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18/25 December 2003

the architects' journal | 3



Get into the festive mood with our Christmas quiz on pages 14-16 and win some champagne to ward off the January blues. Or while away the Christmas break with one of the AJ's books of the year, featured on pages 52-53.

The Architects' Journal is taking a Christmas break. Our next issue will be published on 8 January. In the meantime we would like to wish all of our readers a merry Christmas and a creative, happy and prosperous new year.

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Our Review of the Year sums up the high points of 2003
 ▶ Pages 6-7

“We have seen the results of people like surveyors designing buildings and we don't want that repeated too often”
 Yasmin Shariff of ARB and the RIBA opposes the EU's ban on protection of function ▶ Page 8

aj news

NY'S OLYMPIC HIGH FIVE

Zaha Hadid Architects has made it onto the five-strong shortlist to design an Olympic village for New York's rival games bid. The London-based office will now battle it out against Danish practice Henning Larsens Tegnestue, Dutch MVRDV, California-based Morphosis and New York-based Smith-Miller + Hawkinson Architects. Over 130 architects from 20 countries entered the competition to draw up a design study for the site in Queens West, across the East River from the United Nations. +

LIBESKIND'S FINAL FREEDOM

The final designs of Freedom Tower, the centrepiece of the rebuilding of the World Trade Center in New York, will be unveiled to the public tomorrow (Friday). The scheme – drawn up by Daniel Libeskind in collaboration with SOM's David Childs – are understood to include a massive wind turbine designed by London-based engineer Battle McCarthy. Visit www.ajplus.co.uk for the latest news. +

CABE DOES THE ROUNDS

CABE has announced its latest round of funding grants for architecture and built environment centres throughout the UK. Some £1.5 million will be handed out to 18 different organisations, including grants of £100,000 for centres in Liverpool and Birmingham. The aim of the programme is to promote education, public participation and design quality in the built environment. +

ZOO SUFFERS PCC ACTION

The ARB's PCC committee has reprimanded the director of Zoo Architects in Glasgow for failing to set out an adequate scope of work. Peter Foster Richardson was found guilty of unprofessional conduct, but cleared of serious professional incompetence.

OBE reject hoax sparks Owusu Guardian writ

Founder of the Society of Black Architects, Elsie Owusu OBE, is suing the *Guardian* newspaper after falling victim to a malicious hoax.

Owusu is seeking a libel payout from the paper after it printed a forged letter that claimed she planned to reject her OBE.

The letter, published on 2 December, cited a protest against the 'jingoistic' press reaction to England's rugby victory and the 'vainglorious parade [which] is exclusive of the whole ethnic-minority population of this island and redolent of Anglo-Saxon imperialism.

'Unless I am persuaded that my OBE is a symbol of hope for young black women, I shall shortly be returning it,' the fraudster wrote.

Owusu, awarded the OBE in the Queen's birthday honours list in June, told the AJ she was furious at the hoax and has begun a libel action. She was very proud to earn the honour, she said, and there was no question of her sending it back.

'It was complete and utter nonsense,' said Owusu, who was out of the country when the letter was sent. 'I was supposed to object to the parade, but I don't know the difference between a football and a rugby ball.'

Owusu has seen the letter in its original form, prior to editing, which she described as 'semi-literate'.

'They had to completely edit it to put it into proper English,' she said. 'I'm so upset that they even thought

I could write like that.'

The hoaxer also forged a letter to the National Trust, declaring her intention to resign from her post on its ruling council.

The perpetrator's identity remains a mystery. But Owusu's lawyer, Simon Smith, suggested three possibilities: a British National Party sympathiser, a black political extremist using Owusu's name to further their cause, or someone known to her acting out a grudge.

'Unfortunately, it's someone who knows my signature,' Owusu said. 'It's most unnerving.'

Libel specialist Smith said he believed his client had a good case. The letter has 'damaged her reputation, suggesting she had hypocritically accepted the honour and expressed deeply held anti-British views,' he said. As a result she has received 'nasty, rascist hatemail' and internet postings 'threatening her physical safety'. Smith added he expected the paper to offer an out-of-court settlement.

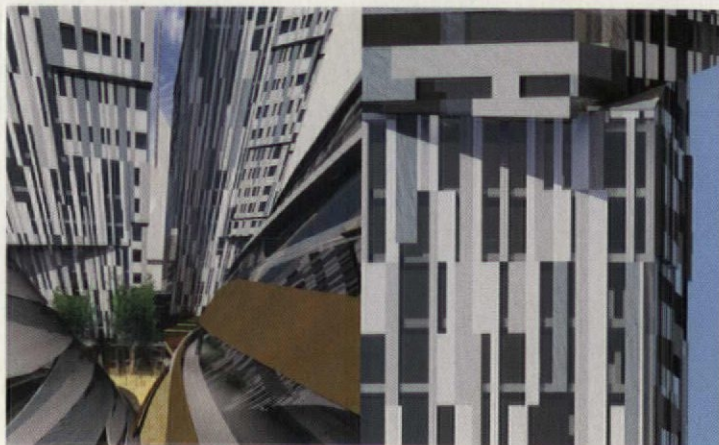
At a high court hearing on Friday, Owusu made British legal history as the judge granted an injunction against the 'person or persons unknown' impersonating her. She has also informed the police.

A spokeswoman for the *Guardian* said it had printed the letter 'in good faith'. 'We are discussing with her advisers how best to rectify this,' she added

Zoë Blackler



Elsie Owusu: proud of OBE



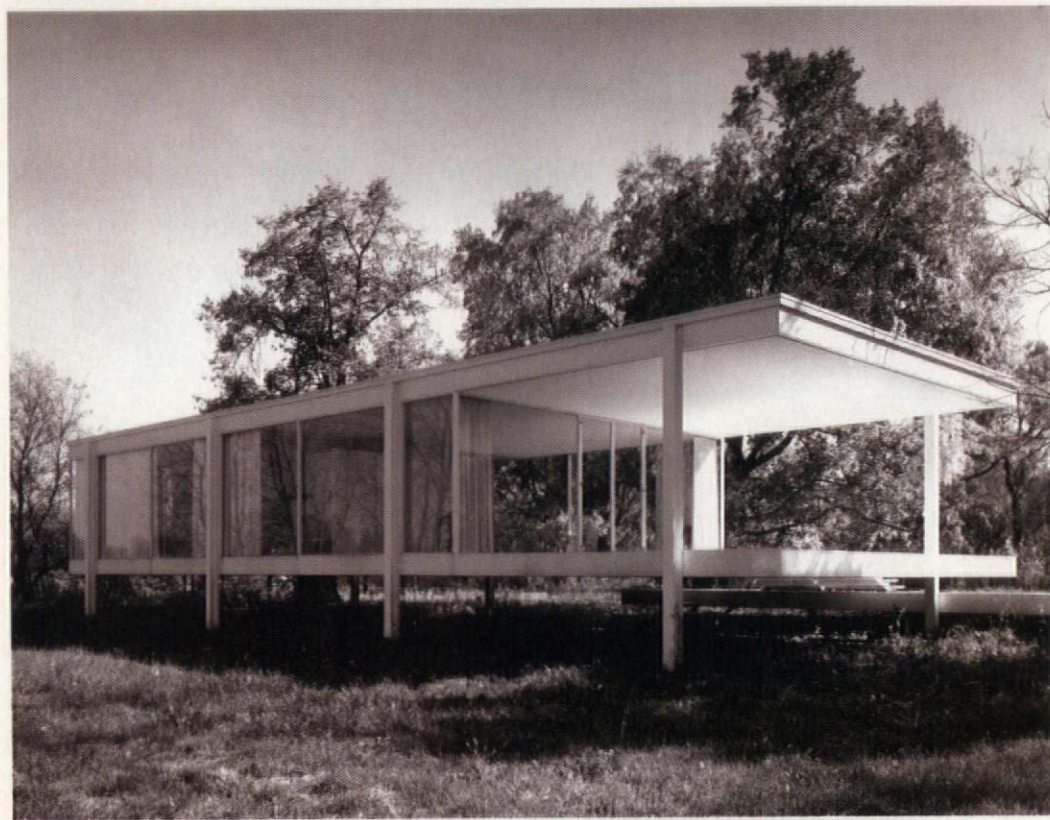
The London office of Erick van Egeraat Associated Architects has drawn up the final proposals for this \$250 million (£143 million) high-rise development called Moscow City. The 2.5 million m² scheme will include the tallest buildings in the Russian capital, two slender skyscrapers reaching 54 and 65 storeys. The towers will have office space in the lower levels, while the upper floors will be used for apartments and penthouses.

“This may be a short-term method for easing the housing crisis, but it will not help in the long term”

TCPA director Gideon Amos opposes the Treasury's enthusiasm for prefab

» Page 10

Which architect reached for the stars? Test your knowledge in our Christmas quiz » pages 14 and 16



Farnsworth saved in last ditch bid

Campaigners have successfully raised \$6.7 million (£3.6-4.2 million) and secured Mies van der Rohe's seminal Farnsworth House at a Sotheby's auction in New York last Friday.

A coalition of the National Trust for Historic Preservation, the Landmark Preservation Council and the Friends of Farnsworth House raised the cash in a last ditch bid to 'save the building from falling into the hands of owners that fail to respect it'.

The conservationists, who were up against just one other anonymous telephone bidder at the auction, only came out on top because of a last-minute \$3 million contribution to their fighting fund.

The victory means concerns about the building's future – including speculation that it could be moved to a new location – can now be laid to rest. The site will be opened to the public as a museum after essential repairs are carried out.

The campaign to save the building was reinvigorated after Governor Rod Blagojevich re-entered the battle after an original plan for the state government to buy the building collapsed. He called on public sector organisations to stump up

the funds required to buy the property from British developer Peter Palumbo.

The one-storey house was described by Sotheby's senior vice-president James Zemaitis as the most successful application of Mies' theories.

Campaigners said they were delighted with the auction's outcome. 'The Farnsworth House is one of the most significant houses built in the US in the 20th century,' Landmark Preservation Trust president David Bahlman said.

'We are thrilled it will be protected forever and made available to the public, particularly to architects and students of architecture,' he added.

And the comments were echoed on this side of the Atlantic. Docomo's Dennis Sharp said the news was 'terrific'. 'This is one of those buildings that one always hopes will not get into the wrong hands,' he said. 'But thankfully it now seems that the right people will be able to look after it.'

'If only the conservation lobby would do the same kind of thing over here and recognise that it is worth spending some money to save Modernist masterpieces such as Greenside,' he added.

Ed Dorrell

DIXON JONES' EXHIBITION

The judging panel in the international competition to redesign London's Exhibition Road has recommended the scheme by Jeremy Dixon Edward Jones as the winner. The panel praised the practice's submission as 'restrained and yet confident' and 'respectful and yet long term'. The clients – which include the mayor of London and the councils of Westminster, and Kensington and Chelsea – will now 'enter into negotiations to formalise the appointment.' +

DEWAR BLAME DEEPENS

Donald Dewar, Scotland's late first minister, has again come under fire at the Holyrood inquiry. Opposition parties have accused him of 'misleading Scottish taxpayers' over the cost of Enric Miralles' scheme after it emerged that he failed to heed advice recommending that he increase the original project estimate from £40 million to £60 million. The latest cost estimate has now reached £401 million. +

BEIJING ADDED TO BIENNALE

Beijing is set to join Venice and Clerkenwell in hosting an architecture biennale in 2004. The event – which will include up to eight exhibitions and a capacity for two million visitors – aims to showcase new architecture and technology while 'bringing together professionals from China and abroad'. Visit www.abbeijing.com.

PRESCOTT'S RETAIL

Deputy prime minister John Prescott reiterated on Monday the government's commitment to concentrating retail investment in city centres as a tool to trigger regeneration. Speaking at the launch of the ODP's replacement for Planning Policy Guidance 6 – to be known as PPS 6 – Prescott said retailers 'must be encouraged to develop in town and city centres rather than in out-of-town locations.' +

And that was the year that was...

From Ground Zero to the Thames Gateway, 2003 saw redevelopment high on the agenda. There were triumphs for Herzog & de Meuron, Jørn Utzon and Renzo Piano. Zoë Blackler recounts the year when blue blobs and red trousers were all the rage



JANUARY

- The start of the new year was the beginning of the end for **Brighton's historic West Pier**. Heavy storms in the last days of 2002 wrought serious structural damage, with worse to come. An arson attack in May raised further questions about the wisdom of renovating the Edwardian landmark, with calls for a fresh modern start.
- Architecture's great and good came out against the looming invasion of Iraq. The campaign **Architects Against the War**, spearheaded by Charles Jencks and RIBA president Paul Hyett, called on the government to halt its moves towards war.
- The government published its White Paper into the future of **higher education**, which critics warned would lead to a two-tier system. The proposal that architectural firms should pay off the student debts of their newly qualified employees also faced opposition from smaller practices.

FEBRUARY

- Spaniard Raphael Moneo (*right*) won the RIBA's 2003 Royal Gold Medal.
- Daniel Libeskind became the world's most talked about architect after triumphing in the contest to reconstruct **Ground Zero**. As attention died down, in-fighting began between the official winner Libeskind and owner Larry Silverstein's own architect Daniel Childs of SOM. In October, Foster, the original people's choice, was brought on board as a collaborator.
- John Prescott published the **Sustainable Communities Plan**. Delivery of his vision for major development in the South East, in particular in the Thames Gateway, was a recurrent issue throughout the year.



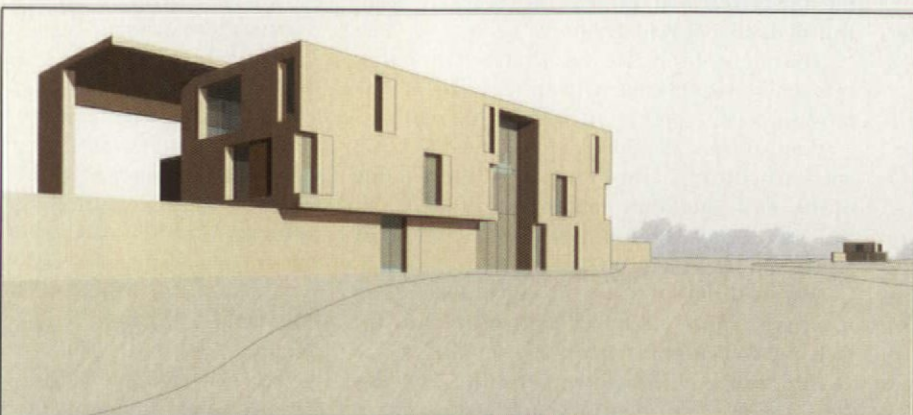
MARCH

- As troops entered Iraq, UK practices found themselves sidelined, with US firms sewing up the most lucrative deals. The British Consultants and Construction Bureau pledged to push for greater involvement for UK architects in the **post-war reconstruction** and a handful of practices secured major projects later in the year.
- **Peter Smithson** died aged 79.
- BDP came top in the **AJ 100** survey of the country's largest firms, with 270 qualified architects. Norman Foster was voted the most admired living architect.



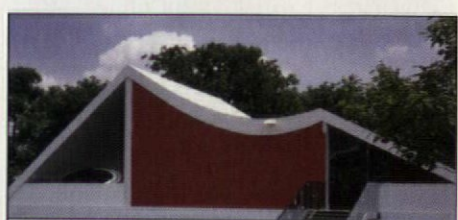
APRIL

- A row exploded over **Grimshaw's Bath Spa** as contractor, architect and client attempted to pass the blame for six months of delays and a £3 million overspend. As the year closed, final completion still remained a long way off.
- The government's **planning bill** – its attempt to speed up the aged planning system – fell foul of another archaic system as it began its passage through parliament. By June, Prescott confirmed the bill would be held over until 2004, blaming the Iraq war for the delay.
- **Jørn Utzon** won the 2003 Pritzker Prize.



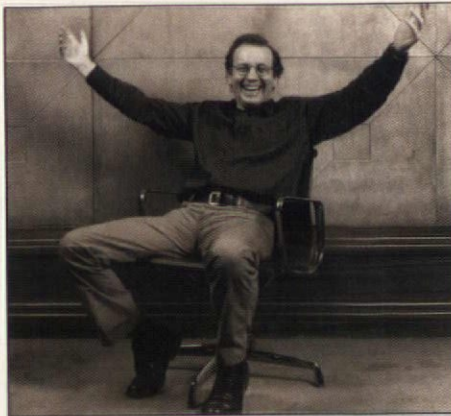
MAY

- The AJ uncovered government plans to drop the country house clause in PPG 7, prompting outrage from the profession. A campaign against the move, which would end the modern revival of the country house tradition, built over the summer with an Early Day Motion attracting support from politicians as diverse as Chris Smith, Teddy Taylor and Tam Dalyell.
- Tony Blair gave his backing to a **London 2012 Olympic bid**, and a competition to masterplan sites for the games attracted world-class entries. A team of EDAW, HOK Sport, Foreign Office Architects and Allies and Morrison won the job. Its initial proposals, unveiled in October, created a giant park and new 'water city' in the Lower Lea Valley.



JUNE

- **Oscar Niemeyer** was the surprise choice to create the Serpentine's annual summer pavilion, following Hadid, Libeskind and Ito. The concrete and glass structure parked on the gallery's lawn until September, when it was dismantled and sold to a mystery Irish collector.
- **Liverpool** won the race to become Europe's Capital of Culture in 2008. Alsop's plans for a Fourth Grace gave kudos to the city's bid, but doubts later emerged about whether the 'Cloud' would be complete in time.
- The **Welsh Assembly** confirmed that Richard Rogers would see through construction of his new parliament building for the principality.

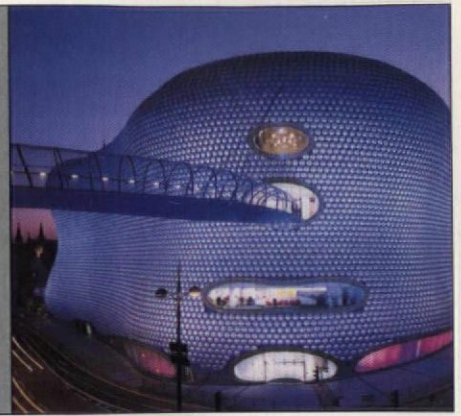


JULY

- As **George Ferguson** replaced Paul Hyett as president of the RIBA, he resisted calls to drop his trademark red trousers and pledged to put conservation back at the heart of RIBA activities. The institute pressed ahead with its modernisation plans, but in the autumn announced it had delayed appointing a permanent director for its new charitable arm.
- A root and branch shake-up of the **listings system** proposed giving English Heritage the power to decide on listings, prompting critics to warn of a conflict of interests. The plans, set to become a White Paper in the spring, also mooted a right of appeal.
- Alarm followed **Cambridge University's** decision to drop its diploma course following cuts in its research funding. If this could happen to Cambridge, where would be next?

AUGUST

- A dramatic blue blob landed in the centre of Birmingham and Future Systems' long-awaited **Selfridges** became an instant icon.
- As the temperature soared, breaking new records across Europe, sustainability experts made an urgent plea for drastic action to green the nation's building stock and combat **global warming**.
- **Cedric Price**, influential visionary and thinker, died. Acolytes called for the RIBA to change its rules and posthumously award him the Royal Gold Medal.



SEPTEMBER

- Ian Ritchie's tower cluster on London's **Potters' Fields** – which gained notoriety as the temporary home of illusionist David Blaine – got the thumbs down from Southwark Council and left Ritchie fuming. An inquiry into the controversial residential scheme – which will see CABA and the GLA lined up against English Heritage and the Royal Palaces – is bound to grab the headlines in 2004.
- As one planning battle began, another drew to a close. After 18 months deliberation, John Prescott ruled against **Chapman Taylor's Coppergate** shopping centre in York. An unusual line up at the inquiry in 2002 saw CABA joining with local campaigners against the scheme, with English Heritage appearing in its defence.



OCTOBER

- No great surprises at the **Stirling Prize** in Bristol, as favourite Herzog & de Meuron's Laban dance centre ran off with the top honour. Changes to the rules will allow foreign architects to compete next year – a move that would allow Gehry's Maggie's Centre to enter, which opened in September.
- Scotland followed England's lead by creating its own **CABA-style design watchdog**.
- A major **financial crisis** takes grip at the RIBA, causing it to review its activities and propose cuts to membership services.



NOVEMBER

- The skyscraper revival got a fresh boost and London a dramatic addition to its skyline as Renzo Piano's '**Shard of Glass**' cleared the final hurdle. Prescott cited the beauty of the London Bridge Tower as key when he ruled in its favour, following an inquiry in the spring.
- Meanwhile the deputy prime minister cosied up with the arch-detractor of towers and Modern architecture in general, the **Prince of Wales**, whose theories on urbanism are set to be the driving force behind the massive development of the Thames Gateway.
- The illegal destruction of **Greenside**, Connell Ward Lucas' Modernist classic in Surrey, by its unappreciative owner causes outrage and calls for a prosecution.



DECEMBER

- Revelations continued to emerge from the inquiry into the **Holyrood** cost fiasco, which opened in October. Two key figures in the project, first minister Donald Dewar and Spanish architect Enric Miralles, both now deceased, became the focus for blame. The spiralling costs continued to dog the project throughout the year, with the latest estimates reaching £401 million.
- The rise and rise of **Foreign Office Architects** continued apace with its critically acclaimed exhibition at London's Institute of Contemporary Arts, coinciding with its latest competition win – a new state-of-the-art music centre for the BBC in west London.
- AA graduate and Rotterdam-based **Rem Koolhaas** was named as the RIBA's 2004 Royal Gold Medalist.

'Disastrous' EU directive kills off hopes for protection of function

British architects campaigning for the introduction of protection of architectural function have seen their hopes quashed by a new European Union ruling.

Eurocrats have signed off a new directive that outlaws the establishment of such a system, which would allow only architects to design buildings.

Campaigners on both the ARB board and the RIBA council have long-believed that the introduction of protection of function would solve the problem of low pay throughout the profession.

They have also pointed to Spain – where only qualified architects can lodge planning permissions – as an example of a country where 'the general quality of buildings is very high'.

The directive will force the Spanish government to dismantle its current system, allowing other construction professionals – including surveyors and engineers – to design buildings.

Hexham-based George Oldham, a councillor and campaigner for protection of function, said news of the EU's directive was 'terrible'. He told the AJ: 'This is not dissimilar to when the government forced us to get rid of fee scales. It means we will never solve the low-pay problems.'

'It should be part of the compact between architects and society that if we do seven years of training it is only we who do the designing.'

'But this is not just about pay,' he added. 'If protection of function were introduced it would also be about protecting the public from sharks.'

Yasmin Shariff, who sits on the ARB board and the RIBA council, echoed Oldham's comments, insisting 'it is the built environment of Europe that will suffer'.

'I have been calling for this protection for a long time,' she said. 'If you believe that architecture can only truly be delivered by architects, which I believe has been proven, then this directive is a disaster.'

'We have seen the results of people like surveyors designing buildings and we don't want that repeated too often.'

The new EU directive follows a two-year campaign by the Royal Institute of Chartered Surveyors to see protection of function outlawed throughout the union.

The RICS's Roger Watts, chairman of the building surveying faculty, said it was 'fantastic news'. 'Competent professionals must be allowed to do their jobs from country to country,' he said.

'The result of this directive has been restrictive practice, which excluded all non-architects though they may have the right qualifications and experience. Widening the skills pool will be better for clients and business everywhere.'

Ed Dorrell

Locals rally against plans to list Erskine's Byker Wall estate

Local residents have attacked English Heritage's plans to list Ralph Erskine's celebrated Byker Wall in Newcastle.

The community group – led by ward councillor and chair of housing George Allison – has demanded that the Department for Culture, Media and Sport dismiss English Heritage's recommendation for the estate to become Grade II-listed.

The group is furious that the change of status will affect residents' rights to make changes to their homes, including restrictions on satellite dishes.

'This is an absolutely crazy idea,' Allison told the AJ. 'I don't have a problem with turning the whole estate into a conservation area but to list it would be completely over the top.'

'The Byker Estate is unique – there's no doubt about that. But to list it simply because of Erskine's architectural genius is absolute madness. It will get in the way of basic and essential improvements.'

'It will take a lot of changes to the existing proposals before I am persuaded to support the idea,' he added.

However, the DCMS insisted that any change in status would not adversely affect residents of the estate.

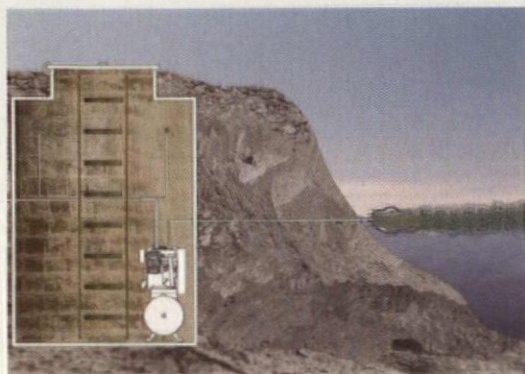
'The idea of listing is not to keep every building in aspic,' a spokesman said. 'The system is there to highlight to locals and developers the quality of the building.'

'All it is for is to ensure that the estate should be saved if demolition is on the cards,' he added.



Hodder Associates' £9 million office scheme is to go in front of Manchester City Council's planning committee in the new year. The 7,000m² project will sit between two conservation areas and requires the demolition of two listed buildings. It has won the backing of local council planners but is yet to gain the support of local heritage groups.

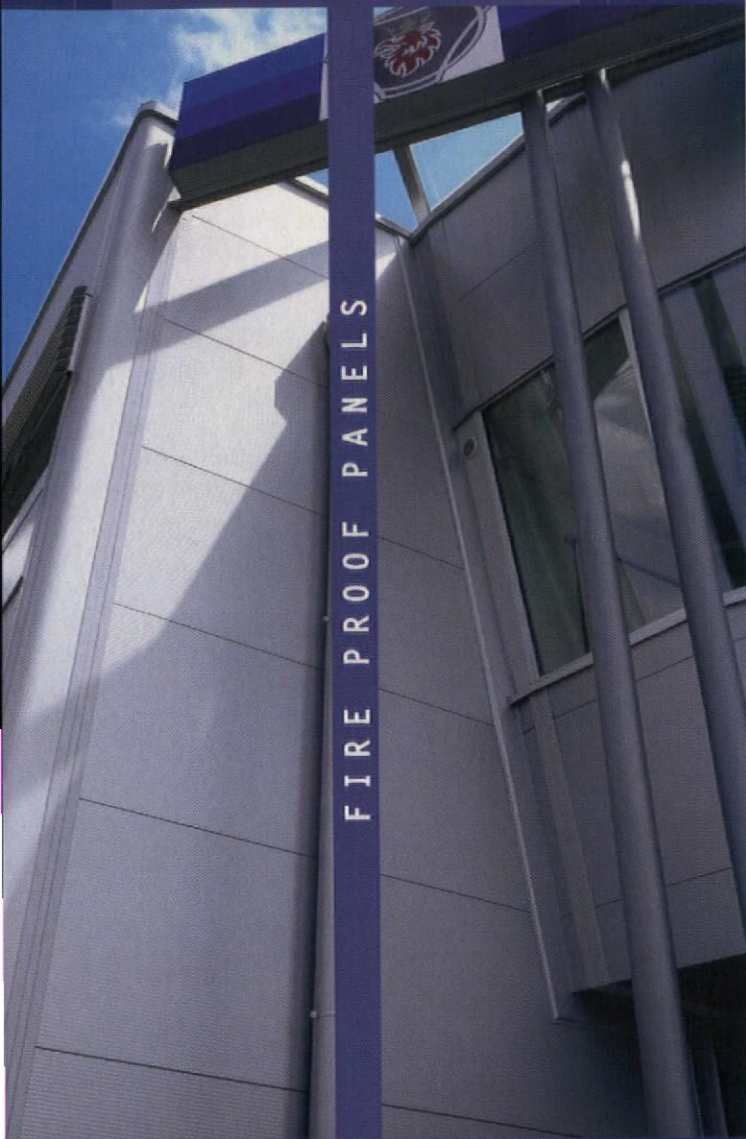
STUDENT SHOWCASE



Landscape/Flow of Consciousness is the title of this proposal dealing with 'ecological identity and geographical language', produced by Giulia Genta, a third-year student at the University of Greenwich. The project relates to an island in the fjord of Bergen, Norway. The concept proposes an accentuation of the natural cyclical ecological evolution of the island. It consists of modular interventions in the landscape, which artificially recreate the movement and biological life of the local ecosystem and employ principles of hydraulics and pneumatics.

Student Showcase is sponsored by Students' Union, a website set up by Union in association with The Architects' Journal at www.students-union.net. To submit work for publication in Student Showcase, email a publication quality image to ajstudentshowcase@emap.com





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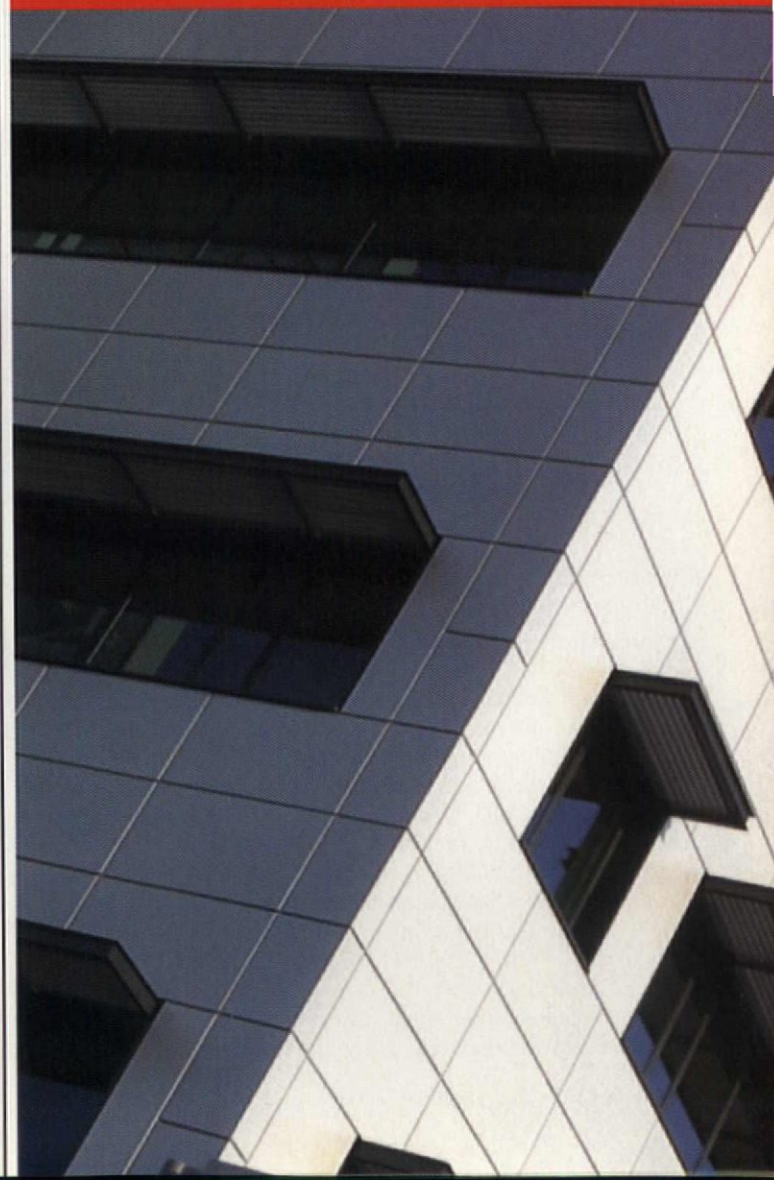
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Anxiety at Barker's prefab push

The Town and Country Planning Association has issued a stark warning over the Barker Review's commitment to prefabrication.

The association is concerned that the Treasury review – which issued its preliminary findings last week – has already recommended 'off-site manufacture as a quick-fix solution'.

Director Gideon Amos told the AJ that neither the Treasury nor its investigation 'are known for their commitment to good design' and are understood to see a hike in prefabrication manufacture as the easiest way of solving the housing crisis.

The Barker Review has so far concluded that the drought in new houses is creating instability in the UK economy and has recommended that Britain needs 146,000 more new homes a year.

Its author Kate Barker is set to issue a full report to coincide with the budget next April, which will formally unveil measures that will trigger increases in housebuilding.

But Amos insisted that prefab 'is certainly not the way to go'. He said: 'It seems that off-site manufacture is one of the very few

solutions that Barker has assessed. We believe that this is not the right solution.

'This is maybe a short-term method for easing the housing crisis, but it will not help in the long term.

'What we need is lifetime durable homes that will not need to be brought down in just a few years,' he added. 'The Treasury must look carefully at what history has taught us about the way prefabs have worked.'

The RIBA also expressed concern about Barker's commitment to off-site manufacture. 'It is obviously a major issue for the membership,' said Jonathan Labrey, head of government relations.

'These issues need to be taken on a case-by-case basis. We will tell the Treasury that it is not the answer if it is looking for this quick-fix solution. But all involved should be aware that prefab building methods can be a useful tool in some circumstances.'

The Treasury was unavailable for comment.

Ed Dorrell

AJ 100 – who is the biggest and best?

The AJ is once again poised to launch its search for the biggest and best architectural practices in the UK as part of the annual AJ100 feature. Letters and questionnaires for the 2004 survey will be going out to this year's featured practices by email on 2 January 2004 and will be available to download from that date on our website, www.ajplus.co.uk.

Or, if you think your practice qualifies for the listing – the regional tables and financial performance tables feature smaller practices too – forms are available from Lars Jespersen at research company Camargue on tel 01242 577277 or email ljespersen@camarguepr.com

The deadline is tight: the questionnaires have to be returned to Camargue by post, fax or email by 23 January. The data will then be analysed and the AJ will publish the details of what has become the industry standard survey in March.



Zaha Hadid Architects has won an invited competition to design a new mixed-use development called Soho City in Beijing's Logistic Port. The project was commissioned as a tool to break the city's dependency on closed mono-functional estates. Hadid responded by designing the scheme – which is based on a crossing point of converging lines – to echo the live-work units and community that has become associated with SoHo in Manhattan.

Government pressured to call in Greenside demolition permission

The Twentieth Century Society is pushing the government to call in the planning permission issued for the demolition of Greenside, despite the fact its owners have already illegally knocked down the building.

The Modernist conservation group is anxious that the ruling by Runnymede District Council – which immediately became subject to a holding order – will set a precedent for the rest of

Britain's planning system.

The society's demands are set against the success of the owners of the Connell, Ward and Lucas house who persuaded the council's planning committee that the building's listing contravened the Human Rights Act.

The society's director, Catherine Croft, persuaded cross-bench peer Lord Freyberg to ask questions on the subject in the House of Lords last week.

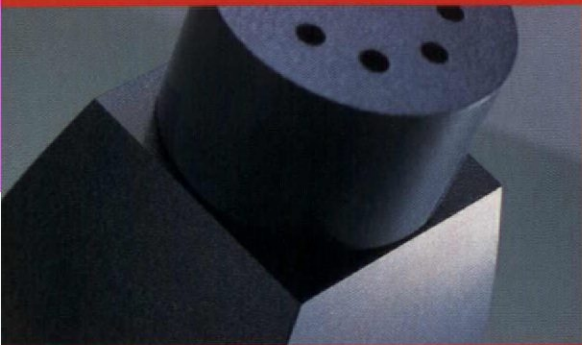
Freyberg asked former planning minister Lord Rooker four questions: whether the application for the Greenside case will be called in for a planning inquiry; whether the Human Rights Act 1998 overrides both planning law and national planning policy; what measures they intend to take to ensure council officers and planning committee members are adequately informed of the merits of 20th-century buildings;

and whether the Greenside case has set a precedent in planning law and national planning policy that other applicants would be able to follow.

Lord Rooker responded that the Office of the Deputy Prime Minister was 'currently considering whether to call in the decision', while law courts 'would have to decide whether the Human Rights Act impacts on the planning system'.



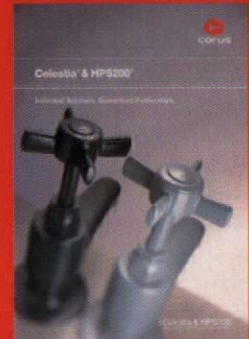
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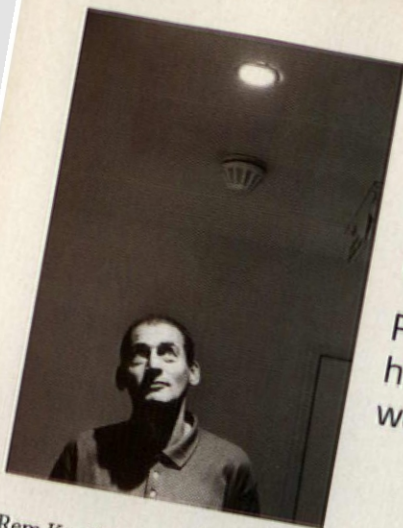
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Shooting from the hip and moulding the modern

RIBA Gold Medal winner Rem Koolhaas is acclaimed both for his buildings and his writings. Murray Fraser assesses the work, ideas and influence of a man who likes to shock



Rem Koolhaas is the key architect of his generation and it is fitting that he is to get the RIBA Gold Medal. His writings and buildings are exceptional. It is hard to think of another figure since Le Corbusier, maybe Louis Kahn, who is seen as being truly international class both for their writings on architectural theory and for their design projects. Most top architects at best manage one or the other.

Koolhaas has written the three seminal texts of the past three decades. First came *Delirious New York*, which crystallised the impact of post-structuralist theory at the Architectural Association and elsewhere in the 1970s. In the 1990s, 'The Generic City' essay set in train a Western fascination with urban development in Asia. It was the standout piece in the otherwise over-hyped *S,M,L,XL*, a vanity monograph by any other name.

Now for our time comes his essay on 'Junkspace'. It taunts Modern architecture with the claim that for all its attempts at social and aesthetic revolution, its real contribution to history is the shopping mall. Super-serviced sheds with clip-on cosmetic skins are its progeny. In typical Koolhaas fashion, it is written as a scintillating and deeply ironic stream of consciousness. The essay attacks consensual political values, High-Tech mythology, the soft and pseudo-humanistic Modernism of figures such as Van Eyck and Hertzberger, and the general self-importance of architects. Find a language to discuss what you really do, he says, and, echoing Manfredo Tafuri, above all be realistic about what you can ever produce within capitalist society.

It is also classic Koolhaas in its over-statement. The suspicion is that he never fully believes the positions he outlines. The desire is to shock. Koolhaas is like an architectural gunslinger shooting from the hip, often hilariously accurate, at other points way off the mark. 'Junkspace' offers a genuine

attempt to think about architectural and urban conditions, and to avoid the trap of swallowing professional self-delusions. This approach was taken up increasingly in the work of Koolhaas' practice, the Office of Metropolitan Architecture in Rotterdam,

began to argue that architecture could be subversive while engaging with the economic and political relations that enable it to be built, so his work matured. The Kunsthal in Rotterdam was the best building of the 1990s, one of the best anywhere for

decades. It reworked Mies' Berlin National Gallery by splicing it with an ingenious ramped circulation system. Translucent walls and bifurcated floors opened up the hitherto segregated spaces of the modern museum. His ethos is to fuse the avant-garde with explicit engineering. Since then, working with superbly talented engineers like Cecil Balmond, the output of Koolhaas and his

office has become prodigious: the private house in Bordeaux with its levitating central room, and punchy city projects such as the Prada store in Manhattan, the student building at IIT in Chicago, or the forthcoming television headquarters in Beijing.

Koolhaas has influenced a host of younger Dutch architects, from Ben van Berkel to MVRDV, and many others internationally, from Herzog & de Meuron to Foreign Office Architects, in part through the urban research carried out with students

on his master's course at Harvard. He is the star international lecturer, a cultural celebrity known beyond the world of architecture. For someone who has had such strong links to Britain through education and residency, Koolhaas has not built here.

Maybe his opposition to the High-Tech brigade has helped to exclude him. Who knows, but perhaps the seal of RIBA approval might change the situation.



Keeping it Kool. Above: the Kunsthal in Rotterdam. Left: the forthcoming television HQ in Beijing. Below: the private house in Bordeaux



now spreading across the world. Yet the early designs were far from stunning. Those of us who loved his prose found buildings such as the Hague Dance Theatre to be mannered and flimsy, far too reliant on the weak formal inversions and empty critical posturing of 1980s Post-Modernism.

But as Koolhaas moved away from the abstraction of post-structuralist theory, and

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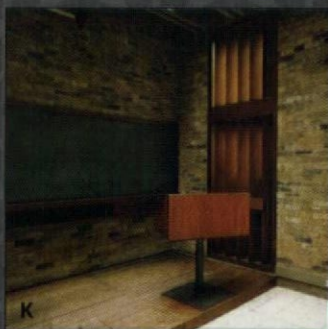
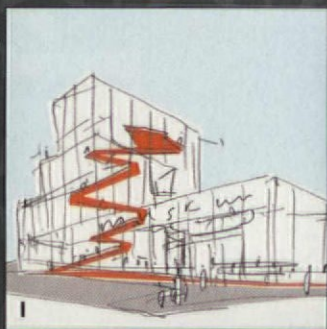
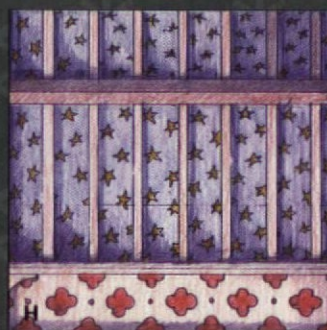
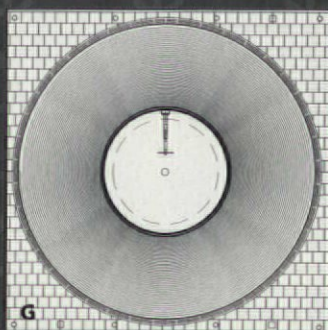
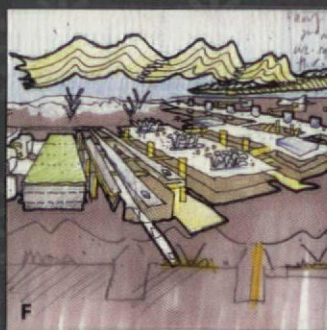
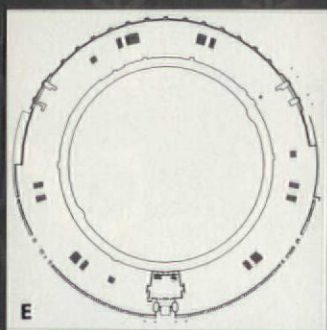
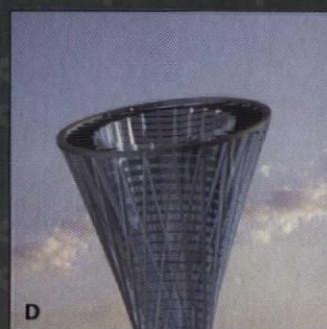
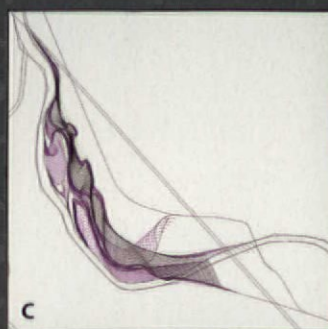
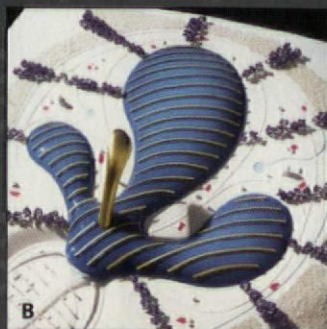
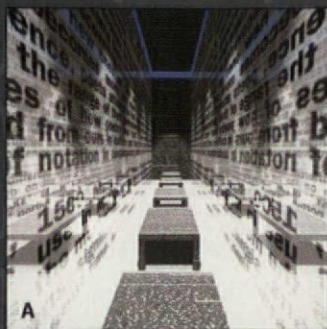
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Christmas Quiz 2003

How carefully have you been reading your AJ? The first correct entry to be pulled out of Santa's hat – or the entry with the most right answers – on 9 January will receive a magnum of champagne. (Eagle-eyed readers can find the answers in this year's AJs)

Name that project



1 IAN RITCHIE, 2 FUTURE SYSTEMS, 3 ROBERT ADAM, 4 WILL ALSOP, 5 SS TEULON, 6 SANDY WILSON, 7 GIANCARLO DE CARLO
8 GENSLER, 9 ZAHA HADID, 10 RICHARD ROGERS, 11 BOTSCHI VARGAS, 12 DAVID CHIPPERFIELD

Who said what?

1
'People I don't like, I show them I don't like them, why should I pretend?'

2
'Most people think that social housing shouldn't be beautiful'

3
'If they sell more knickers per square metre, we'll be happy'

4
'How many more buildings can I do? I'd say 10 major works'

5
'Le Corbusier is a major figure, but a small architect'

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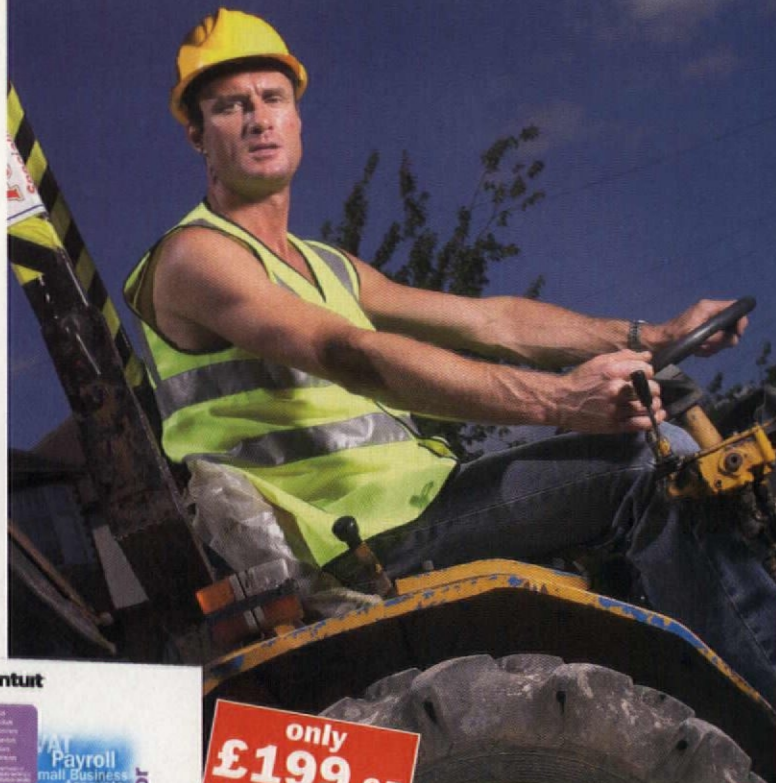
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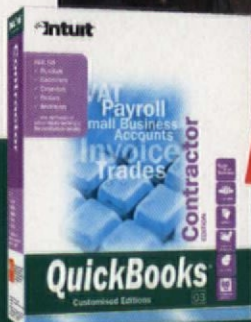
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GRANTHAM TOWN CENTRE DEVELOPMENTS

The Project

An interesting opportunity has arisen to work with South Kesteven District Council in order to redevelop two major sites within Grantham's Town Centre. Grantham is an expanding East Midlands market town with a population of approximately 36,000.

Background

The Grantham Town Centre Masterplan published in 2002 included, as a key recommendation, the need to rationalise car parking and to concentrate the provision on a new multi-storey car park site close to the town centre. Existing smaller satellite car parks located around the town can then be released for redevelopment.

In response to the Plan, the District Council has acquired substantial ex-supermarket premises at East Street, Grantham, as a location for the new multi-storey car park. Following completion of the East Street development it is planned that the town's existing ground level Watergate Car Park will be made available for residential development. A private sector development partner is now being sought to help the District Council achieve its ambitions.

The Sites

- East Street:** The existing steel frame/masonry structure is on 2/3 levels and occupying a total site area of over 7,600 sqm. The requirement is for a minimum 300 space car park (Secured Car Park standard) extending to approximately one third of the total site with the remaining land available for redevelopment to suit the aspirations and plans of the selected development company.
- Watergate:** The site extends to a total area of approximately 3,000 sqm at a prominent location on the northern edge of the town centre. Outline Planning Permission is awaited for residential use.

Process and Applications from Interested Companies

It is anticipated that formal bids for this project will be invited from a maximum of three companies during the Spring of 2004. Once selected, the preferred company will be required to complete design work in partnership with the District Council, to source any necessary finance and to ensure delivery of the project to an agreed programme.

Companies wishing to be considered for possible inclusion on the shortlist are requested to register their interest in the first instance by submitting the following documentation:

- Details of any similar town centre redevelopments
- Experience of previous major projects/partnerships with Public Sector organisations
- Proposed Development Team with details of relevant experience of all parties
- Likely financing proposals
- References - minimum of five similar projects
- Company Financial Accounts - 3 years.

The closing date for expressions of interest is noon on Friday 16 January 2004.

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Fill in the blanks

Prescott demands more [redacted] and less 'Noddy'

Ferguson stands by his swipe at Bristol [redacted]

RIBA vs ARB in battle of the [redacted]

Team of architects [redacted] on TV's University Challenge

Liverpool joins the [redacted] club

[redacted] 'police' target architects

Alsop's [redacted] wonderland

Who eats what?

 <p>A Bread, cheese and wine in an Alpine hut with friends and family</p>	 <p>B Rib of beef and bottle of claret, eaten anywhere with anyone</p>	 <p>C Egg and chips with a glass of red wine</p>	 <p>D Fried liver and onions with beetroot, chips and Zubrowka vodka in the Polish club in Chapeltown, Leeds</p>
 <p>E Foie gras and toast followed by Gloucester Old Spot and sprout tops at St John in Clerkenwell</p>	 <p>F Mussels, French bread and a cold beer</p>	 <p>G High tea at Stonehaven's Art Deco Carron Restaurant (haddock straight out of the sea, chips, salad, peas, bread and butter, pot of tea, all for £5.25)</p>	 <p>H Onion soup, home-grown and home-made, or funghi at Passione in Charlotte Street</p>
 <p>I Fish and chips at Toffs in Muswell Hill, London</p>	 <p>J Christmas Pudding, because the ritual is a Vedic cosmogony: the raft of twigs, the fire, the seeds of light buried in the mountain</p>	 <p>K The No 3 all-day breakfast at Smith's Café, Smithfield Market</p>	 <p>L Anything with meat in, anywhere licensed</p>

1 JOHN OUTRAM, 2 ALAN DUNLOP, 3 LAURIE CHETWOOD, 4 IAN MARTIN, 5 SIMON ALLFORD, 6 IRENA BAUMAN, 7 MALCOLM FRASER, 8 PAUL HYETT, 9 PETER MURRAY, 10 MARK WHITBY, 11 ROGER HAWKINS, 12 GLEN HOWELLS

Entries should be sent to AJ Christmas Quiz, 151 Rosebery Avenue, London EC1R 4GB, faxed to 0207 505 6701 or emailed to isabel.allen@construct.emap.com by 9am on Friday 9 January 2004



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The triennial 2003 Natural Stone Craft Awards, organised by The Worshipful Company of Masons of London, attracted a wide variety of entries. We show the winners in the three categories

Category 1: New buildings in natural stone



THE ROYAL COLLECTION 2002; HER MAJESTY QUEEN ELIZABETH II

THE WINNER: THE QUEEN'S GALLERY, BUCKINGHAM PALACE (Stonemason Cathedral Works Organisation; architect John Simpson & Partners; client the Royal Collection Trust; main contractor Wates Construction.) The judges admired the excellent craft skills evident from the submission, and the feeling for material on the part of the designers. The project comprises eight different elements including the art gallery (largely re-used Portland stone); the garden pavilion in Hartham Park Bath stone; the entrance hall in rusticated Bath stone ashlar; and the portico with its eight fluted Portland stone columns.

RUNNER-UP: BUILDING AT SOUTHWARK CATHEDRAL (Stonemason Paye Stonework & Restoration Ltd; architect Richard Griffiths Architects; client Southwark Cathedral; main contractor Walter Lilly.)

SPECIAL COMMENDATION: MERRILL LYNCH FINANCIAL CENTRE, LONDON EC1 (Stonemason Bath & Portland Stone; architect Swanke Hayden Connell; stone contractor Techcrete; client Merrill Lynch Europe; main contractor Mace.)

Category 2: Repair and restoration



JOHN CRITCHLEY BUILDING IMAGES

THE WINNER: ST ETHELBURGA'S CENTRE FOR RECONCILIATION AND PEACE, BISHOPSGATE, LONDON EC2 (Stonemason St Blaise Ltd; architect Purcell Miller Tritton; client Trustees of St Ethelburga's Centre; main contractor St Blaise.) The judges were very impressed by this high-quality project, an unusual mixture of reconstruction, repair and new work following a terrorist bomb blast in 1993. Wherever possible, stone from the original building was reused, with stones individually sorted and labelled. The front elevation uses Kentish ragstone rubble, of which 15 per cent was reused. Reigate dressed stone was also saved, while the west front is founded on original footings. Remaining standing walls were carefully conserved, while replacement fabric is clearly identified. Floors have been laid with new Portland stone, with the exception of the sanctuary, which uses salvaged Yorkstone. The centre is housed largely within the structure of the church.

RUNNER-UP: WELLINGTON ARCH, HYDE PARK CORNER, LONDON (Stonemason Stonewest; architect and client English Heritage; main contractor Mansell Construction Services.)

Category 3: Craft projects excluding buildings



PETER COOK/VIEW

THE WINNER: 16 OLD BAILEY, LONDON EC4 (Stonemason Paye Stonework & Restoration; architect GMW Architects; client Hammerson; main contractor Carillion.) This exemplary project involved the construction of a new south elevation on a 19th-century Portland stone building, replicating in Portland stone the main front facade to comply with planning requirements. An on-site carving shop was established to ensure accurate replication of the relevant details. The carvers spent three months handworking fine detail from sawn blocks brought to site. A detailed survey of the existing enriched stonework was carried out and production drawings derived that were then used by the carvers. Other elevations were cleaned using fine nebulous water spray, and repaired with natural stone, and indents and lime mortars.

RUNNER-UP: MEMORIAL GATES, CONSTITUTION HILL, LONDON SW1 (Stonemason Cathedral Works Organisation; architect Liam O'Connor; client Memorial Gates Trust; main contractor Geoffrey Osborne Ltd.)



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3. Swiss reconstituted green pickled cucumbers.
4. German high-riseling.
5. Italian shardonney.
6. Heavy Selfridges pudding with brand butter.
7. Californian Walnut trifle.
8. FOAney artificial Christmas tree.

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who said what

'The result is a fascinating building that undoubtedly raises the standard of city-centre office design, but one that should be regarded as a kind of work-in-progress: a staging post on the way to a more responsible and attractive form of skyscraper'

Jonathan Glancey on Foster's Swiss Re. *Guardian*, 8.12.03

'Does anybody care today that the Pope did not hold an open competition for the Sistine ceiling? We should insist on salvaging this most important of public projects from a compromise that leads to banality. Let's start again – this time, the right way'

Michael Kimmelman on the WTC memorial competition. *New York Times*, 7.12.03

'The London skyline is a chapter of accidents, a scarred, tragic parody of development control'

Simon Jenkins. *Evening Standard*, 11.12.03

'It's one man's mission to understand the universe with the help of his wife and mother-in-law'

Kim Wilkie on Charles Jencks' Portrack garden. *Spectator*, 6.12.03

vital statistics

- Parents are set to spend an average of £127.12 buying presents for their offspring this Christmas, according to a survey published last week. Children have the most spent on them, followed by partners, who can expect gifts to the value of £114.58.
- Depression, suffered by up to 2.6 million adults in the UK, is costing the British economy £9 billion a year, research by Imperial College London has found. Most of this is caused by time off work.
- The British Library has claimed it benefits the economy to the tune of £363 million a year, four times its annual government subsidy. The research – which cost the library £150,000 – shows the majority of this comes from indirect contributions to scientific and academic innovations.
- The population of China's biggest city, Shanghai, has broken the 20 million mark, a result of an estimated three million new job-seekers arriving in the city in the last year. Local authorities believe that only 13.5 million people are permanent; the majority of the rest are members of the country's mammoth floating workforce.

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From here to maternity

The surroundings during childbirth are of undeniable importance to the mother's comfort and overall experience. Fiona McWilliam reports on the National Childbirth Trust's new 'audit toolkit', which aims to guide and influence architectural decisions, and improve the design of maternity units

While stables might not meet current health requirements for maternity units, the one visited just over 2,000 years ago by Mary and Joseph is widely believed to have been quiet and homely – features as important to new mothers today as they were 2,000 years ago.

Of the many factors likely to influence a woman's experience of childbirth, the surroundings in which she delivers her baby have, undeniably, huge significance. In a recent survey of some 2,000 new mothers in the UK, nine out of 10 felt that physical surroundings could affect how easy or difficult it is to give birth. Yet more than half the women interviewed said they were denied access to facilities they considered important – facilities ranging from 'a pleasant place to walk around in' to room temperature controls and an en-suite WC. The findings reveal a great deal about the state of the country's maternity wards – where more than 90 per cent of women give birth – as well as throwing up some interesting architectural challenges.

Most labour units comprise an antenatal ward, for women who are in the early stages of labour or who have come in for assessment, a post-natal ward, for those who have already given birth, and several labour beds, which are nearly always in single rooms.

Some hospitals have single rooms designed for delivery and post-natal care, while midwife-led maternity units, of which there is a growing number, tend to offer beds in single rooms for antenatal care, labour and post-natal care.

According to the independent *Dr Foster Good Birth Guide* (Dr Foster, £16.99), which provides facts and figures on every maternity unit in the United Kingdom, 'maternity units are increasingly keen to dispense with the intimidating environment of a traditional labour ward and offer a range of birthing options including home-from-home rooms with comfortable furniture and tea-making facilities'. Water birth is an established alternative to the labour bed, it states, with many hospitals and midwife-led maternity units now offering this service.

The aforementioned survey, conducted earlier this year by Europe's largest childbirth and parenting charity, the National Childbirth Trust (NCT), brings to light a

number of commonly shared concerns about hospital birthing facilities. 'Most were very basic things such as the lack of a nearby toilet or the fear of being overheard,' explains NCT research consultant Debbie Singh, 'but all can have a big impact on the type of birth a woman experiences.'

The physical and psychological effects of the birth environment may even influence the outcome of a birth, Singh suggests. A poor environment can induce stress, for example, which, in turn, could influence the type of birth and level of intervention. And the greater the level of intervention, the higher the cost of a birth, which goes some way to explaining the government's desire to cut this country's burgeoning elective Caesarean rates. (The UK's Caesarean rate of more than 22 per cent is among the highest in Europe; the World Health Organisation suggests that no more than 10-15 per cent of babies should be delivered by Caesarean in developed countries.)

The NCT goes as far as suggesting that 'poor facilities and inadequate design' in labour rooms may contribute to the rising number of Caesarean sections in the UK. Action should be taken, it argues, to ensure that all women have 'every opportunity to experience a straightforward vaginal birth'.

With this in mind, it has put together what it calls an 'audit toolkit', to help architects improve the way that maternity units are designed – or refurbished – in future. 'Creating a Better Birth Environment: An Audit Toolkit' provides guidance about the kind of surroundings, facilities and privacy that women find helpful during labour, says the NCT, 'and those which will enable them to have the type of birth they want'.

It argues that building quality standards should be set for the design of rooms used for labour and birth, and that these standards should ensure that women are 'able to be as comfortable and relaxed as possible throughout labour, that their movement is not restricted, that they can control the heating and lighting, and that they do not feel exposed when someone enters the room'.

Sunand Prasad, of Penoyre & Prasad, praises the NCT's survey for being based on the actual experiences of women and their partners or companions. He believes, howev-



The significance of comfortable and unthreatening surroundings during childbirth hasn't changed in 2,000 years

er, that architects can do even better than the NCT's conclusions indicate, through attention to design; working with natural light, for example, and creating beautiful spaces.

'This fits in with my belief that the environment and its design should be seen as an actual part of caring and healing,' he said.

Heather Mellows, vice-president of the Royal College of Obstetricians and Gynaecologists, believes it is important to make labour rooms as 'women-friendly' as possible. She agrees that women in labour should have access to facilities such as en-suite bathrooms and moveable beds, but warns that, as much as many women would like a labour room to look like 'a normal bedroom', this is not always appropriate.

'Architects should design a room that looks "normal" most of the time, but can be readily transformed to a high dependency area for assisted deliveries,' she asserts. And this means easy access to medical equipment such as foetal monitors and drip stands.

Richard Mazuch is a director at Nightingale Associates, which specialises in designing healthcare buildings and counts a number of maternity units among its recent

achievements, including Princess Diana Hospital in Grimsby, the Royal Berkshire Hospital and the Birmingham Children's Hospital. He believes that labour rooms should look 'almost like sitting rooms', with adjustable domestic beds and sofas, and bacteria-resistant carpets and cushions. Furniture should be soft and yielding, he says, and equipment should be hidden away, if possible in an adjacent equipment room. 'Privacy is extremely important, and natural light is essential, for both the mother's and the baby's subliminal cognition of the time of day.'

Mazuch has conducted a great deal of research on sensory environments and their impact on all aspects of healthcare. He mentions, for example, the importance of choosing the 'correct colours' for labour rooms, advising against red and 'dense' orange, both of which, he asserts, can raise anxiety levels. (Conversely, he adds, wearing orange can encourage the mother of a premature baby to lactate – while smelling vanilla is thought to encourage an appetite in pre-term babies.)

Mazuch believes too that women should have access to a therapy room – 'an internal or

indoor garden designed to engage the senses', which would provide a calming environment for those in the earliest stages of labour.

While the NCT recommends building quality standards be implemented when new maternity units are built and existing units refurbished, it insists that significant improvements can be made to existing facilities, 'in terms of cleanliness, furnishing and décor', for relatively little money.

In practical terms, the requirements of mothers for childbirth seem straightforward enough to be readily addressed by architects and clients, even in this age of cost-conscious, value-engineered procurement.

'There is no reason that good design should not be produced under PFI if the client body is prepared to insist on it and budget for it,' agrees Sunand Prasad. 'At the same time,' he adds, 'I do think that not enough architects with passion and imagination, as well as skill, are involved in PFI.' 'Creating a Better Birth Environment: An Audit Toolkit' is available for £204 (including postage and packaging) from the National Childbirth Trust. Tel 0870 770 3236, email enquiries@national-childbirth-trust.co.uk



Zoomorphic flights of fancy – what would Pevsner say?

Speaking on national radio on 3 December 1966, Nikolaus Pevsner expressed 'acute discomfort' at the emergence of what he termed 'neo-expressionism', the 'radically original architecture' heralded by Ronchamp and the like. The talk, which is included in full in the new paperback edition of *Pevsner on Art and Architecture: the Radio Talks*, marked the 30-year anniversary of the publication of *Pevsner's Pioneers of Modern Design: from William Morris to Walter Gropius*, and noted the changes in the architectural scene in the interceding years. But it would be no less pertinent if it were written today. The comments on, say, Paul Rudolph's Art and Architecture Building ('What a heritage he has left his successor! Every cubic foot of this building says "Rudolph". What can a successor, of different principles and maybe believing in a different routine, do with such a building?') could equally be applied to any number of failed lottery projects that prove too idiosyncratic to be reappropriated for any other use.

For Pevsner, the problem illustrated the 'danger of personality cult and the blessings of modesty, faith in service and certain neutrality'. He grudgingly acknowledged the argument that buildings such as Ronchamp and the Sydney Opera House deserve a more than utilitarian appearance. But this was swiftly countered with his unease at the notion of 'one style for church and concert hall, another for the hotel or hospital, the offices and the flats – one style for Sundays, another for weekdays' – a distinction which is increasingly erroneous now that church-goers are in a minority and most cultural consumption takes place in the home. In any case, he argued, expressionist architecture, as well as being inflexible, is needlessly extravagant and an intrusive means of subjecting innocent parties to the architect's mood.

But by the logic of his own argument, even such a purist as Pevsner may have forgiven (not liked, granted, but forgiven) the extravagant flight of fancy featured on pages 30-39. Designed purely for the architect's weekend use, it is 'Sunday architecture', which does not force its colourful personality on an unsuspecting public – and for which, crucially, the architect picks up the bill.

Isabel Allen



Farrell's houses sure don't court peasants

Farrell's court houses are fascinating; and not least for their conscious reference to precedent (AJ 4.12.03).

The comparison of humane, post-war austerity intelligence – seen in Utzon's lovely courtyard clusters – with these pavilions 'with a guide price' of £4 million sure takes the breath away.

I suspect it might be a slightly unsure conscience which forces discussion to a 100m² court house. As well as to counter, as you say, 'the suggestion that large floorplates are a prerequisite'; but prerequisite for what you do not suggest; is it a civilised life?

No suggestion is made of how these 'prototype' units might cluster or be orientated. But perhaps a glance at an even earlier post-war austerity example could be instructive: contrast Farrell's with Walter Segal's even smaller, but surely more habitable, court houses at the core (and on the endpapers) of his *Home & Environment* of 1948.

And Farrell doesn't even offer his 21st-century peasants a downstairs loo.

(PS: Regarding your quote on page 14 of the same issue, Robbie Williams' take on Sinatra standards is miles better than

John Simpson's 'ghastly phone box'.)

John McKean, Brighton

Will the real Strangelove please stand up

I read the letter 'Strangelove model was somebody else' (AJ 27.11.03) with interest.

To graduates in chemistry, Edward Teller will be remembered for his part in the formulation of the John-Teller theorem in 1937. According to the book *Quanta: a Handbook of Concepts* by P W Atkins, the theorem states that 'in a non-linear molecule, there is always a distortion that removes any orbital degeneracy of its electronic state'.

Alex Chablo, Manchester

Despite the RIBA guide, one size does not fit all...

I have just received from the RIBA the latest issue of *A Client's Guide to Engaging an Architect*, which in its new format is suggested for use on projects of all sizes. As the principal of a typical small/medium practice, I found the most tangible benefits provided by our RIBA membership were the *Guides to Engaging an Architect: the Small Works* (blue version), the *Larger Works* (yellow) version and the *Historic*

Buildings (Repairs and Conservation) (maroon) alternative, together with the various *Standard Forms of Appointment*.

While the wording of the new guide is straightforward, the interests of professional/corporate clients are very different from the typical 'one-off' client whom we serve, together with the vast majority of registered architects and practices. Most of our work is to existing buildings and while the new works 'range of fees' diagram is still labelled 'Figure 1' in the guide (it is the only figure), the previous Figure 2 (*Works to Existing Buildings*) has disappeared entirely, and the increased levels of fees associated with work of this nature and with work on historic buildings is referred to only in small bullet points. The average fee line indicated is from Mirza and Nacy survey information covering the previous year.

The impression on most of our clients provided by the new booklet will be that our quoted rates for work on existing buildings are extraordinarily high. In practice, I suspect that very little information on projects with a value range of £20,000 to £150,000 previously covered by the *Small Works* guide, or even up to £250,000, has been given to Mirza and Nacy.

Again, the time charge figures resulting from the Mirza and Nacy survey are vastly different from those previously reported in Figure 4 of the old booklet. They make no allowance for regional variations and the various rates for different levels of complexity are again referred to in a small sub-paragraph. Are we really to believe that time charge rates for a partner, director or equivalent have fallen by 50 per cent and 257 per cent between 1999 and 2003?

I have written to the president of the RIBA and understand the difficulties in

meeting the requirements of the Office of Fair Trading. However, I fear that the new 'one size fits all' version of the *Client's Guide to Engaging an Architect* will do my practice more harm than good. To add insult to injury, we will have to buy new guides each year if the average fee line system is to be kept up to date. What is the legal status of the suffix ARIBA Resigned, I wonder?

ETW Byrne, Tunbridge Wells

...while some would be grateful for a fraction

On reading Ed Dorrell's report on the Office of Fair Trading forcing the RIBA to shelve its *Recommended Fees Guidance* (AJ 4.12.03), I recalled a conversation that I had with someone at the RIBA practice department a year or two ago.

When faced with yet another lost fee tender by a bid well under half the RIBA recommended level, I telephoned the RIBA to see if it had a view on this. I was told that the majority of the complaints it receives from architects are that the fee scale is 'too low'. I asked whether that meant that practices are charging above the fee scale and after a reply in the positive, I enquired as to which planet these architects inhabit. Is this just the London factor?

Most of our work is in the public sector and the level of fee we are operating at within this sector has been well below the RIBA recommended level for many years. We pride ourselves on our consistent endeavour to provide a high-quality professional service to our clients, and as a result our profit margins become very tight or worse.

The evidence of our experience seems now to be confirmed by the RIBA's market research, putting the previous advice received in some doubt, wouldn't you say?

Is it not about time that the

RIBA began a real and concerted campaign to educate clients and architects about the value of what we do. We find it hard to see how such a standard of service can be delivered at rates of less than 50 per cent of the old scales and, frankly, neither architect nor client can really benefit in the long term from this approach.

As for hourly rates, don't make me laugh. A competitive bid process on hourly rates a year or so ago resulted in winning bids of between £35 and £40 an hour. I read in another journal a complaint that the new system would result in an inability to charge more than £70 an hour. Well, £70 an hour would do me nicely, thank you.

*Alan Wilkinson, RIBA
WPP Architects, Suffolk*

The National Museum will not delay the Cloud

Ed Dorrell's piece on Will Alsop's Cloud (AJ 4.12.03) committed the age-old journalistic sin of presenting only one side of the story, at the expense of accuracy.

National Museums Liverpool is not behind in anything with regard to the timetable for the Fourth Grace. At present we are awaiting confirmation that the Fourth Grace (which needs our land in order to get built) is viable in terms of overall funding, and will meet our physical requirements for housing a world-class museum.

In the meantime, we are working just as hard as other involved parties, and are confident that we can have the museum open in 2008, as long as all else is in place. Indeed, according to the *Liverpool Daily Post*, the museum is the only part of the scheme which might be ready by 2008, as Liverpool-based readers of *The Architects' Journal* will be aware.

*David Fleming, director,
National Museums Liverpool*

Calling architects with an affection for Tricorn



In response to advancing plans for the redevelopment of the Tricorn, the striking concrete multi-layered structure by the Owen Luder Partnership (Rodney Gordon) of 1962-66, we are putting together alternative plans to reshape and bring to new life at least parts of it.

We would be grateful to hear from architects and designers who have an affection for it now, and from those who did studies of it while at Portsmouth School of Architecture or College of Art. Tel 02392 732912 or email CeliaDeane.clark@btopenworld.com

*Celia Clark, Save the Tricorn,
Southsea*

Can Shariff shield her babies from the divorce?

The 'normal practising architect' for whom Yasmin Shariff voices such warm maternal concern (AJ 4.12.03) may wonder, child-like, why so formidable a matriarch (having a foot planted firmly in both the ARB and RIBA camps) does not cut through the crap unaided?

MP West, London SE1

Correction

The quantity surveyor on the Centre for Mathematical Sciences is Northcroft, not Davis Langdon & Everest as stated (AJ 20.10.30).

*Please address letters to the editor at The Architects' Journal,
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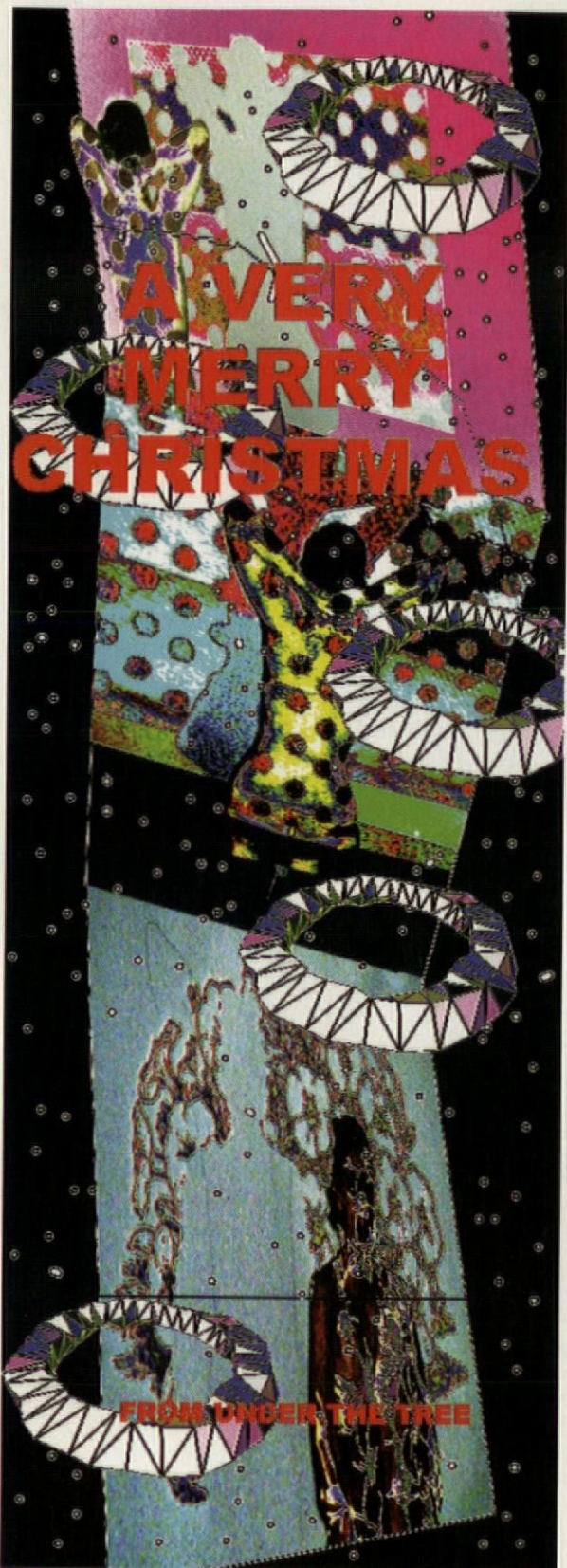


will alsop

people

Alan Higgs and Kit Lowe continue architecture's grand march into the public's consciousness with BBC2's *The Million Pound Property Experiment*

After three years as an AJ columnist, Will Alsop signs off with a Christmas card to all our readers



Architectural TV is currently big business. The fickle viewing habits of the British public have been stayed, momentarily at least, by an outpouring of property makeover shows, the most recent of which creates tantalising TV fodder by combining hard cash, luxury homes and the tantrum and tiara antics of a pair of flapping Scotsmen. *The Million Pound Property Experiment* follows a simple formula: a bunch of BBC executives purchase a run-down property in a desirable area, add some major renovation and open up to the highest bidder. Each property is more ambitious and expensive than the last, and the eventual aim is to sell the final house in the series for over £1 million, with all proceeds going to charity.

Contrary to the *Changing Rooms* school of design, the venture required more than a garish slash of paint, parquet and a few planks of MDF. About May of this year, London-based practice Alan Higgs Architects got a call from RIBA Client Services with an invitation to pitch for a residential project and partake in 'the biggest property experiment in television history'. Higgs' pitch secured the partnership and, within weeks, Alan Higgs and project manager Kit Lowe were being shown round a dingy three-storey house in Belgravia with a £780,000 price tag.

With a derelict bathroom in the loft, isolated kitchen in the basement and no access to the overgrown garden, Higgs was both excited and bewildered by the property's potential. 'I remember thinking this could be our worst job ever, true professional suicide. There was huge pressure to make it worth a million and only 12 weeks to do it in.'

But with 70 residential commissions completed in seven years across London and Australia, including several luxury courtyard and beach houses, as well as a penchant for dealing with 'demanding' clients, the practice quickly established control. Higgs firmly believes that 'residential work is great preparation. Good residential architects are virtually equipped to deal with any requirements'. Even if those requirements include prima donna presenters and television cameras in your face 24/7? Higgs admits that the absence of privacy was 'a pain' because 'there was a definite sense they were waiting for us to



Two in a million

mess something up because obviously that would have made very good TV'.

Ratings wars decree that the modern 'goldfish bowl' documentary viewer must indeed have good TV, ideally peppered with blow-ups, fall-downs and the odd scrap between client and designer. 'We wanted to portray a good relationship between architect and client,' comments a diplomatic Lowe. 'For us this was an actual professional job and we wanted to do it properly.' Conspicuous of claims that the influx of 'interior design' programmes has devalued good architectural design, Higgs Associates was keen to use the experiment as an effective PR opportunity for architecture. 'The profession does so much good,' Higgs advocates, 'we believe in adding value through design. We hope people will see the value of what we do.' And what is that value? 'Enhancement and improvement,' Higgs replies, without missing a beat.

Both architects have clearly defined notions of what their responsibilities to their clients and to architecture entail. Defining themselves as a young and dynamic UK practice (average age not quite 30), but with a largely Australian workload, both were trained in old-fashioned offices and taught to think first and foremost about the freedom of space, a theory that Lowe muses brings a 'distinctly Antipodean' characteristic to their work. At the Belgravia house, all three floors have been opened up to give light and fluidity to the space. Sliding partitions separate the hallway and living room and the bedrooms from their en suite bathrooms. The generous kitchen and dining area is encased under a delicate glass atrium, which filters in natural light and backs out onto the garden. In creating the best optimal space, it's impeccable and all very carefully controlled, reflecting Higgs' whole demeanour.

'There was a definite sense they were waiting for us to mess something up because obviously that would have made very good TV'

Asked if the house is a Higgs Architecture signature piece, Higgs is frank: 'It's not exactly an architectural statement. It's more about modest things that turn a house into an elegant, refined living space.' There is nothing ambiguous or enigmatic in this thinking. The big gestures might stand, but for Higgs the greatest measure of good architecture is the innate ability to feel what works, even in a confined space. Get that bit right and maximising value simply follows suit.

If the *Changing Rooms* genre can create a nation of property-obsessed budding interior designers, can *The Million Pound Property Experiment* make architecture just as accessible? Higgs looks sceptical: 'Not enough is made of the role of architects. Architects think, they have a plan and a vision.' But is there a risk of reinforcing public opinion that architectural services are a luxury usually accompanied by vast expenditure? Higgs does not agree, and is adamant that 'compared to the value of property, architects' fees are small'.

Exactly how small, who can say, but the property sold for an impressive £1.25 million, leaving everybody involved very relieved (and the presenters in a flapping frenzy). For a practice that has kept a low profile (a product of 'not enough hours in the day' rather than inclination), being thrust so hastily in front of the most intrusive of media must have been quite a coup. 'I feel very fortunate,' says Higgs graciously. 'We've had very good luck.' 'Not good luck,' quips Lowe, 'but good management.' Higgs concedes: 'It's about taking advantage of your luck then.'

Cristina Esposito



Biodiversity pays the price as the practice of pupillage goes to pot

Once upon a time there were hundreds of different ways of doing things, every one of them mapped out with initiation and graduation ceremonies, rules and regulations, proven competence and high professional standards. There were institutional guilds in the Middle Ages that still survive in the City of London today, and regimental hierarchies for the army that are still being torn to pieces after 50 years. In those days, the law was administered according to precedent and not, as it increasingly is, by formula; teachers learned by copying other teachers, and nursing was taught by copying other nurses. Even architecture was learned by pupillage, by working for practicing architects and paying for the privilege. And this entire pyramid of devolved expertise was kept in place by standards of personal responsibility that are inconceivable today.

Seen from above, this interlocking network of systems was clearly based on the two oldest organisational models known to man – the church and the army – in both of which rank is attained incrementally and the authority of seniority cannot be questioned. But seen from below, the network looks different. Each of the disciplines enumerated above, and others too numerous to mention, had, over the course of time, developed a unique organisational structure of its own. A separate personality as distinct as if it were a different species in the natural world. This was the true diversity of the human genome, that nurses should not be the same as doctors, that architects should be trained differently to policemen, and so on. Most of all, that training should be based upon perceived practice and not upon theory.

Early in the last century, mainly as a result of mobilisation to fight the Great War, this grand arrangement began to come apart. The training of soldiers came first, the diverse practices of the past unceremoniously junked in favour of grand acad-

mies for officers and vast training camps for men. This process of centralisation continued, gathering pace as the century advanced. Medicine, surgery, dentistry, teaching, law, education, engineering and nursing followed the same route. One-thousand grammar schools became 100 comprehensive schools. Another 100 trainee doctors left the wards in favour of the groves of academe, heading the rush into colleges. Artists (of all people) took up residence in studios designed by local authority architects

‘There must be a penalty to pay for the wholesale demolition of the tradition of pupillage that corresponded so well to the realities of architectural practice’

departments. Engineers (who knew no better) learned their lessons in grandly named ‘Colleges of Technology, Art and Commerce’ and architectural students, following the resolution passed by the RIBA Oxford conference of 1956, left behind the grand history of pupillage that had produced such masters as Frank Lloyd Wright, Le Corbusier and Mies van der Rohe, and were herded into half-a-hundred architecture departments, there to be taught by experts in name-dropping and magazine skimming.

And what has been the result? In an age that prides itself on a new respect for the natural world, where marshes drained over centuries by our forefathers are now restored to their ancient state of inutility for the benefit of the great variety of wildlife they support, biodiversity is the watchword. The unnumbered denizens of woodland and hedgerow are being counted and taxonomised on the basis that the more species there are identified, the richer the genetic soup for science to study. This is all very well and, indeed, may one day prove to be crucially important. But what of the ‘biodiversity’ of human organisational structures? Surely there must be some penalty to pay for the wholesale demolition of the tradition of pupillage that corresponded so well to the realities of architectural practice. Is this not a crime against survival just as the extinction of a natural species is?

Tom Dykhoff

Architecture critic, *The Times*

When and where were you born?
27 February, 1971, St Albans.

What is your favourite building and why?

Changes hourly. Right now, St Bartholomew the Great, Smithfield, London: buggered about with but, 1,000 years later, it still sends shivers down my spine.

What is your favourite restaurant/meal?

My mum's house for Sussex Pond Pudding.

What vehicle(s) do you own?

A battered pushbike. Nothing beats cycling round Hyde Park Corner during the rush hour.

What is your favourite film?

Everything by Woody Allen (pre-*Husbands and Wives*), Pedro Almodovar (post-*Live Flesh*), David Lynch, Powell and Pressburger or with Jimmy Stewart. And *Con Air*.

What is your favourite book?

Alice in Wonderland.

What is your favourite 'design classic'?

The iPod I lust after but can't afford.

What is the worst building you've ever seen and why?

Again, too many. Let's start with Morrisons' evil supermarket in Nelson, Lancashire, for ripping the spirit from the town with such ease, ugliness and stupidity.

Who or what is your biggest architectural influence and why?

Sam Mockbee. He put empathy back into architecture. Quietly.

Who is the most talented architect you've worked with?

Tom Heatherwick, though he's not an architect and I haven't really worked with him.

If you hadn't been a critic, what would you have been?

An architect. Still trying to become one.

What would your advice be to architectural students?

Do you really know what you're letting yourself in for?

What would your motto be?

Live slow, die old.

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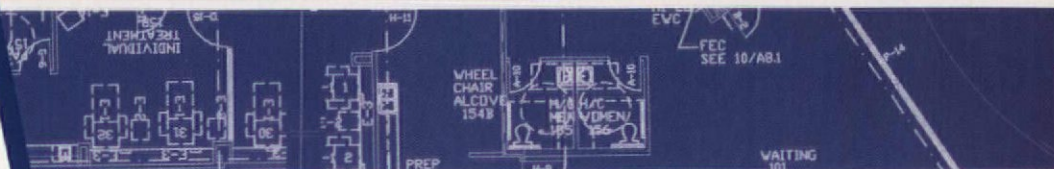
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Flight of fancy

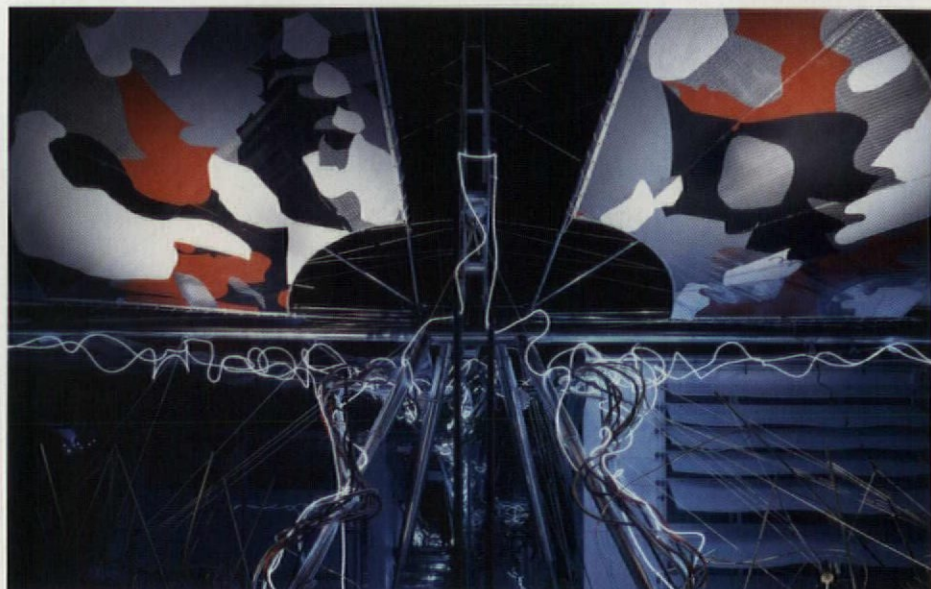
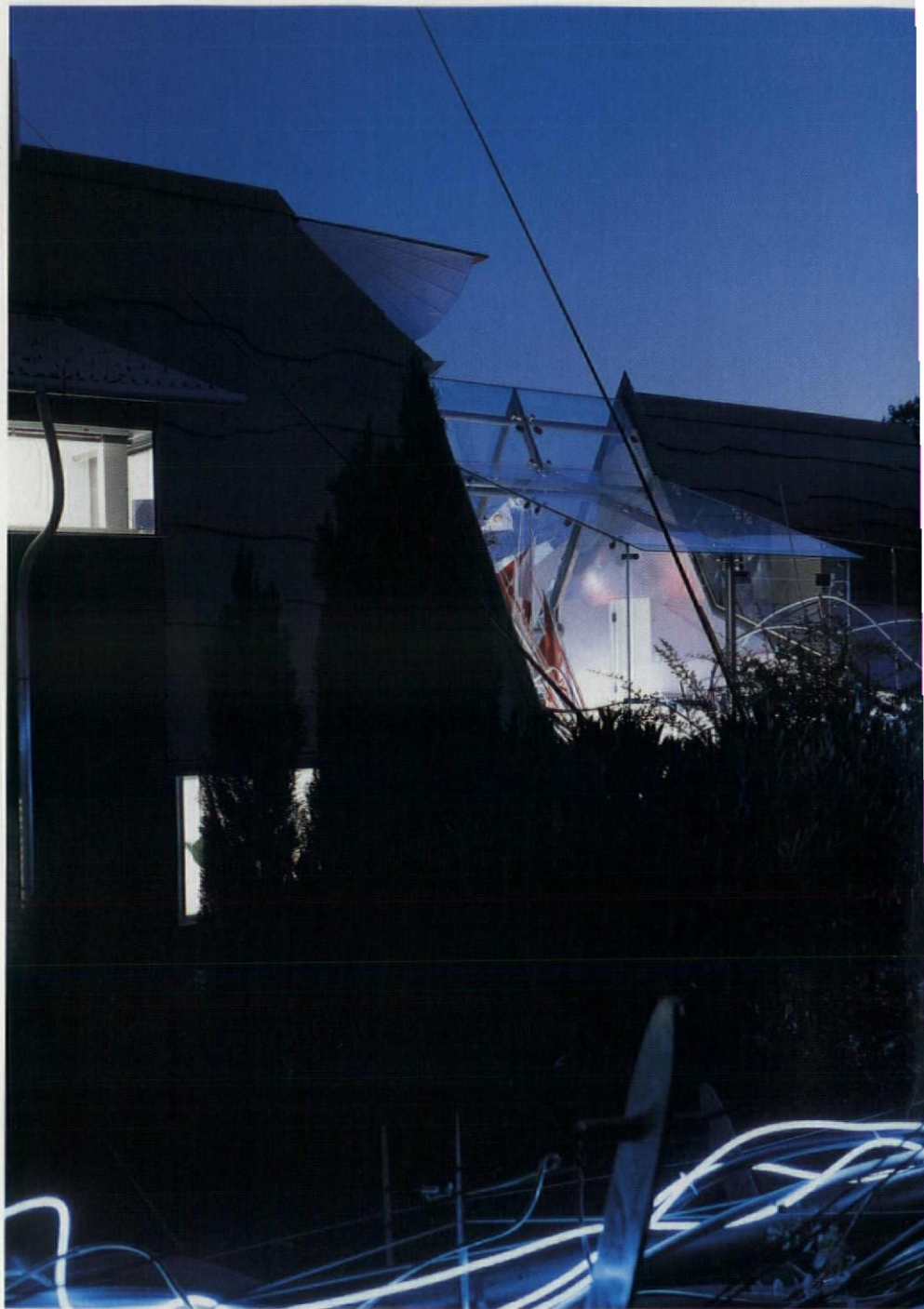
Butterfly House, Laurie Chetwood's weekend home, is a hands-on playful architecture of self-expression and a development lab for Chetwood Associates

By Barrie Evans. Photographs by Edmund Sumner/VIEW

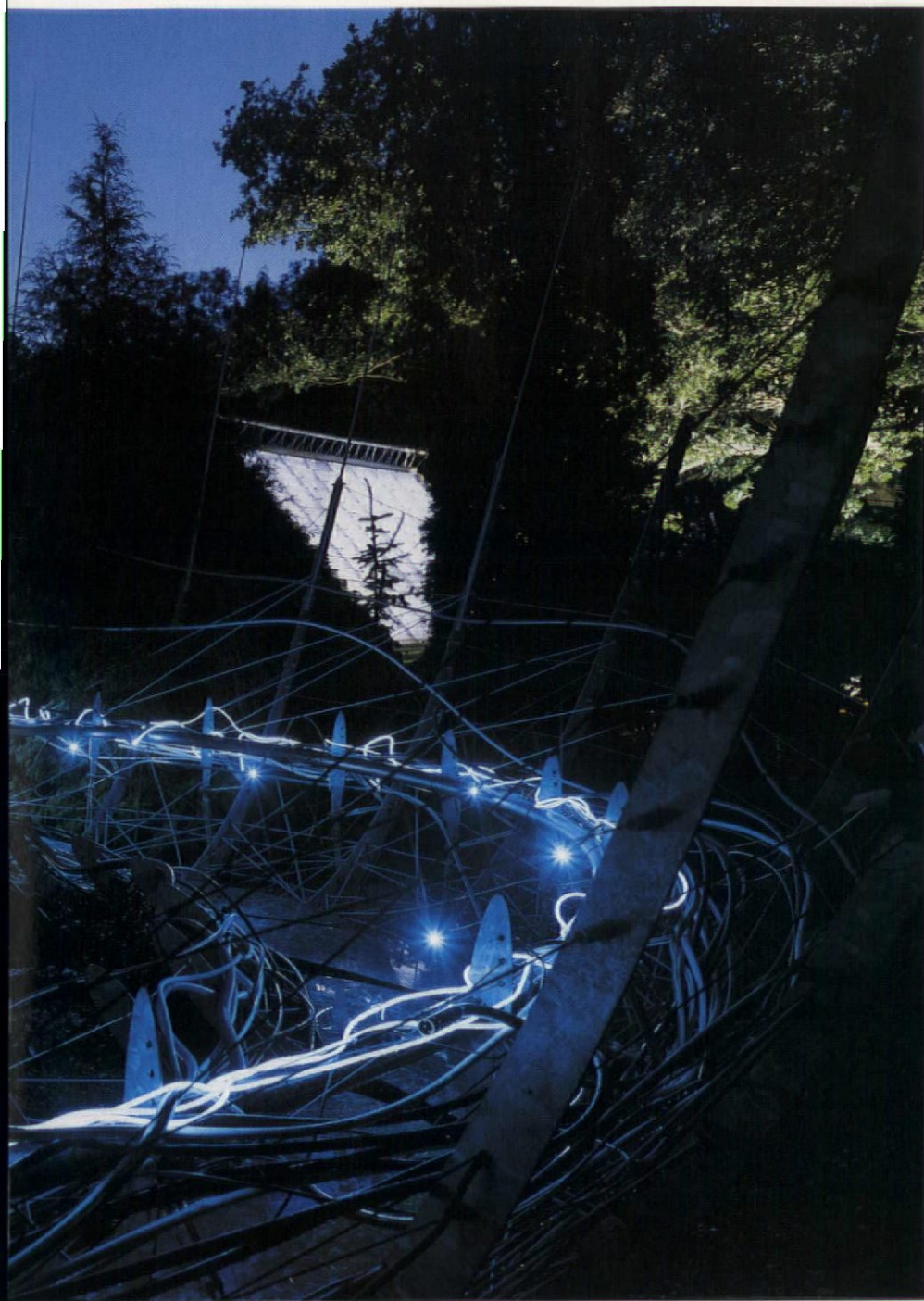
Distribution centres, mixed-use urban redevelopments and Underground stations are just some of the buildings you may not have heard of from Chetwood Associates, projects in the modern mainstream. The work has, though, developed an increasingly green theme, such as a hotel project for Clerkenwell (AJ 9.5.02) and the Sainsbury's supermarket at Greenwich, notably its daylighting, shoppers being able to see the sky. For Laurie Chetwood this is not just an extension of functionality, what he calls 'the boiled dry stuff', but a quest to make buildings more enjoyable to experience. 'Architects should put a hell of a lot more into quality of life,' he says, and he sees this happening by putting more passion into buildings, balancing it against the boiled dry.

That said, he feels OK about the balance struck at Greenwich. But the Butterfly House has given him a chance to explore where the high-passion, expressive end of the spectrum leads, both for himself and as a test bed for the practice. The house has offered a low-risk environment for experimentation. They have been able to try out wild ideas, often making prototypes. 'Almost everything was built twice,' says Chetwood cheerfully. A lot has been self-built, a gradual prolonged process. Wife (and practice member) Roz recalls, when pregnant, climbing a ladder to the upper floor before new stairs were installed. Emily is now three. The remainder has been project-managed by Chetwood. Finding the right people has been difficult, as has cost control. As she says, they learned to present what they were doing as relatively conventional to potential sub-contractors – a piece of steel to be laser-cut here, some glass-fixing there. If, instead, they presented what was needed in the context of the bigger picture of an experimental project, cost estimates escalated.

The project began conventionally enough, with Chetwood buying the house in 1993, with its adjacent summer house, on 1.2ha of land. The site sits on a south-facing slope, relatively open, but in other directions



Above left: from foot of stair through breaking-out sculpture. Above right: butterfly spreads its wings. Top: chrysalis rib approach to entrance on north



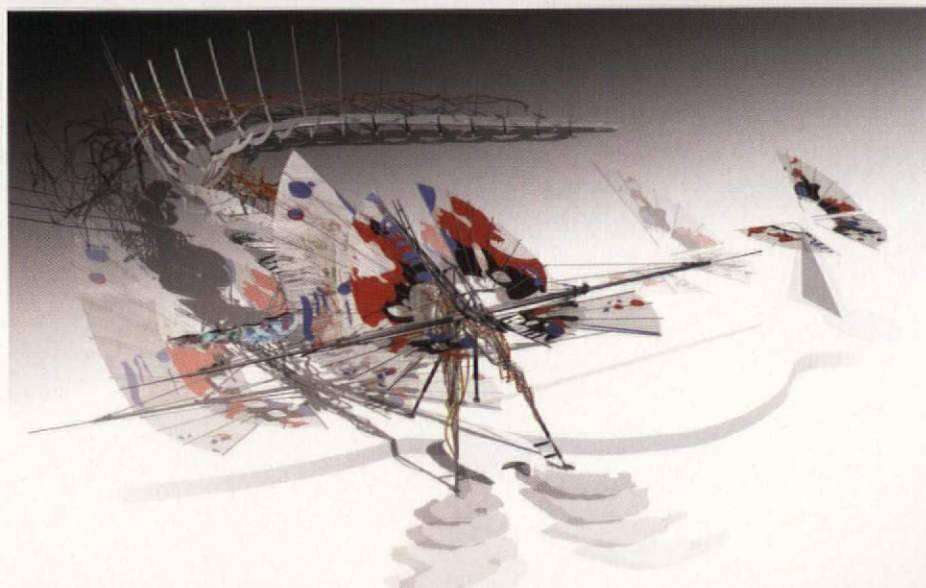
enclosed in trees. The site's indigenous planting turned out to be highly attractive to butterflies. An ecological survey of the site highlighted this, leading to new planting which enhances this quality.

The main building is a Canadian timber-framed kit house erected first in the 1930s at the Ideal Home Exhibition and re-erected on this site at Dunsfold in Surrey in 1946. Perhaps because of its exhibition provenance, it had no insulation (nor airtightness) – OK as a summer shelter. Chetwood overclad it in insulation and brick to make it habitable at weekends year-round. Then it was time to branch out, to dream.

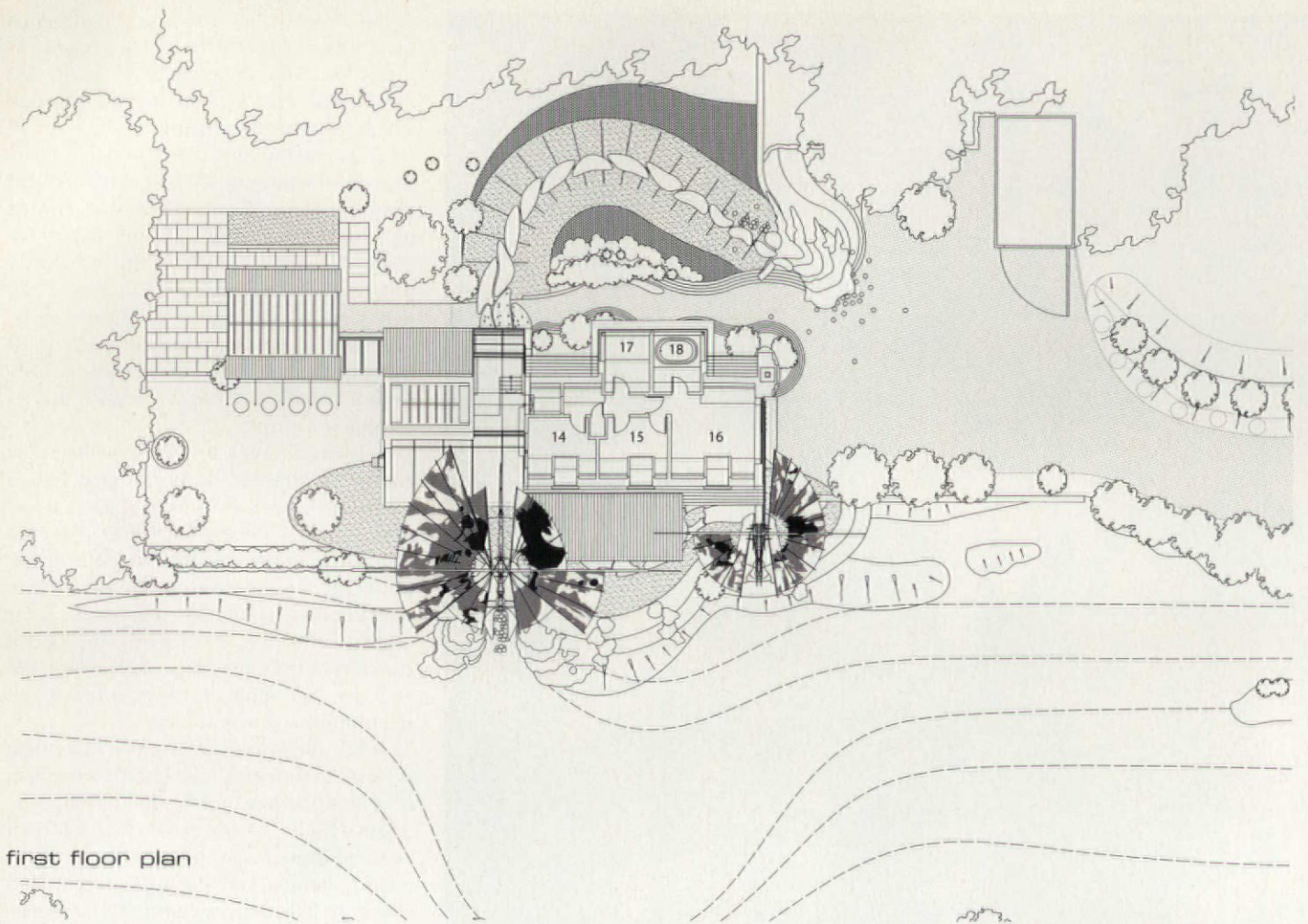
It is easy enough to play spot-the-influence – to Pop Art, '70s *Star Trek*, not to mention Heath Robinson. But these are in some ways beside the point, Chetwood is not trying here to advance any established positions. And the butterfly lifecycle ideas, which were not there at the start, are now the most explicit influences, particularly the ribbed chrysalis of the pupal stage, the bursting out and the spreading of wings, worked out sculpturally and in graphics.

While the whole is very much more than the sum of the parts, it is simplest to explain it as building plus unfolding butterfly. The original house, latterly brick-faced, has been overclad in high-spec painted ply, its roof's existing bonnet ends turned into powered ventilator flaps with extending fabric cheeks. The new chimney is clad in layered copper sheets, some natural, some painted in blue-greys. This building has been joined to the summer house by a new glazed entrance link (opening up the end of the house), plus conservatory and guestroom/playroom with a route via the guest's bathroom and a short white *Star Trek* tube of a corridor into the summer house. This is now a studio and has been reroofed with clear plastic corrugated sheets, plus fabric shading on the south slope.

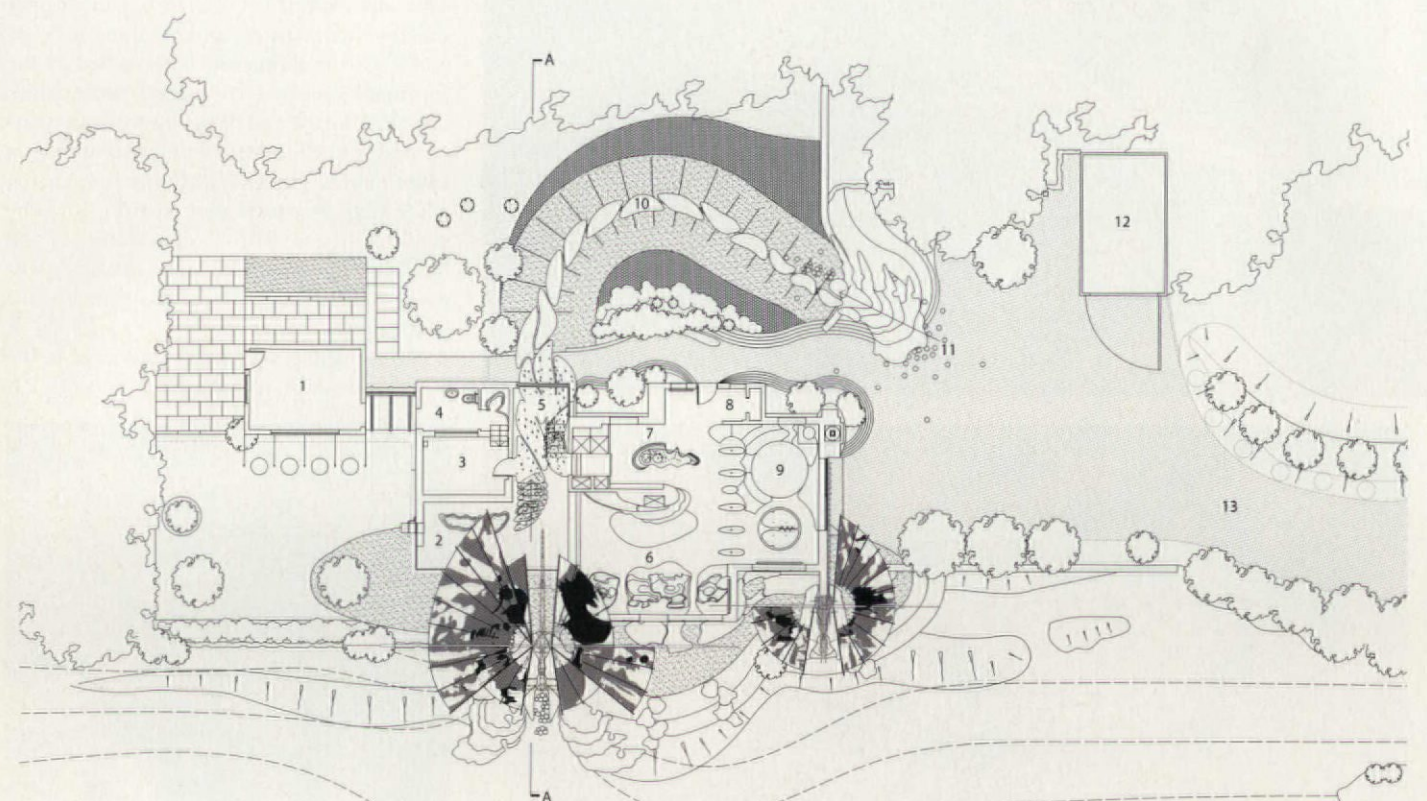
Running through these buildings is the sculptural unfolding of the butterfly. It



Above left: Chetwood's drawing of the sequence of butterfly interventions. Above right: conservatory with rowing-seat chairs and 'bug' extract fan

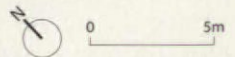


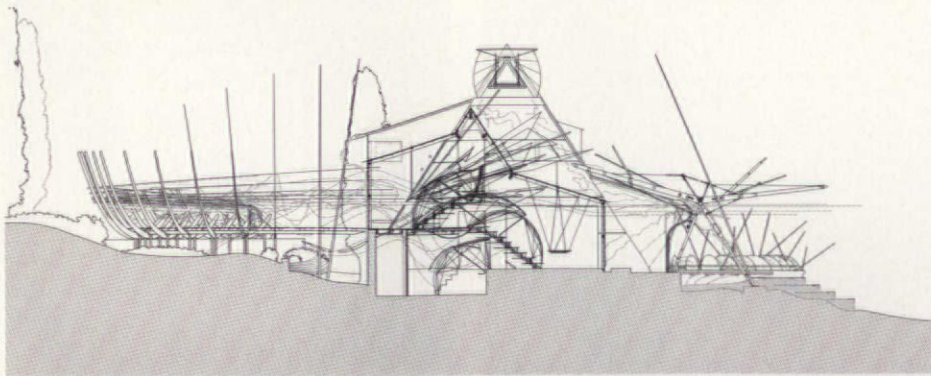
first floor plan



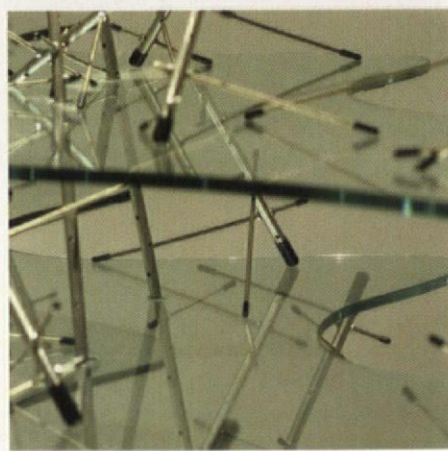
ground floor plan

- KEY**
- | | |
|------------------|---------------------|
| 1 summer house | 10 walkway |
| 2 conservatory | 11 steps to walkway |
| 3 guest bed | 12 garage |
| 4 guest bathroom | 13 driveway |
| 5 main entrance | 14 bedroom 1 |
| 6 living room | 15 bedroom 2 |
| 7 kitchen | 16 master bedroom |
| 8 boot store | 17 bathroom 1 |
| 9 studio | 18 bathroom 2 |





section aa



Above left: swallow-tail butterfly motifs on stair; support structure of welded rebars. Above right: detail of kitchen table. Middle: main bedroom with suspended bed, window and bonnet ventilator

begins on the north side, where plants such as nettles are most conducive to butterfly egg-laying. Galvanised metal plates like leaves step up to a plated walkway that loops in an arc to the new front entrance. Its surface floats above the garden, supported on ribbed arms and crossed structural cables. Balustrades of entwined tubes compound the deliberate illegibility of the structure. Some are side-emitting fibre optics that make the whole route to and through the house much more a separate entity at night. Copper tubes carry end-emitting fibre optics. Some of the tubes carry collected rainwater for irrigation, all continue through the glazed entrance and out the other side. It is in the entrance that Chetwood (and son Charlie, aged 5) built the sculpture, where supports and blades of plastic sheet in the black and red of the swallowtail butterfly burst through the glass roof. The violent dynamic and motifs of this are taken up too in the metal-plate stair (surprisingly not 'live' to step on). Out on to the terrace to the south, and repeated on a smaller scale further east on the terrace, furred Kevlar butterfly wings can be wound to unfold. Terrace planting here favours the emergent butterfly with nectar. Wisteria is beginning to grow up the building.

This is not all. Obsessive experimentation is everywhere. In the conservatory a table of three layers of glass with overlapping butterfly patterns is held by cables between roof and floor, as is some of the seating – boards for sitting forward or leaning back while perched on sliding rowing seats. The kitchen table (cooking is not a favoured weekend activity) is a set of five glass plates, here pierced and locked together by free-standing steel rods. In the main house's 'studio' (more a TV/lounge space), a small version of a ship's steering wheel spins to let down two hinged half circles of glass on cables, part folded like wings, until by ingenious gearing they open to a be a flat table above a circular pit where it is tethered for stability – you sit on the edge of the pit. In the living room, skeins of shock cord (elasticated rope, as in bungee jumping) support timber seats – some are quite stiff, some sway. (An earlier idea was to cover the room with rubber rods like a cornfield that you could lay back on anywhere, but detailing and the cost of several kilometres of rubber curtailed this. Maybe later.) Upstairs the children's bedrooms are little touched, but suspending the bed in the master bedroom is work in progress, and the bathroom includes dispensers in the form of chemistry lab burettes.

Some of this stuff only sort of works. Chetwood himself has no problem with that. He is a man who needs a project. To finish would be unthinkable (and improbable). He is happy to be learning about a whole range of technologies, like rediscovering winding mechanisms, the dynamics of weaving shock cord, how meshes of wires and cables come to lock solid, or tuning gas struts (which



Re-roofed summer house with, to right, circular-section connecting passage

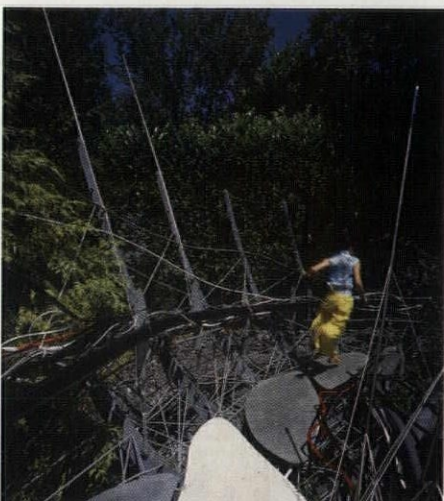
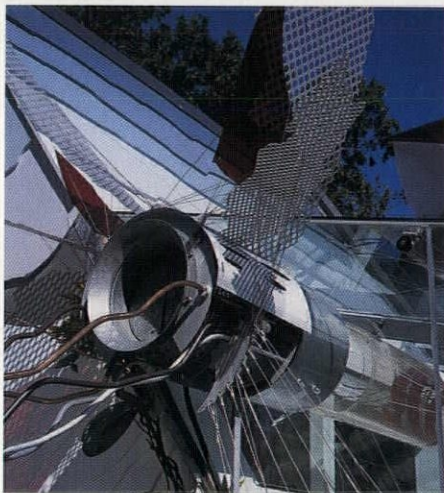


New chimney clad in plain and painted copper

operate the hinged window-wall to the living room). Many of the moving parts, now hand-cranked, may one day be motorised when funds allow. Even so, what is surprising, given the different sort of sophistication of Chetwood's other buildings, is the Arts and Crafts of it all. There is underfloor heating and a big extract fan in the conservatory dressed as a bug – essentially this is a very low-tech house. In common with many architects, Chetwood's exercise here in zoomorphism (he is also exhibiting at the current V&A Zoomorphic show) is essentially only visual, without the process of life – the animal characteristics of evolving, of responding, of learning. No artificial intelligence here. The unfolding wings are kinetic sculpture, not smart shading.

Getting this far is, even so, an amazing achievement. Chetwood hopes to evoke an attitude like his own amazement on first seeing the Pompidou Centre. Not surprisingly, not every neighbour shares his enthusiasm for the exploratory – often weekenders themselves too but more intent on rural escapism. He is discreet about this, since they must continue to coexist. The planners would not let Chetwood knock the house down but accepted wrapping another design around it.

Chetwood's house is a one-off, no more the start of a new movement than were the works of Mackintosh or Gaudí, and for some of the same reasons. His programme has wider application, in its exploring of the personal expressive possibilities of the architect-artist, one not inhibited about wearing his art on his sleeve. If he has a message for us, it is surely 'lighten up'.



Above: entrance route as part of the landscape; climbers will grow on the house. Top: extract bug to help cool the unshaded conservatory

CREDITS

PLANNING PERMISSION

1997

PROJECT DETAILED DESIGN

1997-1998

START ON SITE

1999

TOTAL COST

£500,000

CLIENT

Laurie Chetwood

CLIENT, ARCHITECT

Chetwood Associates: Laurie Chetwood, Roz Marzano, Christoph Reckenwald, Martin Herbert, Stuart Cross, Mike Vines

STRUCTURAL ENGINEER

WSP – butterfly structure

Furness Green Partnership – staircase

Gledsdale Associates – house conversion

ECOLOGICAL CONSULTANTS

Christopher Betts Environmental Biology

MAIN CONTRACTOR

Crisp Interiors

SUBCONTRACTORS AND SUPPLIERS

Conservatory Mag Hansen; walkway Will Engineering; staircase Mayflower; canopies Lucas Sails, Stewart Signs, 3M; fibre optics Crescent Lighting; butterfly superstructure Hilsa Engineering; glass furniture Rankins Glass; bathroom fittings Fisher Scientific; fittings C&M Smith; galvanised steelwork Doncaster Laser Logistics; slate suppliers McAlpine Slate; laser fabrication CR4; tube and conduit Abbey Hose; stainless steel components Jakob Inox Line; roofing Cobsen Davies; electrician Miles Electrical; carpet Natural Elements; architectural metalwork Shireoaks Engineering; sound system Alpine

WEBLINKS

Chetwood Associates

www.chetwood.co.uk

WSP Group

www.wspgroup.com

Christopher Betts Environmental Biology

www.christopherbetts.com

Crisp Interiors

www.crispinborst.co.uk

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A sail structure in the form of a butterfly

The south-facing conservatory is shaded by a sail structure; a series of overlapping fan-shaped sails that flare out like the wings of a butterfly at each side of a delicate stainless-steel structure supported on four insectile legs. The sails are translucent and overlaid with translucent coloured film in abstract patterns, which are projected onto the floor of the conservatory when the sun shines

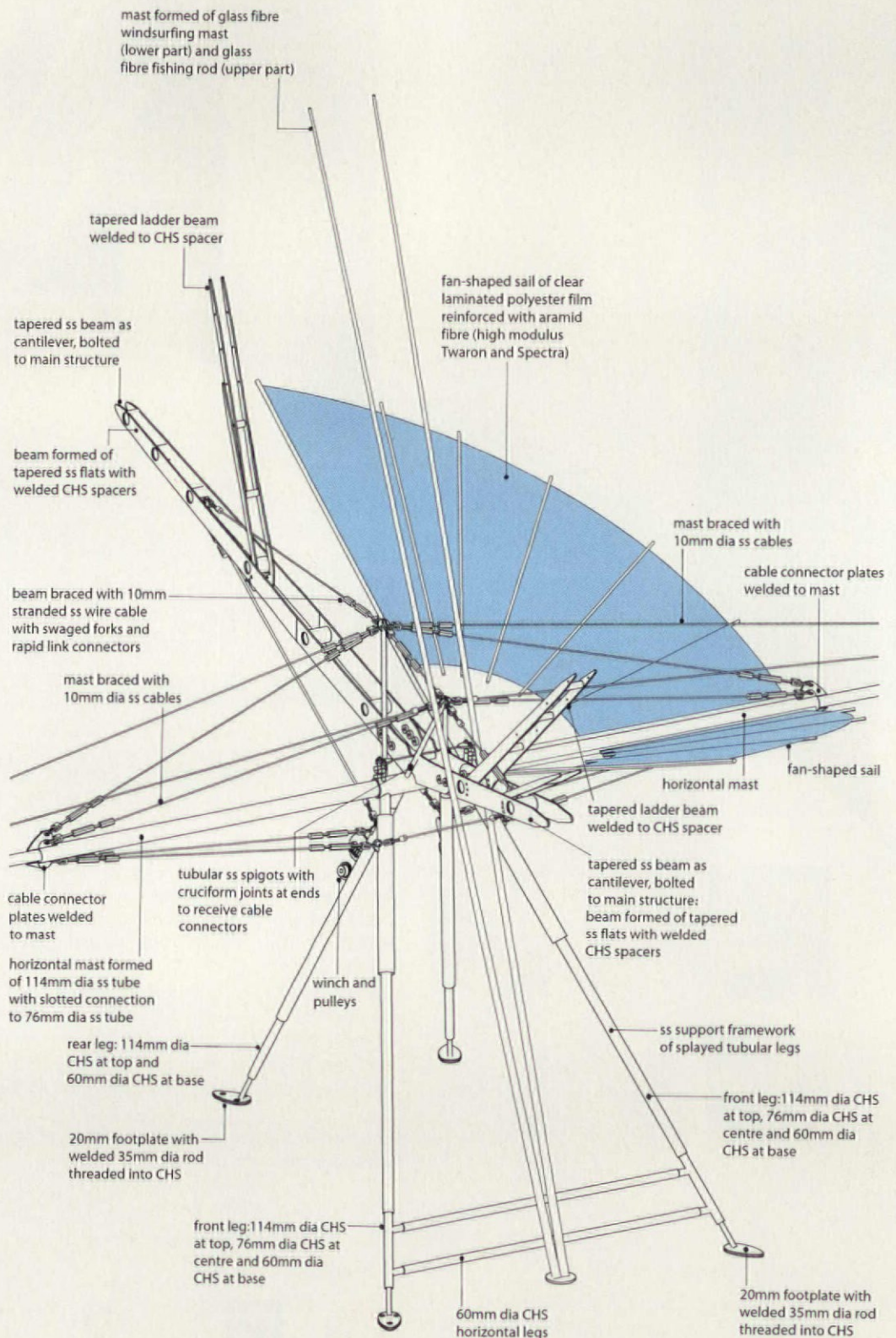
The sails are made of translucent laminated polyester film reinforced with high modulus Twaron and Spectra aramid fibre. The coloured translucent overlay is a UV-resistant 3M film usually used for signs on glass shopfronts.

The sails are connected to cables and pulleys – using yacht technology – which allow them to be furled or unfurled as required. The fan shape of each sail is reinforced with glass-fibre ribs so that it keeps its shape in the open position and folds into pleats when furled. (In the drawing, the winching cables have been omitted for clarity.)

The stainless-steel structure supports two masts, which extend 8m to east and west, and two tapered 'ladder' beams – paired steel flats with CHS spacers – which slope upwards to north and south. The sails are connected to the masts and ladder beams, which in turn have smaller ladder beams welded to them to raise one set of sails above the other. The structure is braced by a series of 10mm stranded wire cables with swaged forks and rapid-link connectors; they are connected together and propped by two spigots.

The highest sails are connected to a pair of masts; the lower parts of the masts are glass-fibre windsurfing masts and the upper parts are glass-fibre fishing rods.

Susan Dawson



PERSPECTIVE SKETCH OF SAIL STRUCTURE

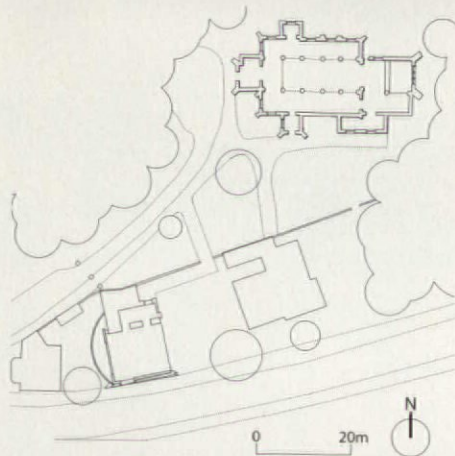
Community service

Terry Pawson Architects' church hall in Wimbledon complements and reshapes a varied context

By Barrie Evans. Photographs by Tom Scott







With Terry Pawson's own house nearby (AJ 15.8.02) and family links to St Mary's, the feel of the particular architecture of this new church hall was anticipated. Such purism can be evocative in a religious setting, though the hall is used only for communal events. That role remains with the looming grey presence of George Gilbert Scott's Grade II* church of 1843, the exterior of knapped flint with stone dressings. This church is part of a heterogeneous context for the new hall that set design challenges.

South of Scott's church, beyond a listed, buttressed red brick wall, lies a garden where, to its east, there is already a parish office-cum-church hall. This remains in use but lacks a single space of sufficient size (or quality). Extending it, with its pitched roof and 2.1m high eaves, was problematic. Instead, a new hall has been set on the opposite side of the garden (to the west), providing a useful-sized lawn between. The new hall is primarily a single volume and largely single-aspect, facing the lawn, hemmed in by a roadside wall to the south, Stag Lodge to the west and the natural location for entrance/ancillary spaces to the north.

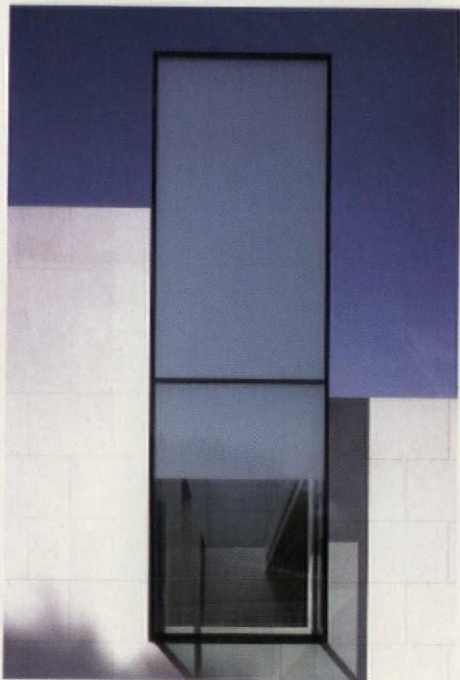
The need to be able to divide the hall's

main space in two meant that the western half, not adjacent to the lawn, would be windowless. Boundary negotiations with Stag Lodge gave its occupiers some benefits while providing space for a semicircle of terraced planting – a long, low window now looks onto this. Also in this half of the plan, to the south, is a high window-cum-rooflight. At least it looks high from the inside – from the road less so, looking out over a new drystone wall of grit-stone. The whole visual impact is lessened on this road because the garden where the building sits is sunk relative to the road.

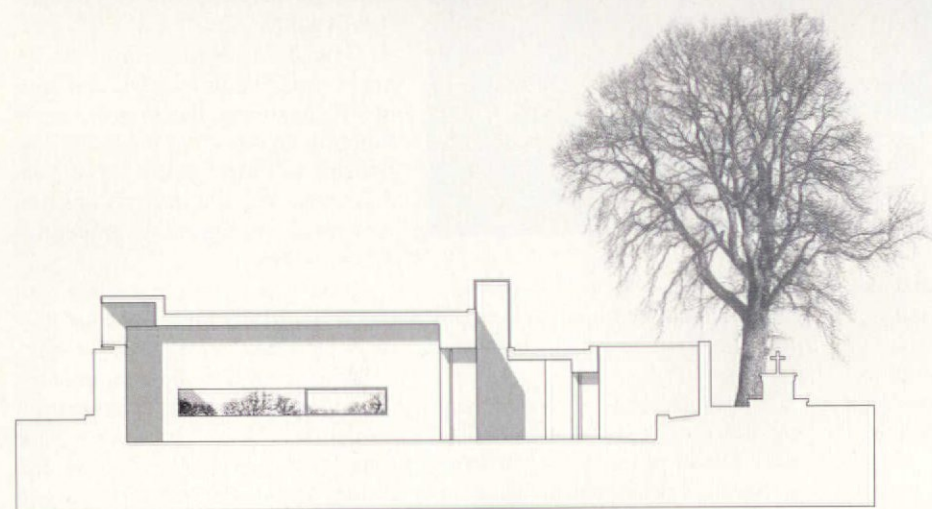
The open-textured dry-stone boundary wall is consistent with Pawson's approach to the building. As with his own house, the elemental sculpture of the architectural form intensifies the colours, textures and contrasts of materials, set off against white planes. This is not pure white box architecture. Pawson's own house includes fairfaced concrete within and exterior oak boarding. Here, as well as the drystone wall, there is limestone walling to the building, beech floors and the sky colours of the acid-etched glass.

The main glazed prism marks the junction of ancillary spaces (entrance, changing for ballet/fitness classes, kitchen) and the principal volume, playing different compositional roles from different angles. From the lawn the colour-weight of the etched glass acts as counterbalance to the larger area of the off-centre main glazed wall. From the street to the south it shifts behind the wall-cum-rooflight in the foreground. From the north it is an enigmatic presence above the red brick boundary wall.

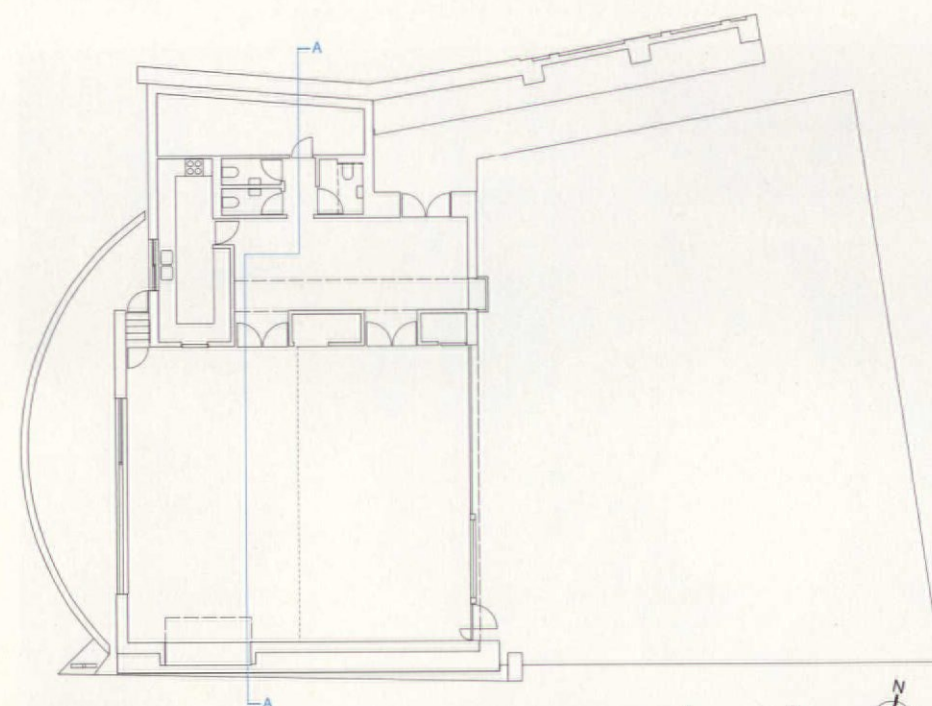
Essentially this is a simple building, with that 'effortless' detailing that is hard to do, yet layered in composition and underlying subtlety, responding to and reordering its varied context. It is well-used, with a range of bookings that never existed before. And word has spread – Pawson has been asked to design a hall for another parish. The architecture is its own advert.



Top left: sliding door opens to lawn. Above: glazed prism views. Opposite top: slots in wall at both ends make transition to fence and hedge (other end)



section aa



plan

18/25 December 2003

Cost summary

Data based on tender sum for gross internal area

	Cost per m ² (£)	Percentage of total
SUBSTRUCTURE	165	7.2
SUPERSTRUCTURE		
Frame	116	5.1
Roof	296	12.9
Staircases	2	0.1
External walls	350	15.2
Windows, external doors	243	10.6
Internal walls and partitions	30	1.3
Internal doors	41	1.8
Group element total	1,078	47
INTERNAL FINISHES		
Wall finishes	41	1.8
Floor finishes	138	6
Ceiling finishes	44	1.9
Group element total	223	9.7
FITTINGS AND FURNITURE	16	0.7
SERVICES		
Mechanical services	147	6.4
Electrical services	122	5.3
Builders' work in connection	16	0.7
Group element total	285	12.4
EXTERNAL WORKS	319	13.9
PRELIMINARIES/INSURANCE	210	9.1
TOTAL	2,297	100

Cost data provided by Pierce Hill

CREDITS

TENDER DATE

December 2001

START ON SITE DATE

April 2002

CONTRACT DURATION

37 weeks

GROSS INTERNAL FLOOR AREA

210m²

TOTAL COST

£526,900

FORM OF CONTRACT

JCT Intermediate Works (IFC98)

CLIENT

St Mary's Parochial Church Council

ARCHITECT

Terry Pawson Architects:

Terry Pawson, Jeremy Browne, Nick Fleming, Gustav Ader, Gareth Hunter, Ruth Edwards

STRUCTURAL ENGINEER

Barton Engineers

QUANTITY SURVEYOR,

PLANNING SUPERVISOR

Pierce Hill

ARCHAEOLOGIST

AOC Archaeology Group

MAIN CONTRACTOR

Cardy Construction

SUBCONTRACTORS AND SUPPLIERS

Stonemason Abbey

Masonry and Restoration;

glazing Cantifix of London; mechanical

Amdail Building Services;

electrical Lightning

Electrical; waterproof

concrete Cementaid;

concrete roof planks Bison

Concrete Products;

Sarnafil roof membrane

Robseal Roofing; roof

insulation Kingspan;

packaged sewage station

Grundfoss Pumps;

stainless steel fabrication

Terry Gregory (Metal

Fabrication); lime render

Telling Lime Products;

access hatches Panel and

Louvre Company;

moveable partitions Style

Door Systems (Hufcor);

underfloor heating

Warmafloor GB; beech

floor Junckers; lighting

Light Years (Kreon),

Concord; Marlin; doors

Carlton Smith;

ironmongery STYLEtech;

projection hinges Royde

and Tucker; fire safety

equipment Fire Protection

Services (South East); fall

arrest equipment WT

Safety Systems;

manifestation A&N Signs;

engraved stone plaque AE

Vaughan Co; landscaping

Scotscape

WEBLINKS

St Mary's Parochial Church Council

www.stmaryswimbledon.fsnet.co.uk

Terry Pawson Architects

www.terrypawson.com

Barton Engineers

www.bartonengineers.co.uk

Pierce Hill

www.piercehill.com

Let there be light

Are our offices too bright or just right? The recent *Architects' Journal*/Zumtobel Staff Lighting debate produced mixed views

BY RAY MOLONY. PHOTOGRAPHS BY CHARLES GLOVER

A 'slavish' adherence to institutional standards coupled with the UK preference for selling speculative offices with installed lighting is leading to boring, over-lit spaces.

That was the view of a number of top designers and architects to emerge from the recent *Architects' Journal*/Zumtobel Staff Lighting debate on office lighting.

Leading lighting designer Mark Major of London-based practice Speirs and Major told the London audience that he was greatly concerned that many office spaces had become over-lit. 'The eye can see at all levels but we tend to overcompensate for darkness. Both physiologically and psychologically we can adapt to much lower light levels.'

Fellow lighting designer Lee Prince agreed. He believes that office space planning hasn't moved on since the 1920s.

'In hotels and restaurants, the more sophisticated the place, the lower the light levels,' says Prince. 'Why shouldn't we give people who work in offices this option?'

The problem is down to developers who install generic office lighting to CIBSE guidelines, believes interior designer Linda Morey Smith.

'It's a misunderstanding of institutional standards,' said Smith, whose clients include Channel 4, Capital Radio and EMI. 'People just get it too wrong.'

'Clients don't want blanket [lighting] coverage. Some just want task lighting with little or no ambient lighting. Media clients especially hate speculative office lighting and just rip it all out.'

Architect Jon Tollit agreed that standards were often to blame. He had a radical solution: 'Light meters should be thrown away – and trampled under foot. We need to start from a totally different criterion.'

'We like to talk to the user in advance rather than accept speculative schemes. I believe there should be



Above: Dr Derk-Jan Dijk and Mark Major.
Below: a full house with tough questions from the floor

a level of enjoyment in work, and people should be happy to be there. But, of course, it's a difficult concept to measure.'

Zumtobel Staff Lighting managing director Grant Daniels described most British office lighting schemes as 'boring, boring, boring'. This was partly due to standards, but he pointed out that the 500 lux guideline referred to the task area alone. Much

more imagination could be used on vertical surfaces and ceilings and in circulation areas such as corridors and stairwells. Achieving better outcomes depended largely on a change of culture, and a greater acceptance of the role of the independent lighting designer. It was suggested that a shift in emphasis from illuminance to luminance could yield better results in interiors.

In the unenviable position of standing up for the property developers was Neil Pennell of Land Securities, author of the lighting section of the British Council for Offices' fit-out guide.

Pennell has been responsible for many large commercial developments, including the Empress State Building in West London and the Bullring in Birmingham. He believes developers are in a difficult position with office lighting in the competitive office market.

'If we don't produce a space with the standard lighting, someone may mark you down for it,' Pennell said.

Developers were being bombarded with contradictory information on lighting. There's pressure to save energy and keep light levels down, but British Standards still dictated 500 lux on the working plane. 'It's difficult for us to set a brief – it's a real challenge,' he added.





Jon Tollit, Linda Morey Smith, Neil Pennell and Paul Finch

While designers wanted lighting individually tailored to the client, this was difficult to achieve in the commercial property market.

'The market just doesn't work that way,' said Pennell. 'We've tried [selling] shell-and-core properties in the past but it just doesn't work. The fact is, the lighting helps to sell the place.'

There were other factors at play too. The litigious climate and emphasis on health and safety, and risk assessment, meant that developers played safe with lighting schemes that are drawn up by an authorised third party.

However, Pennell believes that workplace lighting could be a differentiator in the marketplace if a demonstrable gain could be shown to the prospective tenant. 'There are definite links between visual tasks and light levels, but it's difficult to go beyond that.'

If the evidence of a definite link between office lighting and productivity could be established, perhaps it would lead to more interesting schemes.

'If you could put a value on it, then it would be a different kettle of fish,' Pennell added.

Developers found an unlikely ally in the shape of biologist Dr Derk-Jan

Dijk. He's the director of the Centre for Chronobiology – the study of the body's natural rhythms – and he believes that humans are programmed to deal with high levels of natural light from the sun during the day and lower ones at night. Therefore, current light levels in offices couldn't be described as too high.

'I don't think offices are over-lit. Our physiology can deal with this. We have evolved, exposed to a lot of light – typically 20,000 lux, even up to 50,000 lux,' Dijk said.

The natural rhythm of the day should inform how we go about using artificial lighting. The concept of 'darkness as a right' only applied to one time of the day. 'We are diurnal animals and we need to sleep at night.'

He said it was right that hotels and restaurants had much lower lighting levels – this was merely reflecting the times of day when most of the activities were carried out. 'It shouldn't be at all surprising that light levels are low for eating your dinner at 8.30 pm in the evening,' Dijk added. 'During the day, however, a couple of hundred lux can make you more alert.'

Light affected our hormones, especially melatonin, which controls our sleep-wake cycle – known as the

circadian rhythm. The science is a relatively new one, and much experimenting is only now being done.

'As late as the 1960s, people thought that lighting didn't effect the circadian rhythms in humans. We thought we were different from all the animals,' Dijk said. Even blind people had their circadian rhythm controlled by light – and this was demonstrable in experiments. However, how this happens still hasn't been studied effectively.

There is little data on the effects of both natural and artificial light. 'We need to take a totally fresh look at light,' Dijk believes.

Ray Molony is editor of Lighting Equipment News. The Lighting Question Time event was conceived and sponsored by Zumtobel Staff Lighting. Information on future events can be obtained from Emma Roberts on roberts@uk.zumtobelstaff.co.at

Lighting controls

Lighting controls should, in theory, allow office workers the freedom to set their own lighting levels – but current practice mitigates against any real gains. Basic controls are only installed in speculative offices to comply with CIBSE guidelines, and more elaborate systems are often lost on the workforce. 'We put an inordinate effort in controls,' said architect and designer Jon Tollit, but some users put the manuals on the shelf and don't know what switch does what. It's like air conditioning – if you give people buttons to press, they'll press them.'

Smith says that office workers often have too many other things on their mind to use lighting controls effectively. Additionally, people who work side by side often had very different requirements in terms of light levels. Older people had a preference for high levels, while younger workers preferred lower levels combined with task lighting.

There was also evidence that people set the controls at a standard percentage of the light levels, no matter what those light levels were. In one experiment, users commonly set the controls at around 80 per cent, and this didn't change with the upper light level.

Divine intervention

As its first online restoration, Soluis is returning St Peter's seminary at Cardross to its former glory, if only virtually

BY SUTHERLAND LYALL

There is only one building so far on the Virtual Restoration site at www.virtualrestoration.org. It is the 1966 Gillespie Kidd and Coia St Peter's seminary at Cardross, which for some time has mired the Scottish Roman Catholic church in conservation controversy.

Gavin Stamp has called it the finest modern building in Scotland and the Scottish establishment agrees, because this Brutalist building with stunning naturally lit interiors is now Grade A-listed. Its real-life history is less glorious. The church ran the seminary for just 14 years, closed it down in 1980 and has let it rot for the past 13 years. And rot it has. Photographs of it elsewhere on the web include bands of kids roaming through its smashed interiors and hanging off its overgrown parapets. In this sorry tale of earthly neglect there has even been talk of stabilising the building and presenting it to the public as a modern ruin.

So if you are going to embark on a virtual restoration website in Scotland, St Peter's seems like the ideal first candidate. But why a virtual restoration project and how does it work? The people behind the half dozen or so computer images currently on show at Virtual Restoration are the five principals of Soluis Technologies, the three-year-old architectural visualising agency and bureau service based in Stenhousemuir, near Falkirk. The company name is simply pronounced 'Solus'.

Managing director Martin McDonnell says of the website: 'It is almost purposeless. It comes out of a bit of an interest in the building itself and we decided to do a bit of a flier. We have had expressions of interest from around Scotland but we probably need to do a bit more work on it.'

He and Soluis' head of creative media, Stephen Colmer, were students together at Strathclyde's building design-engineering course. He explains: 'Steve was brought up in nearby Helensburgh and was kind of



A sorry tale of neglect: St Peter's seminary today

One of the earliest examples of restoration CAD was the reconstruction of Abbé Suger's 12th-century Cluny Abbey, demolished in 1793 and rebuilt virtually in 1991 by an IBM France-sponsored team from Ensam engineering school. IBM has subsequently sponsored similar projects in Germany (Dresden's Frauenkirche Cathedral), Milan's Piccolo Teatro, the Guggenheim Bilbao, the cloister of St Guilhem le Desert in France and some of Leonardo's machines.

Other institution-sponsored virtual restorations include Carnegie Mellon University's Temple of Horus at Edfu; Manchester Metropolitan University's tomb of the 18th-dynasty Egyptian Menna; Silicon Graphics' Aztec Temple of Tenochtitlan; English Heritage's virtual Stonehenge; and Strathclyde University's virtual models of Glasgow, Edinburgh, Venice, Rome and Barcelona.

aware of St Peter's; and the building was the subject of his undergraduate dissertation at Strathclyde. So he had his own body of material about it.'

The building has also been the subject of a television programme; the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS) has produced a booklet about it; it is on various at-risk registers; and the latest planning application for its rejuvenation is in progress. McDonnell says: 'During the BBC2 *Restoration* programme there was a lot of interest here, and in the *Sunday Herald* three of the six architects interviewed about their preferred restoration project chose St Peter's, even though it wasn't on the BBC2 shortlist.' One of the other three architects interviewed was St Peter's original co-designer (with Andy MacMillan) Isi Metzstein, now emeritus professor and, laden with honours, the grand old man of Scottish architecture.

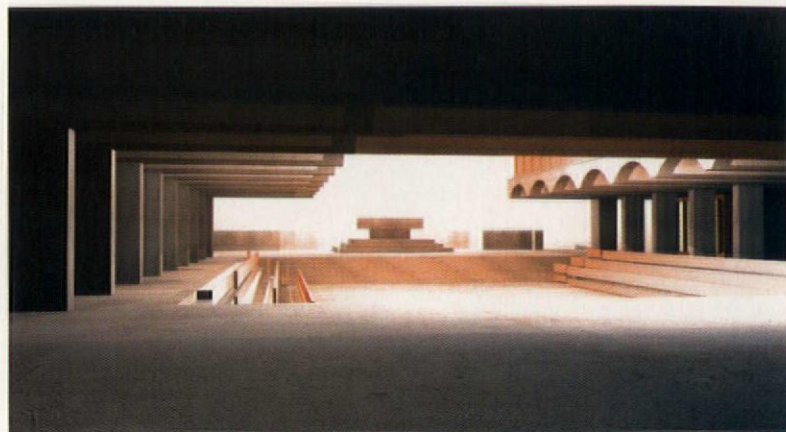
Doing it

'So,' says McDonnell, 'we decided it was a good time to do it – I suppose as a kind of PR exercise and maybe something which might have a life of its own.' And also, you suspect, because they decided it might be interesting. 'We worked from Steve's dissertation work and we had a body of published text and drawings and photos, and from that we put together collaged pictures which gave us a reasonable idea [of the three-dimensional reality]. Some of the drawings conflict with the building, probably because design changes were made up to the last minute. Steve has visited the site and has a decent photographic record of it but we are asking for more accurate information from, possibly, Metzstein and perhaps the RCAHMS may have a record.' So far Soluis has spent about four person-weeks over three months on the project.

Colmer has an MA in CAD building design and worked with Tom Maver's Strathclyde Abacus unit, which looked after those two impressive three-dimensional computer models of Glasgow and Edinburgh. With McDonnell and three associates, he has set up an operation with a render farm of 25 machines, eight or nine of which are also workstations. The two have a strong background in



Returned to splendour: St Peter's has been virtually returned to its former glory



AutoCAD and are also skilled in VIZ, the architectural version of industry-standard three-dimensional modeller, 3D Studio Max.

McDonnell says: 'The prescribed VIZ method is to use its built-in technology for doors and windows and stairs. But that is good only if you are dealing with a standard "normal" building. Anyway CAD drawings did not exist for St Peter's – although we produced our own outline drawings of the form. My preferred approach is to model a big three-dimensional shape and start knocking holes in it.' So they worked directly in 3D for the St Peter's models.

Metzstein has spoken about the importance of light in the original design and Soluis has been aware of that. McDonnell says: 'St Peter's is a beautifully lit building. Up to three years ago CAD lighting was largely a point to point thing. But now the applications incorporate radiosity – the accurate modelling of light bouncing off walls and floors and in different colours.'

New directions

McDonnell is looking at methods of presenting three-dimensional moving images on the internet. He has rediscovered an interest in vrmf (virtual reality markup language) – the virtual version of html. He says: 'You can port things around in a very small size and it will allow you to wander around a virtual building. It is very old, as old as 1990. But it is the new way to see something on the internet because you can walk around it.'

'It has a very strong use in the architectural world: it is reasonably easy to use vrmf models for the archi-

tectural stuff. You can output it from editors [because it is a markup language] and, for example, switch lights on and off and define the source and volume and distance of sound. Using a web browser with a plug-in you can walk round a building.'

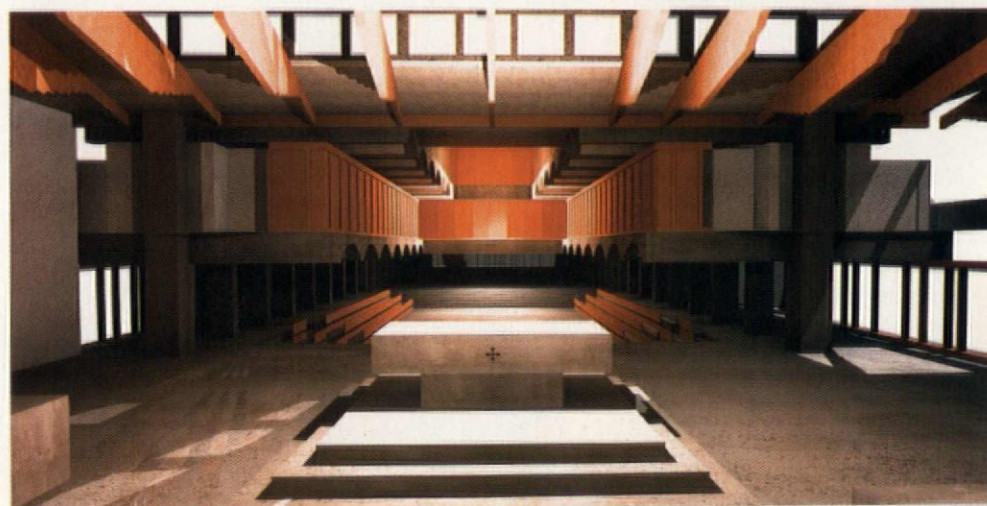
Another technology that Soluis has been looking at, as have several architecture schools, relates to games environments. McDonnell says: 'The quality of the architectural experience is incredible in terms of lighting, modelling, material finish. You can move around and it is really cheap to do at home, but not for commercial use. The licences for games engines cost more than £100,000.'

Right of possession

It seems odd that the original designers, professors Metzstein and MacMillan, were not approached first for the original drawings but this was a project that grew to achieve a critical mass before anyone quite realised it. Metzstein has yet to pronounce on the

site, images and project, although he hopes the images are better than most of the computer-generated ones he has seen so far. You wonder briefly about issues of who owns the rights to the building's image. Metzstein takes a relaxed view, while McDonnell says: 'I'm not sure what rights are owned by who'. At the beginning this was not really an issue, and one suspects that it won't become one.

The only eventuality that might raise controversy is what Soluis does with its images. McDonnell has only mused briefly on this topic. He says: 'There are two potential routes. One might be to set up as a commercial company specialising in virtual restoration projects. The other would be to set up with one of the schools or public bodies, perhaps as a not-for-profit organisation which would attract a different kind of support. But it is a bit of a quagmire: I prefer not-for-profit because it is more interesting as a historical archive or maybe part of a body of archives.'



Keep taking the tablets

Despite the lack of enthusiasm in the UK, Skidmore Owings and Merrill has embraced the tablet computer in the US

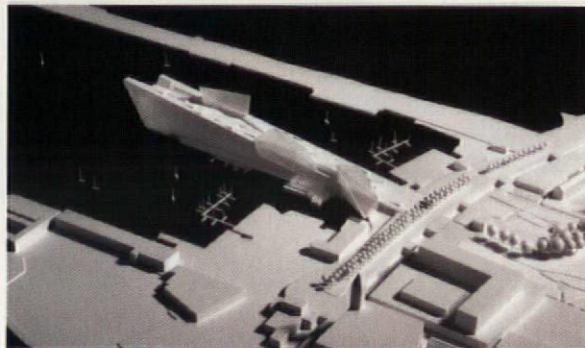
BY SUTHERLAND LYALL

One or two practices in the UK have recently tried out tablet computers and have either sent them back or not found them really useful. Funny that. It is true that for sceptics the tablet computer is commonly thought of as a heavy digital clipboard with added handwriting recognition – it is probably the main reason, apart from the high cost (according to manufacturers, the high cost of the built-in Microsoft software), why European tablet sales have been more than disappointing.

Tablets are portable and, you might think, are meant to be used on the move. But that does not mean, any more than it does for laptops, that they are not eminently suitable for using on a desk. So, looked at another way, the tablet computer is also a sketchpad that operates in the same way as that very nifty Wacom Cintique tablet that lets you draw directly on the screen, giving the impression that the line is actually coming out of the end of your pressure-sensitive stylus. Just like paper and pencil. But the average tablet computer costs a lot less than the Wacom Cintique – and has a computer built-in.

Things are not quite the same in the US. Skidmore Owings and Merrill's (SOM) Henry King, who, among other things, heads up the partnership's information-technology group, says that a number of SOM people now use Autodesk's application, Architectural Studio, on Compaq Tablet TC1000 PCs for early design-stage work.

King says: 'I introduced the tablet PC here in Chicago because I was already familiar with the technology and thought it might provide the architects with a much more intuitive platform. I was introduced to Hewlett Packard by Autodesk and was asked to be part of the pre-launch trial. So we are one of the Hewlett Packard dot.com PC customer suc-



Above: SOM's Carlisle Pier. Below: HP's latest tablet

'The tablet computer is also a sketchpad that operates in the same way as that very nifty Wacom Cintique tablet that lets you draw directly on the screen'

cess stories. I wanted to introduce that kind of technology because writing directly on the screen is closer to the paper and pen analogy and we have had some good successes with it.'

Of the first-generation HP tablets, he says frankly: 'We have our problems with speed and responsiveness. And there are limitations with [the relatively small 10.4-inch TFT] screen size. But it's very valuable in some circumstances. We



have technical architects on site and they can print drawings and checklists – and can mark up the material on site. And they have really found it to be beneficial.'

Despite the line-out-of-the-end-of-the-stylus virtues of tablet computers and the apparent connection with sketching, King says: 'We don't have as many people doing early stage design as I had anticipated. But we now have some senior designers, especially in New York, who have moved over to tablets. One of them has a long commute to work and is able to be totally productive on the train – and can thus slice half an hour off his office day.'

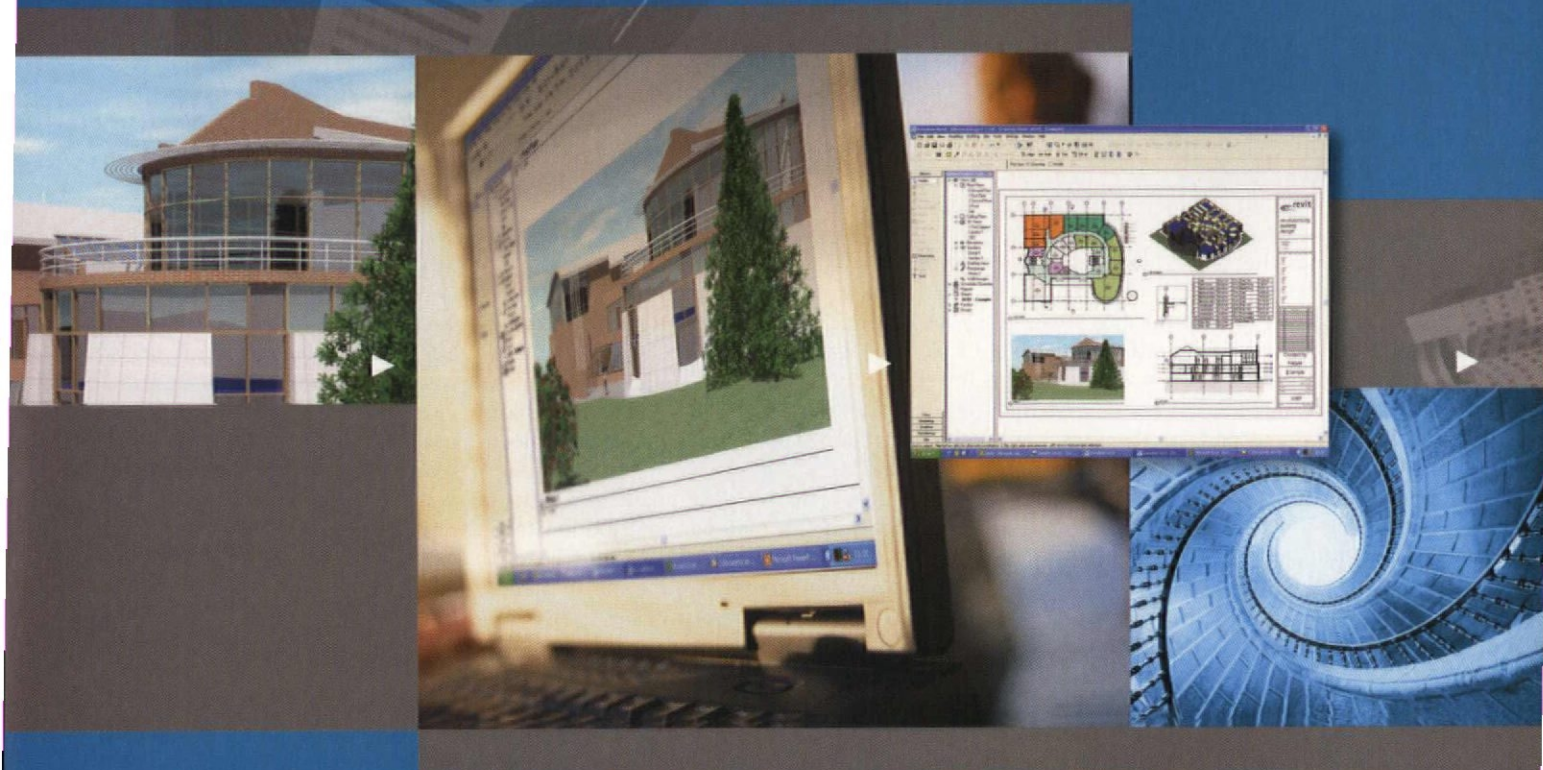
HP has just brought out a new version of the Compaq, the TC1100, which is expected to be a tad faster. It has graphics based on NVIDIA Geforce 4 Go 420 rather than GeForce 2 Go100, and half the memory. King will be buying TC1100s and loading them with Architectural Studio. He says: 'We will continue to use tablets, but we are not pushing them unless people really like the idea.'

SOM generally uses PCs in a combination of workstations and laptops with the occasional PDA, the latter for pre-occupancy and post-occupancy surveys – and satisfaction surveys. King says that SOM uses them because they enable survey people to ask questions in an unobtrusive way and download the information to a database back at the office.

But tablets are not exactly unobtrusive. King agrees that there are other factors at work in the adoption of tablets, such as the general buzz of early adoption and keeping up with the Joneses. He says: 'Sure, they are scarce and have a wow factor and clients have been impressed – to the point that one of them asked us to prepare a proposal for a plan for their sales force using tablets. So there is a market out there for them, even if it is not strictly architectural.'

And what of the lack of enthusiasm on this side of the Atlantic? Expat King says that people in the London office are using tablets but, carefully, as 'it's the nature of the Brits to be a little more sceptical.'

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autodesk



Material matters that get to the root of the problem

Whether you basked or battled your way through the blazing summer, subsidence was probably not at the forefront of your thoughts. But the press has already reported drought damage caused to roads this summer, and subsidence damage to buildings is bound to follow. Statistics show that hot summers are followed by spates of subsidence claims, moisture extraction by thirsty trees often being identified as the mechanism that links the two.

Tree root subsidence was the hot topic in these chambers this summer, with both parties in the case of *Loftus-Brigham v Ealing* being represented by members of chambers. This end of the corridor acting for the defendant local authority won at trial, while the other end of the corridor acting for the claimant householder prevailed in the Court of Appeal (Judgment 28.10.03). The Court of Appeal clarified the test to be applied when there are two competing causes of tree root subsidence damage. The new test is bad news for tree-owning neighbours.

The claimant's house in leafy Ealing had several large plane and lime trees, owned by the defendant local authority, growing in the street nearby. The claimant's house, which was in the Gothic style, had been turned into a Hammer House of Horror backdrop by a variety of climbing plants and creepers that virtually engulfed it, covering the roof and even the windows. The house sustained considerable movement, the mechanism of which, the expert engineers agreed, was probably caused by vegetation. Loftus-Brigham claimed that the local authority trees were at fault. The local authority blamed the creepers. Investigations found roots of both trees and creepers beneath the house.

The judge at trial had to decide between these two possible causes of subsidence and found ultimately that the claimants could not show that Ealing's trees were the 'dominant' cause of the damage, and that therefore the claim failed. The Court of Appeal held that the judge had applied the wrong test. In line with other claims in tort, the claimant only had to show that the event complained of was 'an effective cause'. The right test was whether the desiccation caused

by Ealing's tree roots 'materially contributed' to the damage. The 'material contribution' test was taken from the law of occupational diseases. In *Bonnington Castings v Wardlaw* (1956), for example, the claimant was injured by dust arising from two different aspects of his employment – a pneumatic hammer and swing grinders. The defendant employer was in breach of regulations relating to the grinders, but not the hammer. Happily for the claimant he only had to show that the dust from the grinders, for which the employer was liable, had made a material contribution to his injury in order to recover for all his loss. He only had to show that the proportion of the dust from the grinders was not negligible.

As a result of the decision in the Loftus-Brigham case, the material contribution test, when applied to tree root cases, may mean that a claimant has only to show that their neighbour's tree had some adverse effect on their property that was more than negligible. If that is so, a claimant will be able to claim for all the damage, regardless of other effects such as the claimant's own vegetation.

About 50 years ago, John Summerson observed that the fragility of London's Georgian houses was being exposed by the stresses of time, traffic and bombs. Today, we might add the changing weather pattern to his list. When the effects of increasingly extreme weather are combined with the potential liability of tree owners for all the damage caused to neighbouring properties, the result may be that large numbers of mature and amenity-enhancing trees are, literally, for the chop.

But don't rush for the chainsaw just yet. This end of the corridor has recently petitioned the House of Lords for permission to appeal the new test and save the trees. Both parties are waiting to see whether their Lordships consider the matter of sufficient public importance to warrant a full hearing. Meanwhile, at least there is something to talk about over the coffee machine (halfway down the corridor) as we watch the late autumn rain swell London's shrinkable clay.

Sue Lindsey

Statistics show that hot summers are followed by spates of subsidence claims'

Just cameras and cards for Xmas this year

OK, this bit is more roadwatch than webwatch, but as a Christmas public service may I warn you about speed cameras. In the interests of massive police revenue supplements, sorry, 'road safety', you are being watched and fined and awarded points by computer via a new and hideous breed of camera, apparently hidden in those new electronic motorway signs – certainly on the M5, M6 (where my mole has already been done) and the M42. Doubtless others will follow soon if they haven't already: Kent county is said to be up to something similarly lucrative right now. Apparently, instead of reading your spot speed over a short distance and flashing doom, they click silently and compare your speed over the several miles between signs using number plate recognition. You wonder why such massive computing resources were not devoted to something useful such as voice and handwriting recognition. Unless, of course, number plate recognition is just as inaccurate. Rumours about London congestion charging suggest it is.

So too with David 'King Herod' Blunkett's biometric ID cards. Can't help on retina faking, but readers interested in creating fingers for biometric fingerprint readers using household gelatine and Silly Putty might be interested to look at www.dansdata.com/uareu.htm. For background you could also read *Evaluation of biometric security systems against artificial fingers* by one Johan Blommé, but I'm going to keep that URL to myself until he's nominated for next year's IgNoble Awards for earnest but stupid science research. Actually, forget Silly Putty because, as the many doubters will tell you, biometric cards are secure only if the data on file originally came from the person to be identified. If people can be persuaded (as they have recently) to reveal their bank details via email, just as many dopes will queue to provide copies of their biometric data for the scamsters as soon as the Big Brother Blunkett initiative gets under way. And think of the fun of creating brand new virtual people from faked up biometric data.

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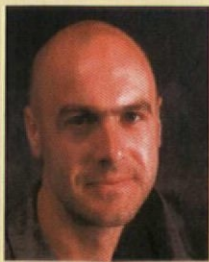
Winter 2003



MetalWorks

Roofs





There might be some mileage in suggesting that the roof of a building, if anthropomorphised in the best Disney tradition, could be replaced with a hat in the humanised version.

Thus, Basil from Russia swans around in a stripy tea cosy, the Houses of Parliament wear a sharp-spiked creation from Philip Treacy, and our French cousins go for Gaultier. Roofs, like hats at Ascot, are for showing off.

What a long way from the primitive hut this notion of 'decorative functionalism' is. Time was when all that mattered was keeping the rain off, the heat in and the wildlife out.

The raising of the roof (sorry) from building element to a signifier by which social and political status could be calibrated mirrors how the dual ascendance of church and state was swiftly followed, with the Victorians in particular, by art and commerce.

Great Roofs, destined to grace bargain bins next Christmas, would be less a coffee-table book and more of an actual coffee table. The field is huge; most of the great cathedrals have impressive roofs, almost all palaces of, say, the Medici period have really impressive roofs. In both these cases the application of a kind of cultural 'shock and awe' was well understood and prosecuted with a ruthless aplomb. Unfortunately, the structural principles were less well understood. So Chartres fell down at least twice, but luckily for some at a time when failure was possible without attracting a crippling lawsuit.

In such a large field it is surprising that only one person (to my knowledge) has given their name to a form of roof construction. Francois Mansart (1598-1666) invented the mansard roof. First used on the Orleans wing at the chateau at Blois (1635-38), he proceeded to roll it out in all of his subsequent projects. This was a refreshingly modern approach given the trend to re-invent the wheel at any given opportunity.

And so back to hats, which, of course, are frequently named after people or places; Fez, Fedora, Homburg. Perhaps, then, to bring this incoherent missive full circle, we should mention the 'durian' by Peter Wilson, featured in this issue: a building whose moniker derives entirely from the alarmingly spiky appearance of the roof in hot weather whereupon it resembles the equally spiky but considerably better tasting eponymous fruit.

Durians also have the unenviable record of killing passers-by by falling on them. Advice to pedestrians? Wear a hat.

Matthew Teague

MetalWorks Coatings

Part E for a quiet life

Steel has solutions to Part E that have been extensively tested and shown to work

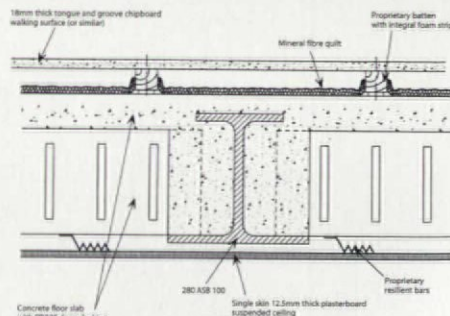
BY GRAHAM COUCHMAN AND JIM RACKHAM

Acoustic performance is now very important in residential buildings as the government, developers and occupants demand higher standards. Requirements set out in the new Building Regulations mean that previously recognised solutions for all materials will need upgrading. Architects and designers will ignore the implications of this at their peril, as the cost of non-compliance might mean that remedial works to completed buildings have to be carried out. The steel industry is meeting this challenge by developing improved structural systems for residential buildings and demonstrating their good acoustic performance.

The new Part E

The revised version of Building Regulations Approved Document E (2003) – Resistance to the Passage of Sound came into effect on 1 July 2003. The new document sets out more demanding standards for the acoustic performance for separating walls and floors between dwellings. It also extends the requirement to other buildings that contain 'rooms for residential purposes', such as hotels, hostels, student residences and buildings where people may sleep. There are also new minimum standards for internal walls and floors within dwellings.

For the first time, the new approved document includes a requirement for pre-completion site testing of acoustic performance. At least one in 10 of every type of unit at all residential construction sites will have to be tested to show that the minimum performance standards for separating walls and floors (see Table 1) have been met. The requirement for testing applies to residential buildings of all kinds, both purpose-built and formed by a material change of use.



Cross-section through a Slimdek floor

In most cases, site acoustic testing came into effect from 1 July. However, for new-build houses and flats only, the pre-completion testing requirement has been deferred until 1 January 2004. The reason for the deferral was to allow time for the House Builders Federation (HBF) to develop robust standard details (RSDs). These comprise standard details that have undergone a thorough development and testing procedure and have been shown to have acoustic performance considerably in excess of the minimum standards required by the Building Regulations. The Office of the Deputy Prime Minister (ODPM) published a consultative document covering both the potential process and proposed details in August 2003. It includes steel floor and wall options, but designers should note that the previous 'deemed-to-satisfy' mass requirements for floors are no longer acceptable. Mass is still one of the contributing factors, but it is more efficiently used in lightweight layered construction with appropriate sound-energy-absorbing materials and proper detailing. This is what steel construction can offer and why it performs so well acoustically. It also has other benefits of speed, light weight, quality and off-site prefabrication.

	Separating walls	Separating floors	
		Airborne sound $D_{nT,w} + C_{tr}$	Impact sound $L'_{nT,w}$
Purpose-built dwellings	45 dB	45 dB	62 dB
Dwellings formed by material change of use	43 dB	43 dB	64 dB
Purpose-built rooms for residential use	43 dB	45 dB	62 dB
Rooms for residential purposes formed by material change of use	43 dB	43 dB	64 dB

Table 1 – Acoustic requirements in the new approved document

	Airborne sound		Impact sound	
	$D_{n,Tw}$	$D_{n,Tw}+C_{tr}$	$L'_{n,Tw}$	$L'_{n,Tw}+C_i$
Previous Building Regulations (mean)	≥ 52 dB		≤ 61 dB	
New Regulations		45 dB		62 dB
Enhanced (Quiet Homes) Standard		50 dB		57 dB
Average test results from buildings				
Glasgow – Slimdek (deep composite slab)	62 dB	54 dB	48 dB	49 dB
Cardiff – Slimdek* (deep composite slab)	62 dB	56 dB	23 dB*	19 dB*
Manchester – composite slab with downstand beams	68 dB		44 dB	
Cardiff – composite slab with downstand beams*	63 dB		25 dB*	

*Impact tests carried out with carpet in place

Table 2 – Acoustic test results from four buildings separating floors using composite slabs

	Airborne sound		Impact sound	
	Minimum requirement $D_{n,Tw}+C_{tr}$	Measured performance	Minimum requirement $L'_{n,Tw}$ dB	Measured performance
Separating walls	45 dB	52 dB		
Separating floors	45 dB	49 dB	62 dB	52 dB

Table 3 – Acoustic test results from Beaufort Court

Steel solutions

The steel construction industry has been improving the acoustic performance of systems used in residential buildings for some years. The Steel Construction Institute (SCI) is playing its part in this, and has been working with Corus, BRE, the House Builders Federation and Napier University in testing systems to ensure compliance with Part E. A recent series of technical information sheets from the SCI demonstrates how steel solutions can meet the new requirements:

- acoustic performance of light steel framing systems (P320);
- acoustic performance of Slimdek (P321);
- acoustic performance of composite floors (P322).

Details illustrated in these are compatible with the robust standard details that are included in the consultative document of the ODPM. The SCI is continuing to work with Corus, HBF and Napier University to develop further robust standard details for precast concrete floors in hot-rolled steel frames and modular residential buildings.

Steel in the home

Acoustic tests have been carried out in two buildings using Slimdek construction with asymmetric beams (ASBs) with deep profile decking, and in two buildings using shallow-deck composite floors with downstand beams. All are in city-centre locations, either mixed-use developments with retail and commercial space at ground level with residential above, or free-standing medium-rise residential blocks.

One Slimdek residential building is an eight-storey-high development in Glasgow that consists of 49 high-quality apartments,



Beaufort Court under construction (courtesy Michael Barclay Partnership)

including a penthouse and eight duplex (two-storey) apartments. The composite floor consists of 280mm asymmetric Slimflor beams, using 225mm deep decking to create a 300mm deep composite slab with a resilient floor and a suspended ceiling.

In a 19-storey mixed commercial-residential development in Manchester, consisting of 84 apartments and four penthouses, the developer specified acoustic standards considerably higher than those in the Building Regulations. The chosen construction was of the type used in many multi-storey steel-framed commercial buildings. It consists of a hot-rolled steel frame with down-

stand beams supporting a composite steel deck floor, which has a floating screed and plasterboard ceiling.

The acoustic test results (see Table 2) show that composite floors can easily achieve acoustic insulation standards considerably better than the new regulations require. In the Glasgow building, the average airborne sound insulation ($D_{n,Tw}+C_{tr}$) was found to be 54 dB. This compares very well with the minimum acceptable level in the new Building Regulations of 45 dB. The average impact sound transmission ($L'_{n,Tw}+C_i$) was found to be 49 dB, which also outperforms the Building Regulations requirement of less than or equal to 62 dB by a considerable margin. The building in Manchester also performed impressively. The average airborne sound insulation, measured against the previous regulation standard ($D_{n,Tw}$), was found to be 68 dB, and the average impact sound transmission ($L'_{n,Tw}$) was found to be 44 dB.

Furthermore, the test results are considerably better than the optional 'Enhanced Acoustic Standards' as set out in a recent BRE publication¹ for developers who wish to specify a standard higher than the regulations.

The SCI, BRE and Corus plan to carry out further acoustic testing of steel-frame buildings with composite floor slabs and to publish guidance on detail design for good acoustic performance to meet the revised Part E regulations. More information is available in 'Case Studies on Slimdek'², published by the SCI.

Beaufort Court, Lillie Road, London

This six-storey housing development for the Peabody Trust comprises 65 housing units in a high-density urban environment. The building was designed to comply with Part E (July 2003) of The Building Regulations and was chosen to be a test site for the new Robust Standard Details. The separating walls and floors were tested by Napier University and found to be well within compliance parameters.

Dr Graham Couchman and Dr Jim Rackham work at the Steel Construction Institute. Tel 01344 623345, email g.couchman@steel-sci.com. (The SCI is grateful to Mark Gorgolewski, former consultant architect to the SCI, and Michael Eatherly and Nirupa Perera, partners at Michael Barclay Partnership, for their help in compiling this article)

References:

- ¹ 'Specifying dwellings with enhanced sound insulation - a guide', BRE, 2000.
- ² Case Study 4, Data Sheet 1, 'Case Studies on Slimdek', SCI, 2002.

MetalWorks Roofs



Sowing the seeds for the gardens of the future

Hampshire County Council's architects department has dealt with the problems of success at a nursery by designing three buildings united by an oversailing roof

BY SUSAN DAWSON. PHOTOGRAPHS BY JUSTYN WILLSMORE

Harold Hilliers (1905-85) had a passion for plants. He owned a large and successful nursery but his dream was to create a significant plant collection.

In 1952, he bought a modest country house set in 32ha to the east of Romsey in Hampshire to realise this ambition. Hilliers exchanged plants from every corner of the world; this allowed him to rescue and propagate plants which had been on the verge of extinction – not only from the wildest places in the world but also from neglected gardens nearer home.

Today, the Sir Harold Hilliers Gardens and Arboretum contains one of the greatest collections of hardy trees and shrubs in the world, and it is an important centre for education and conservation – it has 80,000 visitors a year. Hilliers secured the future of the gardens by forming a charitable trust, of

which Hampshire County Council was the sole trustee. Since then, the gardens have expanded: they now cover 72ha, with 42,000 plants of about 12,000 types, and house the largest number of National Plant collections to be found on any one site.

By 2000 the popularity of the garden was such that access, circulation and visitor facilities had to be improved to cope with the numbers. Hampshire County Council asked its architects department to design a new visitor centre. It was developed in collaboration with landscape architect Colvin & Moggridge, which some years previously had drawn up a detailed master-plan that sought to grasp the whole area and gently re-shape it. The intention was to improve access and circulation and to create a logical site for a new visitor centre at the main public entrance.

For the visitor walking up from the main car park, it is the roof of the centre that catches the eye, extending beyond the building enclosures to shelter pedestrian routes, and forming an effortlessly daring cantilevered canopy at the south-west corner, which acts as at the main entrance.

As you approach the canopy, the layout of the visitor centre becomes clear; it consists of three simple, yet separate, pavilions arranged on three sides to form a courtyard around a landscaped pool.

The roof extends over the three sides of the courtyard in a U-shaped plan. It links the pavilions and seems to hover effortlessly over the walls, extending beyond them and sloping gently upwards to terminate in an elegant tapered eaves.

Project architect Georgina Hall says: 'The design aims to create a new threshold



for the visitor to experience the landscape. We felt the need to embed the building in its surroundings.

'The roofline has been kept as low as possible, but it has a very delicate edge which cant upwards.'

The choice of roof design allowed the three pavilions, with their individual requirements for enclosure and open space, to be unified. The entrance canopy, through which visitors pass to enter the courtyard, is flanked by the main foyer space on the left with its ticket desk and, beyond, the restaurant. To the right is a self-contained shop and WC block. The block at the west side of the courtyard contains offices, a small laboratory and classrooms that can be adapted to act as a lecture theatre.

The restaurant is glazed on three sides to give views northwards to the oak fields and eastwards to the winter garden. Here the roof extends beyond the glazed north wall to give shelter to a terrace – an extension to the restaurant for use in warm weather. On the northern side of the courtyard a pool creates a subtle natural boundary to prevent visitors entering the garden without a ticket.

The structure comprises a series of

inverted steel trusses (see *Working Detail*, pages 6 and 7) that rests on a central row of main columns at 6.6m centres, with secondary small posts buried in the walls on the high side of the pavilions

Steelwork fabricator Allslade used XSteel software to create a three-dimensional model of the steel structural members. The software files were then transferred to Allslade's cutting machines, which cut and labelled each steel element in the sequence in which they were going to be erected. The trusses and their tubular spigots were welded in the factory, then taken to site, lowered onto the columns and connected by purlins.

The roof is covered with terne-coated stainless steel and the soffits are clad with cedar boarding. To make the most of the views and natural light, the walls are glazed on all sides of the courtyard. Around the outside edges of the pavilions, local Michelmersh bricks are used, with clerestory windows above.

The visitor centre opened to the public in June 2003, and over the next few years new tree planting and extensive landscape works will mature, to further integrate the building into its surroundings.

The roof at Hilliers Gardens has an 'effortlessly daring' cantilevered canopy. As well as giving presence to the building, it provides shelter to pedestrian routes

CREDITS

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Paul Bulkeley, Philippa Dickson

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HCC QS Department

STRUCTURAL ENGINEER

Price and Myers:

Paul Batty, Simon Jewell

MAIN CONTRACTOR

Brazier Construction, a division of Kier Regional

STEELWORK SUBCONTRACTOR

Allslade

MetalWorks Roofs

A roof structure of steel trusses

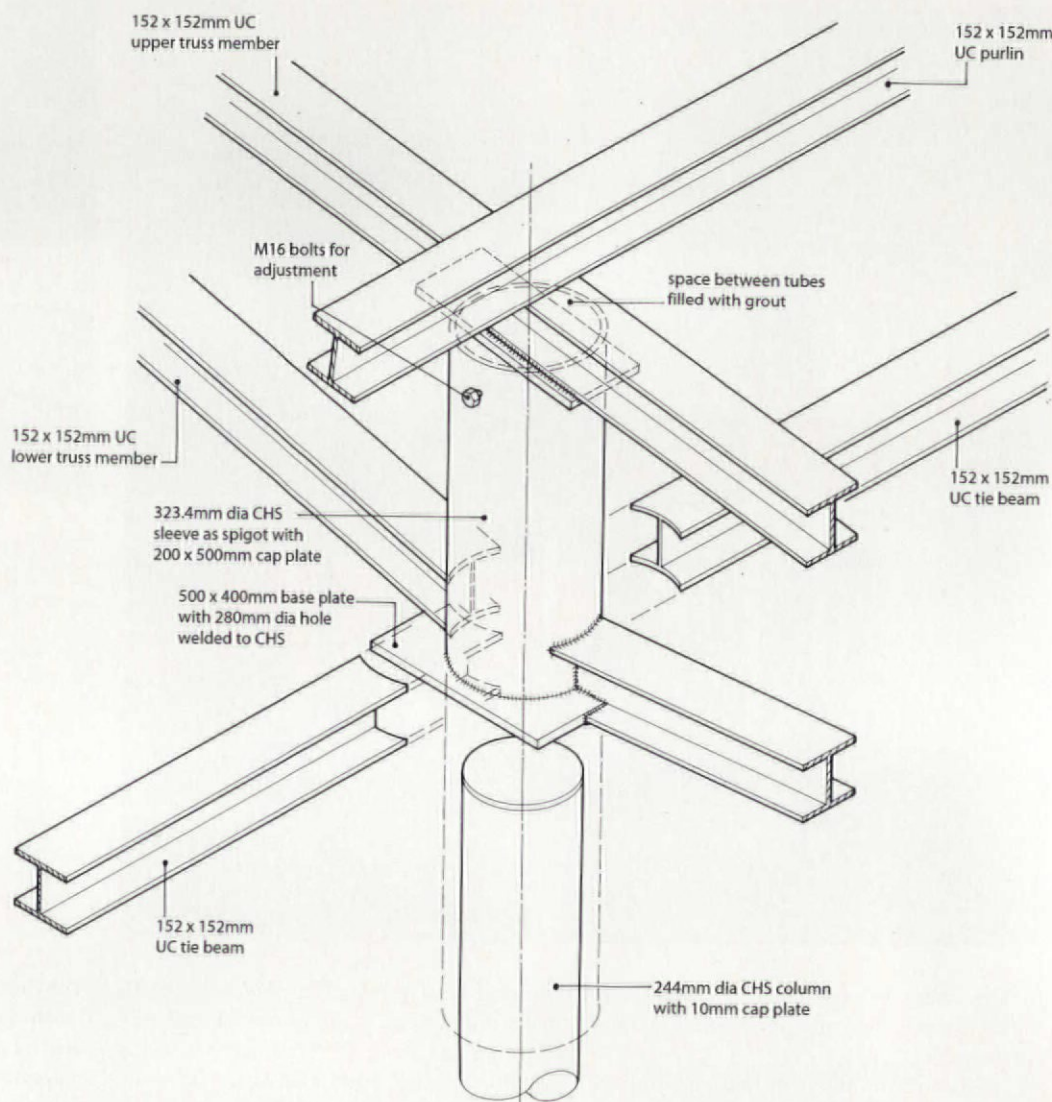
The visitor centre consists of three single-storey pavilions grouped to create a courtyard with a landscaped water garden. The roof structure, a series of inverted steel trusses, forms a continuous shelter, U-shaped in plan, over the three pavilions.

The trusses are supported on pairs of columns at 6.6m centres; a 244mm-diameter CHS main column and a small 150 x 100mm RHS post propping the high point of the truss. Each truss is more than 10m long and slopes downwards to cantilever some 3.3m on the inner, courtyard side. Cantilevered beams with thermally broken connections project from the ends of the trusses to support the roof edges.

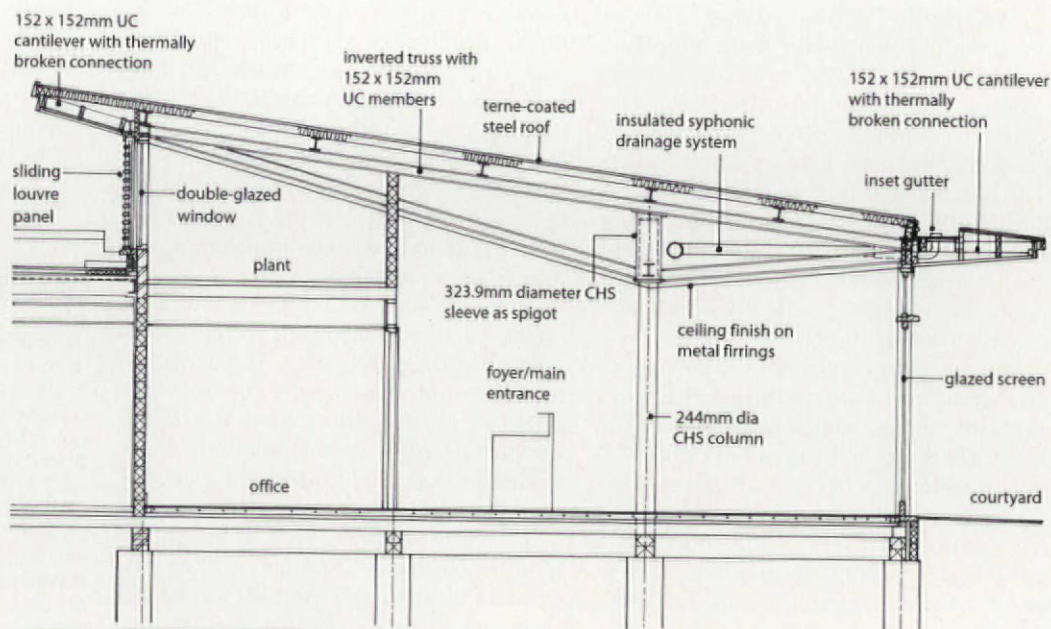
The trusses are formed of fully welded 152 x 152mm UC members. Their connection to the circular columns needed to have some moment capacity to provide portal action. Instead of the more conventional approach – which would rely on a bolted connection – the structural engineer used a spigot detail. Over each column, the beams of the truss are welded to a 323.9mm-diameter CHS sleeve that forms the spigot. After the columns were erected, each truss was craned over a column and the spigot was lowered onto it. After lining and levelling, the spaces between them were filled with grout. This elegant connection requires only a few locating bolts where the truss sits on the column. The trusses were bolted together with 152 x 152mm UC purlins.

The cantilever at the corners required a different steel structure – a diagrid. The same detail was used but with additional side plates to allow the diagrid members to be slotted together.

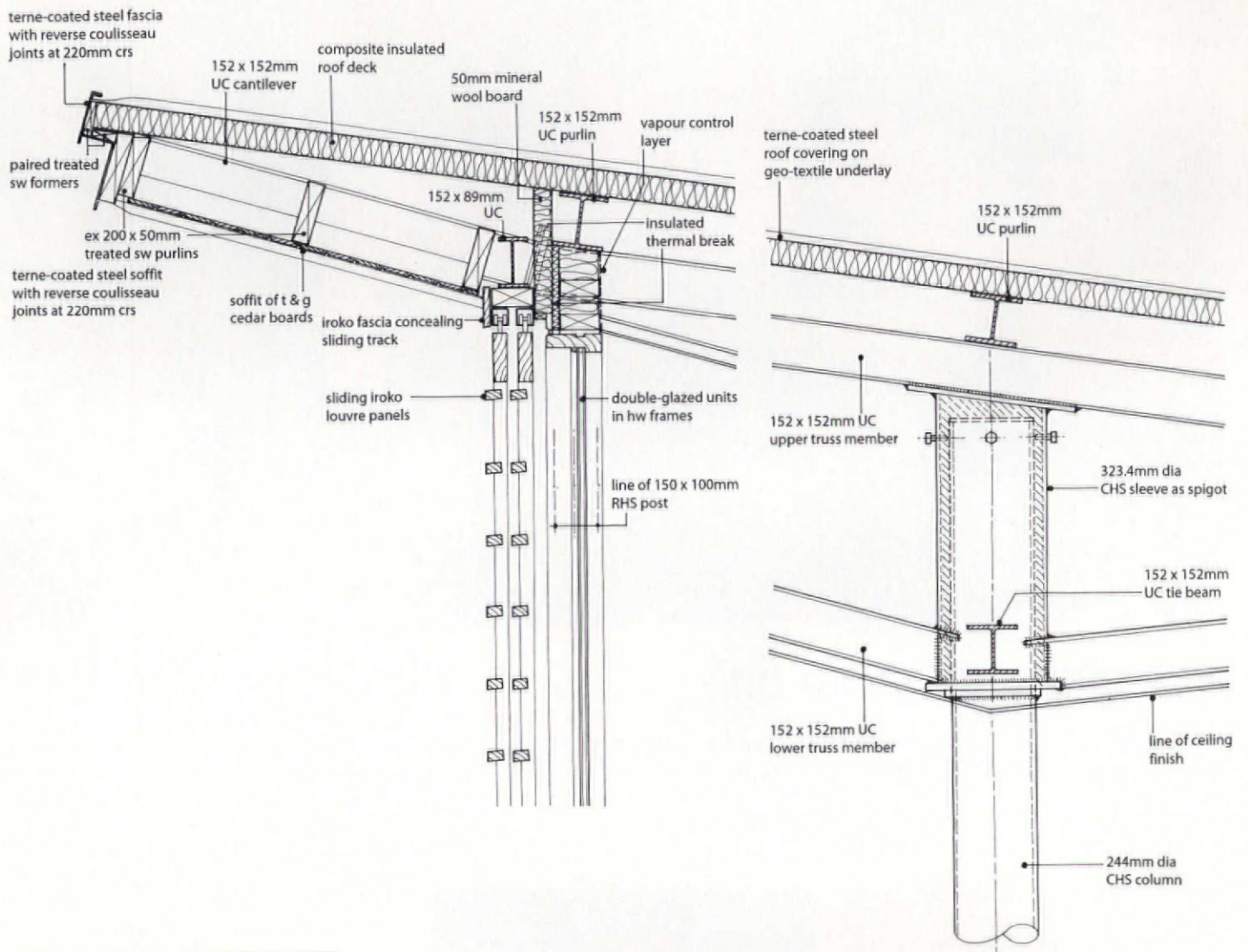
Fitch plates are set into the external walls of the pavilions. They act as continuations of the trusses, yet allow thermal breaks to be incorporated.



EXPLODED ISOMETRIC OF COLUMN SPIGOT CONNECTION



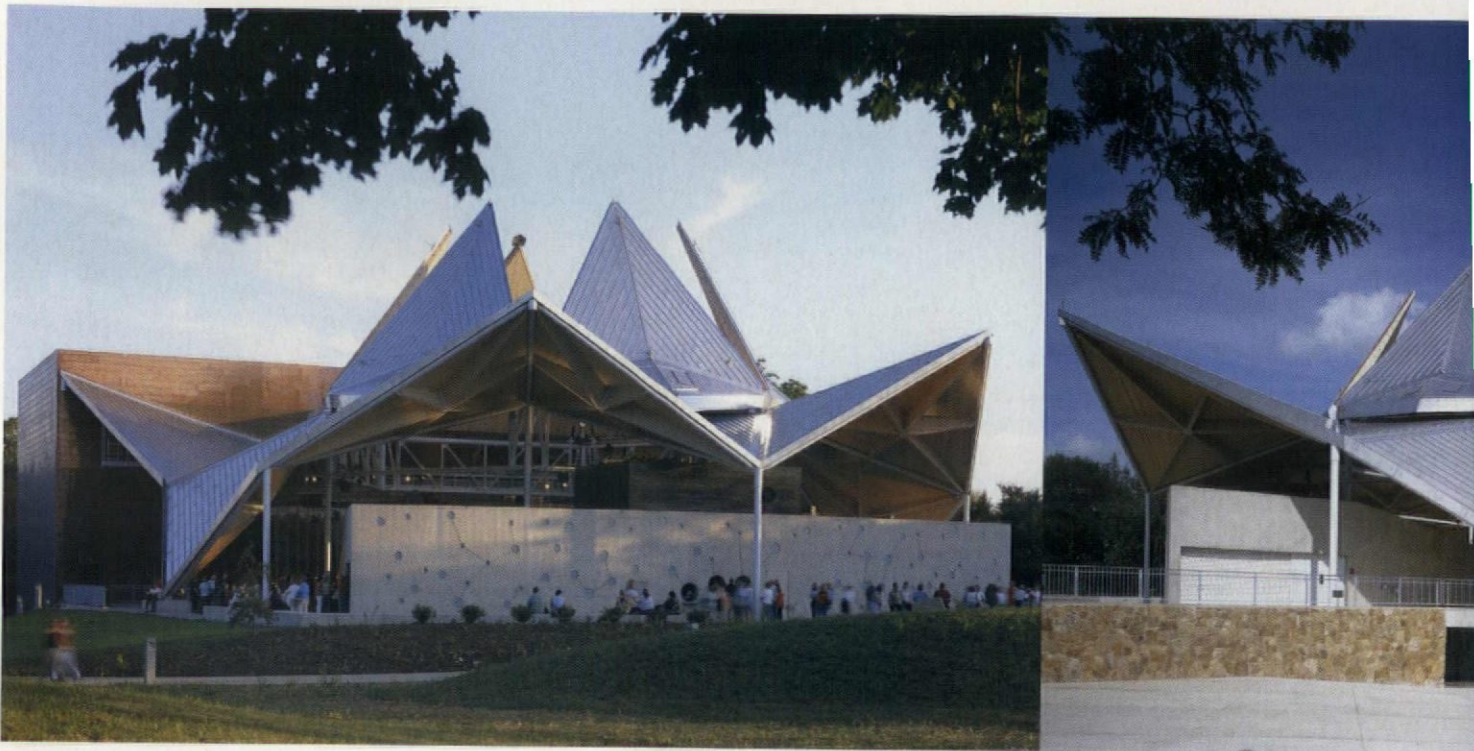
KEY CROSS SECTION THROUGH PAVILION



DETAIL SECTION THROUGH ROOF AT EAVES AND AT COLUMN SPIGOT CONNECTION

PERSPECTIVE SKETCH OF STEEL STRUCTURE

MetalWorks Roofs



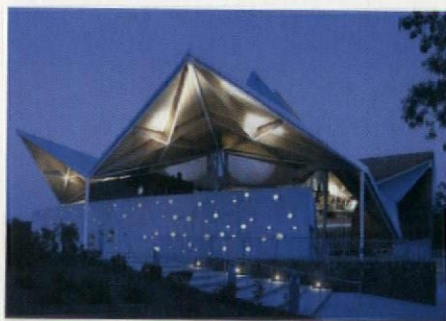
The show must go on

Putting a roof over an open-air theatre while retaining its ambience proved a tricky – but ultimately rewarding – task for Studio Gang

BY SUTHERLAND LYALL. PHOTOGRAPHS BY GREG MURPHEY STUDIOS

Jeanne Gang was making the Studio Gang/O'Donnell (now just Studio Gang) presentation for a new outdoor theatre on the campus of Rock Valley College, at Rockford, Illinois, 90 minutes from Chicago. In summertime, the college runs the popular outdoor Starlight Theatre. Gang explains: 'The college had a theatre group, but their intention was to bring in performance and dance from outside, and they wanted to extend the season as well as to avoid wash-outs.' Summers are no more reliable in Illinois than in the UK, and the theatre wanted a roof of some kind, but with an open-air quality. At the presentation, Gang was a bit puzzled that the university board failed to react when she suggested an opening roof. Later, she learned that both the vice-president and the dean happened to be hydraulic engineers who were at home with the idea of moving structures.

Gang explains the brief: 'The college had a theatre that was simply an outdoor stage and some seats on a hillside. It was such a great experience that when they asked us to put a roof over it, we really didn't want to. Still, we thought it would be wonderful if



such a roof could open, even if we didn't know how we were going to do it. A previous architect had said it was impossible. But we knew who the builder was going to be – a contractor who normally builds bridges. So they would have the capability.'

Gang had met engineer Tim Macfarlane, of London structural engineer Dewhurst Macfarlane, when they were teaching at IIT in Chicago. Gang says: 'We had taught a studio about glass together and we decided to work with his New York group.'

The new theatre is of conventional proscenium form with an enclosed, copper-clad fly tower over the stage area, and dress-

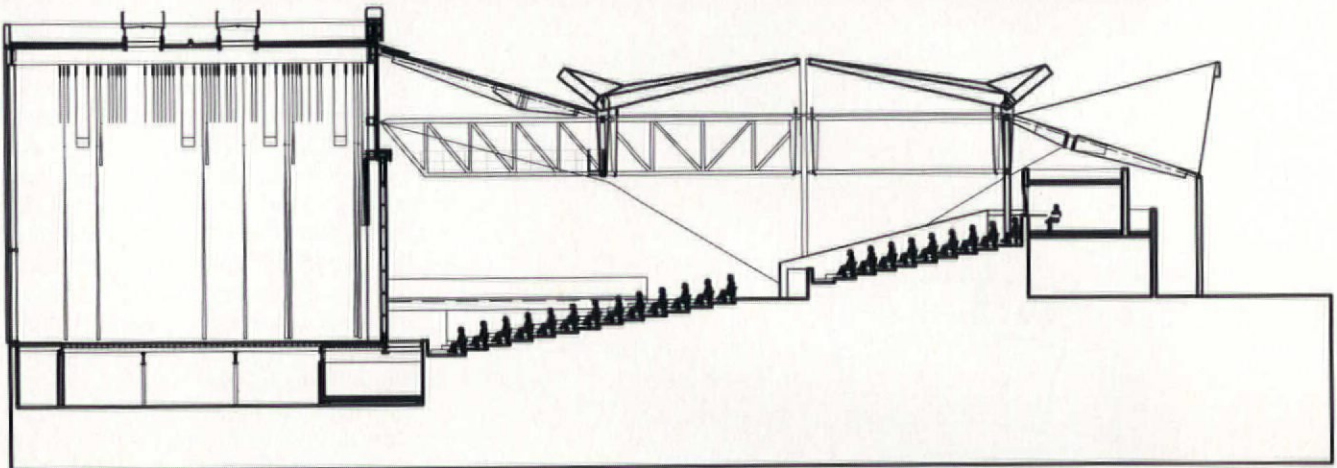
ing and services rooms under the back rows of the tiered seating. Lying loosely over this is an array of triangular elements, none having the same dimensions, apart from the six 'petals' of the opening roof. The 20 fixed triangles fold down to touch the ground here and lift up there to reveal the surrounding landscape. There are no walls to the seating area. Gang says: 'You still feel very much in the landscape even with the roof closed.'

Tim Macfarlane observes of Gang's design: 'I think in not restricting herself to the obvious and pragmatic idea of having everything exactly the same, it gave her some articulation possibilities which she wouldn't otherwise have had – a level of refinement.'

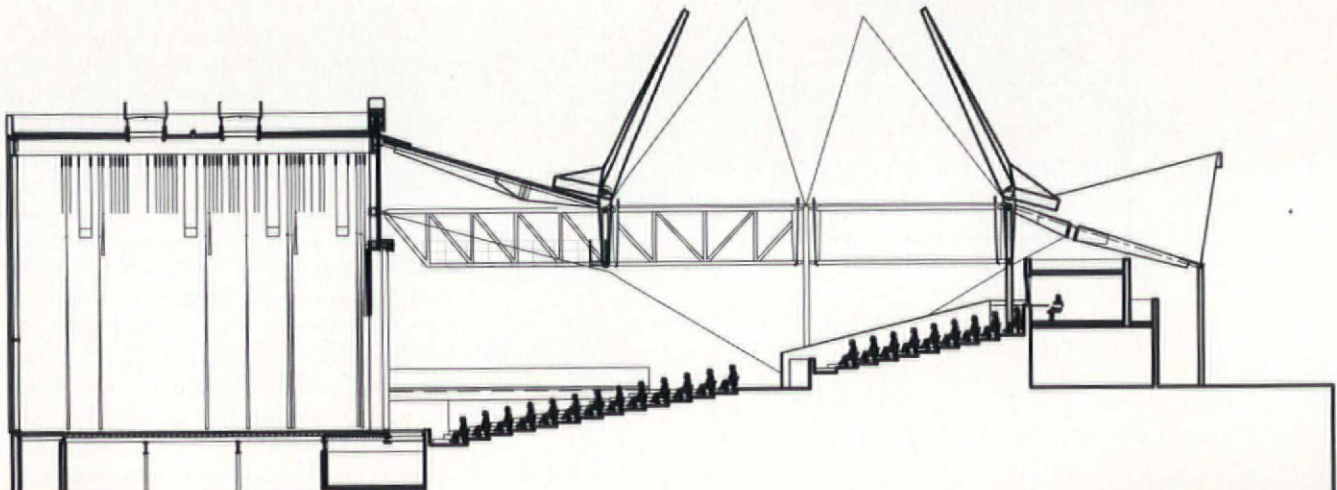
'When you start it would be the natural thing to do and would be easier to understand. It probably required a bit of courage to say, "I don't want to be trapped by geometry". And the simplicity of the roof planes meant that the engineering wasn't so difficult: you could modify the glulam beams to accommodate different desired shapes.'

Structure and materials were naturally early issues. Gang says: 'To start off with, we were looking at GRP, but there was nobody local who could do it.' The first design thinking was around an essentially steel structure. The use of wood came from needing to find the simplest structure. So the individual triangles, fabricated on site earlier this year, have a steel perimeter beam with a deck of solid tongued-and-grooved wood. There is standing-seam stainless steel cladding with an ice and water shield underneath.

Whether the roof is open or closed, theatregoers have a sensation of connection with the landscape

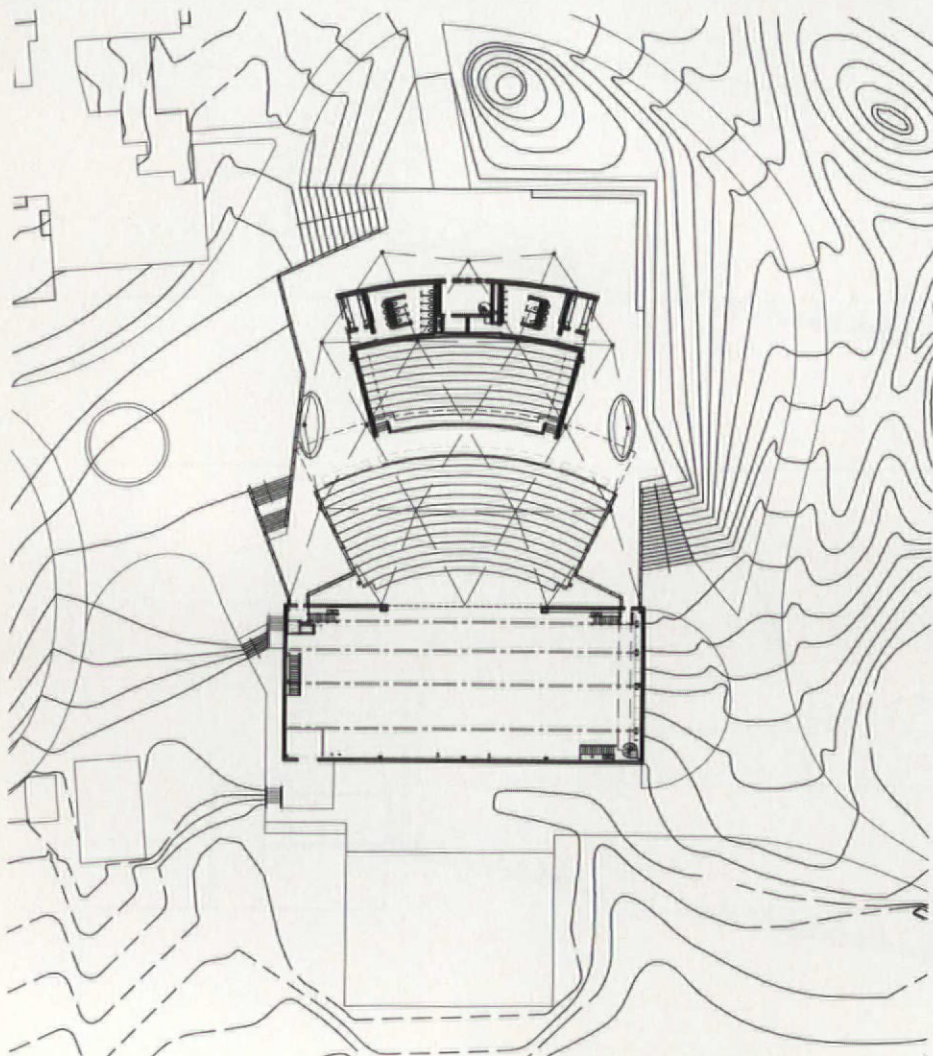


Section with the roof in closed position...



...and open

MetalWorks Roofs



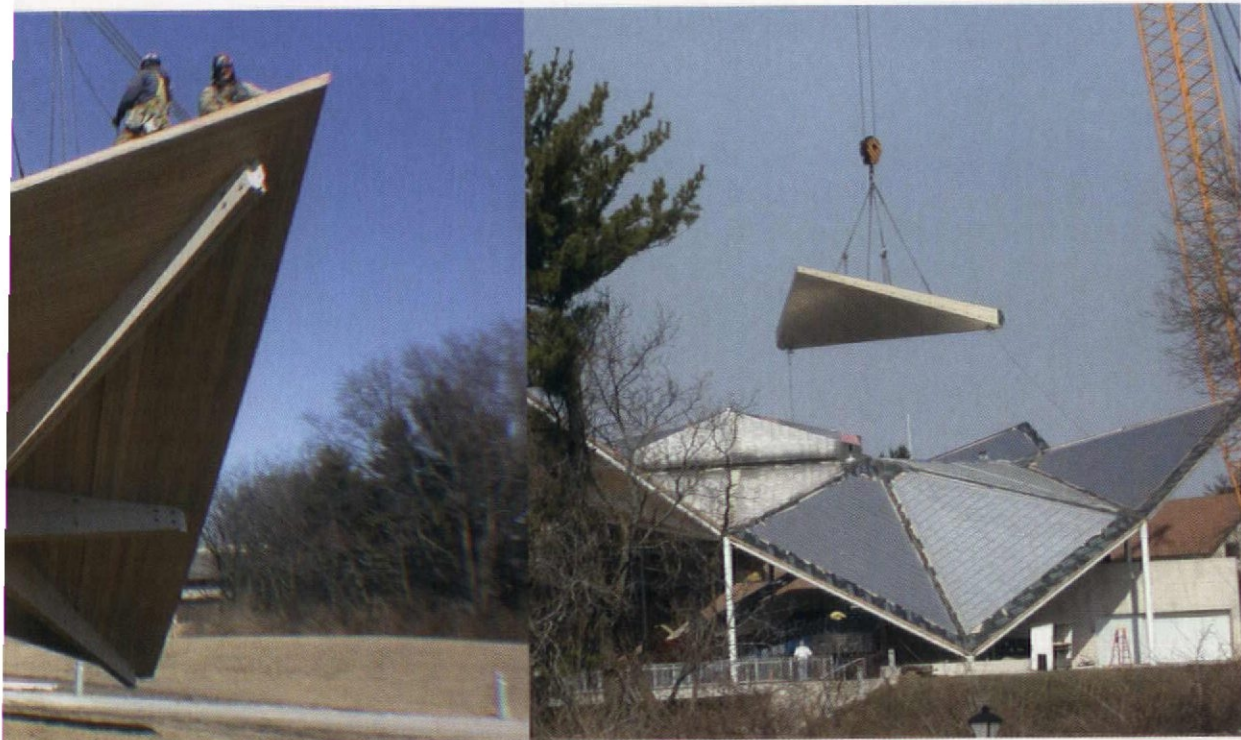
In structural terms, the steel perimeter beams to the fixed triangles do the job of tying the corners together where the main column supports occur. Star formation glulam strutting underneath is designed so that, despite the appearance of some loads being carried at the midsection of the perimeter beams, all the load is transmitted via the stubby 'axle' in the underside centre to the three corners. The intermediate beams, which seem to connect halfway along each perimeter beam, in fact cantilever from the 'axle'.

So, Macfarlane says: 'It was a nice clean idea. You didn't have the edge beam trying to do two jobs at the same time. The main beams provide the continuity and carry the load to the corners. The three little ones are cantilevered off the main hub. There are no purlins and the decking is 3-inch tongued and grooved solid timber. We have used this construction before where we were tight on structure because it can stand carrying a floor over as much as 3 metres.'

Traditional Rock Valley College audiences were generally inured to outdoor conditions, but some attention had to be paid to their comfort. Potential wind and rain problems were sorted out following the advice of London environmental practice Battle McCarthy, which did a computerised fluid-dynamics study that modelled the local conditions to see if the audience would get wet, and how planting and vegetation could be used to reduce the problem.

Things were not quite so simple with the

Top, far left: fabrication of the panels in a temporary building on site; middle and near left: erection. Below left: theatre level plan. Below: roof plan



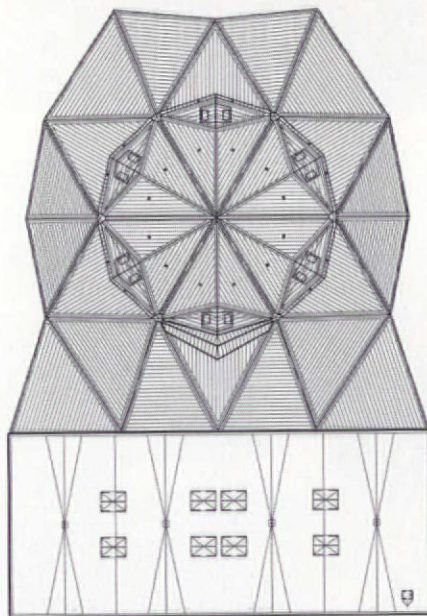
opening roof. It had been decided to use a structure with a lattice truss along each side of a hexagon, with six 'petals' attached to their top chords, which would also act as the hinge. Closed, the petals formed a shallow angular dome. Open, they stood vertically like the petals of a lotus.

Gang says: 'Originally, we had an opening mechanism worked by hydraulics. But when it came to cost, we had to look at different options.'

Macfarlane recalls: 'It is difficult working with opening structures because you have to find the right system. The first [hydraulic system] was workable but the economics were difficult to establish. You don't quite know because it is not a common or even normal thing to do, and you try to engage with the right people. But you don't know who they are and, even having the university interest in hydraulics, the people who could do it at the right price were not too obvious.'

'On the second iteration, we managed to have Uni-Systems on board. We had been looking all over the world, Japan, Germany, and here they were, home-grown. They were absolutely clear about how they would do it, and this was incorporated into the new scheme in a very direct and simple way.'

Gang says of the decision to go with Uni-Systems: 'It seemed the biggest issue was that the college should have someone to go to, to help them maintain it. So we thought about a delivery where the motion-technology engineer would have a contract with the college over time. We ended up with a contract for



the six opening leaves with Uni-Systems, which was almost like a design-build contract. So the responsibility was separated for the kinetic part of the building. We had to provide a structure with a certain minimum deflection and Uni-Systems came in and did their bit. It is always difficult to let some control of the building go, but Uni-Systems were very good to work with.'

The company had constructed huge moving parts for NASA structures, and it could clearly handle something small like the Starlight petals. Its solution involved jackscrew assemblies operated by five-

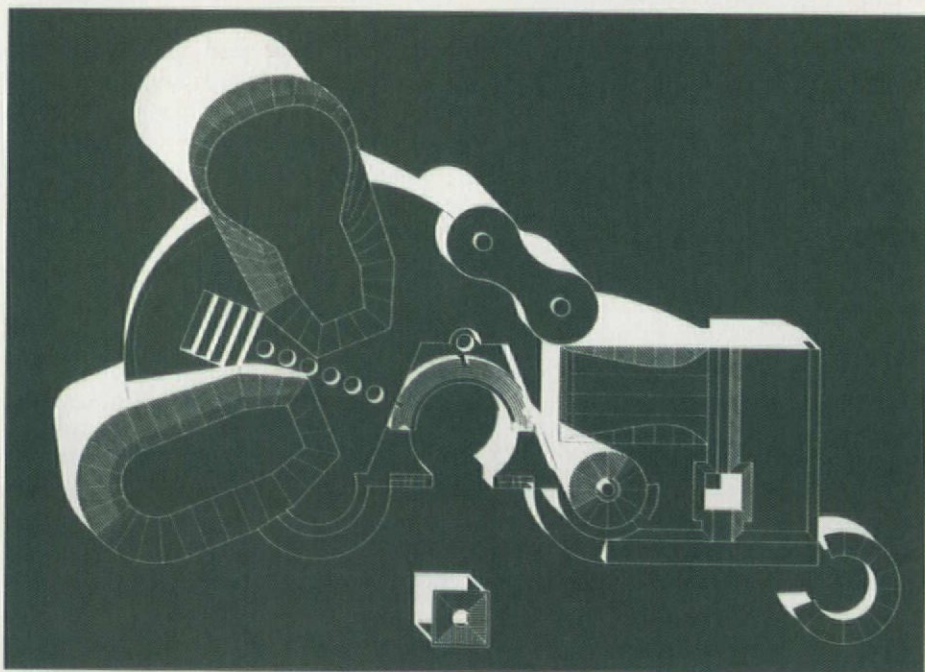
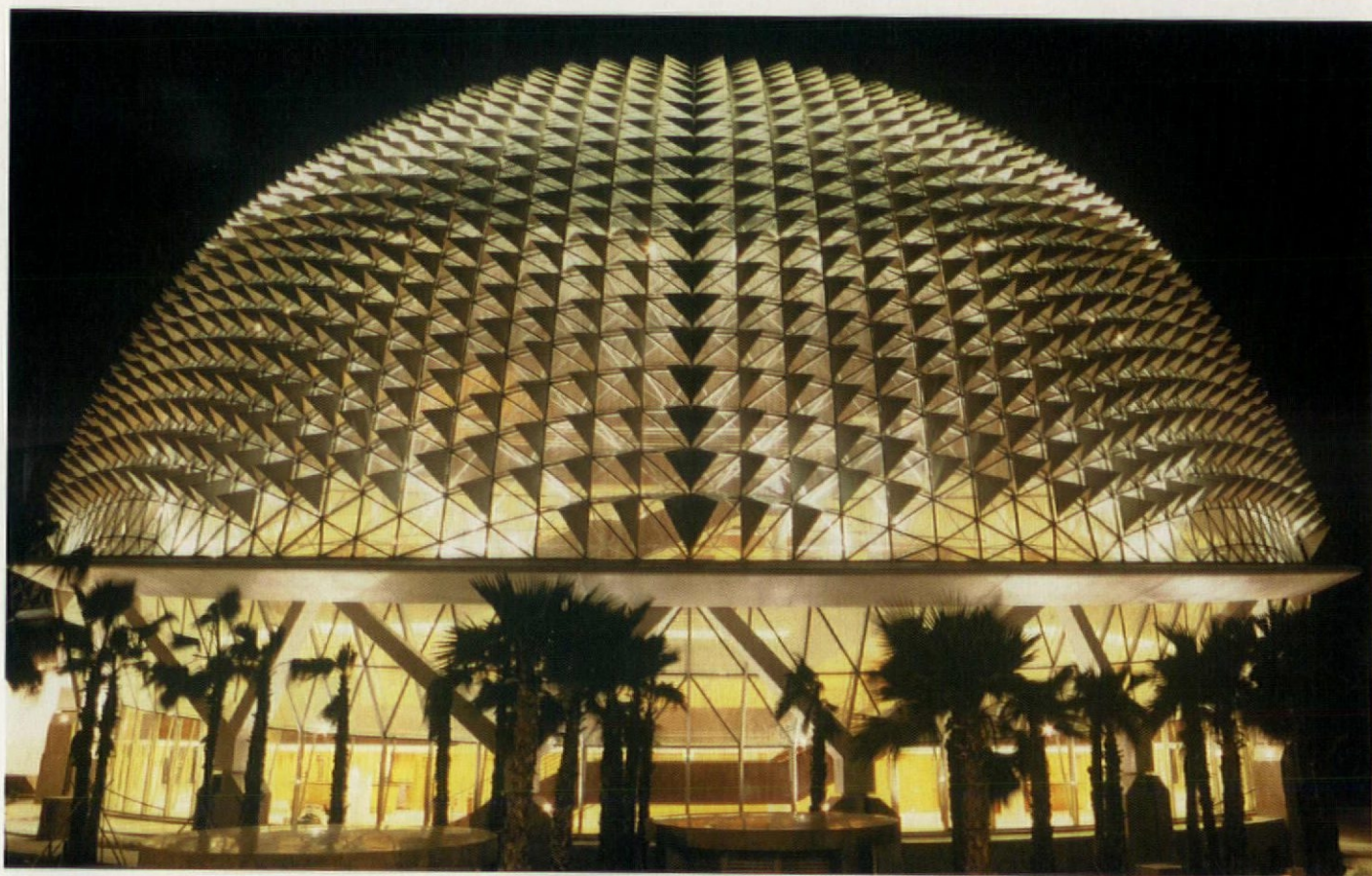
horsepower electric motors, not hydraulics. However, the back-up system is hydraulic, deploying hydraulic cylinders in a closed loop with the opening mechanism so that they are always primed and ready to take over movement in either direction should a screwjack fail. The petals each weigh more than 13,000kg and are attached to a structural steel torque tube with only two visible steel plates transferring the dead load to the top of the perimeter trusses. Each triangular 'petal' has a primary steel frame with tongued-and-grooved wood finish on the inside and the standing-seam stainless steel cladding common with the rest of the roof.

Construction took place over three winter seasons. This was partly because of slowness in raising funds and partly because the theatre had to function as an open-air venue for the season between the end of May and end of August. The roof panels were fabricated earlier this year in a temporary building on site.

CREDITS

ARCHITECT
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Uni-Systems, US
M & E ENGINEER
Consulting Construction Services, US
WIND STUDIES
Battle McCarthy, UK

MetalWorks Roofs



Scaling new heights

Michael Wilford & Partners used a series of triangular elements to shade its arts centre in Singapore

BY CRISTINA ESPOSITO. PHOTOGRAPHS BY JONATHAN ROSE

Among the high-rise buildings of Singapore City sit the gigantic bugs' eyes of the Singapore Arts Centre by Michael Wilford & Partners. The 4ha complex houses five performance auditoria; a 1,800-seat concert hall and four theatres – the 2,000-seat Lyric, 750-seat Medium, 400-seat Adaptable and 200-seat Studio – as well as outdoor performance spaces, function rooms, restaurant and bar, and a shopping mall.

Designing the building envelope for the two structures proved a considerable challenge: the brief demanded an iconic building that would capitalise on both the spectacular downtown views over Marina Bay and across Marina Park to the sea, and allow the opulent materials used in the interior to be visible to the outside world.

At the same time, any design on such a grand scale would need to respond to the fabric of the surrounding buildings. Glass was the obvious choice, but with Singapore only 130km from the equator, the architects were concerned that an unprotected glazed building might not be compatible with the strong winds, threat of monsoons or intense heat and sun of the tropical climate.

Michael Wilford & Partners sought help – after winning a competition, structural and services consultants Atelier One and Atelier Ten were given the arduous task of covering



the two amorphous shapes. The architects had envisioned a curved form, which the engineers had to take on board – ‘we had to take a glass bubble and make it comfortable’, says Atelier One director Aran Chadwick.

The team experimented with many options, drawing on nature for inspiration. They considered response mechanisms, such as the use of chromatic materials for colour change. Research, which looked at leaves, animal skins and other organic forms, gradually refined the brief – the facade should act as a buffer zone between the changeable humid exterior and the sealed air-conditioned concrete boxes of the auditoria.

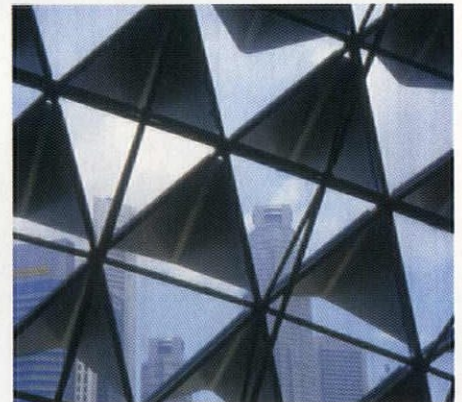
Material efficiency was a key consideration and the structure had to be fabricated from as few components as possible. Sophisticated modelling techniques were used to devise a fixed cladding system, comprising a curved tubular steel shell, forming a multi-curved diagrid structure with triangular-shaped double-glazed panels on the inner surface. But the skin still required shielding from solar gain. By mapping out the movements of the sun in relation to both buildings, Dirk Zimmerman of the engineering team hit upon the concept of ‘beak-shaped’ protrusions. A layer of folded triangular-shaped metal panels could form a secondary skin. Angled at various degrees, these indi-

vidually placed fins would act as sunshields, while giving those inside glare-free views. Stainless steel and various composites were considered, but aluminium was chosen because of its durability in tropical conditions.

The process of folding the metal proved straightforward. However, on the advice of a feng shui consultant, a soft curve was introduced at the site of the fold to eliminate any sharp points. At the ‘top’ of the roof, where the grid is flat above the auditoria, the aluminium panels are also flat, in order to block out the penetration of overhead sun.

The appearance along the dome-shaped shell is of the panels’ gradual transitions from half open to nearly closed, which produces interesting colour tones depending on the angle at which sunlight is reflected. The texture has given rise to a number of nicknames, including ‘fish scales’, and the Singaporeans’ favourite ‘the durian’ – a local fruit known for its prickly skin and noxious smell.

Maintenance of the structures was also considered – Chadwick says that the shells are ‘self cleaning to an extent’ through their ‘totally functional’ surface. The curved form allows rainwater to run down the vertical facades into a drainage gully, and, to allow cleaners to reach the glazed panels, ropes can be attached to the hooks on each node.



Top, left to right: at night the centre is lit to dramatic effect; views from the interior. Above: the sun-shading fins do not obscure views of the surrounding area. Bottom left: the vast auditoria as part of the complex

CREDITS

ARCHITECTS

Michael Wilford & Partners in association with DP Architects

ROOF CLADDING

Atelier One and Atelier Ten

ACOUSTICS

Artec Consultants

THEATRE PLANNING

Theatre Projects Consultants

LANDSCAPING

Peter Walker/Clouston

MetalWorks Roofs



Casting light on the art world

Combining sun-shading with natural daylight at a Texas art gallery posed a set of problems for Renzo Piano and Arup

BY RUTH SLAVID

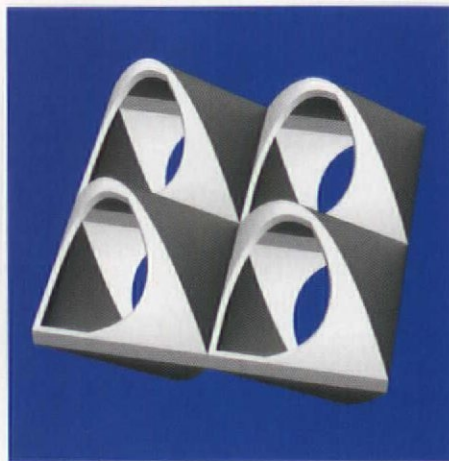
Careful mathematical calculations have resulted in an array of aluminium shading elements on the roof of an art gallery in Texas that keep out all direct sunlight while still allowing natural daylight in. At the Nasher Sculpture Center, designed by Renzo Piano, Arup has developed a shading system that follows the brief by remaining as slender as possible and involving no moving parts.

This elegant and sophisticated solution satisfied the very particular requirements of the project while also acting as a new prototype for solar shading and for the use of mathematical modelling to both produce a solution and inform the manufacturing process directly.

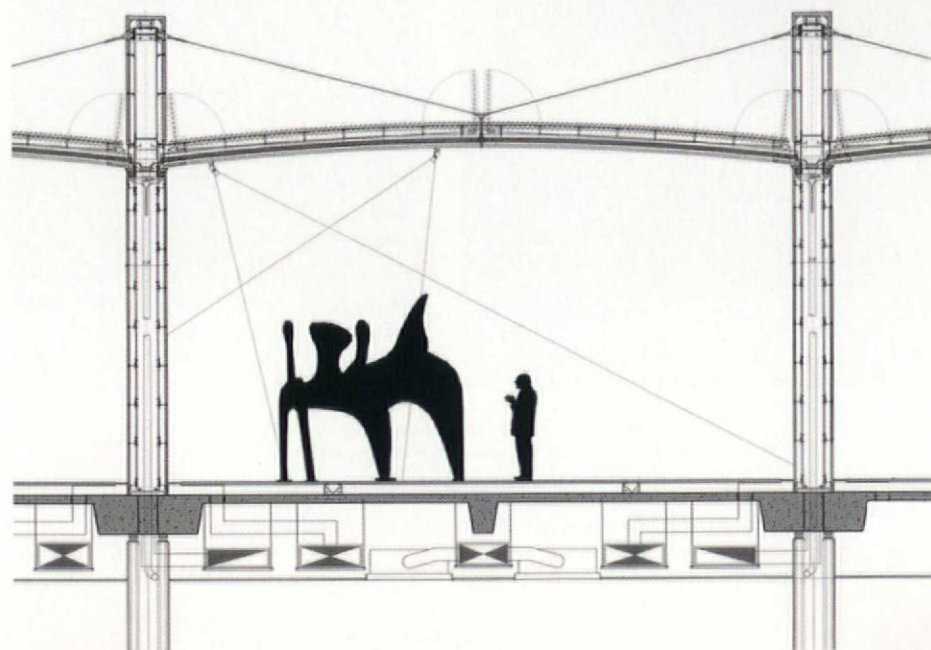
Raymond and Patsy Nasher own one of the foremost collections of three-dimensional art in the world, and bought an entire city block in Dallas in which to display it. Overshadowed by a 50-storey tower on one side, the site is nevertheless an urban oasis. Most of it is occupied by a sculpture garden, but there is a relatively small building at one end, containing three galleries plus a restaurant and bookshop, to display more sensitive works. This is a single-storey building, with a basement, that consists of a series of heavy stone walls that define the five spaces. These five walls run parallel to the garden, and the end walls are glazed, allowing views through. Piano has designed the slightly curved, glazed roof to be as slender as possible. It is supported by curved steel beams on a repeated module, but in addition there is a suspension structure to support the roof at the mid-point.

The environmental requirements for sculptures are not as severe as they are for paintings or, especially, for works on paper. However, it was still considered essential that there should be no direct sunlight coming in from the roof of the building, not least because any bands of light and shade would make it difficult to concentrate on the work. And Raymond Nasher was adamant that he wanted no moving parts.

Arup's solution is an array of aluminium elements, all identical, measuring about 7cm in each direction. Based on a square in which the corners point to the main compass points, the main part of the shade is a curved hood, created from a sine curve. By reflecting this object and then cutting out the elements that are not needed for shading, whatever the position of the sun, the engineer arrived at the final form, a rounded shape with two holes in it. It built a slight redundancy into the shape to allow for the fact that, with the curve of the roof, although it is only a gentle one, the aspect of the shading elements will vary slightly. There is



Opposite: central suspension elements help keep the roof as slender as possible. Centre left: there is a high degree of natural lighting. Left: form of the shading elements. Below: plan showing the building's location in the sculpture garden, and a section through a gallery



a slightly anthropomorphic nature to the shells, stirring memories of the 'gorms' in sculptor Antony Gormley's 'Field for the British Isles'.

Having worked out the geometry for the shells, Arup tested it using Radiance software, and then used a 3D wax modeller in its office to create a form from which an aluminium prototype was cast directly.

However, when the actual elements were made, the caster used its expertise to create the moulds, knowing how thick the elements need to be to support human weight – this is a roof that is designed to be walked on, for maintenance purposes. Nevertheless, each aluminium 'shell' weighs only 40g.

There are more than half a million of these shells on the roof, arranged into square arrays. They were made in groups, and then joined together to form the squares. 'One of the things I was paranoid about,' said Alistair Guthrie, Arup's director for the project, 'was that where you join the elements together you should have no light coming through. That would lead to a line on the walls of the galleries.'

There are carefully detailed seals where panels lift up for glass cleaning underneath, and even tiny holes drilled in the edge for drainage had to have grommets put in them.

But this attention to detail delivered exactly the result the client and professional team had hoped for. Walking into the gallery facing north-west, you can look up through an almost transparent roof. Internal reflections within the shell mean that the amount of light entering the galleries is high. But turn the other way and you are looking at an opaque roof, blotting out not only the sky but also the adjoining tower block. The attention given to this shading solution not only allows the works of art to be displayed at their best, but also enhances the sense of being in an urban oasis. And, essentially, given the situation, the roof also looks handsome when seen from above.

MetalWorks Round-up



Head start for library

The nature of the artist and architect collaboration on the Louis Nucera Library in Nice has no mystery to it. With the collection housed beneath a landscaped garden, the most immediately evident aspect is the administration block. Known as the 'square head', it is a block 15m wide and 26m high, housed on a sculpted neck, designed by the architects Yves Bayard and Francis Chapus with sculptor Sacha Sosno. The head is covered with a skin of aluminium foil, pierced with 5mm square holes and placed 50cm from the glass facade. The effect is of an opaque object in the daytime, a translucent one at night, but with the building's users getting views out at all times. To mitigate the effects of solar gain, the building also has specially designed solar-control blinds.

Steps to integration

As part of a radical reworking of the office building occupied by CB Richard Ellis, architect Barr Gazetas designed a series of open, steel-framed staircases with glass treads with engineer Whitbybird. Made by Littlehampton Welding, the staircases form a processional route through a two-storey void that the architect has created. Because the office consists of two buildings with differing floor levels that have been joined together, the staircases actually serve four different levels. The first stair rises just six steps from reception to a 'lily pad' seating area for waiting that offers views out through the buildings windows. From there it goes to a new mezzanine area and then to the open first-floor level of the older building, and on to the first floor of the newer building. In some parts encased in glass, the stairs' light steel frame and glass open treads impede views through the building as little as possible.



Looking up

Three different types of woven mesh have been used to create sculptural suspended ceilings for the public areas of a residential development in New York. Architect Philip Koether specified a layered design of architectural steel mesh panels to create a variety of textures and to add visual depth. He used three different meshes from Potter & Soar, called Coniston, Windermere and Isis. These have different levels of transparency, ranging from Windermere, which is 58 per cent open, to Isis, which is closely woven. By layering the meshes one above the other, Koether was able to create interference patterns, different textures and a sensation of depth.



Hole story

Lightweight perforated sheet from Gooding Aluminium has been used to create an eye-catching feature in the reception area for Cardiff Harbour Authority. It also screens the radiators.

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Art editor Terry Howe

Corus coordinator Matthew Teague

CORUS

London

George Dance the Younger *Until 3 January*. An exhibition at Sir John Soane's Museum, 13 Lincoln's Inn Fields, WC2. Details 020 7405 2107.

Zoomorphic: Contemporary Architecture Inspired by Animals *Until 4 January*. An exhibition at the V&A, Cromwell Rd, SW7. Details 020 7942 2209.

Ecohouse Student Design Competition *14-31 January*. An exhibition at the RIBA, 66 Portland Place, W1. Details 020 7580 5533.

Bauhaus: Designing Utopia *Until 15 January*. An exhibition of photos at the Michael Hoppen Gallery, 3 Jubilee Place, SW3. Details 020 7352 3649.

Construction: The Challenges and Opportunities Ahead *Friday 16 January*. A conference at the RIBA, 66 Portland Place, W1. Details from website www.montgomeryevents.com

John Riddy: Recent Places *16 January-10 February*. Photographs at the Frith Street Gallery, 59 Frith St, W1. Details 020 7494 1550.

Optic Nerve: Abstract Colour Photography *Until 17 January*. An exhibition at Photofusion, 17a Electric Lane, SW9 (020 7738 5774).

Roadside Architecture *Until 17 January*. Photographs by John Margolies at the Building Centre, 26 Store St, WC1. Details 020 7692 6209.

Constructive Visions *Until 18 January*. An exhibition at the RIBA, 66 Portland Place, W1. Details 020 7307 3888.

Stephen Shore *Until 20 January*. Photographs of 'everyday' America at Spruth Magers Lee, 12 Berkeley St, W1. Details 020 7491 0100.

Eric Ravilious: Imagined Realities *Until 25 January*. A centenary exhibition at the Imperial War Museum, Lambeth Rd, SE1. Details 020 7416 5320

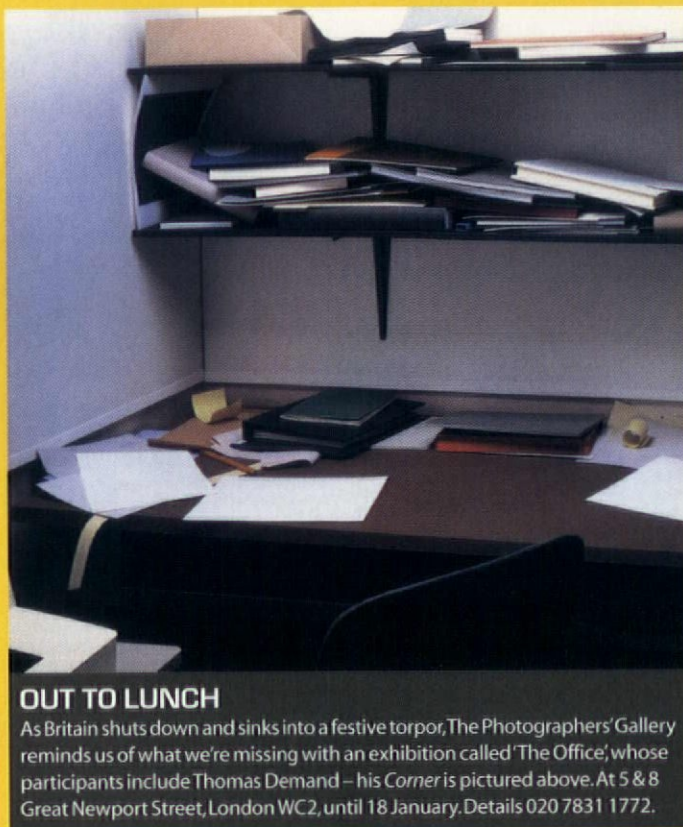
Sergio Risalti: The Theatre of the Italian City *Tuesday 27 January, 19.00*. A lecture at the Royal College of Art. Tickets (free) 020 7590 4567.

Urban Challenge *Thursday 5 February*. A debate on issues created by London's increasing density. At the Royal Geographical Society. Details 01273 202022.

Donald Judd *5 February-25 April*. A major retrospective at Tate Modern, Bankside, SE1. Details www.tate.org.uk

Gold Standard: How to Create Olympic Standard Office Buildings *Tuesday 10 February*. An AJ conference at the Cavendish Conference Centre, W1. Details 020 7505 6745 or www.goldstandardconference.com

Bricks & Water *Until 28 February*. The



OUT TO LUNCH

As Britain shuts down and sinks into a festive torpor, The Photographers' Gallery reminds us of what we're missing with an exhibition called 'The Office', whose participants include Thomas Demand – his *Corner* is pictured above. At 5 & 8 Great Newport Street, London WC2, until 18 January. Details 020 7831 1772.

architecture of London's waterworks – an exhibition at Kew Bridge Steam Museum. Details 020 8568 4757.

The Smithsons: The House of the Future to a House for Today *Until 29 February*. An exhibition at the Design Museum, Shad Thames, SE1. Details 0870 833 9955.

Gerhard Richter: Atlas *Until 29 February*. An exhibition at the Whitechapel Gallery, Whitechapel High St, EC1. Details 020 7522 7880.

Foreign Office Architects: Breeding Architecture *Until 29 February*. An exhibition at the ICA, The Mall, SW1. Details 020 7930 3647.

ar+d Emerging Architecture Awards, 2003 *Until 2 March*. At the RIBA, 66 Portland Place, W1. Details 0906 302 0400.

East

The Unhomely *Until 11 January*. An exhibition at Kettle's Yard, Castle St, Cambridge. Details 01223 352124.

Lime Plaster *Friday 30 January, 14.00*. A lecture at Cressing Temple, Essex. Details Pauline Hudspith 01245 437672.

Repair and Conservation of Historic Joinery *12-13 February*. A course at Cressing Temple, Essex. Details Pauline Hudspith 01245 437672.

North West

The Impossible View *Until 11 January*

2004. An exhibition of panoramic paintings and photographs at The Lowry, Salford Quays. Details 0161 876 2020.

Ian Simpson *Wednesday 14 January, 19.30*. A lecture at the Grosvenor Museum, Grosvenor St, Chester. Details Mark Kyffin 0161 236 5567.

Access All Areas *Thursday 26 February*. An AJ conference on the DDA at the Lowry, Salford Quays. Details 0161 237 5525 or www.ddaconference.com

Best Studio featuring Ian Simpson Architects; Design Berlin *Until 8 March*. Two exhibitions at CUBE, 113 Portland St, Manchester. Details 0161 237 5525.

David Adjaye: Asymmetric Chamber *Until 8 March*. A CUBE exhibition at the Tea Factory, 82 Wood St, Liverpool. Details 0161 237 5525.

The Stage of Drawing: Gesture and Act *Until 28 March*. An exhibition at Tate Liverpool, Albert Dock, Liverpool. Details 0151 702 7402.

South East

RIBA CPD Event: CDM And All That *Thursday 22 January*. At Gatwick. Details 01892 515878.

Inside Out: Investigating Drawing *Until 25 January*. An exhibition at Milton Keynes Gallery, 900 Midsummer Boulevard, Milton Keynes. Details 01908 676 900.

The Georgian Tradition *Thursday 26 February*. A day school led by Neil Burton at the Weald & Downland Open Air Museum, Singleton, Chichester. Details 01243 811464.

Wessex

Zebedee Jones: New Paintings *Until 25 January*. An exhibition at the New Art Centre, Roche Court, East Winterslow, Salisbury. Details 01980 862244.

Yorkshire

Eduardo Chillida *Until 29 February*. Retrospective exhibition of the Basque sculptor at the Yorkshire Sculpture Park, West Bretton, Wakefield. Details 01924 830302.

Other Criteria: Sculpture in 20th Century Britain *Until 28 March*. An exhibition at the Henry Moore Institute, 74 The Headrow, Leeds. Details 0113 234 3158.

Scotland

AKA: 4/4 *Until 20 December*. A site-specific work for Glasgow School of Art, 167 Renfrew St, Glasgow. Details 0141 353 4500.

Glasgowbridge: International Designs for the new Glasgow Bridge. *Until 28 January*. An exhibition at The Lighthouse, 11 Mitchell Lane, Glasgow. Details 0141 221 6362.

Louise Crawford and Stéphane Guéneau *Until 31 January*. Nocturnal photographs of Paris and Glasgow at Streetlevel, 26 King St, Glasgow. Details 0141 552 2151.

Lightness at The Lighthouse *Until 1 February*. An exhibition at The Lighthouse, 11 Mitchell Lane, Glasgow. Details 0141 221 6362.

Matthijs Bouw (One Architecture) *Thursday 5 February, 17.00*. A lecture at Robert Gordon University, Garthdee Rd, Aberdeen. Details 01224 263700.

Maggie's Exhibition *Until 8 February*. At The Lighthouse, 11 Mitchell Lane, Glasgow. Details 0141 221 6362.

Wales

Anthony Hudson *Thursday 22 January, 19.30*. A North Wales Society of Architects' lecture at Faenol Fawr Hotel, Bodelwyddan. Details Peter Stonebridge 01745 815600.

International

The Snow Show *12 February-31 March*. Ephemeral work by 15 architect-artist teams at Kemi and Rovaniemi in Finnish Lapland. Details www.thesnowshow.net

Information for inclusion should be sent to Andrew Mead at The Architects' Journal at least two weeks before publication.

Books of the year

A selection of the titles that AJ reviewers have most enjoyed during the past 12 months

COMPILED BY ANDREW MEAD



Swiss Made

By Steven Spier. Thames & Hudson, £24.95

'Much of the work is clearly outstanding, both conceptually and technically.'
(Tom Emerson, AJ 23.10.03)



The New Art Gallery, Walsall

By Rowan Moore. Batsford, £18.99

'Celebrates the major achievement of constructing an oasis of visual culture in a desiccated post-industrial townscape.'
(Neil Cameron, AJ 12.6.03)

EndCommercial: Reading the City

Edited by SBA. Hatje Cantz, £29.95

Highly individual photo-portrait of New York: 'The Urban Task Force it's not.'
(AJ 16.1.03)

Concrete and Clay: Reworking Nature in New York City

By Matthew Gandy. MIT Press, £23.50

'Goes further than any author in recent memory in unearthing the complexities of Modernism and New York.'
(William Menking, AJ 23.1.03)

The Minimum Dwelling

By Karel Teige. MIT Press, £41.50

'It has taken 70 years for an English translation... and it is a sobering thought that nothing of equivalent significance has appeared in the interim.'
(David Wild, AJ 30.1.03)

Nicholas Hawksmoor: Rebuilding Ancient Wonders

By Vaughan Hart. Yale University Press, £35

'Hart's stimulating investigation is richly illustrated and includes many of Hawksmoor's handsome drawings.'
(Gillian Darley, AJ 6.2.03)

Barragán: Space and Shadow, Walls and Colour

By Danièle Pauly. Birkhäuser, £48

'Brings Barragán's architecture into the "real" world with its magic substantially intact.'
(AJ 6.2.03)

Geoffrey Bawa: The Complete Works

By David Robson. Thames & Hudson, £45

'Robson's fine monograph will long remain the essential record of a significant body of work.'
(Richard Weston, AJ 6.3.03)

Modern Architecture Through Case Studies

By Peter Blundell Jones.

Butterworth-Heinemann, £35

'Studies of 16 masterworks... much of a general nature can be learned by close observation of the particular.'
(John McKean, AJ 13.3.03)

Theory in Landscape Architecture: A Reader

Edited by Simon Swaffield.

University of Pennsylvania Press, £19.50

'A refreshingly inclusive and informative collection.'
(Richard Weston, AJ 3.4.03)



Industrial Landscapes

By Bernd and Hilla Becher. MIT Press, £56.50

More from the Bechers' photo catalogue of a vanishing industrial world.
(AJ 13.2.03)



Herzog & de Meuron: Natural History

Edited by Philip Ursprung. Lars Muller, £38

'Rich, thoughtful and beautifully put together.'
(Sarah Jackson, AJ 13.3.03)



Italian Architecture of the 16th Century

By Colin Rowe and Leon Satkowski. Princeton Architectural Press, £24.95

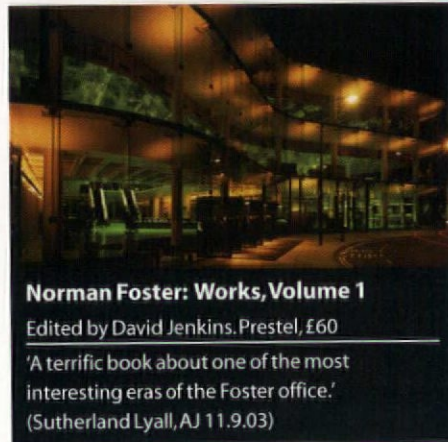
'An invigorating and idiosyncratic take on its subject – the long concentrations on key buildings are almost always rewarding.' (Robert Harbison, AJ 20.2.03)



Materials, Form and Architecture

By Richard Weston. Laurence King, £35

'Superlative illustrations – a wonderfully perceptive and readable book.' (Adrian Forty, AJ 23.10.03)



Norman Foster: Works, Volume 1

Edited by David Jenkins. Prestel, £60

'A terrific book about one of the most interesting eras of the Foster office.' (Sutherland Lyall, AJ 11.9.03)

Dwellings: The Vernacular House World Wide

By Paul Oliver. Phaidon, £35

'Accessible, well-illustrated and genuinely international.' (Edwin Heathcote, AJ 14.8.03)

Domestic Interiors:

The British Tradition 1500-1850

By James Ayres. Yale University Press, £45

'Sumptuously presented – a welcome addition to this specialist field.' (Julian Harrap, AJ 4.9.03)

Modern Landscape

By Michael Spens. Phaidon, £45

'Spens is critical – as we all should be – of the banal "commodified landscape" that leading architects use as so much wallpaper. His book deserves a wide readership and is illustrated magnificently.' (Gillian Darley, AJ 9.10.03)



David Chipperfield: Architectural Works 1990-2002

Ediciones Poligrafa, £59

'Buildings of an austerity that is infinitely more arresting than any number of deconstructed jellyfish – an astounding and varied body of work.' (Isabel Allen, AJ 2.10.03)

The Parthenon

By Mary Beard. Profile Books, £15

'Lively, approachable and amusing. It is as much about us and our obsessions today.' (John McKean, AJ 17.4.03)

FRS Yorke and the Evolution of English Modernism

By Jeremy Melvin. Wiley-Academy, £29.95

'An excellent book – we all owe Yorke a great debt for bringing English architecture out of its narrow confines.' (John Winter, AJ 15.5.03)

Surface Architecture

By David Leatherbarrow & Mohsen Mostafavi. MIT Press, £26.50

'Architecture has to face both the consequences of industrialisation and the challenge of representing ideas... This should be required reading for any architect.' (Jeremy Melvin, AJ 26.6.03)

Cedric Price: Opera

By Samantha Hardingham. Wiley-Academy, £29.95

'An essential antidote to conformity is exposure to the work of Price.' (Alex Wright, AJ 3.7.03)

Modern Architecture and Other Essays

By Vincent Scully. Princeton University Press, £30

'Scully's writing repays re-reading and this is the ideal introduction to it.' (Matt Shinn, AJ 16.10.03)

The Organisational Complex:

Architecture, Media and Corporate Space

By Reinhold Martin. MIT Press, £26.50

'A marvellous book.' (David Dunster, AJ 13.11.03)

Venice: Fragile City 1797-1997

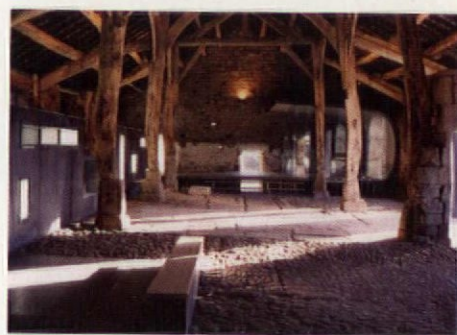
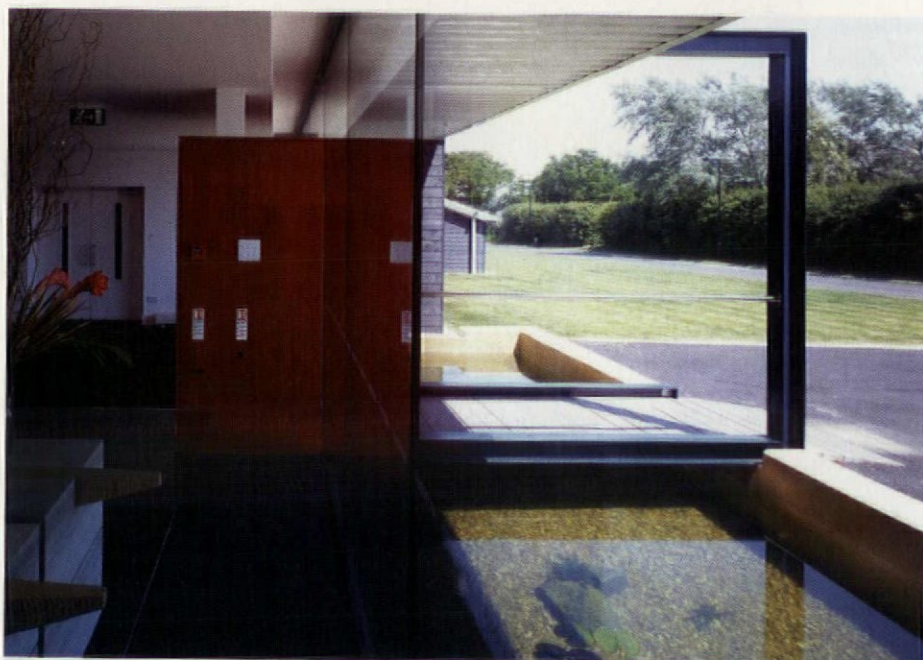
By Margaret Plant. Yale University Press, £29.95

A wide-ranging history of Venice that starts where most other stop. (AJ 20.3.03)

The Picturesque Garden in Europe

By John Dixon-Hunt. Thames & Hudson, £32

A sophisticated study, beautifully illustrated. (AJ 24.4.03)



Out with the old

DEAN HAWKES

New Architecture in Britain

By Kenneth Powell. Merrell, 2003. 240pp. £29.95

About 25 years ago I attended a lecture by John Summerson for which he had loaded a 'carousel' magazine with 80 slides of buildings. To begin, he simply showed all 80 images without comment. He then asked the audience what these buildings, which were functionally and stylistically diverse, had in common. The answer was that they were all in Britain and had been built within a few years of 1900. I recalled that lecture when I received Kenneth Powell's latest book, which is in essence another 'carousel' of British buildings, this time all built within a year or two of the millennium.

So far so good. Broad reviews and surveys have their place in the appreciation and promotion of architecture. But, if they are to be of much use, they should have a point of view, an explanatory scheme or a critical position. Summerson's lecture brilliantly achieved that. He invested the apparent confusion of his images – that ranged from Gothic Revival to French Empire Classical to Arts and Crafts and beyond – with an order that derived from the nature of the training of their architects.

What emerged was the influence of the great teaching offices of the 19th century on the architecture of *fin-de-siècle* Britain. Instantly there was clarity in the previously confused picture. Now, we all know that,

as Dogberry asserted in *Much Ado About Nothing*, 'comparisons are odorous', but the stylistic situation in millennial architecture in Britain is, if anything, more diverse than it was a century ago. This suggests that any review of the contemporary scene should offer an explanation or commentary at least as compelling as Summerson's.

Kenneth Powell's introductory essay in the present book is clearly intended to do just that. It sketches out a broad history of events, buildings and architects in the post-war period and, in the manner of Summerson, establishes something of the influence of training and education in shaping the predispositions of contemporary architects. It also touches upon the influence of the political transformations that have occurred in Britain in that period – from the collectivism of the welfare state to the individualism of Thatcher to Blairism and PFI. It also refers to the agenda of the Urban Task Force, the question of sustainability and the metropolitan/provincial divide. All of this is pertinent, but the essay is far too brief to do the task justice.

The bulk of the book is taken up by brief descriptions – generally two pages each – of 114 buildings by 87 different architects. These are grouped into broad, functional categories: Infrastructure and Public Buildings, Muse-

Left: the Manser Practice's Artigiano Design Centre. Top: Hakes Associates' Wycoller Barn Visitor Centre. Above: Niall McLaughlin Architects' bandstand at Bexhill Pavilion

ums and Heritage, Arts and Leisure, Houses and Housing, Offices and Industry, and Shops and Restaurants. The majority of the buildings are by British architects, of many persuasions – the key word is 'pluralism'. An important difference between 1900 and 2000 is the presence in Britain of the work of architects whose practices are based overseas – Ando, Gehry, Herzog & de Meuron, and Viñoly. It is also significant that many British architects receive significant commissions overseas, although these are of necessity excluded from this survey.

At the end I am left uncertain of the purpose of the book. I am reminded of those children's books where you flick the pages and a chap dives off a high board. You can do this here, at least metaphorically – see many friends jumping by and glimpse many tantalising images. However, the brevity and inconsistency of the descriptions leaves much unsaid. Furthermore, the brief bibliography is insufficient to allow easy pursuit of more detail. Maybe the idea of an architecture book as a kind of seed catalogue, with tempting images of what one might grow next summer, has value in our culture of commodification, but both the subject and the track record of the author promise more than is delivered here.

Dean Hawkes is an architect in Cambridge



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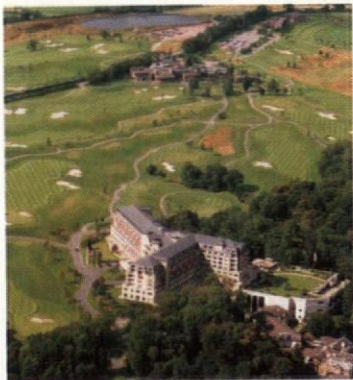
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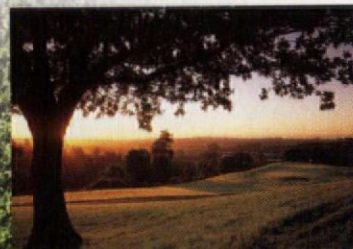


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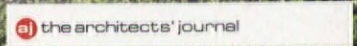
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Broadway Malyan has appointed **Lynne Sullivan**, architect and director of sustainability, to the Sustainable Buildings Task Group.

Mark Sitch has been promoted to partner at **Barton Willmore**. He was previously a director at the Reading office.

Geoff Cohen, who joined **Fitzroy Robinson** in Spring 2002, has been appointed design director.

Real Studios has moved to 64 Great Suffolk Street, London SE1 0BL, tel 020 7928 2211, fax 020 7928 7711, email mail@realstudios.co.uk

Simon O'Hea has been appointed as **BSRIA** chairman for the next two years. He is a director of the **Colt Group** and has been with the company for 16 years.

The **Association of Consulting Engineers (ACE)** has chosen **Nelson Ogunshakin** as its new chief executive. He takes up his role in January 2004.

ARP Lorimer has appointed **John Murray** and **John Ramsay** as associates.

RMC Group has appointed **David Munro** as its new group chief executive. He will take up his post from 19 January.

Workplace specialist **Morgan Lovell** has appointed **Andrew Wilkinson** as head of sales in London. He has previously spent three years heading up the sales team in Wokingham.

McBains Cooper has appointed **Malcolm Lyon** as structural engineer in the civil and structural engineering division of its London office.

● Send details of changes and appointments to Angela Newton, *The Architects' Journal*, 151 Rosebery Avenue, London EC1R 4GB, or email angela.newton@construct.emap.com

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As the Delta State Higher Education Project is moving into the next stage of development, the International Partnership Projects Office is looking to appoint two professional architects and/or physical planners to support the work of the Project Physical Planner. The Project is establishing and supporting the development of four new institutions of higher education in Delta State, Nigeria.

The posts will be based in the Project Management Support Office (PMSO), Delta State, Nigeria. It is expected that these posts will require a number of professional visits to the UK and at these times they will be based within and come under the management of the International Partnership Projects Office, University of Westminster.

These will be challenging positions in a challenging environment and therefore, although not essential, candidates might find prior experience of working on similar projects advantageous. Applicants will be expected to have a wide range of experience in their field and preferably experience in higher education, project and staff management. Experience of having lived or worked in a developing country would be a distinct advantage, with particular reference to West Africa.

An ability to travel without restriction is vital, therefore applicants will be expected to be in good health and in possession of a valid passport.

It is hoped that once appointed, the postholders will be able to take up their positions as soon as possible.

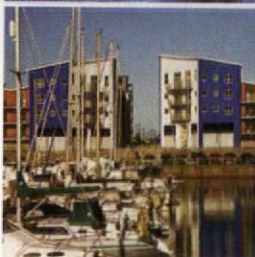
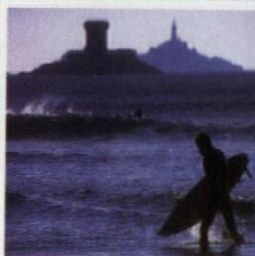
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Expressions of Interest from Architects / Design Teams

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Artwork 12 noon Tuesday
Cancellations 12pm Monday

Recruitment advertisements in the AJ can be found on our internet recruitment service
www.careersinconstruction.com

Leicester Vacancy
dave.smith@rdrecruitment.co.uk
Senior Technical Assistant
Vac ref 0312-21 **Permanent**

My client is a major property developer, and are currently seeking a proven site layout designer with flare and imagination and the ability to produce high quality, considered, well presented schemes capable of delivery in all respects, whilst understanding and meeting all of the companies key objectives for attractive design, coverage, density, mix etc. The ability to assist in negotiating schemes to early consent whilst still maintaining and ensuring retention of and compliance with the fundamental agreed principles of the design solution - and particularly retention of total coverage.

Warwickshire Vacancy
dave.smith@rdrecruitment.co.uk
1 Architect & 1 Senior Technician
Vac ref 0312-18 **Permanent**

My client is a very busy, generalist practice established since 1980, dealing with the Industrial, Commercial, Retail, Leisure and Health-Care sectors as well as some Residential work. Due to an increase in workload they wish to add 2 more people to their current team. For both positions you will have at least 5 years experience, ideally gained in a generalist practice, and a good knowledge of Autocad software. If you are a non-smoker who wishes to bring their experience to a vibrant, forward thinking practice this is the opportunity for you.

Lincoln Vacancy
dave.smith@rdrecruitment.co.uk
Architect or Senior Technician
Vac ref 0312-20 **Permanent**

My client is a well known multi-site practice which specialises in Listed Building, Restoration and Conservation work. They are now seeking an AutoCAD proficient Architect or Senior Technician to join their team in Stamford [Lincolnshire]. This is an exciting opportunity for an enthusiastic person to develop their career with a dynamic and committed practice.

Nottingham Vacancy
dave.smith@rdrecruitment.co.uk
Senior Technician
Vac ref 0312-19 **Permanent**

This client is one of the top 3 practices in Nottingham and work in a wide variety of sectors including large scale Flats/Apartments, Retail Developments and Warehouse units. Although they will consider any project, the bulk of their work is in the range of £0.5m - £3m. They are now seeking a Senior Technician to join them on a permanent basis. Ideally you will have Vector Works experience, but the client is happy to cross train the right applicant. A driving license is also a pre-requisite.

Birmingham Vacancy
dave.smith@rdrecruitment.co.uk
Senior Technician
Vac ref 0311-38 **Permanent**

This client is a young dynamic practice based in the heart of Birmingham. They have recently been awarded a number of working drawing packages. In the main these will involve estate housing schemes in South Birmingham. They are seeking a person who is fully AutoCAD literate and has at least 2 years post qualification experience. Ideally your background will be in the housing sector, but candidates from other architectural backgrounds will be considered.

South West Vacancy
dave.smith@rdrecruitment.co.uk
Architect and Senior Technician
Vac ref 0311-56 **Permanent**

This client is an expanding general practice who are currently experiencing an unprecedented demand for their expertise. They have identified a need for two additional members of staff. An Architect with 1 or 2 years post Part 3 experience and a Technician with a background in AutoCAD. Because of the wide range of projects in which they get involved, your experience of specific sectors is less important than your enthusiasm and passion for Architecture.

Bristol Vacancy
dave.smith@rdrecruitment.co.uk
Contract Administrator
Vac ref 0312-24 **Permanent**

A forward thinking and expanding swimming pool design company is seeking to employ a construction administrator. The role will involve supporting the Managing Director in all aspects of administration. As an office based role you will need to be able to handle budgets, orders and have a good technical construction background. Gained via some formal construction qualification / education. This is a fantastic opportunity for a young motivated person looking for a long term career within the construction industry.

Leeds Vacancies
simon.dean@rdrecruitment.co.uk
Architects & Technicians
Vac Ref 0311-60 **Permanent**

A large corporate architectural practice is seeking Architects with a minimum of 2 years post qualification experience, with practical build ability, a proven track record of commercial project team leadership and understanding. Highly motivated individuals are required with AutoCAD literacy being essential. Architectural Technologists / Technicians are also needed with candidates possessing a good working knowledge and proven track record of construction practice. AutoCAD literacy is also essential.

Surveyor / Project Manager
Vac Ref 0312-29 **Permanent**

This surveying practice based in Leeds is seeking a qualified building surveyor and project manager with 5 years professional experience. They are seeking a mature professional with the ability to "hit the ground running" as they are currently very busy and looking to expand their Northern operation.

Manchester Vacancies
simon.dean@rdrecruitment.co.uk
Architectural Technician
Vac Ref 0312-15 **Permanent**

A practice based in the heart of Manchester is seeking a Technician with sound technical construction and building regulation knowledge with AutoCAD skills. This is an excellent opportunity with a national practice that is committed to training and developing all staff.

Architectural Technicians
Vac Ref 0311-11 **Permanent**

An expanding architectural practice is opening new offices in the heart of Manchester. On the back of this they are seeking architectural staff, preferably technicians, with 3 years post qualification experience within the UK to join the team. The ideal candidate will have healthcare experience and be fully conversant with AutoCAD 2004, although high caliber applicants will be considered if they do not match these criteria. This is an excellent opportunity within a young forward thinking practice.

Architect
Vac Ref 0310-10 **Permanent**

My client has a current need for an experienced Housing / Residentially orientated Architect with ideally Care Home or Special Needs experience to work on a wide range of projects nationally. The ideal candidate will have a mature ambitious attitude and be technically "driven"! AutoCAD knowledge and ability would also be an advantage. This is a challenging opportunity with a highly respected and expanding Manchester based practice.

Architects / Technicians
simon.dean@rdrecruitment.co.uk
Vac Ref 0311-15 **Permanent**

An expanding practice in Liverpool city centre is seeking architectural staff at a number of levels. Senior Technicians, Job Architects, and senior Architects are required to work within the healthcare sector throughout the North West. AutoCAD skills and building knowledge is required with good career prospects on offer for the right candidates.

Warrington Vacancy
simon.dean@rdrecruitment.co.uk
Assistants / Architects
Vac Ref 0311-31 **Permanent**

A large prestigious client is seeking Assistant level or qualified Architects to work on a variety of interesting projects in the Yorkshire Region and throughout the UK. The appointed candidates will be required to liaise with clients and undertake regular site visits (mainly in the Greater London Area) which occasionally necessitates an overnight stay. The ideal candidate should be IT literate and be proficient in the use of AutoCAD 2000, have strong interpersonal skills and be able to work with the minimum of supervision.



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SOUTH WEST

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Building Surveyor

This post will assume the prime responsibility for the maintenance of the Council's buildings through the procurement of work through contract and the use of the Council's term contractor. It will also be responsible for the maintenance, development and implementation of the Asset Management Plan through annual review in co-operation with other members of the Technical Consultancy Team and other Officers of the Council as appropriate. Suitable applicants should have a HNC/HND in building or equivalent or BTEC with extensive experience.

Estates Officer

You will be responsible for the land management functions of the Council and should be able to demonstrate experience in liaison with Solicitors and specialist surveyors on property-related matters concerning general management, acquisition and disposal, licences, leases and rent reviews. An in-depth knowledge of English Landlord and Tenant Law, health and safety law and other relevant legislation is required to effectively fulfil the scope of this post. Suitable applicants must have a Degree or equivalent qualification and have at least two years' post-qualification experience.

The closing date for applications is 9 January 2004.

For an application form:

- Visit our web site on www.eden.gov.uk
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Ref: HS3-588

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You will be committed to the work of developing sustainable communities and be able to articulate a meaningful role for the use of the arts. They must be able to work under their own initiative, but also enjoy contributing to strong teamwork.

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Pay: Up to £30k

Based: Middlesex

Ref: 2440

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BRE/MORI seek expressions of interest from surveyors who wish to be considered for part time work on the Welsh Household and Dwelling Survey, which is being carried out for the Welsh Assembly between March and August 2004. BRE are working with the main contractor, MORI, to recruit, brief and manage the surveyors. We wish to recruit qualified Architects, Surveyors, Environmental Health Officers who should have recent experience of surveying or refurbishment of older properties and a good understanding of building pathology.

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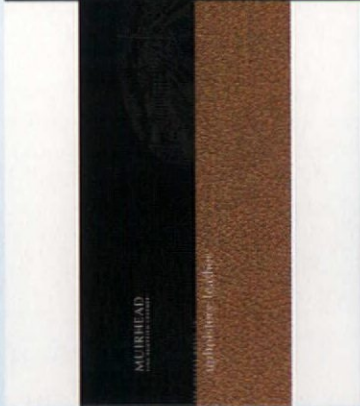
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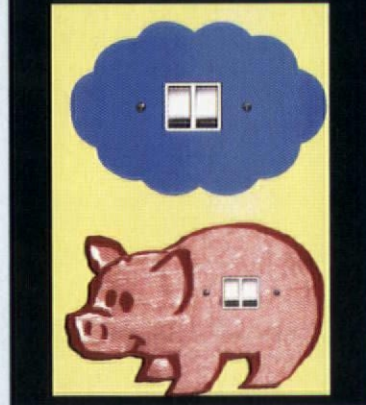
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You can discover something new and exciting within this latest edition of the all square 'Amazing GA Handbook'. Divided into six parts with impressive photography throughout, this unique publication includes detailed technical as well as helpful tips on specifying aluminium. This project, Cafe Klix in Kenilworth features in the booklet which is available now.

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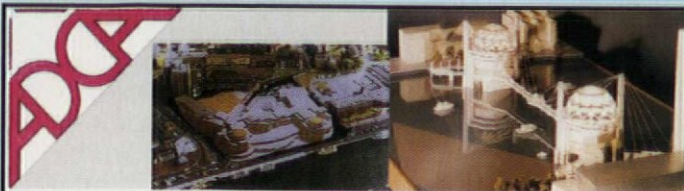
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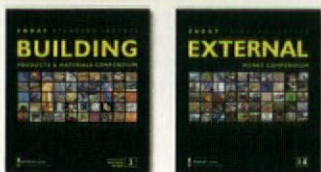
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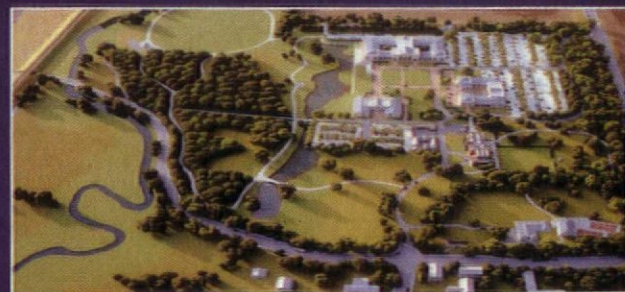
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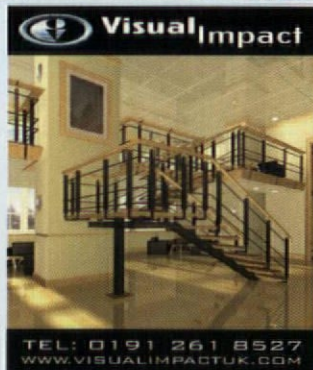


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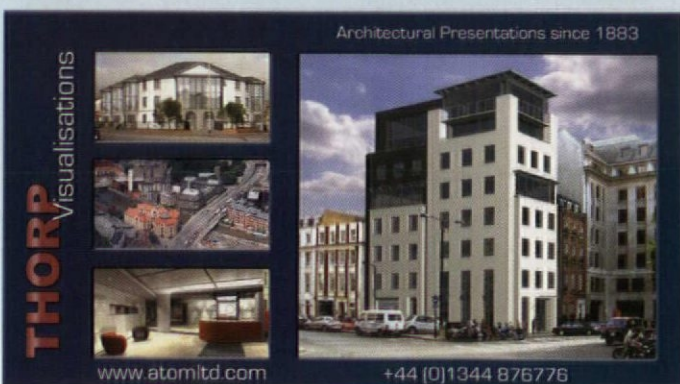
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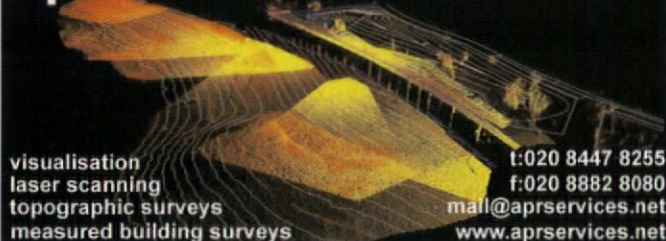


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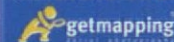
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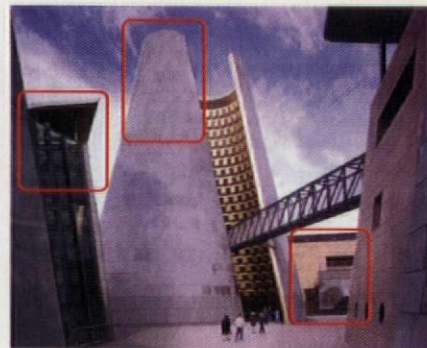
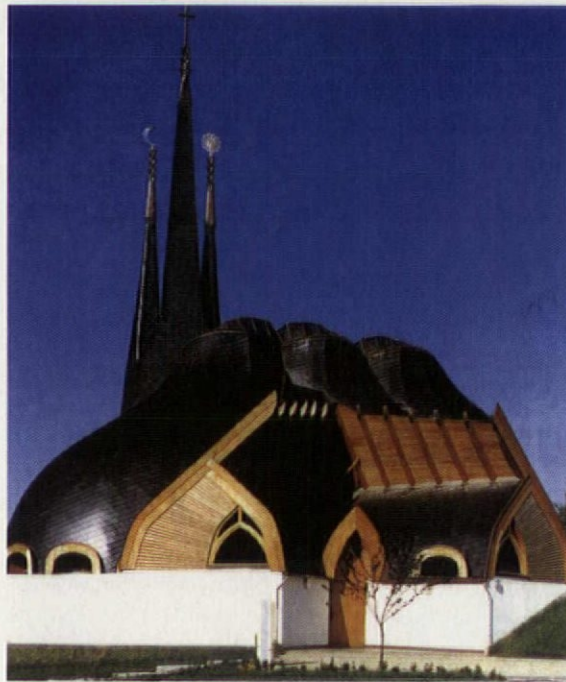
Internal affairs

What is going on at **Foster and Partners**? The inevitable rumour-mill product doing the rounds of architects' Christmas parties includes why exactly **Ken Shuttleworth** is leaving after 30 years, during which time the firm has joined the top half-dozen in the premier league of international practices. Shuttleworth says the parting is amicable and there seems no reason to doubt this; he is leaving to consider future options, essentially whether to work for another big firm (cf Robin Partington, who left Foster's to become design supremo at Hamilton Associates), or to set up on his own. At 51 he is young enough to do it. Another interesting story about the practice concerns **Norman Foster** himself, and more specifically the house in the south of France that he has had designed by the firm. The house is magnificent and no expense spared, I am told, but has been hit by a rather significant hitch: the boss was unhappy about aspects of the design, leading to delays and consequent impact on the Foster's holiday arrangements. Far-fetched as it may sound, this may result in Norman suing his own firm for compensation!

Blobbed out

Come to think of it, what is going on in the great world of architecture itself? What has happened to the rules over the last 30 years? Are they demolished, changed or ignored? Does it matter? The *Architectural Review* has made a stand against 'blobs' in the shape of **Future Systems'** Selfridges building (though no signs, so far, of the same treatment being dished out to the **Peter Cook/Colin Fournier** blob in Graz). Where is the war on gesture going to take us? Is **Frank Gehry** to be condemned for daring to digitise his squishy bits? Will **Foreign Office Architects** be excoriated for the BBC Music Centre? Will **Zaha Hadid** ever find favour with the Scandinavians? At the recent Royal Society of Architects in Wales conference, **Niels Torp's** sideswipe at the Renzo Piano 'shard' was an

ring the changes



Congratulations go to **Michael Gant** in Leicestershire, who wins a bottle of bubbly for identifying the three changes we made to **Vulcania** (above). Can you spot the three changes we've made to **Paks Church** by **Imre Makovecz** (left)? Post your entry, to arrive by first thing Monday morning, to **AJ Ring the Changes**, 151 Rosebery Avenue, London EC1R 4GB, or fax 020 7505 6701. The first correct entry out of the hat wins the champagne.

indication that the 'alternative tradition' Modernists are now prepared to stand up and be counted, cf **David Mackay's** support for the criticism of Selfridges in his letter to the AR. The latest object of attack in that magazine is **Will Alsop's** masterplanning concept for the inner area of Bradford, envisaged with its empty concrete buildings, products of the '60s and '70s, demolished and replaced by open space and a lake, transforming the town hall into a French chateau. Orthogonal it ain't, but for Astragal's money this is one of the best ideas the practice has proposed in recent years. It changes the rules of engagement for regeneration projects. Perhaps the new architectural rules are about the primacy of ideas and imagination.

Gold leaf

Good to see **Rem Koolhaas** being awarded the Royal Gold Medal for Architecture, though one wonders whether the RIBA will relish all the sage's recent musings on the activities of the profession. Will the citation include Rem's thoughts on 'Junkspace' in his Harvard treatise on shopping? How about this as a preamble to his medal being

pinned on: 'It was a mistake to invent modern architecture for the 20th century; architecture disappeared in the 20th century – we have been reading a footnote under a microscope, hoping it would turn into a novel... Architects could never explain space; junkspace is our punishment for their mystifications... Junkspace is like being condemned to a perpetual Jacuzzi with millions of your best friends... Junkspace thrives on design, but design dies in Junkspace. There is no form, but proliferation... Regurgitation is the new creativity; instead of creation, we honour, cherish and embrace manipulation... Junkspace sheds architecture like a reptile sheds skins, reborn every Monday morning.' Just the chap to promote the profession and its activities to a wider world, if you can manage to take comfort from this final blast: 'God is dead, the author is dead, only the architect is left standing... an insulting evolutionary joke. The cosmetic is the new cosmic.'

Island story

Nicholas Grimshaw was interesting when speaking about his background and early-age experiences, building dams and

other structures with his pals, on last Sunday's *Desert Island Discs*, and gave a terrific plug to the RIBA Drawings Collection, which he picked as the luxury he would take to the island. Alas, there was no mention of that important period of his professional life, his partnership with **Terry Farrell**. Now that Terry has reverted to High-Tech and Nick has gone curvy, isn't it time for a reconciliation?

Ziggy Starchitects

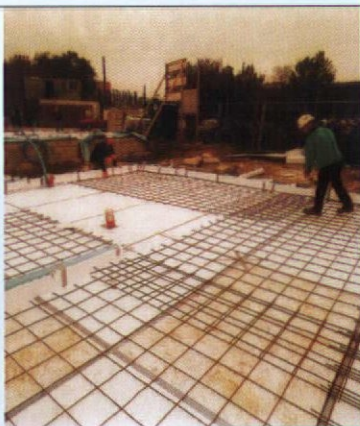
RIBA Council was once again a hot bed of gossip. To mark the announcement of honorary fellows and the Royal Gold Medal, two councillors speculated that next year they might inundate the awards office with spoof nominations because they had become frustrated with sensible suggestions being rejected without reply. Among the names floated was **David Bowie** – Ziggy FRIBA. What a great idea. Another wag said he had already been campaigning for **Tony Wilson** – of Madchester's Hacienda nightclub fame – for his work triggering regeneration in the city. However, apparently **George Ferguson** dismissed the idea because he didn't know who he was. And who said the RIBA was out of date and stuffy? Happy holidays!

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VENCEL RESIL

AJ ENQUIRY NO: 201

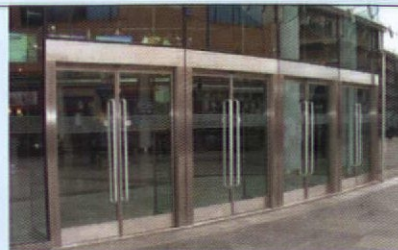
A green housing development in Havant, Hampshire, has incorporated Vencil Resil's Jabcore floor insulation and Jabroof panels as part of its energy-saving and ecologically focused design. The Eco-Homes project comprises 11 showcase properties for Hermitage Housing Association, developed on a brownfield site in conjunction with Havant Borough Council.



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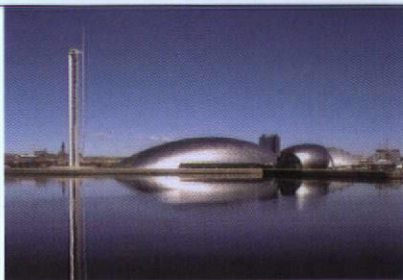
HansenGroup company PollardsFyrespan designed, manufactured and installed seven sets of doors and frames for the main entrances of The Gate leisure complex in Newcastle upon Tyne, working as a subcontractor to Space Decks. PollardsFyrespan worked closely with Reid Architecture and Sir Robert McAlpine's own design team to develop the doors, which play an 'active' role in fire management. For a guide to PollardsFyrespan doors, tel 020 8443 5511 or email sales@pollardsfyrespan.co.uk



KINGSPAN INSULATION

AJ ENQUIRY NO: 203

Kingspan Insulation has announced that from 1 January 2004 its range of Kooltherm premium performance rigid phenolic insulation products for walls, roofs and floors will have zero ozone depletion potential (ODP) as standard. The move will ensure that the products, already noted for their superior energy-saving credentials, will comply with the phase-out of HCFCs from rigid phenolic insulation products by the agreed date.



KALWALL PROJECT OF THE WEEK

AJ ENQUIRY NO: 204

One of the last things you see when leaving Southampton's new Cruise terminal is Kalwall. Architect The Manser Practice has used daylight diffusing and highly insulating Kalwall to create many different and exciting translucent areas of walling - very interesting use in a mass transit facility. Stoakes Systems solely supply and fix (tel 020 8660 7667) or visit www.stoakes.co.uk



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In response to customer calls for a heavier gauge version of the EverEdge lawn-edging system, particularly for applications where there are high levels of visitor numbers, the company has produced a Heavy Duty range. The Heavy Duty range is now made using 2.5mm steel, making it virtually indestructible whilst retaining its flexibility for ease of installation.

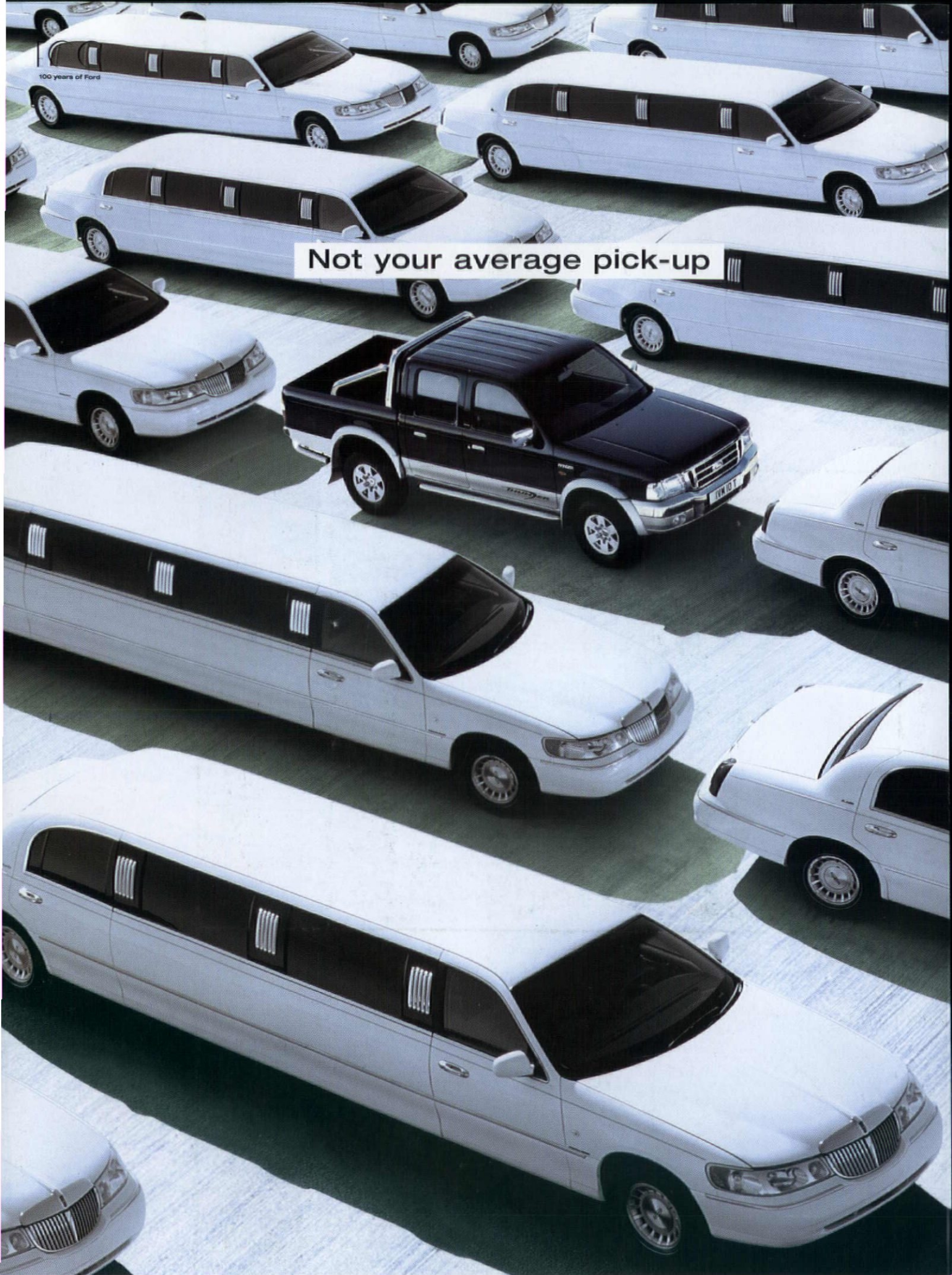


ASH & LACY BUILDING SYSTEMS

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A new 28-metre radius, curved standing-seam roof has been created on Wanstead High School's new sixth-form block using 300m² of 0.9mm Ashzip from Ash & Lacy Building Systems. Selected and installed by Logic Roofing & Cladding, the roof construction also incorporates Ash & Lacy's Ashgrid spacer support system, which forms an integral part of the company's standing-seam roofing package.





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