co.uk or telephone Mark Groom on 0118 957 4414



We are looking for creative people to join our friendly and busy practice, to work on competition-winning new projects:

- Leisure centre & residential scheme design architects with 3-5 years experience needed for early design input through to planning and beyond.
- Key worker housing Part II assistant with 1-2 years
- experience to join small team to take early design forward. High density residential scheme - Part II assistants with
- around 2 years experience to push forward to planning

We give design opportunities to all team members and offer good support for staff development, including Part III fee contributions. AutoCAD and Adobe package experience preferred.

Please send your CV and examples of work to: Irene Craik

1 Kingsland Passage London E8 2BB

irene.craik@levittbernstein.co.uk

Levitt Bernstein is an equal opportunities applications from all members of the community

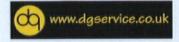
Levitt Bernstein











faststream
recruitment limited
www.faststream.co.uk







For Advertising
Enquiries
Please Contact:
Laura Tilling
0207 505 6803
Email:
laura.tilling

@emap.com

Space Syntax

Spaces can be safe or dangerous; full of life or dead. Spaces can attract people or put them off, include them or exclude them. Be socially and economically valuable or not. What matters is how space is planned and designed, and whether the plans and designs put people first.

At Space Syntax we are looking to hire creative and strategic thinkers who can help us provide evidencebased planning and design advice to the public and private sectors worldwide.

We use pioneering computer modelling methods to forecast how different planning strategies, masterplans, public space designs and building layouts will affect the way people use them. We are looking for people ready to learn these methods and to add their own skills to our growing consultancy.

We currently have vacancies for trainee and experienced Design Consultants, Planning Consultants and an experienced Project Manager.

Space Syntax is an Equal Opportunities Employer and is committed to diversity.

For further details on these vacancies please go to:

www.spacesyntax.com



A leading firm of consultant town, environmental and landscape planners – based primarily in Essex but with a strong client base throughout the UK – requires a highly creative urban designer, who must also be a fully qualified architect, to lead and drive forward the expansion of the firm's design team.

The candidate must have a proven track record in the preparation and delivery of innovative design solutions to master planning, design statements, urban design frameworks, layouts, feasibility studies, etc including three dimensional forms of presentation for a wide range of regeneration and sustainable urban extension projects. Experience of managing Architects/Designers is essential.

The opportunity might also suit a small practice that is looking to merge and expand its existing urban design and architectural services with complementary related disciplines.

This is an exciting opportunity for the right person/firm. Please send CV's or, in the case of firms, expressions of interest to Box. No. 3224 at the address below by 17th July.

PO BOX 3224 | ARCHITECTS JOURNAL | 151 ROSEBURY AVENUE | LONDON | EC1R 4GB

CHARTERED

required by busy and expanding multidiscipline Practice located in West Wiltshire. Interesting and

varied projects.

Generous benefits
package with
potential of Full
Partner status.

Apply with full C.V. to P.O. BOX NO. 3225 151 Rosebery Avenue, London, ECIR 4GB

We are a small Isle of Wight practice seeking an Architectural Technician with 5 years experience in the following areas:-

Building and Planning applications knowledge for various island projects, generally in the residential and small commercial sectors.

Must have good communication skills.

Please apply in writing with your CV to Mrs Celia Beverton. to A G Biggs Partnership. 66 Carisbrooke Road, Newport, Isle of Wight. PO30 1BW

Email to

Celia@agbiggsarchitects.co.uk

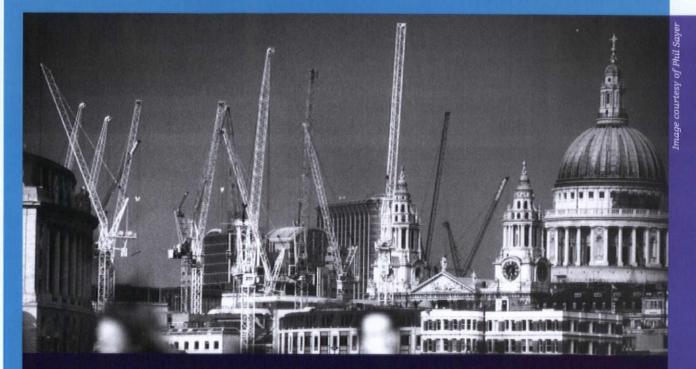
duggan/morris

EC1 based practice with diverse and increasing work load require a Part I & Part II qualified architect's assistant

Applicants should have excellent presentation skills and knowledge of Form Z. Good Microstation V8 skills essential. Immediate availability an advantage.

CVs to Duggan Morris Architects, 2nd floor, 21b Clerkenwell Road, London EC1M 5RD or email m.duggan@dugganmorrisarchitects.com

Director of Design for London



Salary in the region of £100k

London is a global architectural and design capital and is enjoying a period of exceptional growth, regeneration and new building. The Mayor wants to extend this reputation and promote London's continuing urban renaissance. He is therefore launching a new unit, Design for London, to promote his vision of inspiring and innovative architecture, urban design and sustainable development in the capital's buildings and public spaces.

We are looking for an exceptional and energetic leader to set up this new unit, and quickly establish its reputation as a facilitator of projects, an influencer of policy and a forum for exhibition, debate and discussion.

Design for London will integrate the work of the existing design teams from the Greater London Authority's Architecture and Urbanism Unit, the London Development Agency and Transport for London. It will be based at the LDA, in their brand new headquarters, the Alsop designed Palestra building in Southwark.

Working with Richard Rogers, the Chair of the Mayor's Design for London Advisory Group, the director will have the passion and practical knowledge to lead this high profile new initiative. You will be a great communicator and team builder, a first class resource manager, and thrive under pressure.

To find out more about this role please visit www.lda.gov.uk

For an application pack, available in various formats, please contact LDA recruitment consultants, TMP Response T: 020 7649 6033 E: LDA@tmp.com Minicom: 020 7406 5790. Please quote reference DRD53.

The closing date for the receipt of your application is 21 July 2006. Interviews for shortlisted candidates will be held at City Hall on 13 September 2006.





New Posts in Architecture

Marylebone Campus

The School of Architecture and Built Environment has popular and successful courses, prize winning students, and exciting new areas of research. The Department of Architecture is seeking applicants for two new teaching posts with research development responsibilities. You should be a qualified architect, and must have a proven track record of excellent teaching.

PL in Architecture

£38,298 - £47,763 inc LWA Reference 50001371

Deputy course leadership in the expanding popular UG programme which includes 4 pathway degrees with Part 1 approval.

SL in Architecture 0.6

£32, 531 - £40,459 pro rata inc LWA Reference 50001367

Responsible for providing specialist expertise in areas of teaching law for architects, working within the established successful PG Diploma in Professional Practice in Architecture with Part 3, and to support the development of the new MA Architecture Management and Law with research.

Please contact Katharine Heron on 020 7911 5000 ext 5864 for an informal discussion of the post, or visit our exhibition open from 23rd June 2006 to 7th July 2006 at 35 Marylebone Road, London NW1 5LS

Candidates should apply via our website at http:// www.wmin.ac.uk/personnel_jobs/usrjobslist.asp under the appropriate reference, which includes full job description and an online application form. Please note that CV's in isolation will not be accepted.

Closing date: 24th July 2006.

Interview date: 16th & 18th August 2006.

Embracing diversity and promoting equality

UNIVERSITY OF WESTMINSTER



Educating for professional life

TENDER

The Marlowere cast

Contract for providing Project Management Services

Canterbury City Council invites expressions of interest from organisations capable of providing the above services.

The services relate to the redevelopment of the Marlowe Theatre in the centre of the historic City of Canterbury. The value of the total project is approximately £25 million. The council expects to begin seeking a design team in October 2006 with an intended project completion date by November 2009

Contractors registering an interest will be issued with a prequalification questionnaire (PQQ). This will be used to select the companies who will be invited to tender. The final date for registering an interest is 21 July 2006, with a time limit for receipts of requests to participate on the 23 July 2006 at 12 noon. The council will not consider any interest registered after that date. We will despatch invitations to tender to selected candidates on 25 July 2006.

Further information and the PQQ can be obtained by e-mailing justin parish @canterbury.gov.uk or by telephoning him on 01227 862 055



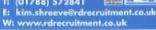
Part 1 Graduate

required for small, busy practice by the sea. Apple Mac skills, a love of music and penchant for coffee & ice cream will be distinct advantages

DUA Architecture LLP Highcliffe, Dorset t:01425 278252 f:01425 270101 e: david@duastudio.com

R D RECRUITMENT (RUGBY) LTD

T: (01788) 572841



Ref: 0606-100 Assistant Architect £ Competitive Bedfordshire Permanent

My client is looking for enthusiastic graduates with design flair to work on a variety of Commercial projects from inception to completion. Personal responsibility, creativity and a practical approach will be encouraged - good AutoCAD, graphics presentation and 3D visualisation skills are essential.

peter hale

PART I OR PART II ARCHITECTURAL ASSISTANTS ALSO PART III ARCHITECTS

required for top spec residential projects plus restaurants and bars. Must have office experience

and must have Autocad. Contract or permanent. Small friendly team in Chiswick.

Apply with CV by email only to: peter@peterhale.co.uk

To advertise a Tender, Course or Business Opportunity please contact Terry Roll 020 7505 6737 e: terry.roll@emap.com

Architect Head of Implementation

We are looking for a qualified Architect to lead project implementation. You must have good technical knowledge, at least 5 years experience and care passionately about the detail.

If you are interested in joining us, please send your CV to Wendy Hawker at Din Associates, 32 St Oswald's Place, London SE11 5JE or email Wendy at whawker@din.co.uk.

EXPRESSIONS OF INTEREST

KING EDWARD VI SCHOOL STRATFORD- UPON- AVON

Expressions of interest prior to competitive interview for Masterplan/design of buildings in major conservation area. Library, Sixth Form Centre, classrooms.

Detailed briefing from: Bursar, KES, Church Street, Stratford-upon-Avon CV37 6HB,

Tel. 01789 203108. fax 01789 293564,

e:bursar@kingdwardvi.warwickshire.sch.uk

Responses by 31.07.06

COURSES

utoCAD Courses

- Personal Tuition: the fast way to learn
- Courses tailored to your requirements
- Training by experienced CAD architect
- Daytime or evening courses available 2-D & 3-D AutoCAD drawing service
- Central London location

020 7266 2506, 0791 5652057 dp_arch@yahoo.com

CAD Training Service



MODEL MAKERS

KANDOR MODELMAKERS









COMBER

MODELMAKERS

020 8533 6592

LONDON ● MAIDSTONE ● INVERNESS



www.combermodels.com combermodels@btconnect.com



CLASSIFIED ENQUIRIES

Lucy Herdsman: T 020 7505 6873 F 020 7505 6750 lucy.herdsman@emap.com

MODELMAKERS









020 7739 7195







3dd.co.uk



NETWORKMODELMAKERS

Visit our new website - 22 years in the making www.networkmodelmakers.com

Tel: 020 7243 1816

mail@networkmodelmakers.com

PIPERS

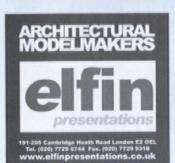
CONCEPT, PLANNING & MARKETING

FOR ALL YOUR MODELMAKING NEEDS, CONTACT CARLOS SOUSA.

PIPERS MODELS LTD 27-35 BEVENDEN STREET, LONDON N1 6BH

020 7250 0530 STUDIO@PIPERS.CO.UK WWW.PIPERS.CO.UK MODEL MAKERS





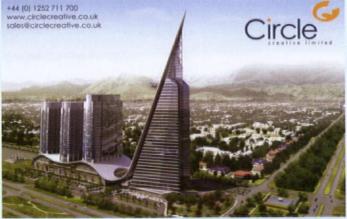


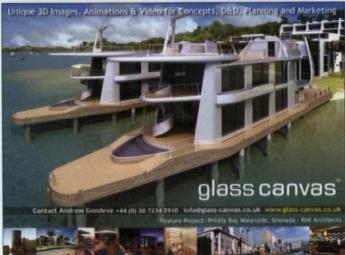
BULLFROG MODELS LTD

Contact STAN AUBERTIN

20b Tower Workshops 58 Riley Road, London SE1 3DG Telephone: 020 7394 7866 Facsimile: 020 7394 6798

3D COMPUTER VISUALISATION

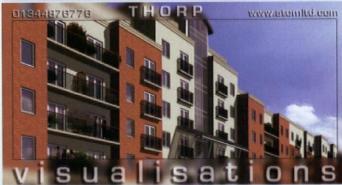


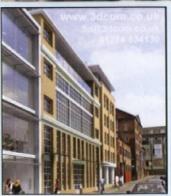


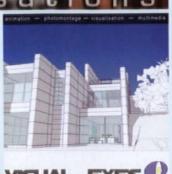
CONCEPT, PLANNING & MARKETING FOR ALL YOUR MODELMAKING NEEDS, CONTACT STEPHEN FOOKS. PIPERS FOOKS LTD UNIT 2, CAPEL CLOSE, LEACON RD, ASHFORD, KENT TN23 4GY 01233 63 68 68 STUDIOEPIPERSFOOKS.COM WWW.PIPERSFOOKS.COM

3D COMPUTER VISUALISATION









VISUALLEYES

Please call or small six information open media, co. at for further details.

3D COMPUTER VISUALISATION







designhive

wagstaffs3Dworks

75 Cowcross Street London EC1M 6EL



SURVEYORS



Land & Measured Building Surveys Established over 12 years

- Measured Building Surveys
- Setting Out
- Topographical Surveys
- GPS Surveys

208 Blythe Road. Hammersmith, London

Fax: 020 7610 4142 email: info@metroplans.com

W14 0HH Tel: 020 7610 4132

www.metroplans.com

+44(0) 208 447 8255

land & measured building surveys laser scanning & visualisation

mail@aprservices.net www.aprservices.net





measured land and building surveys

the true measure of excellence

- 020 8543 8884
- info@callidussurveys.co.uk
- 020 8543 6664
- www.callidussurveys.co.uk

Khabary Future City



Land and Architectural Surveyors YOUR CHOICE FOR ALL YOUR SURVEY NEEDS Specialising in

Topographical Surveys - For large and small scale surveys using the latest high accuracy robotic instrumentation and G.P.S.

Architectural Surveys - For plans and elevations using SurBuild building survey software on pen map hand held computers

Utility Surveys - For drainage and location of all underground utility services.

Photogrammetry - For accurate 3D models of building facades, pipe works and areas of difficult access

Kingsland Surveyors Limited Bridge Chambers Bridge Street Leatherhead Surrey KT22 8BN

Tel. 01372 362059 Fax. 01372 363059

e-mail - mail@kingslandsurveyors.co.uk website - www.kingslandsurveyors.co.uk





To advertise here please contact Lucy Herdsman on: 020 7505 6873 Email: lucy.herdsman@emap.com

PERSPECTIVES

DAVID HOARE



-PERSPECTIVES TEL/FAX 020 8852 7508

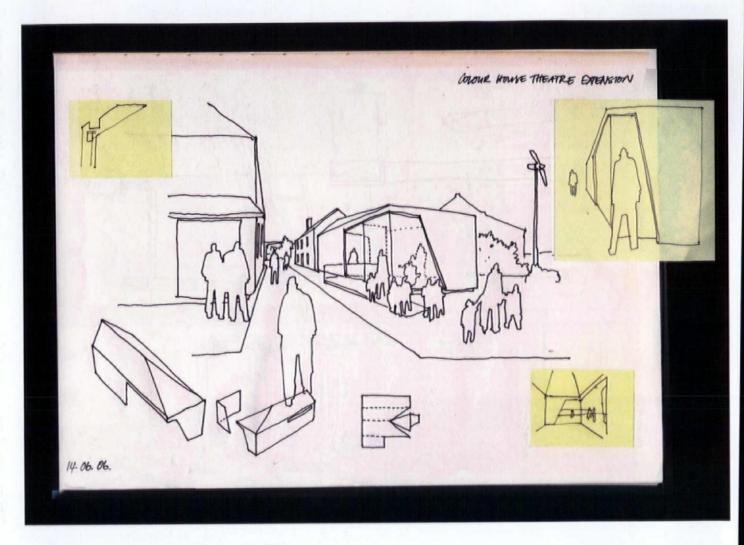
the only professional survey practice specialising in measured building surveys for over 35 years

Michael Gallie & Partners Chartered Measured Building Surveyors

1 New Concordia Wharf, Mill Street, London SE1 2BB www.michaelgallie.co.uk ①:020-7394-1111 ①:020-7394-2499



SKETCHBOOK / MATT SPRINGETT



Concept sketch for an extension to Colour House Children's Theatre, Merton Abbey Mills, London. By Matt Springett of Springett Mackay



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 Lucy Herdsman on 020 7505 6873.

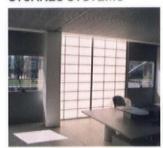
PENDOCK



AJ ENQUIRY 201

The colourful Ecole washroomsystems range is the latest development from Pendock-Shires and has been created specifically for refurbishment and new-build projects in schools and colleges. The range includes cubicles and preplumbed solutions for use in complete washroom designs.

STOAKES SYSTEMS



AJ ENQUIRY 202

This is Pamplona, Spain, and large new offices mixing Kalwall translucent cladding with structural curtain walling. Interesting – no Kalwall reflection or glare compared to the low-light-transmission reflecting glass. Tel 0208 660 7667 or visit www.stoakes.co.uk for more information.

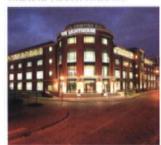
HUNTER DOUGLAS



AJ ENQUIRY 203

Hunter Douglas has designed software to make life easy for architects negotiating Part L regulations. The company behind Luxalon has developed LuxaTherm, a Windows-based programme which allows architects to design virtual buildings in minutes and get onthe-spot U-value calculations.

METALTECHNOLOGY



AJ ENQUIRY 204

Metal Technology's glazing has lit up a refurbished corner site to create prestigious office accommodation at the Lighthouse in Salford Quays.

System 17 curtain wall was used by architect DTR:UK to create a striking circular entrance facade to the £6.75 million four-storey building.

RENOLIT



AJ ENQUIRY 205

An adaptable single-ply roofing system from Renolit has been specified for a new Volvo dealership in Basingstoke built by Talbot Design. The Alkorplan system was chosen to protect the roof of Alan Gibson Ltd and was installed by Renolitapproved contractor Voland Roofing. Tel: 01234 272999

HACEL LIGHTING



AJ ENQUIRY 206

The Oledo Spectrum from Hacel's Desire catalogue is a unique and contemporary in-ground luminaire using 36 high-intensity, long-life LEDs and an etched acrylic diffuser housed in a polished stainless-steel IP65 die-casting. The stunning design makes it suitable for projects of the highest standard.

DAVID BAILEY



AJ ENQUIRY 207

David Bailey Furniture Systems is to manufacture and supply a broad range of fitted furniture for the refurbishment and upgrade of Navigation Road Primary School in Cheshire — a primary and nursery school for boys and girls, aged three to 11. For more information telephone 01843 604896.

CHILSTONE



AJ ENQUIRY 208

Chilstone has produced replicas of existing sills, headers, a dentil string course and a textured block band course at a housing development in Sevenoaks, Kent. Sympathetic restoration and extension to the large original building were needed to create six luxury apartments and a penthouse.



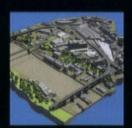
strategic views - urban planning - public consultation - visualisation - 3D GIS - height restrictions - emergency planning - animations - environmental stud



London



Bristol



Newcastle



Torquay



Canterbury



Swindon

What do we do?

At Zmapping we produce geographically accurate digital 3D models of the existing built environment. We have a number of sites in our library including London, Bristol, Birmingham, Bath, Leeds, Sheffield, Swindon, the Thames Gateway and the 2012 Olympic Games site as well as many more UK cities.

How does it work?

You can open our models in any CAD program, locate your site, delete buildings and drop in your own environment.

What does that mean for you?

You can rotate around your site, verify views from nearby streets, check sunlight and shadows, create renderings, animations and real-time versions.

What should you do next?

Log onto www.zmapping.com or call us for an informal chat about your requirements on 020 7190 3306.

Prices start from £450. Conditions apply.



ENQUIRY 12 ON CARD WWW.AJPLUS.CO.UK/AJDIRECT