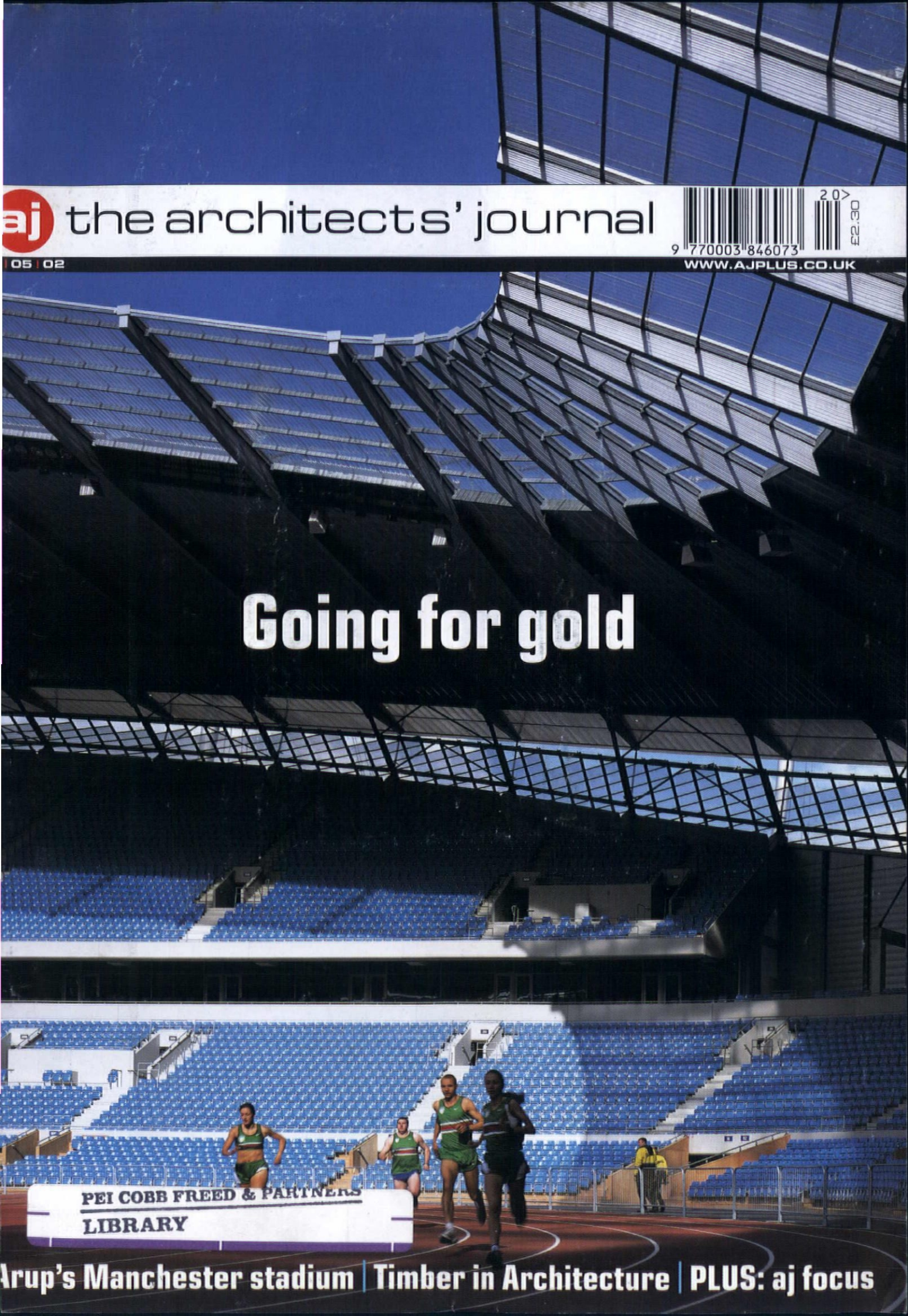

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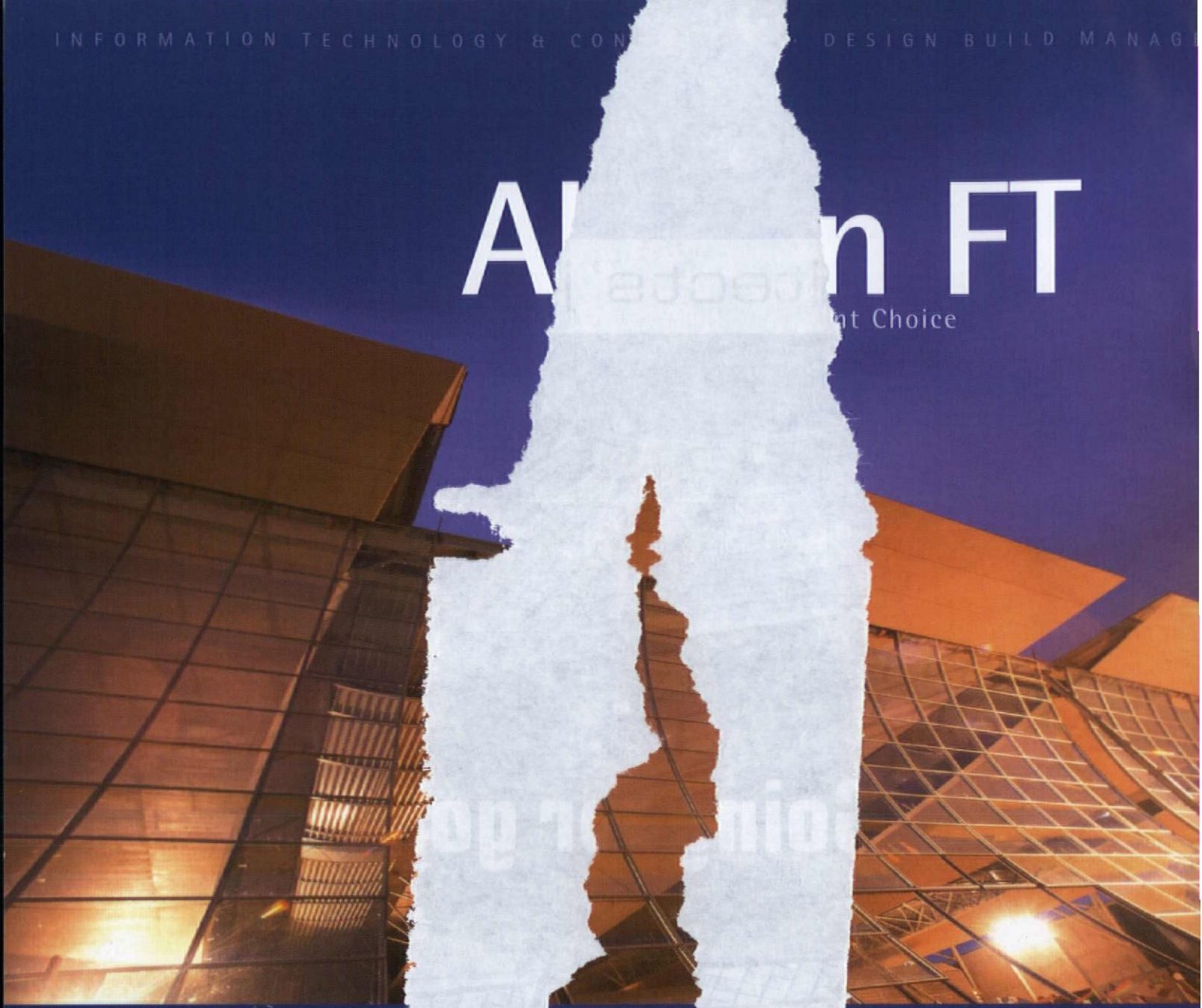

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The wheel of fortune has turned for Lifschutz Davidson's £40 million Hungerford Millennium Footbridge. The first of the two spans opened this week after delays and design changes. It stretches 315m across the River Thames and is supported by 26m-high pylons and cables. Director Alex Lifschutz said it was a fantastic achievement despite problems caused by digging close to tunnels and the dropping of smaller features such as link bridges. The other span is due for completion in the autumn and both will carry seven million people a year. The practice worked with engineer WSP Group after winning a global competition.

⊕ DENOTES MORE INFORMATION ONLINE. FOR AN ARCHIVE OF AJ ARTICLES VISIT WWW.AJPLUS.CO.UK

'He's got it all: a nice tan, the rock-steady thousand-metre stare, and the kind of discourse that makes most other architectural discussion sound like Beavis and Butthead on Mogadon.'
Jay Merrick on Rem Koolhaas.
Independent, 8.5.02

'Restraint is a virtue, in architecture as in everything else. It is a virtue conspicuously lacking in London's new City Hall... It looks as though it would be thoroughly at home in, say, Dubai.'
Hugh Pearman. *Sunday Times*, 12.5.02

Jestico + Whiles has won detailed planning consent for this £4 million office block in Shoreditch, east London. Three storeys of red brick, glass and European white oak will top a basement and wrap around a covered courtyard.

TOP OF THE CLASS
Hickton Madeley Architects has won a competition for a £1.8 million classroom block for Bromsgrove Lower School near Worcester. It is due for completion in 2004.

STAR FOR BISHOPSGATE
Campaigners are calling for the Grade II-listed Bishopsgate Goodsyard in London to be upgraded to II* to safeguard it from demolition. The call comes a month before Railtrack picks a winner from teams including Foster and Partners, Zaha Hadid and Rafael Viñoly, to develop the site.

'Interchange', the integrated transport conference and exhibition, takes place at the Queen Elizabeth II Conference Centre on 21 and 22 May. Speakers at the event, which is organised by AJ publisher Emap Construct, include Sir Terry Farrell. For details, visit www.interchangeplus.com

RIBA presidential fight gets dirtier

The battle to become the next RIBA president sank to its lowest point yet this week when Annette Fisher's camp resorted to a concerted e-mail attack on her 'dirty' and 'underhand' rival for the post, George Ferguson. But away from the mudslinging, Fisher also revealed policies – she wants less ARB intervention, a freeze on RIBA's £250 per year subs and more financial 'savvy' at Portland Place.

The e-mail in question came from Peter Murray of Wordsearch, Fisher's campaign manager, to recipients including AJ columnist Will Alsop and CIBSE past president Max Fordham. In it, Murray complained that a 'dirty tricks campaign' is being waged on Fisher, supported 'uncritically' by the architectural press, and that it was vital that as many people as possible sent letters of support to the AJ and *Building Design* to get Fisher elected next week.

Ferguson said that the dirty tricks slur is a neat inversion – he claimed Fisher had initially waged one when she asked for financial support from Crest Nicholson, a developer in Bristol whose scheme Ferguson had once opposed.

Murray now claims Ferguson thought the presidency was 'in the bag', before Fisher agreed to stand 'because of the low quality of the original candidates'. He said: 'Concerned that he was losing the presidential race, George decided to get dirty and went to the press suggesting this approach was somehow unprofessional. This underhand campaign is diverting the discussion... Forward this e-mail to as many contacts as you can who will also help to support Annette's campaign to bring new blood and enthusiasm to the presidency.'

Ferguson branded the e-mail a 'very mischievous' and 'unethical' tactic. 'I thought it was a joke,' he said. 'I seriously question the ethics of it. I'm sorry to say that about Peter – he's built up a formidable reputation for PR and marketing and he's using it in a misguided way. He really should stop digging. Apart from the complete absence of any truth in his accusations, he is in severe danger of bringing the RIBA presidential elections into disrepute, which does not augur well for the future.'

Murray retorted that he had simply gone to 'two or three contacts' to get support, just as Ferguson had in his own bid for the top job.

Fisher, meanwhile, spoke about her policy intentions to the Women in Architecture group meeting at Sheppard Robson's offices in Camden on Monday night – a final appeal for a 'fresh approach' at the RIBA. She pledged to freeze RIBA subscriptions 'for one or two years' or until those in the 'alienated' regions felt it represented 'value for money'. And she wants the institute to 'govern itself' rather than the ARB setting compulsory minimum professional indemnity insurance levels of £250,000.

But she also made a plea for architects to ask more for money for ideas, and for the institute to become more aware of financial realities. 'I feel there is a lack of commercial savvy there' she said. 'The RIBA doesn't think "we've got to sell" – it's always about money and nothing moves without it. We need to realise that what we do is valuable – no-one else can do that first sketch.' Fisher – who believes she can rid the RIBA of its 'apathy' and bring 'excitement' – and Bristol-based Ferguson are joined by David Thorp in their quest to become the new president, which reaches its finale next week. Thorp alone wants subscriptions raised to bring better services.

Votes are due in to the Electoral Reform Society next Tuesday, before they are counted and the victor is revealed. But Ferguson was easily leading the AJ's online poll as the AJ went to press (see page 5). Go to ajplus.co.uk to find out the result first on Thursday 23 May.

David Taylor

CABE slates lack of ambition in Bracknell and Leicester

CABE has urged bolder designs for a major mixed-use scheme for Bracknell and criticised a Leicester housing scheme for lacking character.

EDAW's 600-home Bracknell scheme, including a hotel and civic square, 60,000m² of shops and 43,000m² of leisure, came under fire for its tepid design. 'We think there may be a role for an urban gesture grander than anything in the present proposal,' said the commission.

CABE urged the masterplanner to strengthen its scheme, and the local authority to take a bolder approach in its strategy for the area.

Meanwhile, Goddard Manton's design for 900 homes on a Leicester brownfield site on Bede Island lacked a 'sense of place', said CABE. 'What will this neighbourhood feel like to live in and move through? Further consideration is required in the street environment, including the hierarchy of spaces and the distinctiveness of the different parts.'

There was ambiguity about the public and private spaces and the backs and fronts of buildings, it added. The housing includes a 10- and 14-storey tower and blocks of four to six storeys.

'In America, they're still cry-babies in the construction industry. They want everything on a platter. They don't want to think at all. Yeah, Europe is better.'
Frank Gehry. *Tate*, Summer 2002

'The practice is back on form... Hopkins has created a rich urban experience, a city gallery that functions like some small city of its own.'
Jonathan Glancey applauds Hopkins' Manchester Art Gallery. *Guardian*, 13.5.02

'It is still far off the ideal and not what one would expect for an internationally respected place. With imagination and sensitivity, there's lots you could do.'
Dan Cruickshank on Foster's Spitalfields proposals. *Daily Telegraph*. 11.5.02

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Foster and Partners has applied for detailed planning consent for a £400 million masterplan to turn the Royal Infirmary of Edinburgh into a 220-room hotel as part of a new urban quarter. The project on the 7.5ha complex will also include 600 homes, 60,000m² of offices and 7,300m² of shops and leisure facilities. Foster and Partners is working with Richard Murphy Architects, Page & Park Architects and Hurd Rolland Partnership. Work is due to begin next year, for completion by 2010.

University forces inquiry as lab is rejected over safety

Cambridge University is fighting to save its plans for a controversial primate research centre in the face of massive resistance. The university has forced a public inquiry after planners turned down the scheme on safety grounds.

A spokesperson for South Cambridgeshire District Council said planners had received 2,500 letters objecting to the facility. The multimillion-pound 12,500m² scheme on Huntingdon Road has been designed by the university's in-house architects, University Estate Management.

The project has aroused enormous public interest, with local group Cambridge Animal Rights staging a series of demonstrations, while science minister Lord Sainsbury has thrown his weight behind the centre. In a letter to the council, Sainsbury claimed it would 'consolidate the UK's position as a global leader in neuroscience'.

However, the council has refused the scheme because its location would lead to a 'serious danger' to public safety during the demonstrations that are bound to follow. The brownfield site lies just 100m from the junction of the Huntingdon Road and the A14. It also falls within Cambridge's Green Belt.

The planning committee's report said: 'While the council accepts the proposal is in the national interest, and that this is sufficient to outweigh the harm to the Green Belt, it considers that this site is unacceptable because of the risk to public safety.'

And it added that the local police force advised that 'measures to limit the risk to public safety on this site would not be effective'.

Nonetheless, the spokesperson for the council said it would consider granting permission to the centre on an alternative site, and would even consider greenfield land within the Green Belt.

Local campaigner Jo Baker said she was disappointed that the centre was turned down on safety grounds alone. 'I am very against this lab happening at all. There's very little evidence that experimenting on apes has any viable result. It's big business trying to make big money – the science doesn't hold up.' Baker said she would take the fight to inquiry and oppose any plans to relocate the centre elsewhere.

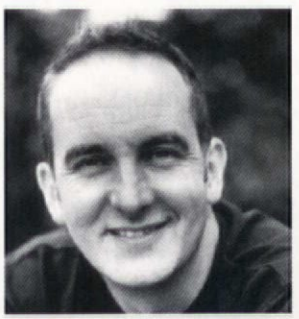
A university spokesperson said: 'The university remains convinced that this project is vital and that the best site remains at 307 Huntingdon Road.'

Zoë Blackler

3 WEEKS TO GO

interbuild 9-13 June 2002, NEC, Birmingham, UK

The winners of the RIBA National Awards will be announced at an awards dinner on Tuesday 11 June at Birmingham's International Conference Centre as part of this year's Interbuild, with Kevin McCloud of Channel 4's *Grand Designs* as the guest speaker. Tickets are £60 for RIBA members and £80 for non-members. For details contact nancy.mills@member.riba.org or call 0121 233 2531.



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Q&A

62%

... of voters in a poll on the AJ's website say George Ferguson gets their vote in the RIBA presidential election, with Annette Fisher trailing on 24% and David Thorp on 14%. Respondents: 208

This week's question: After the latest delays, where should the national stadium be built?
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ARCHITECTURE ARTS CASH

Architects and artists have won funding to promote closer ties between the two disciplines. A Royal Society of Arts art for architecture grant of £26,000 went to Alex de Rijke, who is working with artists on an auditorium pod at Kingsdale School in Dulwich.

CHARLES IN FULL BLOOM

Prince Charles and landscape architect Jinny Blom have created a garden with wild flowers and a mounded shelter roofed with thyme for the Chelsea Flower Show. A light-tube frame by structural engineer Elliott Wood Partnership forms the shelter on the plot, called the Laurent-Perrier Harpers & Queen Healing Garden. The show runs from 21 to 24 May.

MUSICAL SNOW SITE

A steel and timber house by Atelier Ko with a music room and living room that doubles as an auditorium has been completed on a snow-bound site. The £160,000 three-bedroom house, for a violinist in Yamagata, north Japan, must withstand snowfalls of up to 1m deep in winter. Atelier Ko worked with Japanese architect Malo Planning.

TRIANGULAR BRUSSELS

A new Chapman Taylor-designed British Council office in Brussels opened last week. The £800,000 refurbishment job is in a triangular building designed by Cerau Architects.

GET BENCH MARKING

There is still time to sign up to Bench Mark 2002, the largest bench mark survey for the architectural profession in the UK. This collaboration between architectural management consultancy Colander and the AJ will address all aspects of practice management. Caroline Cole, one of the partners in Colander, will be speaking about bench marking at the RIBA National Conference at Interbuild in June. Participants in Bench Mark 2002 will receive the Bench Mark Report – an analytical overview of the profession – and an individually written Inter Firm Comparison comparing them confidentially with the nine practices closest to them by headcount. Participation costs between £500+VAT and £800+VAT depending on the size of the practice. Tel 020 7580 3058 or visit www.colander.co.uk

NIGEL YOUNG

London minister Nick Raynsford was today set to lead a tour of City Hall, Foster and Partners' headquarters building for Ken Livingstone's Greater London Authority on the south bank of the Thames. The 18,000m² scheme, which has already drawn a mixed reaction from architectural critics, aims to 'express the transparency of the democratic process'. It includes Reichstag-like ramps spiralling up inside the building from a piazza with a cafe at the base, to 'London's living room' at the top of the 'geometrically modified sphere'.

Rogers wins £100m library competition for Birmingham

The Richard Rogers Partnership has beaten off competition from a star-studded shortlist to scoop the job to design a £100 million library for Birmingham. It saw off 60 international entries including the other shortlisted firms – Edward Cullinan and Partners, Future Systems, Michael Hopkins and Partners, Moshe Safdie, Snøhetta + Spence, and Wilkinson Eyre – to land the project, which will form part of the city's bid to become European Capital of Culture in 2008.

The scheme will be built in the Eastlands area of the city, alongside the Nicholas Grimshaw-designed Millennium Point, and will form part of a major regeneration scheme. Birmingham's existing 1970s library on Chamberlain Square will be demolished 'in time', said a council spokesman.

Lord Rogers said: 'This is a great opportunity to create an innovative new building for the city, which we believe will be a key part of Birmingham's ongoing urban renaissance.'

'We're thrilled,' added RRP's Robert Torday. 'They were looking for an approach they could identify with and they obviously liked us. We were talking generic ideas about what this icon for Birmingham could be.'

The result will be a 21st-century library which is an 'inspiring, friendly and welcoming place for learning and creativity', according to Birmingham councillor Ian Ward.

The competition organisers expressly did not want to see any design work, although RRP submitted written material and cited the Pompidou Centre as a relevant past RRP scheme since the Parisian landmark includes an extensive library.

RRP, which is promised a fee of £120,000 for a six-month contract for its concept design work, aims to start work on the scheme in June.

David Taylor

Locals are right behind my Barnsley vision, says Alsop

Barnsley locals have welcomed plans for a 21st-century Hadrian's Wall for the Yorkshire town, says architect Will Alsop, despite fears his scheme may be watered down. In a video, produced by his filmmaker son, Alsop gave a 3D vision of the project involving a nine-storey ring around the town (AJ. 18.4.02). It will be topped with a grassed walkway and a halo of lasers.

About 90 per cent of people who attended earlier workshops were encouraged by the scheme, said Alsop, who is working with Landscape Design Associates. This was echoed by organiser Yorkshire Forward Regional Development Agency, which said the wall had 'terrific backing'.

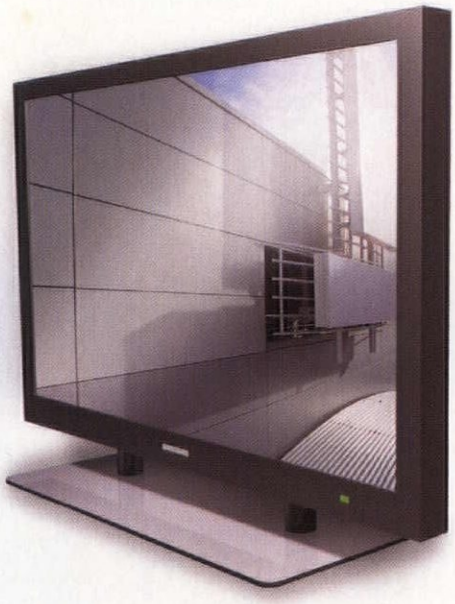
The RDA is running the Urban Renaissance Programme in six towns, and was keen to brush off fears John Thompson and Partners had been called in to work with Alsop and may dilute the scheme. 'There's no alternative masterplan,' said Yorkshire Forward director of urban renaissance Alan Simpson. 'We are using Will Alsop's initial work as a starting point and John Thompson will look at extra themes like connecting neighbourhoods and gateway entrances.'

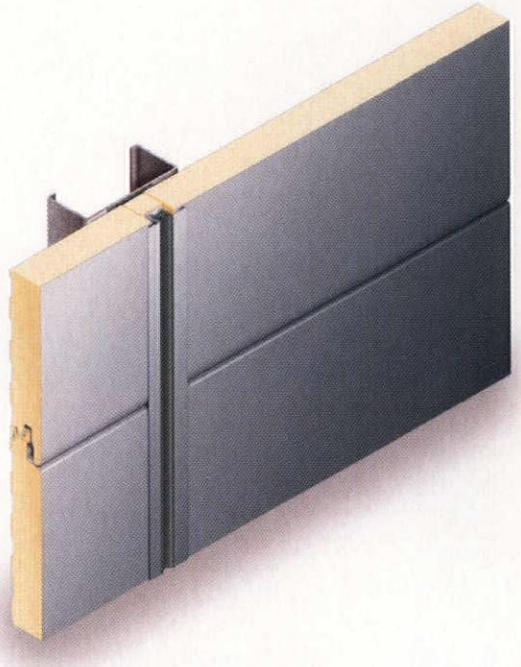
Thompson is also working on plans for Scarborough with Dutch landscaper West 8, but was not available for comment on Barnsley. The other teams and towns are Latham Architects and EDAW working at Grimsby; Koetter Kim in Wakefield; Urban Initiatives with landscape architect Camlin Lonsdale at Doncaster; and town planner David Lock Associates in Huddersfield.

Doncaster involves unifying several developments in the centre to create a cultural quarter. Urban Initiatives is also working to improve connectivity within Doncaster town centre, riven by major roads and subways, and to improve the evening economy through good design.

Meanwhile, Yorkshire Forward questioned the merits of Labour's White Paper on regional assemblies in England. *Your Region, Your Choice*, published last week, proposed eight regional assemblies, which would look at regeneration, housing, planning, and culture. 'How much economic power over key issues like resources, transport and planning will it devolve?' asked chairman Graham Hall. 'Will it enhance the quality of decision making on economic issues and how will it benefit business growth?'

Experts have also said assemblies may be dominated by city issues, and that towns and countryside areas could lose out on regeneration and development initiatives and funding.





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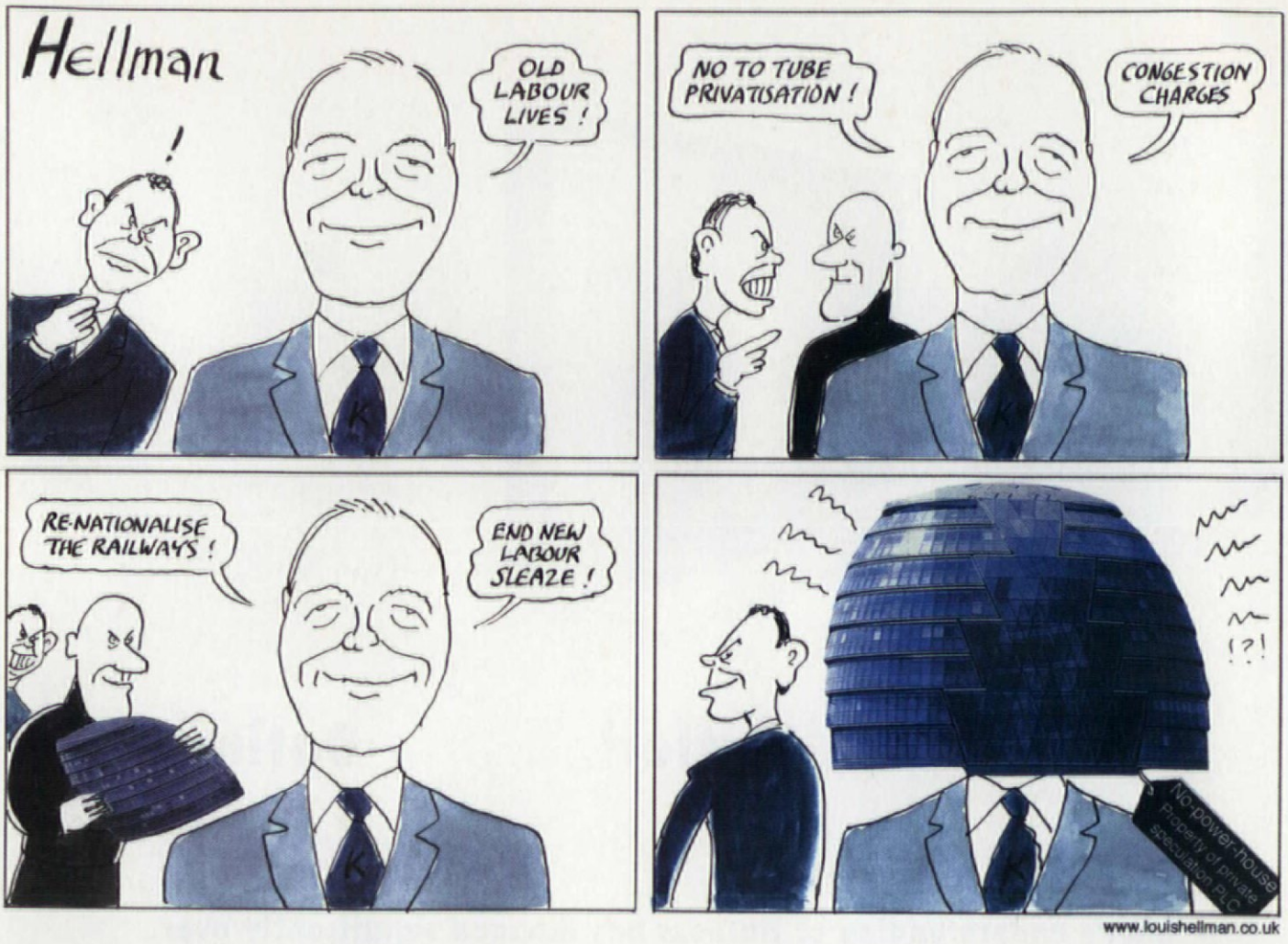

vital statistics

● Some 57 per cent of people want more bus lanes and less car spaces in town centres, says a Mori poll of 1,725 people in England. Some 26 per cent of car users would use better bus services and 40 per cent felt park-'n'-ride schemes were the best traffic-easing method.

● One in 10 workers aims to skive off work to watch the World Cup this summer. Yet Deloitte & Touche also found human-resource directors did not expect staff to take 'sickies' and had no formal policy on watching games.

● Salaries growth for both permanent and temporary workers is at its highest level for eight months, according to a new survey. Research published by pay specialists the Recruitment and Employment Confederation and NTC Research predicted that the government's expansion of the public sector would push wages higher in the coming months.

Adam Wishart reviews...

Adrian Forty's discussion on concrete's role in film

Fellini's film *La Dolce Vita* is a story of a soulless journalist (played by Marcello Mastroianni) in search of meaning. But at his talk 'Concrete and Cinema' at the RIBA, Adrian Forty – architectural theorist and professor at the Bartlett – described it as 'all about concrete'. It was as if all the glamour and pathos of this great masterpiece of Italian cinema was being reduced to a homage to a constructional material.

Forty's self-confidence in placing his field – architecture – at the centre of this film was matched only by his over-arching thesis that concrete had changed the history of cinema itself. He elaborated that the great directors of the 1950s and '60s had a 'passionate love affair' with the larva-like material rather than, say, Brigitte Bardot. Apparently, film-makers found the new emotions of modern life mostly in concrete's screen-like plainness and in its blank emptiness. Concrete, it seemed, was the cause of French New Wave, Italian Neorealism and the New Hollywood, rather than being just one element of the changing world that these movements set out to document.

Putting aside these larger issues, it might have been expected that Forty – a writer of a seminal book on design history – would have some interesting smaller thoughts on film. Yet even his oft-repeated insight that concrete in film often had contradictory meanings – rough and smooth, alien and beautiful, fluid and solid – was boringly banal. Surely almost everything depicted at the movies – from motorbikes (malevolent or lovely), to nature (welcoming or scary) – provokes multi-faceted responses.

The trouble was that for all Forty's scholarship about the aggregate composite and its siblings, he did not seem to know much about cinema. Indeed, his research mostly consisted of remembering the films that he liked in his youth. Even then we were only treated to clips of five of them, the most recent being more than 30 years old.

A more up to date and comprehensive series of film stills would have given a better understanding of the material's changing iconography. But, instead, the larger history of cinema and concrete – how film-makers varied the representation of it over time, how it differed from cool Europe to brutal America – was not touched upon. By contrast, Mike Davis' book *City of Quartz*, about Los Angeles, creates a much stronger understanding of the detailed relationship between movies and architecture.

At times it seemed as if Forty was wandering lost in a world he knew little about, trying to find a subject, much like Marcello Mastroianni in *La Dolce Vita*. At the end of the film, the failed novelist meets a girl whom he has met before. And to remind him of his unfinished novel, she just makes a typing gesture. Maybe someone should have done something similar at the end of Forty's talk, to remind him to return to his forte, architecture, and to leave cinema to those who adore it.

Adrian Forty's talk, 'Concrete and Cinema', was held at the RIBA on Tuesday 7 May

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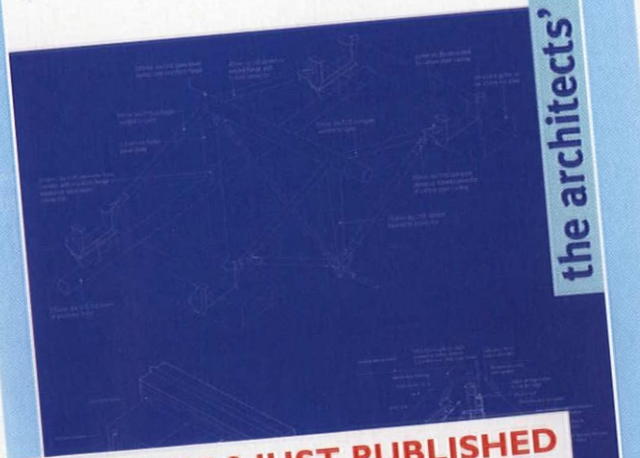

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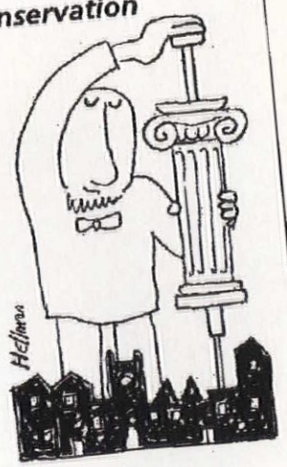

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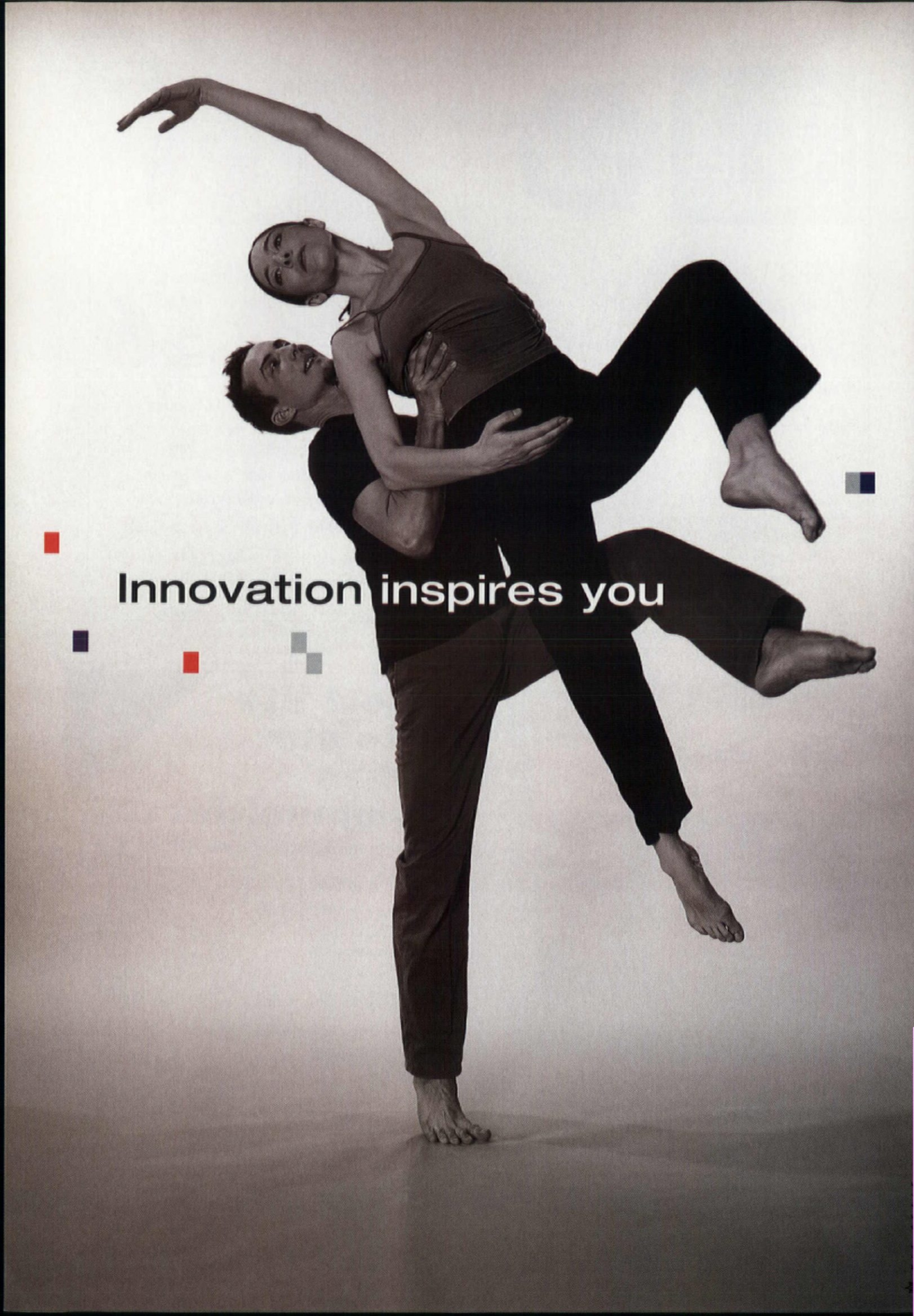
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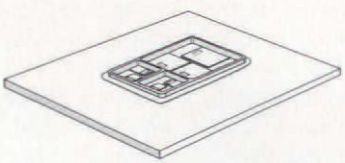
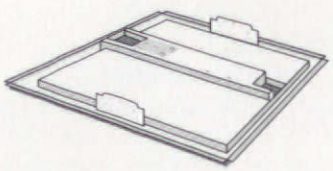


Rear view of Antenna Panel



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What is the best building of the past 50 years?

The Sydney Opera House because it did a fantastic amount for Sydney and relocated it in the world domain.

What is the most significant innovation of the past 50 years?

Frei Otto's tree structures which lead to the whole lightweight thing. He partly developed the idea using upside down models made from chains. These form an inverted arch-like shape – an arch has no bending moments and is in pure compression. It means that when you come to reproduce that shape in a structure, you don't have to work out what the bending moments are and the structure can be very thin.

What is the best building product of the past 50 years?

The anglepoise lamp. People keep on inventing task lighting and some of it is pretty stupid. But task lighting is what's coming. It's important that light is right for the way you work and the anglepoise lamp enables you to do that.

What innovation do you hope to see in the next 50 years?

I think what will happen is we will see more amorphous and amoeba-like buildings such as Gehry's. The trouble is that they make it difficult to devise the kind of simple devices which make it possible to operate the buildings I think we ought to have. The thing we could do right now is create buildings with storey heights greater than the depth of rooms, big, openable windows and probably rooflights – together with heavily insulated shutters which automatically close at night and when nobody is there. But in the future, the idea to aim for in Britain is buildings which are naturally lit on overcast days, which don't need any heating and don't need any cooling. OK, that's a bit parochial, so why not create more temperate climates in the world?

These interviews by Sutherland Lyall will form the basis of the 50/50 exhibition at Interbuild 2002.

Forget WTC – keep building tall, Arup urges architects

Arup's tall buildings experts have urged architects and developers to keep building tall and not be deterred by safety fears. Extensive research by the engineers following the collapse of the World Trade Center has concluded that skyscrapers, however high, can be made safe against terrorist attacks.

The conclusions, in the report 'Extreme events: the Arup view,' outline the steps that can be taken to improve safety in existing buildings and the design modifications needed for future ones.

While the research is feeding into discussions about changes in building regulations, Arup is calling on designers to begin rethinking straight away.

'We shouldn't be waiting for the codes to change,' said the report's author Peter Bressington. 'We've got to address it now.'

Though the work needed to make buildings safe is not monumental, added fellow researcher Faith Wainwright, people 'need to take a hard look' at rethinking their approach to design.

But, she added: 'The decision to build tall or not should be based on factors such as infrastructure, not on safety. Safety we can deal with.'

Arup established its extreme events mitigation task force in the weeks following 11 September to explore the causes of the collapse of the WTC and how it could have been prevented (AJ 29.11.01).

After setting up the group, the engineers were approached by a range of developers and designers for advice. Among their clients is Minerva, the developer behind Nicholas Grimshaw and Partners' 159m-tall, £300 million St Botolph's House planned for the city of London, which is undergoing a significant reworking.

The report's primary recommendations focus on better fire protection and measures to prevent progressive collapse. In existing buildings, it suggests that much can be done to improve escape procedures and crisis management. The findings build on simulated escape scenarios and real tests conducted at Canary Wharf in the early days following 11 September.

Bressington and Wainwright have also been advising the government on the protection of its buildings against biochemical weapons. And the report includes suggestions for the modification of air conditioning and other systems.

The researchers are adamant that reducing the height of buildings in order to ward off terrorist attacks is a 'knee-jerk reaction'. And they are confident that the measures they suggest will prevent a repeat of the WTC collapse. 'We don't just think we are right, we're sure we're right,' said Bressington.

The findings coincide with those of the Federal Emergency Management Agency report into the cause of the WTC collapse, published last week.

Wainwright is also contributing to the ISE's own report into tall buildings. Due out in July, it will help the government make decisions about the type of research that needs to be undertaken.

'Extreme events: the Arup view' is still in draft form and will be published shortly.

- Arup's report coincides with two others from the International Council on Tall Buildings and Urban Habitat. 'The Building Safety Assessment Guidebook' and 'The Building Safety Enhancement Guidebook'. For details contact dmm8@lehigh.edu

Zoë Blackler

ARB reveals candidates and defends election procedure

The ARB has released the names of candidates for chairmanship of its board. As revealed in the AJ (AJ 9.5.02), Owen Luder has made a bid for the chair with Judge Humphrey Lloyd running for deputy chair. Construction chief Alan Crane has also put himself forward for chairman in a challenge to Luder. Ian Davidson, director of Lifschutz Davidson, is running against Lloyd for deputy.

Members will vote on the candidates at the next ARB board meeting on 23 May.

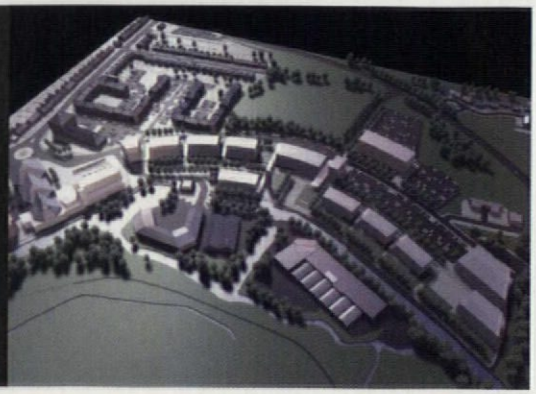
Robin Vaughan, the ARB's chief executive and registrar, refuted allegations that there is a lack of transparency in the election procedures in a letter to the AJ this week (page 18).

Livingstone and government pledge over Green Belt land

London mayor Ken Livingstone has joined government in rejecting proposals from the Royal Town Planning Institute (RTPI) to build on the Green Belt. Livingstone warned against 'urban sprawl and the erosion of the capital's vital green spaces'.

The Town and Country Planning Association said Green Belts should become 'eco-parks', brimming with farms and horticulture businesses that help feed neighbouring towns. The RTPI said last week that Green Belt rules should be relaxed.

Ron Tate, an RTPI planning policy head, told the AJ he hoped to gain regional support for change and lobby the government, but it has refused to change the rules. RIBA vice-president for sustainable development Peter Smith said there were huge chunks of land between Green Belts that could be built upon and these could be designated 'grey areas'.



A new campus is on the cards for Anglia Polytechnic University as Wilkinson Eyre Architects gears up for a detailed application later this month. The 14,000m² block on a greenfield site in Chelmsford, Essex, will hug the curve of the River Chelmer. The complex, which includes sports areas, student accommodation and a landscaped square by PRP Landscape, will be surrounded by existing fields and a scattering of built-up areas. The two-stage project is due to start next February and end in 2010. Construction costs are being finalised.

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In association with the Architects' Journal

This two-day conference will address issues of concern to the profession, to practice and to individual architects

The conference is FREE to RIBA members (£50 refundable booking fee for each day booked), and £250 per day for others

Day 1: Tuesday 11 June

CPD certified

Morning

Paul Hyett, RIBA president - welcome

James Woudhuysen - the Social Context of Architecture
Hot shot **Ted Cullinan** - Drawing on Inspiration
Ministerial address - **Brian Wilson**, Construction Minister *What architecture can do for Uk plc*
Sunand Prasad - Architecture and Process

CPD event (1a)
Post-occupancy evaluation
Alastair Blyth, Denice Jaunzens BRE

CPD event (1b)
Rewarding Innovation
Robin Nicholson
Value framework for remuneration
Roger Zogolovitch
Insurance
Ashley Brewer, RIBA Insurance Bureau
Appointment documents
Ian Salisbury

Break and the opportunity to visit the Interbuild exhibition

Afternoon

Panel session - Living
Chair: Simon Allford, Allford Hall Monaghan Morris
Tony Pidgley, Berkeley Homes
Rob Joiner, Molendinar Housing Association
Hot slot - Glen Howells, Glen Howells Architects

CPD event (2a)
Government, regeneration and planning policies
Speakers will include Jon Rouse, CABE

CPD event (2b)
Housing Densities Peter Stewart
The Pastiche Problem:
Design Assessment and Taste Robert Adam

Panel session - Working
Chair: Ken Giannini, DEGW
Roger Madelin, Argent plc
Richard Saxon, BDP

Evening event - RIBA AWARDS DINNER, to be held at the International Convention Centre, Birmingham. Details to be announced separately.

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Day 2 Wednesday 12 June

CPD CERTIFIED

Morning

Richard Hastilow - Introduction
Paul Hyett - presidential address
Richard Murphy

CPD event (1a)
Educating tomorrow's architects
Ruth Morrow, Judi Farren-Bradley, Murray Fraser
Co-operative design in other industries (1b)
Professor Steve Evans, Cranfield University

CPD event (2a)
A new agenda for education
Helen Mallinson
The schools response
Malcolm Parry
Architects for change
Sumita Sinha

Break and the opportunity to visit the Interbuild exhibition

Afternoon

Panel session - Learning
Chair: Malcolm Parry
Frances Sorrell (honorary fellow)
Elia Zenghelis (teacher and Annie Spink Award winner)
Hot shot - Guy Battle, Battle McCarthy
Keynote speech: Architecture, Art and Accoutability, Sir Richard MacCormac

CPD Event (2a)
Design quality indicators
Sunand Prasad, Robin Nicholson

CPD event (2b)
Improving your practice
Key performance indicators - Guy Russell
Benchmarking - Caroline Cole
Using the web - Eric Winterkorn
Marketing your practice - Sue Wadsworth

Panel session - Healing
Chair: Richard Burton
John Cole, NHS Estates Northern Ireland
Guy Greenfield
Ann Noble

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Government's reforms for planning are a double-edged sword

editorial

This week Lord Falconer announced his proposals to make public inquiries into major projects 'faster and fairer for all concerned'. Working on the assumption that 'no-one benefits from an adversarial planning system', the changes advocate round-table discussions facilitated by professional mediation and independent technical advisors in a bid to resolve potential conflict before and during an inquiry. Still reeling from the Terminal 5 inquiry (more than six years from appointment of the planning inspector to delivery of the final report), the construction industry is unlikely to be enthused by the prospect of 'more talk'. But the government has addressed the need for speed with a pledge to enforce 'sensible limits' to cross-examination and to set a clear date for the delivery of the Inspector's report to the secretary of state. Everybody gets to talk, but nobody gets to prattle on for too long – it seems like a winner all round.

The only problem is that the most effective means of speeding up any discussion is to place limits both on the number of voices to be heard, and on the scope of the issues which are open to debate. So it is perhaps inevitable that the proposed reforms restrict both by decreeing that, where major projects are concerned, Parliament should be able to make a decision 'in principle' before the detail is considered at a public inquiry. Falconer's apparent truism that no-one benefits from an adversarial planning system is only true if you discount those whose voices would otherwise not be heard at all. Friends of the Earth has dismissed Falconer's proposals as a 'con-trick' designed to reduce the scope of public inquiries to 'issues such as what colour fence the nuclear power station should have' - a sentiment which is likely to find sympathy with other interest groups.

So is the government committing to a much-needed overhaul of unwieldy bureaucracy, or a devastating blow for democracy? Probably both. It looks as though the government has faced up to the fact that it is logically impossible to simultaneously speed up a system and to accommodate parties who may have a vested interest in delay.

Isabel Allen

letters

Members should treat RIBA staff with respect

As a RIBA Council member who sits on the RIBA staff's joint consultative committee, I must express my concern at David Thorp's comments (AJ 7.2.02) regarding the Clients Advisory Service and the continuing professional development department, which appeared to be directed at the staff involved.

Staff in both these departments are providing an excellent service to a defined brief. If he does not agree with the aims of that brief then criticise that, not the staff who are required to work to our, the members', requirements.

RIBA staff cannot defend themselves when criticised in public. Members should treat them with the respect they deserve, and discuss any particular issues through the appropriate channels.

I thought it might be helpful to remind David that in the event of dissatisfaction with an RIBA member of staff or service, members are requested to address their concerns, in the first instance, to the relevant director. Thereafter, to the chief executive where the initial response has been unsatisfactory.

Robert Firth, RIBA Council member, JCC Representative

Don't let backroom boys take charge of campaign

It is disgraceful that Annette Fisher sought to raise funds from an organisation a fellow presidential candidate was reportedly in dispute with.

More surprising is her arrogance in refusing to explain her actions. I voted for Fisher and now regret doing so – she will not receive my support if she becomes president. In any other campaign for elected office, she would have been forced to withdraw her candidacy.

More worrying are the grey characters pulling the strings behind Ms Fisher's campaign such as Peter Murray of Wordsearch and MIPIM, and Marco Goldschmied of Richard Rogers Partnership – providing 'advice and financial assistance'.

And how far do these 'ties' permeate the current presidency? In skipping through 30 written articles by Paul Hyett in the architectural and general press, there has been a direct mention of Lord Rogers or Richard Rogers Partnership or Marco Goldschmied in almost 70 per cent of them!

The RIBA is too small for conspiracy theories but too important to be allowed to be steered by unelected backroom-boys.

John Brown, The Practice, London and Glasgow

Broaden Part 2 funding and redefine our role

A recent construction industry survey indicates that, other than architecture, intake into trades and professions is in decline. This must represent the best opportunity in decades for the architectural profession to redefine its role and spread influence within the industry.

By broadening Part 2 funding to encapsulate training for other professions, it might be possible to achieve the enlightenment of the industry as a whole that is so desperately needed. Just think of the benefit of project managers, contract managers, agents and developers with an architectural understanding.

Change of this nature can of course only be driven from the highest level – presidential candidates take note.

Richard Harral, London

It's more a question of not fitting your timings!

I must ask you to publish this correction to Zoë Blackler's article (AJ 9.5.02) which implies,

Go to our discussion forum to get technical help from our technical editor Austin Williams, or from your peers. The discussion forum can be reached via a button on the left hand side of the homepage.

Check out stories and accompanying images such as John McAslan & Partners' remodelled zoology museum at Cambridge University. The university called on the architect to streamline movement flows and room spaces to the museum to improve efficiency for teaching, researching and management of the collections. The job cost £355,000 and included a new lift and ramps for disability access to the museum, which forms two out of the five levels to the 1950s building.

The Architects' Journal welcomes your letters, which should preferably be typed double-spaced. Please address them to the editor at 151 Rosebery Avenue, London EC1R 4GB, fax them on 020 7505 6701, or e-mail them to angela.newton@construct.emap.com to arrive by 10am on the Monday before publication. Letters intended for publication should include a daytime telephone number. The editor reserves the right to shorten letters.

+ YOU CAN ALSO AIR YOUR VIEWS ON OUR ONLINE DISCUSSION FORUM AT: WWW.AJPLUS.CO.UK

without justification, impropriety in the operation of the election procedures for the chair and vice-chair, for which I am responsible as returning officer.

The ARB is not refusing to release details of nominations for its future office holders. In accordance with the election rules, nominations for the posts were circulated to members on Tuesday 7 May. Following that, with their consent, a press release was issued. The fact that this timetable did not suit Blackler is no reason for her suggesting that there is lack of transparency in the process.

The novel proposal put forward by Blackler that the standing of any one candidate or candidates can be a fait accompli against other candidates standing seems ludicrous, given the election rules which require candidates to be nominated by other Board members. As candidates presented themselves, I told each of them of the other nominations.

Finally, no Board member, nor indeed anybody else known to me, has called for the election to be cancelled.

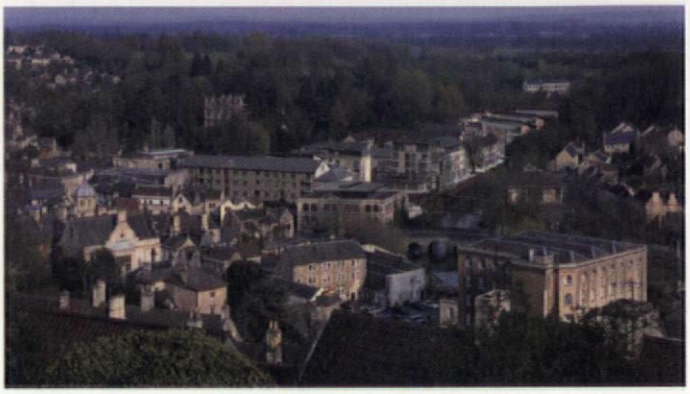
Robin Vaughan, chief executive and registrar, ARB

May Day bouncers – a case of wishful thinking?

Pre- the Dimbleby lecture on May Day, the RIBA was closed with a couple of bouncers stationed outside in case the anti-global capitalism hordes attacked the building.

A case of wishful thinking, I suggest. Despite the fact that the big architectural practices tend to serve said global capitalism, whoever goes to Portland Place except architects and the three Tibet anti-Chinese embassy demonstrators? Best to relocate the institute to get the full publicity benefit from such interaction with the public.

Louis Hellman, London W3



Kingston Mills plans are simply not good enough

The planning requirements for the Kingston Mills site in Bradford on Avon seek a mixed development, the purpose of which is to secure economic regeneration and enhancement of the town centre.

The project needs to provide shops, offices and other employment uses with social, cultural, educational and leisure activities woven into the fabric of the scheme. In other words, a scheme that rises to the challenge of this high-quality location by providing a genuinely sustainable addition to the town. Issues such as access, air quality, the creation of meaningful public spaces, sustainability etc, must be properly addressed with historic buildings on the site re-used and their settings protected.

The illustrations in the AJ (2.5.02) show a scheme that meets few of the challenges. It is little more than a modern housing estate which, if approved, would become a textbook case of insensitive and inappropriate planning. Peter Stewart of CABE is reported to have indicated that he 'would be happy to see this scheme go ahead', but this is not the view of those of us who will have to live with the results. This is a scheme where planning problems remain unresolved, questions remain unanswered and opportunities are lost. The argument is not about style but about substance.

The secret discussions between CABE and the architects at the pre-application stage raise fundamental questions about responsibility and accountability. By concentrating on the external appearance of the buildings and ignoring the wider context, CABE does the town a grave disservice. We would welcome the opportunity to present our case to CABE and correct some of the misleading statements put out by the Broadway Malyan public relations machine.

The picture of the Kingston Mills site as envisaged by Broadway Malyan, and reproduced in the AJ, has mysteriously removed the town lock-up from the scene, thus creating a view that will never be seen. The elimination of one of the town's famous landmarks is not the only misleading aspect of your report of this long-running saga, but is significant in revealing the true attitude of the developers and their architects to this important site. They see the town, its people, its architecture and history as an impediment to proposals and they would much prefer to see all such constraints removed. The bridge as illustrated is structurally impossible.

Bradford on Avon is recognised as one of the most attractive and important historic towns in the south west of England and the survival of much of its architecture and historic development is a lasting monument to those who have contributed to, or fought for, its survival.

The town is at a crucial point in its history and what happens now will set the pattern for generations to come; this proposal is simply not good enough. There are widespread objections to the scheme from within the town and beyond. The Kingston Mills site represents a once-in-a-lifetime opportunity to move the town forward and reuse is long overdue. Yet another housing scheme for out-of-town commuters is not the answer.

Sir Donald Mainland, chairman on behalf of Bradford on Avon Chamber of Commerce, Bradford on Avon Community Development Trust, Bradford on Avon Preservation Trust, and Bradford on Avon Traffic Forum

Political investment may put mockers on listing

The Birmingham Free Library of 1879 *was* listed. It was just that the council – in the 1970s not the most conservation-conscious authority – initially forgot to obtain Listed Building Consent when it decided to demolish it. I gave evidence at the Public Inquiry into the LBC application in 1973. The conservationists lost, but it was a turning point in local opinion and policy.

Thirty years on, with the possibility of its replacement being listed in turn, we have clearly gone through a generational cycle of architectural appreciation. Were the Central Library to be listed, and were there to be another public inquiry, I would certainly consider giving evidence in favour of the library. But with so much political investment being put into the proposed new Eastside library, I somehow can't see it happening.

Joe Holyoak, Birmingham

will alsop

To get us out of our cars you must first improve our homes

'The car is so much more than a means of transportation: it is a focus of intense emotional activity. Within its confines lives are lived. Distinct from the rest of the world, it is a place where personal conversations can take place freely – accusations, apologies, explanations, assignations – a place where dreams are imagined and plans are hatched.' – Judith Hoos Fox.

'Speed has been the mechanical soul of modernity, not only for the avant gardes whose aspirations to burn the libraries and wreck the museums transformed art, but for entrepreneurs, inventors, adventurers and all other apostles of progress who were captivated by the impulse to go faster and travel further, to dynamise life and propel it into the future – by force if necessary.' – Scott McQuire.

'Time and space died yesterday. We already live in the absolute, because we have created eternal, omnipresent speed.' – Marinetti 1909.

Today the Italians talk of the 'slow city movement' as a reaction to an overly stressed lifestyle that is often associated with urban situations. No fast food but slow food. This plea to rediscover a perceived quality of life that seems to have vanished might even encourage the Italians to adopt cricket, the very epitome of leisurely pace within the sporting world. In London, we are about to experience the restricted car zone as a way of diminishing speedy metal sculptors disrupting the rapidly emerging pavement life, which suggests a return to a social city.

In Rotterdam I had a long debate about the creation of terminal car parks which allow the cars to enter but not drive around.

Birmingham was once the most exciting car city in Europe. Not only did it have Spaghetti Junction but also a semi-sunken, dual carriageway inner ring road that afforded glimpses of the city of the future to a virgin 15- year-old's eyes. Today they are slowly removing this concrete corset, but sometimes I find in myself a nostalgic regret.

I constantly ask myself whether people who have taken this 'moving platform' (Peter Smithson) to the very root of culture can give it up so easily. It has been suggested that the rear seat of the car was invented as a frame from which Hollywood films could be made. The excitement, the style, the meaning and the 'behaviour' that surrounds this 20th-century beast is endemic and is not given up easily. If they were eradicated I am sure they would be replaced by large screen virtual projections in people's living rooms in much the same way that one of the German cable channels screens real time drives between a variety of German cities, thereby using the frame of the windscreen to capture an ever-changing perspective.

The freedom of personal transport in a personalised place is difficult to give up. Today, with our entertainment centres, telephones and talking navigation systems, most cars are vastly superior to the flat or house that their owners live in.

If we are to reduce traffic, and all the disbenefits that go with it, I believe that the house must be improved so it has the same level of appeal as the car. The first and obvious job is to put the home in the right place so that 'being at home' and enjoying a presence in the city is appreciated. I have discovered that many people in Barnsley would like to live in the middle. The proposed vision of the inhabited wall that defines the city, with terminal parking underneath it, conforms to capacity building, reduces use of the car and promotes street life. In fact, all the things that follow government policy.

WA, from the lounge of Hotel Das Trieste, Vienna

'The excitement, the style, the meaning and the 'behaviour' that surrounds this 20th-century beast is endemic and is not given up easily'

people

'Some people will probably see me as a defector, a renegade,' says John Cooper, 'but the big change in my professional life has been one of scale, not content.' Earlier this year, Cooper quit Avanti Architects after more than 20 years as a partner, and took up a directorship at Anshen Dyer, a British practice – though its roots lie partly in the US – but one which routinely tackles the large-scale healthcare projects which he finds so rewarding. 'It's a rich area of work,' he says, 'where you are working with really intelligent and motivated clients and addressing issues which are right at the top of the political agenda. We have a chance to create a new generation of outstanding hospital buildings'.

Anshen Dyer was launched in 1993, when Derek Parker, British-born partner in the US Anshen & Allen practice, got together with Valentine Dyer of Cheltenham-based Dyer Associates – the aim was to bid for jobs in the health, research and higher education fields. Anshen & Allen had already won a solid reputation in the US for its work in these sectors – it was responsible, for example, for a widely commended extension to Kahn's Salk Institute.

Cooper finds the ethos of Anshen Dyer not so far removed from that of Avanti. 'Both firms are about public/social architecture and highly committed to what they do,' he says. 'But at the age of 50, it was time to move on. I felt stale. Architectural practices can be like close families – there comes a time when you have to strike out on your own. In any case, Avanti was not my practice – it can carry on without me.'

John Cooper was one of the founders of Avanti in 1981. It was the era of Thatcherism (not a philosophy to which the Avanti team was attracted) but the firm carved out a body of work in the 'social' field, principally housing and local health centres. John Allan, who joined the firm in 1982 from Shepheard Epstein Hunter, developed a niche market for scholarly restorations of historic Modern Movement buildings.

'Oddly, refurbishment was my special interest in the early years,' says Cooper. 'It was John who had the experience of large new-build projects.' One of Avanti's triumphs was winning the competition for a new children's hospital in Carshalton. The scheme was sadly axed, but the experience was invaluable.

'That project took us into hospitals,' says Cooper, 'and I personally became very

John Cooper's move from Avanti Architects to Anshen Dyer was a natural progression for a man fascinated with hospital design. Despite the potential risks involved with this kind of work, Cooper is revelling in his new position

by ken powell. photograph by rolant dafis

just what the doctor ordered

interested in the whole philosophy of patient care and its impact on hospital design.' The experience led to the ACAD wing at Central Middlesex Hospital in north London, Avanti's largest-ever project, run by Cooper, where many minor operations which would once have demanded a stay in hospital are dealt with on an outpatient basis. 'We were pushed hard by a great client,' he recalls. 'It confirmed my fascination with hospital design, which is an area where you really need to grapple with issues of habit and accepted ways of doing things – a great challenge for architects.'

The move to Anshen Dyer was a natural one. It helped that a major player there was Ken Schwartz, 'a truly inspirational architect in the field', says Cooper.

Hospital work is seen as a potentially risky area – hence the domination of the sector by a small group of firms which have accumulated the necessary resources of expertise. However, Cooper rejects the idea of 'hospital architects' as a race apart. Many past failures reflect a preoccupation with technology and a lack of recognition that, as Cooper puts it, 'most of the spaces in hospitals aren't highly serviced operating theatres or laboratories – they're consulting rooms, waiting areas, cafeterias, wards. You need to create spaces for people which lift the spirits. There used to be a puritanism in the NHS which regarded any attempt to create attractive buildings, with good amenities, as somehow irrelevant to the main task in hand. But research confirms how patients respond to their surroundings, how medical and nursing staff perform better in spaces where there is light, colour and a sense of place'.

Anshen Dyer is currently about 50 strong and expanding. 'We need to hear from outstanding architects who'd like a challenge,' says Cooper. The practice is well placed to benefit from the major programme of investment in health to which the Blair government has now committed itself. Britain's current health spending, at less than seven per cent of GDP, is well below that of other EU countries and half what the Americans spend. However, New Labour is committed to procuring new hospitals through the PFI process. Anshen Dyer is currently working on PFI schemes for major new hospital developments in Manchester, Newcastle, Leeds and Portsmouth.

But isn't PFI part of a Thatcherite legacy that Cooper, in his early Avanti years, might not have warmed to? 'Frankly, it's now the only game in town,' he responds. 'Every form of public architecture amounts to a Faustian pact with politicians, as I discovered, to my cost, with many housing association schemes. But I think we are beginning to make PFI work in the public interest. We are working with outstanding consortia, like Bovis Lend Lease, for example, who can't afford to do poor quality projects. The public is demanding greater investment in health – and in education, transport and other sectors. Why shouldn't private capital be directed into transforming public services?'

The amount of work which private consortia and their architects put into PFI bids is, Cooper says, 'staggering… a huge investment, in that we're producing quite detailed proposals. But that's what the system demands – and it must be in the public interest in that the clients, the NHS trusts, are able to make an informed choice.'

Perhaps the greatest defect is that, to ensure fair competition, the PFI bidders have only limited access to the client – schemes have to be further developed after a consortium has been chosen. The idea that the private sector is being given an easy ride could not be further from the truth, Cooper insists.

The fact that a new way of procuring hospital buildings has coincided with a radical reassessment of the role of hospitals (and the influence of environment on health) has not made the job of the professionals involved any easier. However, John Cooper is optimistic: 'The new hospitals that are currently being commissioned could be the key urban building types of the early 21st century,' he says.

martin pawley

What's priceless and worthless? Another stately home, perhaps

It is odd the way that whenever a new 'national treasure' turns up in the fast-moving world of heritage, instead of making everyone feel richer, it turns out to need a massive transfusion of resources to 'save' it. Save it from what? I often wonder. Perhaps it was better off before it was 'discovered'.

Take the 757ha estate and stately home at Tyntesfield in Somerset, a Victorian stage-set, purpose-made for the likes of Simon Jenkins to wander lonely as a cloud in, resonating to the twilight of empire. Tyntesfield was fed to the media a month or two ago and from then on there has been no holding it back. With the aid of some evocative photographs – awesome chapel, book-lined library, tousled stair carpet, frayed something or others, grim servants' quarters – it has reignited the country house frenzy triggered by *Gosford Park*.

In the beginning, Tyntesfield, which had slumbered Brigadoon-like for 150 years, ignored by everybody before it was waylaid by the paparazzi on the death of its last owner, was just going to be sold as it was for a little less than £15 million. But in no time this began to seem far too little for such a miraculous Victorian time capsule.

By the time Kylie Minogue had been rumoured to be interested, the fear and anticipation generated by this prospect was enough to bring forth a change of tack. Instead of running the risk of more oddball billionaires, a heavyweight heritage consortium was called for.

But somehow this did not materialise, and in the end the National Trust went it alone with a big fundraising campaign for 'more than £20 million' by last Tuesday.

At the time of writing, things seemed to be shaping up for the big house and some 200ha to go to the Trust, and the rest of the bijouterie to be broken up in later sales. But the price has already jumped again.

In the meantime, it has been instructive to study the semantics of conservation on the job. 'Time is running out for Tyntesfield,' cried the broadsheets over an expensive helicopter shot. 'Will you help save one of the last great Victorian estates? This is our only chance to save Tyntesfield, please send your donation today.'

> 'The truth is that Tyntesfield survived as long as it possibly could have, and it was only when its last owner died that its time clock really started ticking'

And further down in the small print, the advertisements detailed the horrible fate that would overwhelm the estate if the money was not raised. 'Soon Tyntesfield could be gone – its treasures auctioned and its buildings and land sold off... We cannot stand by and watch as this national treasure is lost forever.'

But we did 'stand by' for a century and a half and nothing happened – pictures of Tyntesfield were only published once (in 1908), between its completion in 1863 and 2002, during which time whole generations of the same family lived in the house and their patriarchs attended the House of Lords. Was this 'national treasure' at risk all this time? If so, it was surely a miracle that it 'survived intact' so long without having to be 'saved' before.

The truth is that Tyntesfield survived as long as it possibly could have, and it was only when its last owner died that its time clock really started ticking. Now it is under a sentence of death, not then. If the millions have been raised, the public will be allowed in and the usual measures will be taken to ensure their safety.

The tousled stair carpet will not be on the tourist trail, the exit will be through the gift shop, and the last owner of Tyntesfield, his secrets laid bare, will be slowly revolving in his grave.

a life in architecture

ricky gervais

'This is easy for me because I love 1930s architecture,' says comedian and Bafta award winner Ricky Gervais. 'I live in Bloomsbury and I can see my favourite building from my kitchen window, at least in winter when the trees are bare.'

This is Charles Holden's Grade II*-listed Senate House (pictured), built for the University of London in 1937, and the building Holden considered his finest. Gervais worked at the University of London Union next door in the 1980s, an ugly 1950s municipal-style building, he says, where his Slough-based oily boss David Brent of *The Office* may have felt more at home.

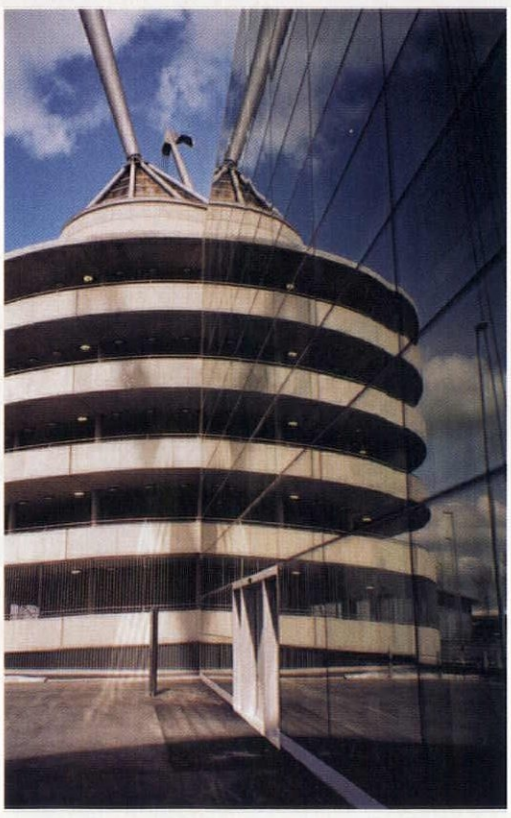
But for Gervais it is the solidity of Senate House which attracts. 'It's in Malet Street, which is a laid-back, bohemian, tree-lined street, and this great big block of a building looks so out of place, like it's just fallen from a meteor. It's strong and sturdy but with such small windows, which gives it an air of impenetrability. I think it was the model for the Ministry of Truth in Orwell's *1984* – room 101 is in there. It's stark and scary but it has all these lush interiors, great halls and red carpets, you can imagine surviving a nuclear holocaust in there.'

Gervais also loves the Ocean Hotel and lido in the Brighton suburb of Saltdean, designed by Richard Jones and opened in 1938. 'It's much more curvy and sensuous than Senate House, but again it has that confident 1930s modernity. My girlfriend's parents used to live opposite the hotel and we sneaked in one night – it was kitsch heaven!'

Deborah Mulhearn

Specialist Glass Façades

for the Commonwealth Games



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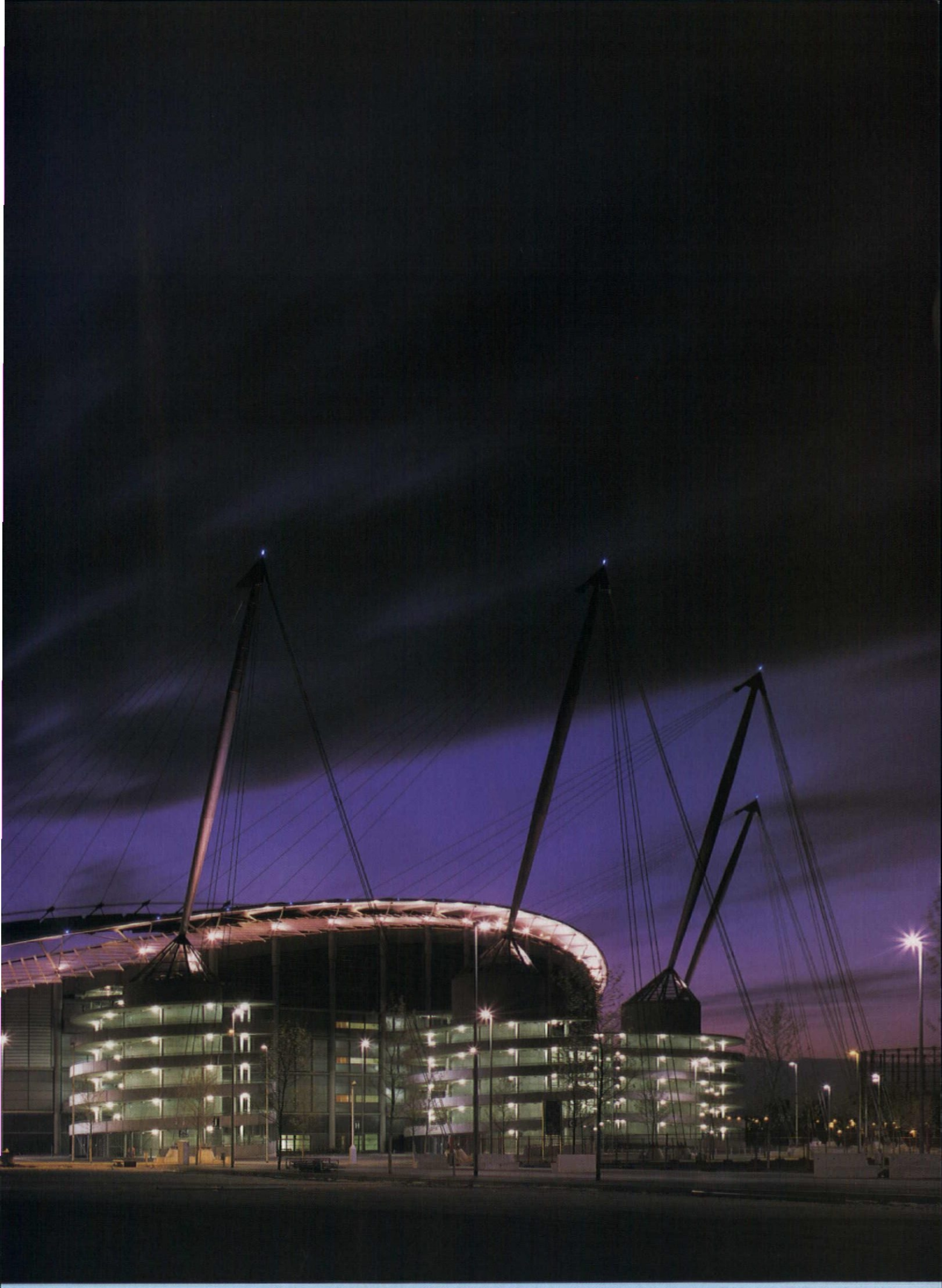
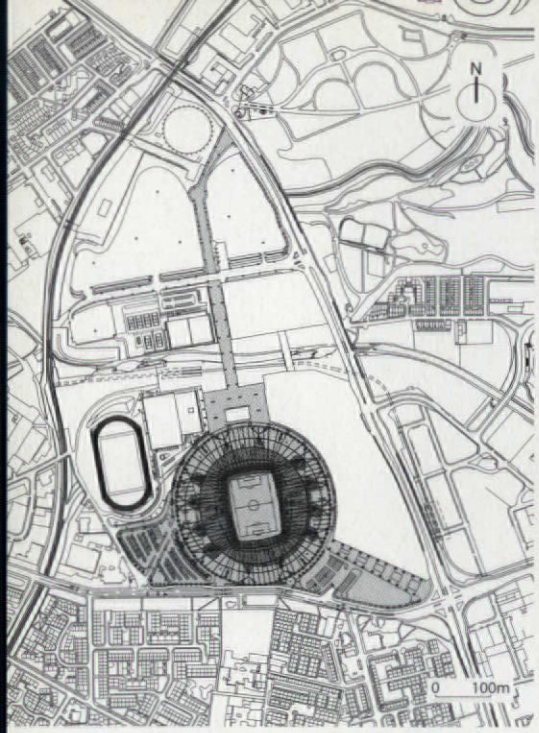
A question of sport

Arup Associates' new City of Manchester Stadium – backdrop to the XVII Commonwealth Games and future home to Manchester City FC – has been designed as a stadium for the people, with spectator comfort and enjoyment as key priorities

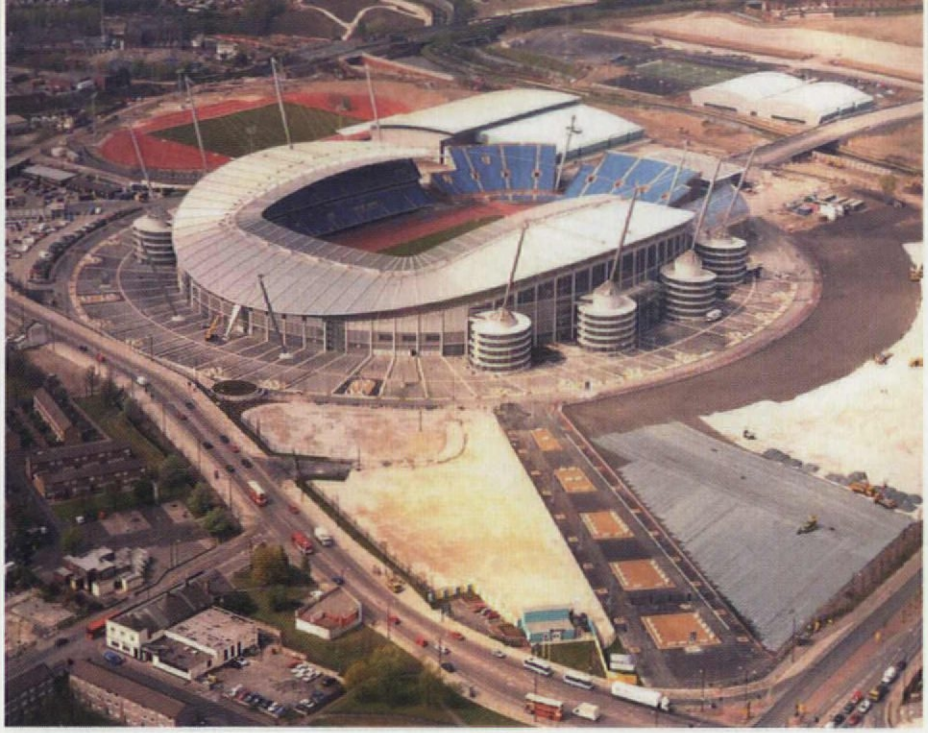
aj building study



By David Taylor. Photographs by Dennis Gilbert/VIEW



site plan



Aerial view of the stadium, showing the athletics configuration and temporary north stand

Arup Associates' new City of Manchester Stadium – the home for the Commonwealth Games in 70 days' time and Manchester City Football Club after that – aims to lift stadium design to new heights.

Looking like a tarantula crouching over its Eastlands site on the way to the M60, the project will regenerate one of the poorest, crime-ridden boroughs, bringing with it hotels, sports buildings and other commercial development.

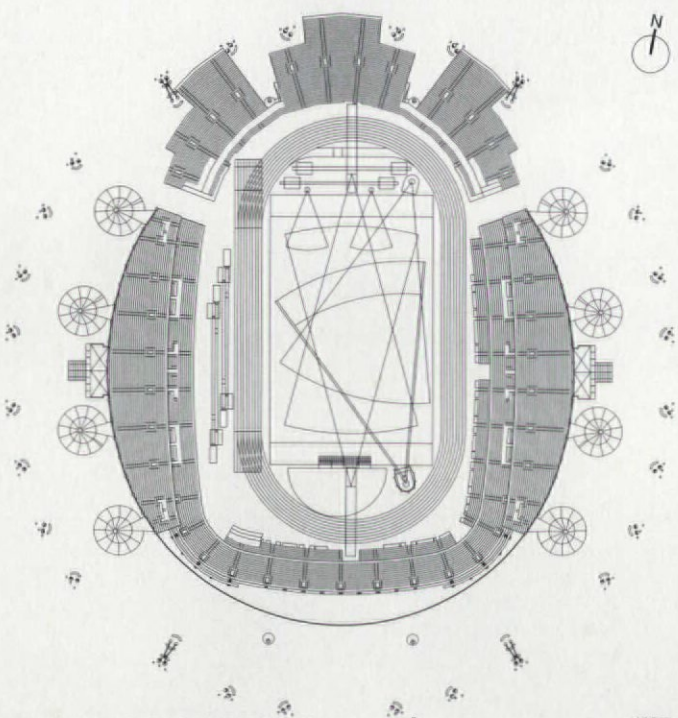
But it is also, claims lead architect Dipesh Patel, the first stadium to be designed with a really fine attention to detail, treated like any other building rather than a utilitarian, unsophisticated shed. And that includes new Arup-developed features designed to improve sightlines, along with generous concourses, trademark masts and ramps, and a landscaped 'civic' space outside. Spectator comfort and enjoyment – a humanist focus – is the priority, insists Patel.

The stadium came about through a series of competitions. Arup started by putting in a scheme for Manchester's bid for the 2000 Olympics in 1992, but the city lost out to Sydney, where Bligh Lobb Sports Architecture built to acclaim at Homebush Bay. The Arup Manchester Olympic scheme was to have been an 80,000-seater on the same site, but with a slightly different footprint.

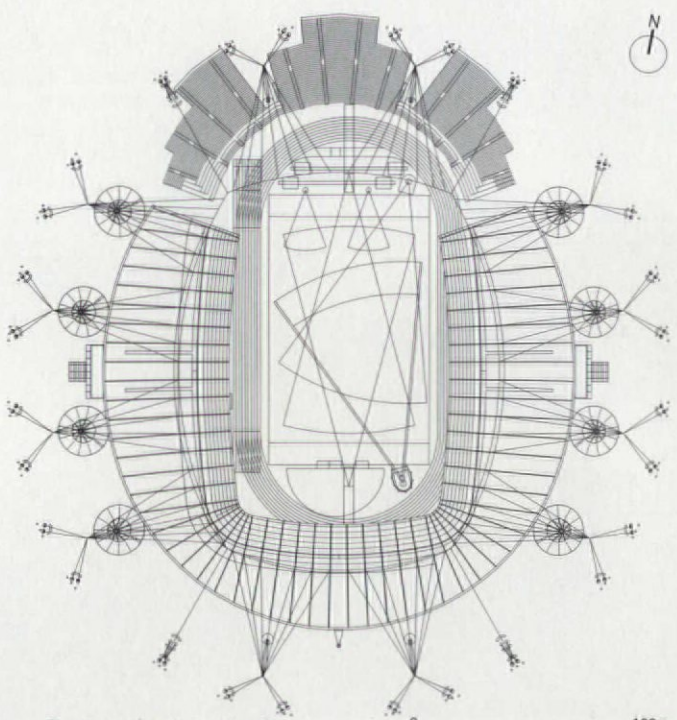
Then, in 1995, Manchester made a bid to become the site for the National Stadium and Arup's design for it even featured a closing roof.

But again that fell through and Wembley was successful, although little has happened there since, save for the production of a series of rising cost estimates dwarfing Manchester's final bill (Wembley is projected at £760 million, seven times more expensive than Manchester). Manchester was then awarded the Commonwealth Games for the Queen's Golden Jubilee year. Arup Associates duly resubmitted and won the project from client Manchester City Council, with former Arup Associates boss James Burland involved in all three phases.

As Wembley has proved, designing a stadium for dual use can be problematic, since football fans say they must be close to the action. That tends to rule out the continental habit of putting the pitch inside the middle of a running track. Sometimes, as with the two main stadia for the forthcoming football World Cup – in Yokohama, Japan, and Seoul, South Korea – a moat and fences distance fans even more. But in Manchester the brief was slightly different. Rather than have the capability of running both events



seating plan (athletics)



roof plan (athletics)

View from inside the bowl looking south from the temporary seating. The rest of the roof will be completed for football with a lower pitch and new seating

simultaneously, here it would be athletics first, then football as the sole sporting use.

So Patel and his engineering colleagues set to work – Arup boasting that its company structure allows for engineering and architectural solutions to be better integrated than with separate firms.

The Commonwealth Games stadium was to originally have a capacity of 38,000 – now 41,000 after better-than-expected ticket sales for the Games. This would initially be a rough horseshoe shape in plan with an 'unfinished' northern end plugged by a temporary stand 'moulded' from scaffolding and seats.

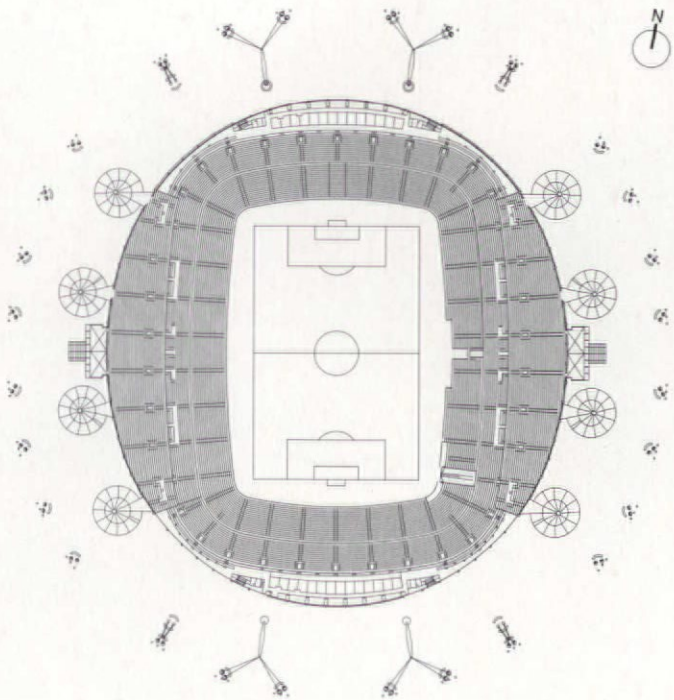
The games run from 25 July to 4 August, so the plan is to dismantle the temporary seating directly afterwards and complete the stadium design for football use carefully beneath the cable-net structure inside a tight 10 months. Football fans will get closer to the pitch because the athletics track is taken out and sold on (like the temporary stand's seats, it is reusable, so fits with Arup's sustainable desires) and a football pitch is created by digging down 6m and adding a lower tier of seating around its curved, TV screen-shaped perimeter.

In so doing, Manchester City FC benefits from a 48,500-seater home for a 'peppercorn' rent while a portion of the gate receipts goes to the council. It looks a good deal: the council also gets Maine Road, Manchester City's 35,000-seater home for the past 79 years. Council leader and devout Manchester City fan Richard Leese says that Sale Rugby Club is likely to take Maine Road as its base rather than the usual custom – for it to be sold off for 'football-themed' housing. Sport England contributed £77 million of the stadium's £101 million cost, with some going on preparatory works to the former mine site and more on a UK Sports Institute alongside, concentrating on squash, cycling and track and field.

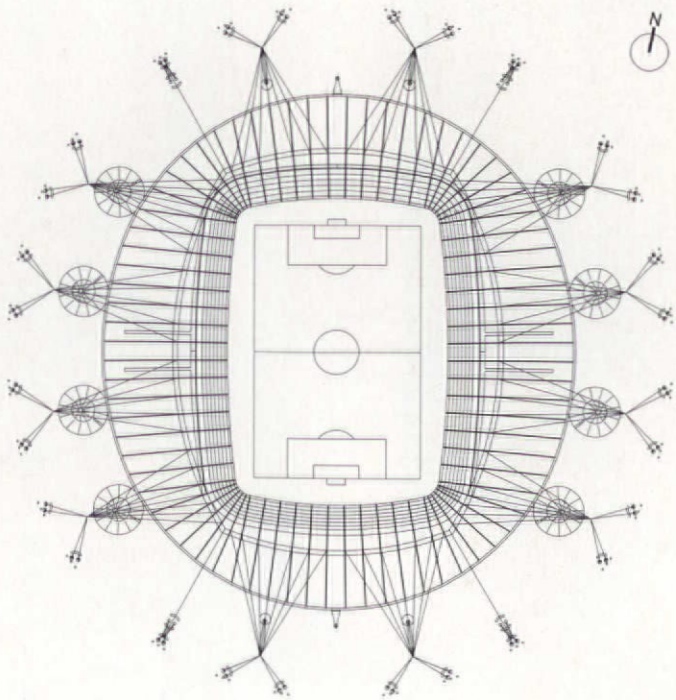
The stadium has been designed as a landmark, with the arrow-like masts supporting the roof a highly visible locator from miles around, just as floodlight pylons used to serve as an orientation device for away fans. It sits in 'Sportcity', which includes the institute, a tennis centre, and the Faulkner-Browns-designed Velodrome.

Patel's background in urban design has contributed to the stadium's setting. 'I wanted to make this a calm, restful environment – a nice civic space,' he says.

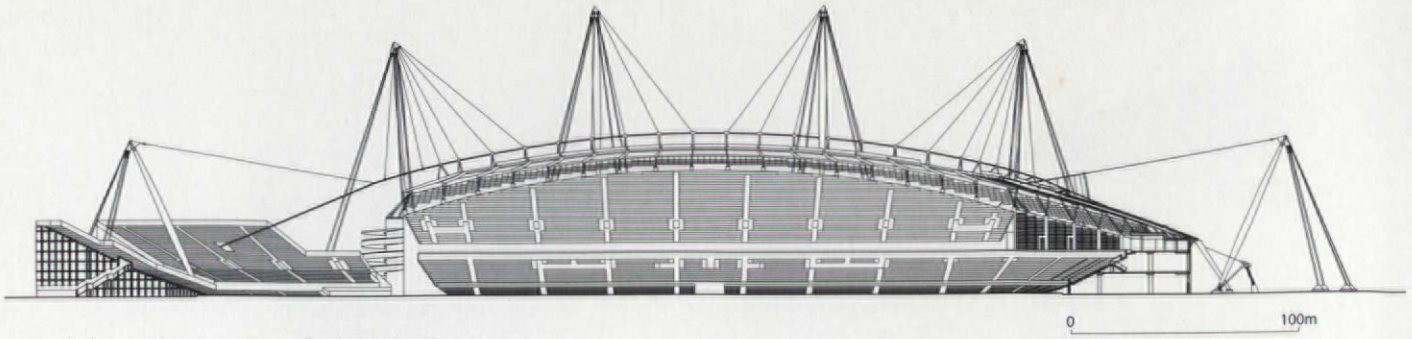
This is because, his thinking goes, such spaces are respected by those who use them, just as some prisons use colour therapy. And he believes that architects who aren't steeped



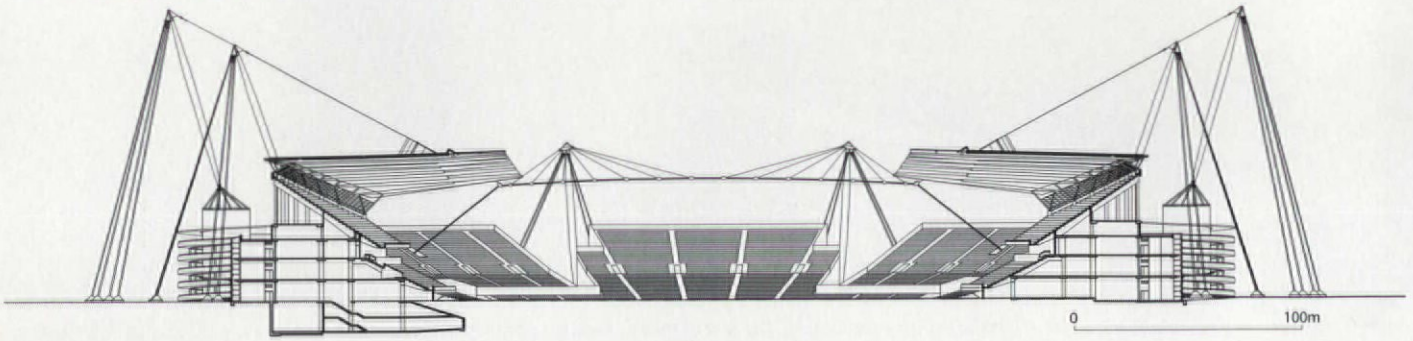
seating plan (football)



roof plan (football)



north/south section (athletics)



west/east section (athletics)

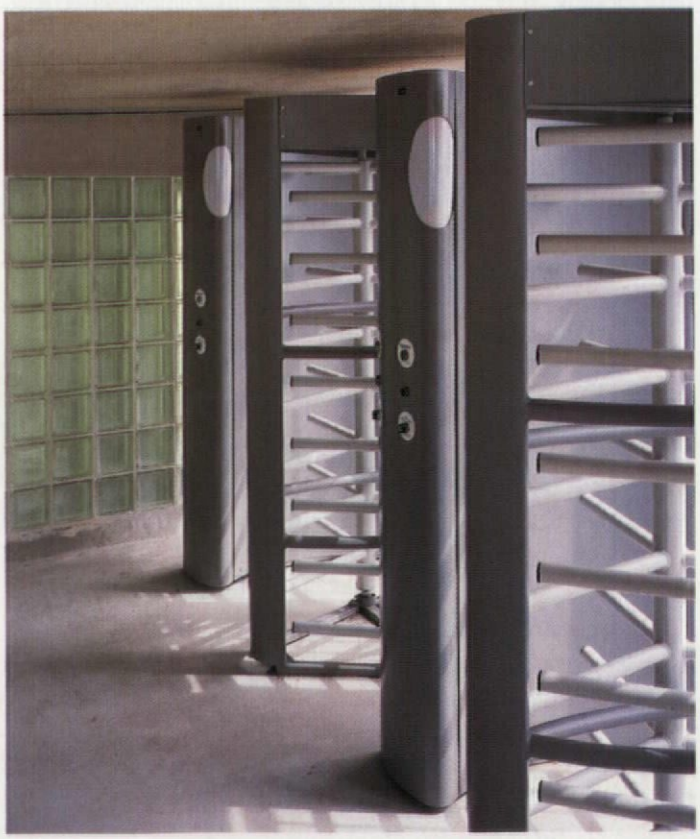
in stadium design, as was the case with Frei Otto with his first stadium in Munich, bring something new to the party.

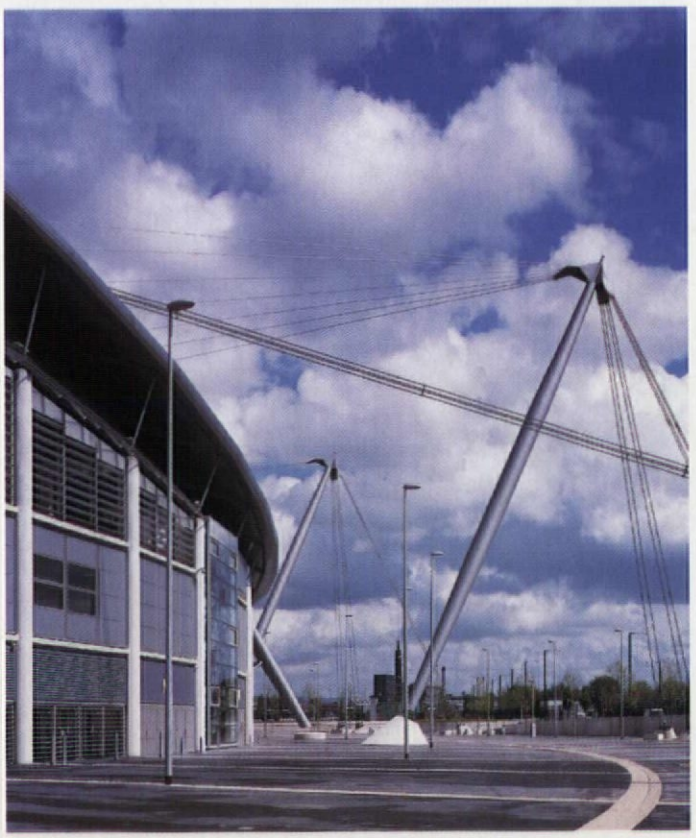
A generous pedestrian plaza surrounds the stadium, calculated in terms of egress times, disaster scenarios and police control, using special Arup software. Lining it are a series of £500 plane trees Patel fought to retain in the budget, along with stretches of landscaped gardens by Gillespies hugging the stadium.

'This is the centrepiece in the regeneration of Eastlands and a 365 days a year place,' Patel explains. It is also, he adds, as far away as possible from the American tradition of stadia set in a sea of parking. He wants people to come and take a stroll around the site, even on non-match days, while a large KSS-designed club shop (Arup's own did not happen) will also contribute to the all-important dwell times. 'We tried to make every part of it better as an experience.'

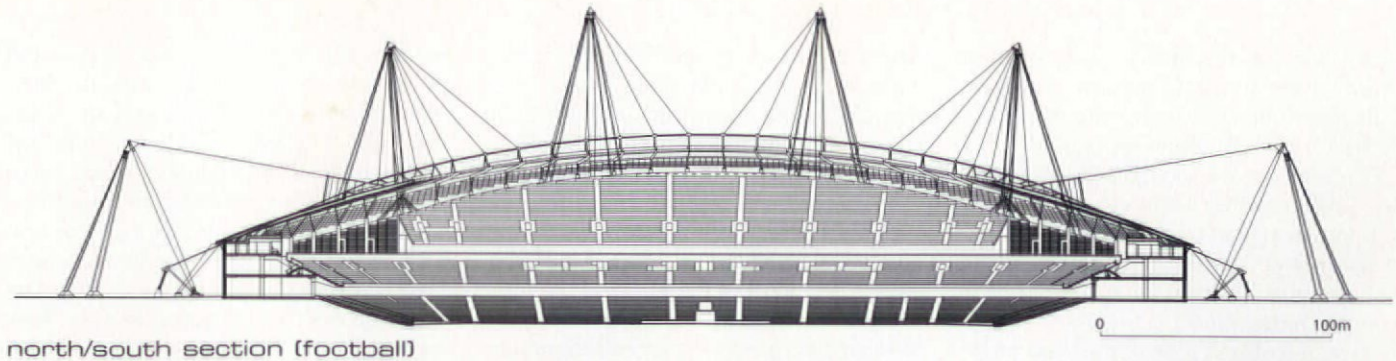
Spectators enter the stadium though new, larger-than-normal turnstiles, which, when Manchester City comes to the ground, will boast wireless ticketing. The turnstiles, modelled with curved edges after the design team looked at barriers on London's Underground, are at the ground floor level of the eight spiral ramp towers. These towers, containing plant and acting as the base for eight of the 12 masts, were also a feature on the other Arup Associates-designed stadium on which Patel worked – the 1995 Johannesburg Athletics stadium. And Lobb's Sydney scheme featured four similar but fatter towers.

The bowl is another elegant, carefully tested feature. No one – least of all the groundsman fretting over grass growth – wants the kind of stagnant air conditions created by a fully enclosed bowl. So this one has large, hand-adjustable louvres at high and low levels, while daylight is maximised by transparent roof sections. Originally these were going to be glass, but in fact the polycarbonate replacement may be a better

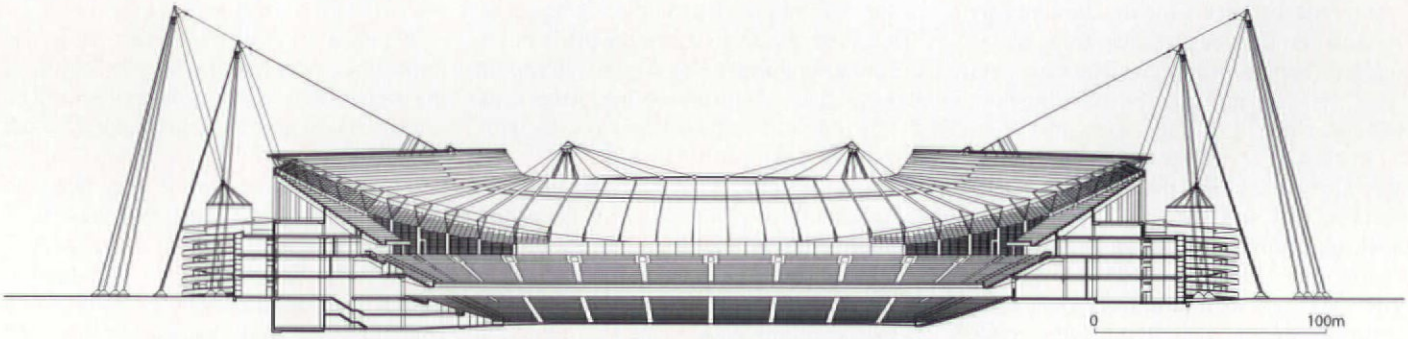




Above left: the generous turnstile entry points. Above right: the stadium's environs are designed as an attractive 'civic space'



north/south section (football)

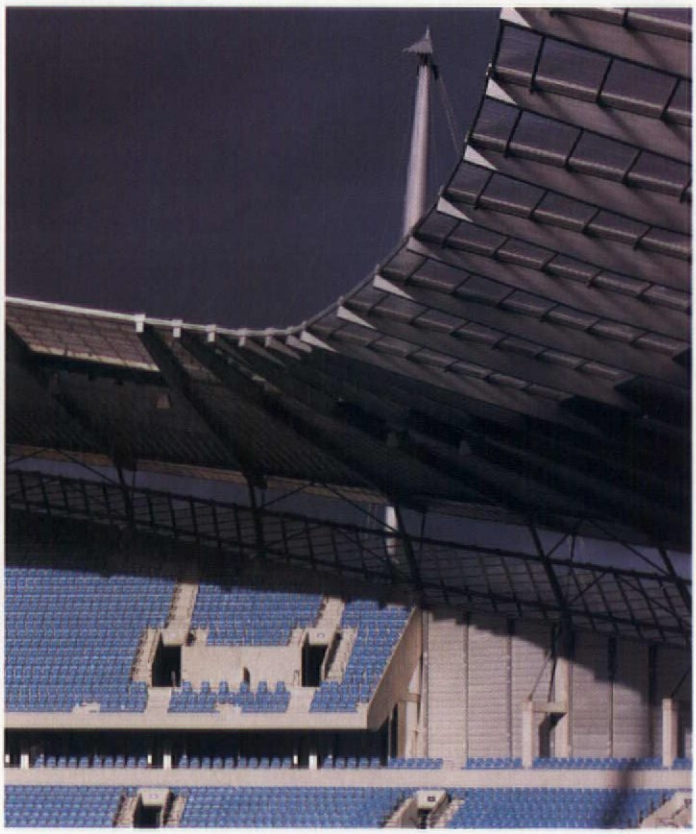


west/east section (football)

solution, since the complicated geometries of the soaring, impressive roof may be better served by a more flexible material. It is also much cheaper, which was important when the 'value engineering' team moved in. Glass was also a casualty at the top of the spiral ramp towers, but again the replacement concrete lid was, if anything, better. At night these towers will be dramatically lit, as will the masts, the highest of which rises to 70m off the ground. Aviation lights at their tips were not necessary, however (they checked), and anyway, red lights would have been anathema to the club, since it is a colour more associated with the deadly main rivals from across town, Manchester United. So they will glow blue, although City's light blue is used only sparingly inside.

The stadium's ends are low to minimise the impact on the housing to the southern aspect and sensitive area of the Aston Canal Corridor to the north. The roof is an undulating, attractive form which concentrates most spectators in the best places for athletics. But one of the only disappointments with the aesthetic appeal of the stadium can be seen from the eastern approach, on an elevation just below the roof. Clearly visible is a sizeable section of plant for catering. It was to have been cloaked by a mesh grille, but the mesh is too large – the architects say this will be dealt with.

Inside the bowl again, sightlines are impressive. Patel is proud of the TV geometry and the way that any spectator can thus see every other face in the crowd – important for the collective experience, and an atmosphere-builder. The upper tier's rake is a vertiginous maximum 34°, with a 27° rake below it and a 20° angle of parabolic seat raking on the lower tier to come. Digging down to that tier will expose the players' entrance and allow access from changing rooms already built in the 'basement' of the west stand. C-values (the calculation



Above left: the temporary moulded seats, masts and cable-net structure. Above right: detail of the steep upper tier and roofline

representing a spectator's field of vision above the fan in front) are also impressive, with a minimum c90 on the top tier, c75 on the mid and c75 on the lower.

The seats are the standard PEL manufactured design, which figures in about 90 per cent of new stadia. Despite talk of advances in seat design – some have foreseen seats with computer displays for action replays or to order refreshments – these are unlikely because of cost and, frankly, nuisance (delivery of refreshments being the difficult part). Having said that, Arup is designing its own stadium seat, complete with armrests, but Patel feels that advances such as Bluetooth will supercede hi-tech seat wizardry.

Kneespace is excellent, with a tread measurement of 800mm – many, such as original parts of Old Trafford and Arsenal's Highbury are 670mm, though the HMSO Green Guide, published since Hillsborough, suggests 800 as a minimum. And, aiding sightlines, Arup has developed recessed treads around the vomitories into the stadium, meaning that handrails are 150mm lower. It is a neat solution, and 226 spaces for disabled access in football mode – in every price grade section of the ground rather than all lumped in one ghettoised area – is another impressive, democratic feature.

The concourse areas are also different from normal stadia. Arup Associates has designed large, clean, ceilinged areas which resemble an airport terminal rather than a stadium, with Arup Fire helping to devise a strategy to help the look. If a fire breaks out in a refreshment area off the concourse, two sets of shutters come down and 'make-up' air is brought in under a gap while smoke is taken away. The concourse is a zero-rated fire compartment so effectively 'outside' in fire terms, and having no need for sprinklers anywhere in the building also cuts down on the final cost.

Light is brought in from the bowl through glass blocks – a greenish reminder of the field of play. Currently it is illegal to drink alcohol with a view of the pitch, but if the law ever changes, this whole wall can be stripped away. Future-proofing, Arup calls it. There are no exposed services, as with other stadia, like Cardiff, for example.

It has its own generators for the lights, so there will be no blackouts, as happened famously in 1997 at West Ham's Boleyn Ground in Upton Park, when a betting syndicate made sure the game ended prematurely. If the generators pack up in Manchester, it failsafes to the mains, without delay.

In athletics mode, a 60m straight warm-up track in the belly of the stadium is an interim preparation for athletes who have already stretched outside on a full-size track alongside. The internal track is made of the same rubberised material by Mondo as with the full, 400m eight-lane version inside the main bowl. Fast times are in prospect.

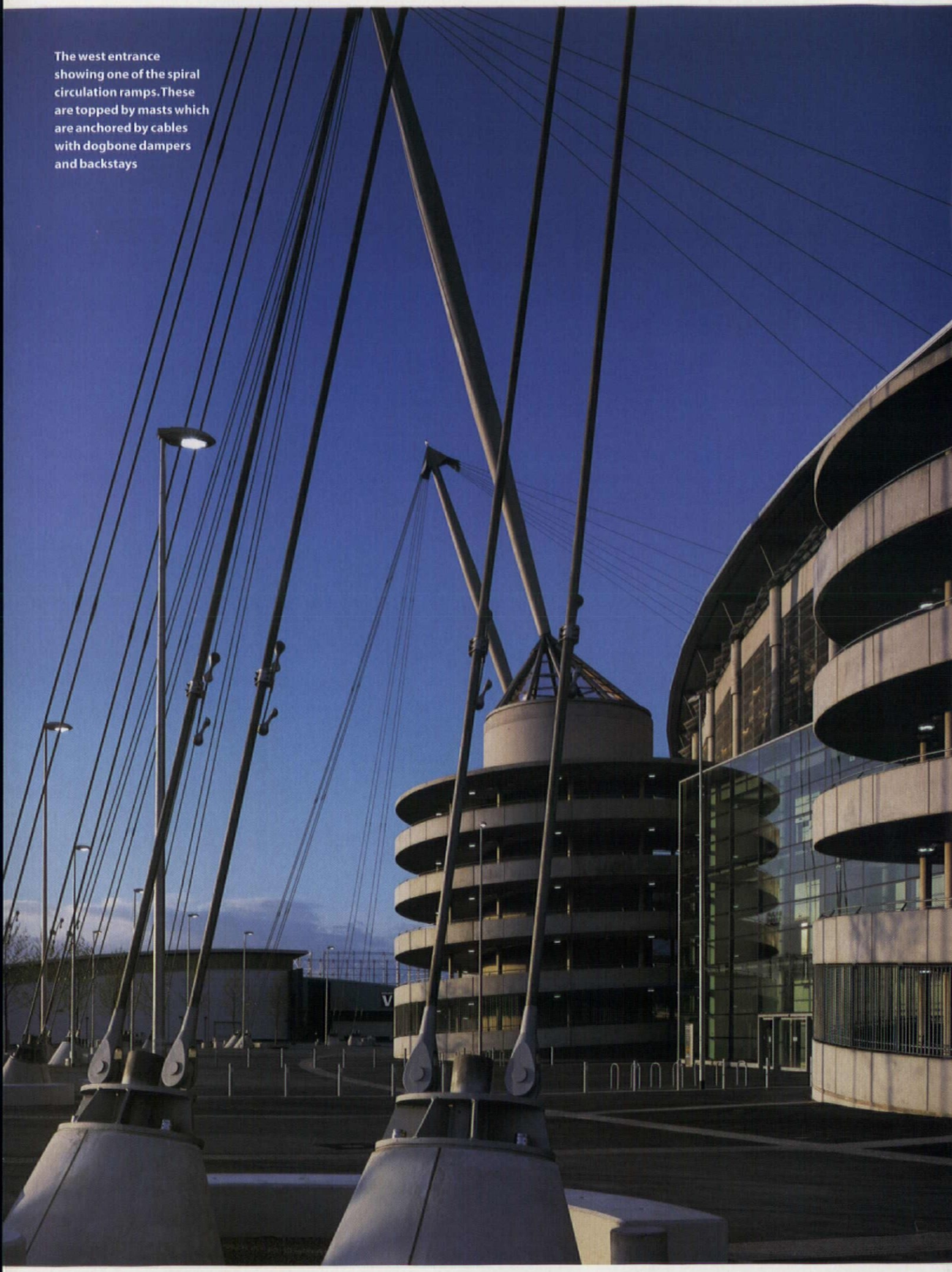
Hospitality boxes on the east and west – another important revenue-generator of the modern sporting venue – are expressed as pods to keep the roof as a separate entity 'flowing' over the bowl; lounges are extensive and a glazed restaurant lines the southern end of the stadium. Glazing in a VIP area has been lined with an anti-shatter bomb blast film, and already the security is high in the environs of the stadium, with regular patrols of mounted police. There are warm-up rooms, dressing rooms, a huge expanse of space given over to catering, and even a jail for the thuggish few.

Expandability is tricky, but it is not impossible, necessitating a remodelling of the roof. And transport to the ground will be improved by a new Metrolink station, which should be in place by August 2003.

The design team looked at a wealth of other stadia to find out how others have done things. Renzo Piano (and Arup's) 60,000 seater, flying saucer-like Bari stadium in Italy, the San Siro, Jo'Burg, Maine Road, Highbury, Old Trafford and Chelsea were among them. For Manchester, they have chosen a concrete bowl frame rather than steel. They made sure they have been close to Laing's build process through a traditional construction management contract rather than the design and build often used with stadia. And they've fought hard against the value engineers to retain elements they thought were important to achieving an effective, stylish, inexpensive stadium that people will enjoy. And they have succeeded.

Level 2 concourse with fixed tables and benches. Arup Associates worked hard on the concourse areas to create 'airport-like' spaces

The view from the box level to the open louvres lining the stadium's roof



The west entrance showing one of the spiral circulation ramps. These are topped by masts which are anchored by cables with dogbone dampers and backstays

Structure

The most striking element of the City of Manchester Stadium is the cable-net roof. It has only been achieved through a close collaboration between engineers and architects from the outset of the design. The roof is made up of two separate structural systems. The primary system is referred to as the cable-net and is made up of the 12 perimeter masts, high-strength backstay rods and spiral strand forestay and tension-ring cables. The secondary or roof plate structural system comprises box section rafters arranged radially at approximately 8m centres supporting rolled steel purlins which in turn support either standing seam or polycarbonate roof cladding. The primary system is independent of the roof plate structure and was constructed in phase 1, whereas the secondary structure will only be finalised with the construction of the north stand roof in phase 2.

Roof plate

In its final football configuration, the roof plate will consist of 76 rafters supported at the rear of the bowl by integral v-struts resting on concrete columns. These allow sufficient headroom between the rear seating terraces and roof structure, as well as providing for transfer of horizontal thrust from the rafters. Towards the inside of the stadium, the rafters cantilever by up to 14m past the support of the cable-net forestays.

Cable-net structure

Each rafter is supported by its own forestay cable varying in diameter from 35 to 50mm. Adjacent forestays are grouped together in fans of five or seven cables and supported at their upper ends by the 12 cigar-shaped masts of maximum 1,500mm diameter. The form of the masts has been achieved by fabricating from cylindrical central thirds and conical ends. The mast heads are tied back to ground-anchor foundations by the backstay rods. This system alone would be sufficient to resist gravity forces such as self- weight and snow. However, wind uplift would tend to force the forestay cables into compression which, as cables, they are unable to resist. This has lead to the development of an innovative solution referred to as a 'grounded tension ring' to maintain tension in the cable-net under all conditions. All forestays are linked at their lower ends by a 'catenary' tension ring of four grouped 40 or 45mm diameter cables. This ring is pretensioned by four corner ties anchored to the ground. This system allows a prestress to be introduced into the cable-net that ensures that all cables remain in tension for all possible applied loads.

In summary, the structural solution for the roof has produced a design that not only adds to the overall stadium architecture but is sufficiently cost-efficient to have survived several 'value-engineering' cycles unchanged. It is a design which cannot be attributed solely to the engineer or the architect.

Mike King, Arup Associates

Costs

Costs based on final account
Costs exclude consultants' fees and construction managers' fees

ENABLING WORKS **£76.32/m²**

SUBSTRUCTURE

FOUNDATIONS/SLABS **£105.17/m²**
Includes bulk earthwork lime stabilisation (shared with external works) screeding, piling and both substructure work packages

SUPERSTRUCTURE

FRAME **£253.36/m²**
Staircases taken out of concrete work packages and included later

UPPER FLOORS **£5.61/m²**
Mainly included in frame work, soffits work packages used only

ROOF **£180.41/m²**
Includes frames for roof as part of roof structure

STAIRCASES **£2.20/m²**
Taken from concrete work packages

EXTERNAL WALLS **£62.49/m²**
Includes glazed screens and louvres

WINDOWS
Included in external walls as glazed screens

EXTERNAL DOORS **£3.75/m²**
Percentage taken for cost of doors from cladding and glazed screens

INTERNAL WALLS AND PARTITIONS **£50.56/m²**
Taken from dry lining package

INTERNAL DOORS **£31.98/m²**
Includes roller shutters for food stands/stalls

INTERNAL FINISHES

WALL FINISHES **£5.17/m²**

FLOOR FINISHES **£14.56/m²**

CEILING FINISHES **£4.17/m²**

FITTINGS AND FURNISHINGS

FURNITURE **£92.66/m²**
Includes handrails, signage, seating and turnstiles

SERVICES

SANITARY APPLIANCES **£10.33/m²**
5 per cent of M&E

SERVICES EQUIPMENT **£6.93/m²**
Service raceway

WATER INSTALLATIONS **£6.04/m²**
15 per cent of utilities
15 per cent of statutory diversions

SPACE HEATING/AIR TREATMENT **£78.40/m²**
39 per cent of M&E
10 per cent of utilities
10 per cent of statutory diversions

ELECTRICAL SERVICES **£139.32/m²**
56 per cent of M&E
75 per cent of utilities
75 per cent of statutory diversions

LIFT AND CONVEYOR INSTALLATIONS **£10.27/m²**

PROTECTIVE INSTALLATIONS **£3.28/m²**
Fire protection

COMMUNICATION INSTALLATIONS **£0.04/m²**
Telecoms system required for licensing

BUILDERS' WORK IN CONNECTION **£0.83/m²**
BWIC work package

PRELIMINARIES AND INSURANCES

PRELIMINARIES, OVERHEADS AND PROFIT **£123.98/m²**

EXTERNAL WORKS

LANDSCAPING, ANCILLARY BUILDINGS, TEMPORARY WORKS **£14,369,977**

Cost summary

	Cost per m² (£)	Percentage of total
ENABLING WORKS	**76.32**	**6.02**
SUBSTRUCTURE	**105.17**	**8.30**
SUPERSTRUCTURE		
Frame	253.36	19.98
Upper floors	5.61	0.44
Rooflights	180.41	14.23
Staircases	2.20	0.17
External walls and windows	62.49	4.93
External doors	3.75	0.30
Internal walls and partitions	50.56	3.99
Internal doors	31.98	2.52
Group element total	**590.36**	**46.56**
INTERNAL FINISHES		
Wall finishes	5.17	0.40
Floor finishes	14.56	1.15
Ceiling finishes	4.17	0.33
Group element total	**23.90**	**1.88**
FIXTURES AND FITTINGS	**92.66**	**7.31**
SERVICES		
Sanitary appliances	10.33	0.81
Services equipment	6.93	0.55
Water installations	6.04	0.48
Space heating and air treatment	78.40	6.18
Electrical services	139.32	10.99
Lift and conveyor installations	10.27	0.81
Protective installations	3.28	0.26
Communications installations	0.04	0.00
Builders work in connection	0.83	0.07
Group element total	**255.44**	**20.15**
PRELIMINARIES AND INSURANCE	**123.98**	**9.78**
TOTAL	**1,267.83**	**100.00**

Costs supplied by Paul Stanion, Davis Langdon & Everest

CREDITS

TENDER DATE
Varies for trade contracts

START ON SITE DATE
October 1999

COMPLETION DATE
March 2002 (phase 1)
Aug 2003 (phase 2)

CONTRACT DURATION
30 months

GROSS INTERNAL FLOOR AREA
68,983m²

TOTAL FLOOR AREA
33,000m²

FORM OF CONTRACT AND/OR PROCUREMENT
Construction management

TOTAL COST
£101,828,021

CLIENT
Manchester City Council

ARCHITECTS
Arup Associates: Dipesh Patel – lead architect, Steve Clark, Lindsay Johnston, Luke Mcadam, Abi McGilivray, John Miles, Marcel Ridyard, Roland Reinardy, Caroline Sohie, Alexandra Stevens, Callum Stewart, Michael Tite, Eugene Uys, James Burland (left Arup Associates Dec 1999)

QUANTITY SURVEYOR
Davis Langdon & Everest

STRUCTURAL ENGINEER
Arup Associates + Arup

SERVICES ENGINEER
Arup

MAIN CONTRACTOR
Laing

LANDSCAPE ARCHITECT
Gillespies

TURF SPECIALIST
STRI

WIND MODELLING
RWDI

SUBCONTRACTORS AND SUPPLIERS
wall cladding Spanwall; *roof cladding* Brodericks; (Lorus); *adjustable louvres* Levolux; *architectural metalwork* Dane patEngineering; *sundry steelwork* Lionweld Kennedy; *seats* PEL; *flood lighting* Philips; *precast* Buchan; *atrium glazing* Spacedeck; *pod cladding* AMS Roofing (Eternit); *rain screen* Keyclad; *ironmongery* Trapex; *joinery* Cuerdan; *metal door/roller shutter* Amber Door, *blockwork* ABC; *ceramic block* Astra-Glaze (Forticrete); *landscaping* Hiller; *carpets* Miliken; *vinyl & epoxy floors* 4M; box glazing SG Aluminium; *signage* Rivermead; *temporary seating* Interserve; *track* McArdle

WEBLINKS

Arup Associates **www.arupassociates.com**
Arup **www.arup.com**
Davis Langdon & Everest **www.dle.co.uk**
Manchester City Council **www.manchester.gov.uk**
Commonwealth Games **www.commonwealthgames.com/default.asp**
Stadium link including 360° panaroma shots **www.commonwealthgames.com/venues/cms**

A roof canopy supported by a cable-net structure

City of Manchester Stadium
Arup Associates

working details

The stadium takes the form of a shallow bowl lined with tiers of precast concrete seating. They are sheltered by a roof canopy – a series of rafters extending from the eaves – which in turn is supported from a cable-net structure.

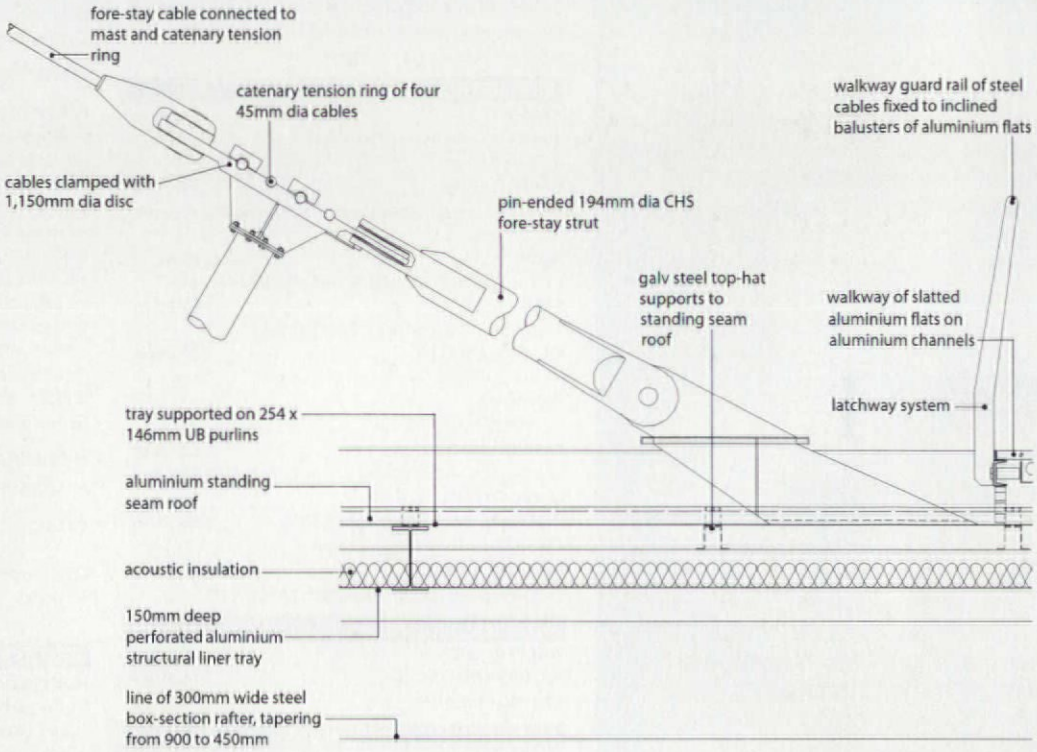
The rafters – ranging in length from 34-51m – rest at the eaves on V-shaped steel struts; 14m from the tips, they are suspended from fore-stay cables which are tied back to masts at the perimeter of the building. Each rafter is connected to its fore-stay cable by means of a CHS strut and a 1,150mm-diameter disc to which a pre-tensioned catenary ring of four 45mm-diameter cables is clamped. A CHS prop transfers the self-weight of the disc and cable to the rafter.

The rafters are steel box-sections 300mm wide and taper from 900mm at the fore-stay supports to 450mm at the tips. A box-section profile was chosen for structural stability and to reduce maintenance – there are no edges to gather dust and dirt or to accommodate roosting birds.

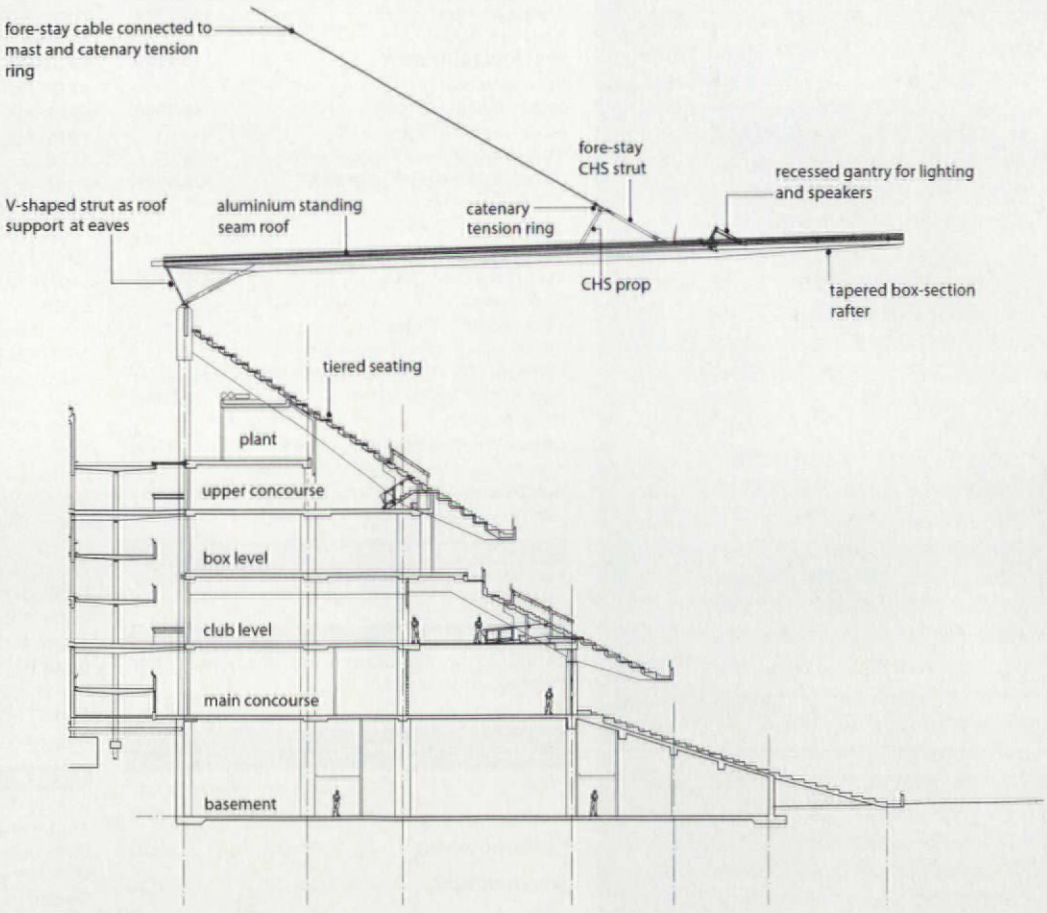
A standing seam aluminium roof covering rests on galvanised top-hat sections which in turn are supported on 150mm-deep perforated aluminium structural liner trays. The trays span 4m and rest on the bottom flanges of 254 x 146mm UB purlins. The arrangement provides a clean soffit to the roof and encloses acoustic insulation and structural bracing.

A recessed gantry is set in the roof to contain flood lighting, house lighting and speakers for public address and warning systems. An adjacent walkway allows access for maintenance. From gantry to rafter tips, the roof is clad with polycarbonate sheet to enhance daylight and promote grass growth.

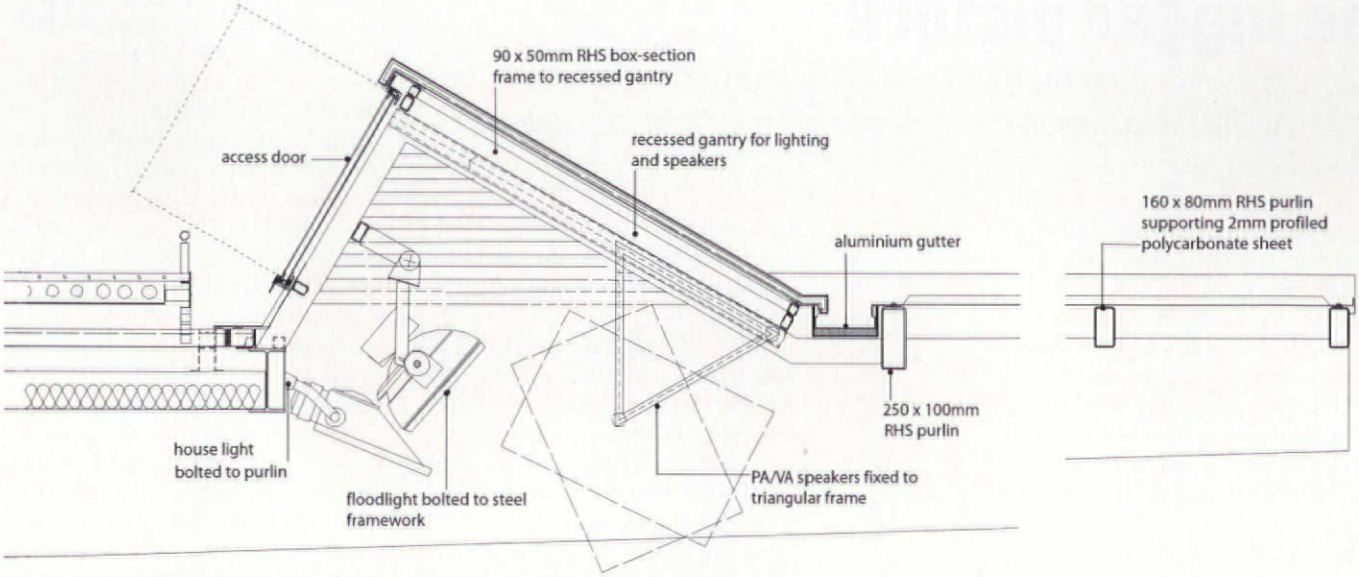
Susan Dawson



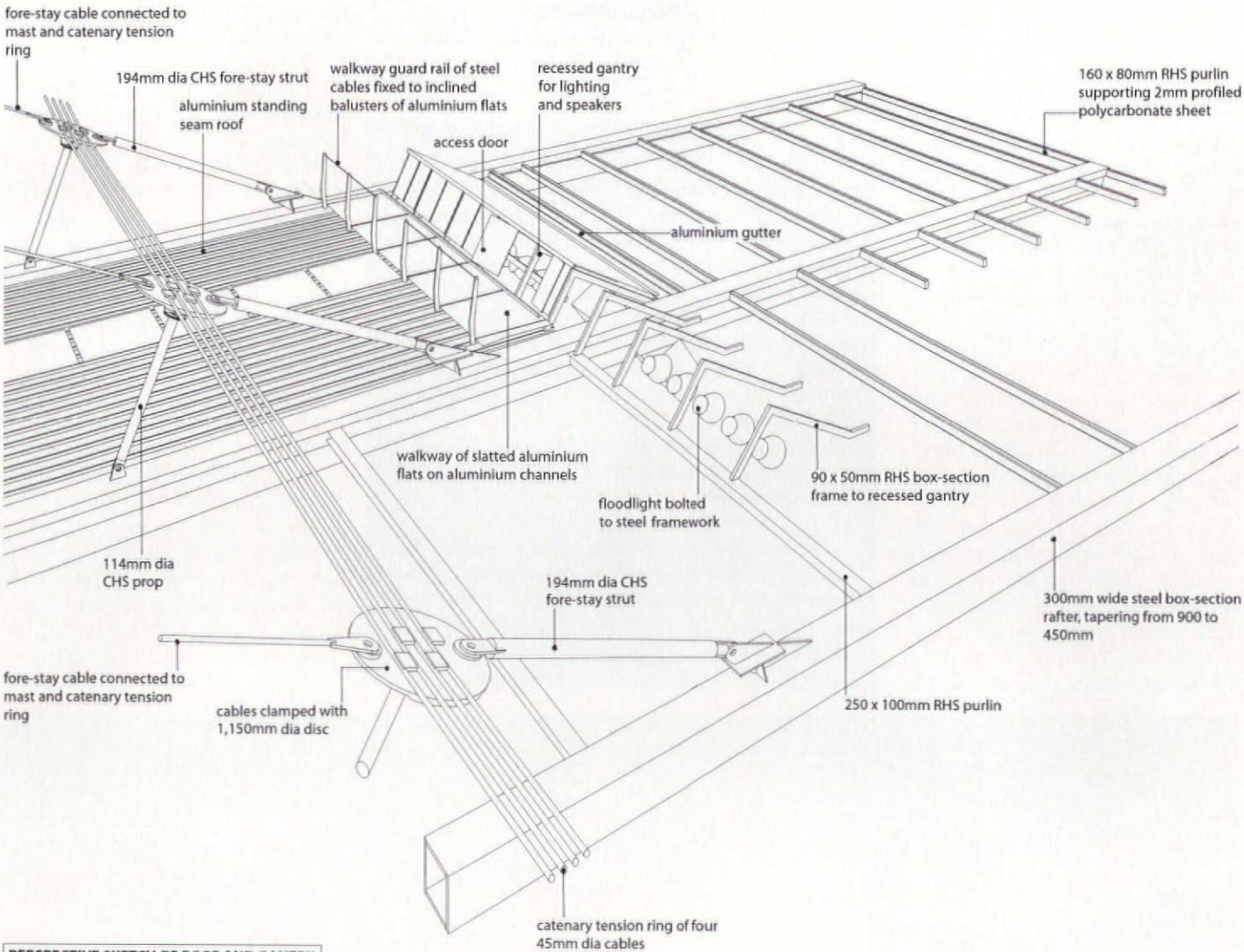
DETAIL SECTION THROUGH ROOF



KEY SECTION



DETAIL SECTION THROUGH ROOF AND RECESSED GANTRY



PERSPECTIVE SKETCH OF ROOF AND GANTRY

The bigger picture

Following our article on hand-drawn architectural illustration, (AJ 25.4.02) a computer visualiser gets a right to reply

BY NICK BENTLEY

In mainstream entertainment, animation experts such as Pixar and, of course, Disney, are regularly raising the stakes of what is believable and what is deemed to be publicly acceptable animation standards. While no one could fail to be impressed by the minutiae of the graphic detail in *Monsters Inc*, so Disney's animated *Final Fantasy* was dismissed by some as not being lifelike enough.

When applied to architecture, in-house or professional graphics packages are now beyond the wildest dreams of people working in the field a decade ago. Nowadays, computer visualisation companies regularly produce vivid and interactive visuals, allowing clients to experience the scheme from many angles and from the perspective of a real visitor. Today, video resolutions are already regularly many times higher than they were five years ago, made feasible by faster and better quality computer hardware.

But this is more than just the application of a programme. Architectural computer visualisers also have to exercise an artistic judgement. The welter of companies vying for digital montage, visualisation and animation business is growing all the time and the technology can only improve, but companies distinguish themselves by the way they see and portray a building.

The nature of computer generated (CG) images can vary from bold schematic conceptual illustrations to, perhaps, the now most commonly used photo-realistic image. These images often consist of a three-dimensional digital model, superimposed into an existing photograph (see images), demonstrating how a proposed scheme will look in its destined location.

With 3D software developing at such a pace, and with clients demanding more realism, software companies are being pushed to develop more sophisticated lighting and rendering capabilities into their lower-end 3D packages. The results are such that it is often difficult to know whether they are computer generated or photographic montages.

CADvantages

The obvious advantage of computer-generated visuals in comparison to one-off drawings or physical models, is the ability to produce an immersive piece of animated footage. Once built to a sufficient level of detail, a 3D model can be animated, giving the viewer a feeling of the real scale and aesthetic of the project while showing off every aspect and design detail of a particular project or development.

Graphic models can be time-framed to illustrate the various stages of construction of a building; or interactive 360° panoramic views can be produced, ideal for Internet viewing by the universal Quicktime VR (virtual reality) format.

Animations can be displayed on video or on a company website, or can be integrated within fully interactive CD/DVD multimedia presentations, all designed to impress the client. With 44 per cent of UK homes having access to personal computers, the CD-ROM has become the perfect medium for a property developer to illustrate a scheme to potential buyers.

Three-dimensional modelling is fast becoming a key aspect of the design process, and appeals to planners who are increasingly demanding more accurate representations. Throughout the construction of a model, changes can easily be made to explore alternative forms, colours, materials and lighting. The creation of a virtual model gives the viewer an instant spatial awareness and understanding of a development. Accurate sun and lighting studies can be produced with relative ease, as can 3D sectional views.

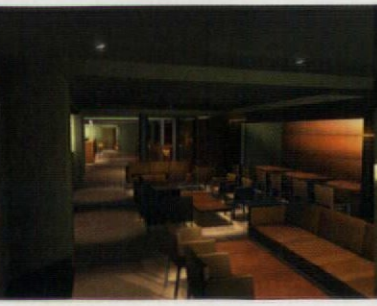
The relationship between the architect and graphic modeller is very important, as projects are often still at the detailed design development stage when the visuals are being produced. It is important that we are kept up to date with changes, but similarly it is our responsibility to update the architect or developer with the progress of our modelling, which can often uncover aspects of a design

Nick Bentley says that a lot of architects can produce in-house graphics perfectly competently, but for 'glossy' images they need to out-source, *writes Austin Williams*.

Splinter's client base is 50/50 property developers and architects. 'Architects don't know how to "sell" a building,' he says, 'their objective is usually to get a scheme through planning and so we are usually employed for non-refined schematics. Property developers, on the other hand, know that they have to impress potential buyers – they are selling a lifestyle – and so we do a lot more high-quality presentation work for them.'

Talking about the training needed to enter the profession, Bentley notes that most people come from a product design background or have studied graphics or arts-based computer courses; very few are architects. 'It's odd,' he says, 'that in architecture schools, most architectural students present their work in computerised format; fly-throughs, videos, etc, but so few architecture schools train them in anything more than CAD technologies... and hardly anybody is doing hand-drawn presentations anymore.'





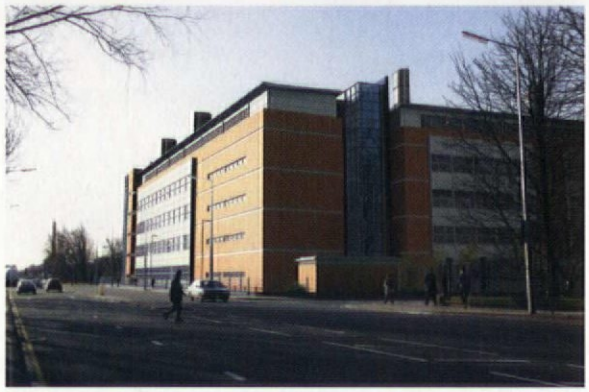

which may need re-thinking.

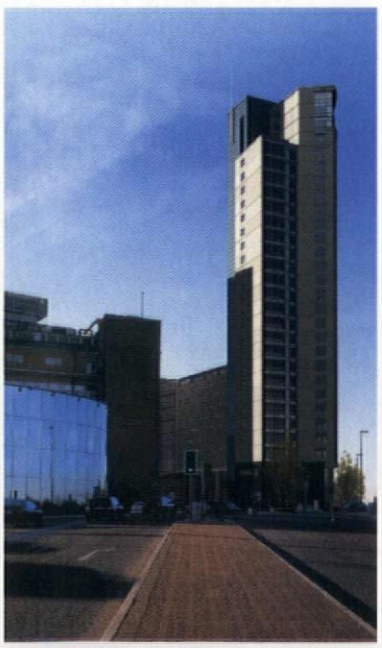
Rapid communication via e-mail or a website client login area means that it is often unnecessary for the client to ever meet with visualisers, meaning that we can work effectively with organisations both nationally and internationally.

Each to his own

Models can be created from information sources as varied as concept ideas, sketches, technical drawings, CAD drawings, and photographs. The images produced using these techniques lead people to believe that this is an expensive process. However, the modelling can be tailored to meet any client's budget. The main factors affecting the cost are the level of detail required and the preferred output media. The quantity of images, camera angles and the animation path is decided before modelling begins to prevent any unnecessary cost.

Over recent years, architectural practices have seen a huge growth in the awareness of user-friendly CG technology. There are limitations, however, to what most architectural practices wish to – or can – produce in house, as it sometimes takes twice as long to refine a block model as to create the block model in the first place.





Field of vision: photomontages demonstrate how a proposed scheme will look in its destined location. Below: stills taken from typical fly-throughs

Practices often do not have the required modelling and post-production skills required to produce the highly detailed images suitable for brochures, or the editing and encoding expertise to produce animations of suitable quality and file size. Suitable training required to learn such skills and produce the visuals requires much time, money and focus. Maybe that is why this expertise has become a separate profession in its own right.

Nick Bentley is a director of Splinter, a Liverpool-based computer visualisation company. Visit www.splintervisual.co.uk

CAD COLLEGE COURSES

Many architectural departments include courses on architectural visualisation. Rob Ashton, a building technologist, manages De Montfort University's CAD Centre, which is part of the school of architecture in Leicester. As a compulsory module, this plugs into the undergraduate course.

Ashton explains: 'For the first semester, there is a freestanding IT module, exploring the basics of CAD modelling. This broadens out into a variety of 3D design units after the Christmas recess.' By the end of the course, they are working in photomontage and video fly-throughs.

This, he says, is the part that students seem to enjoy, but 'we all recognise that if they don't know AutoCAD, then they'll not be in a position to work in an architect's office in the first place'.

The purpose of the module, as far as Ashton is concerned, is to 'encourage' students to think in three dimensions. 'Computers have been around in architecture for a long time', he says, 'but the big question is how to get architects to design with them, rather than just seeing them as something to present finished designs with.'

In the past, students and architects would learn to visualise with the aid of basic physical models, or their mind's eye. Computers are now an aid to that process, although a question still remains over whether students consequently become reliant and less able to visualise without the aid of graphics packages. Students are less loathe to 'mess around' and make adjustments to CAD models – which are designed for fast modification – than breaking up preliminary cardboard models and starting again. Ashton feels that the technology has the potential to free up designers; to stop them relying on their first ideas.

At present, many graduates seem demoralised that architects' practices do not believe that they can get sufficiently quick payback on software graphics packages, and so outsource commissions. Ashton hopes that as more of these computer-literate technicians/assistants filter through the system, the potential for profitable returns, will increase.

CAD Centre, Leicester School of Architecture, tel 0116 257 7416

BUILDING CONSERVATION

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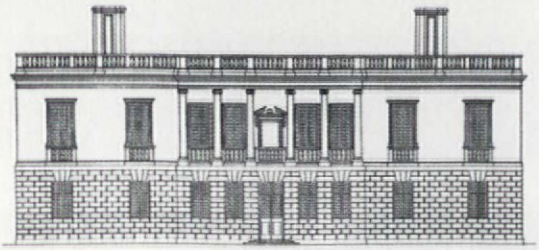

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INFORMATION: Nicola Tuson, Course Co-ordinator,
The Department of Construction Management & Engineering,
The University of Reading
P O Box 219, Whiteknights, Reading RG6 2AW, United Kingdom.
Tel: (0118) 9318195 Fax: (0118) 9313856
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.....More courses on page 41

Architects on the brain

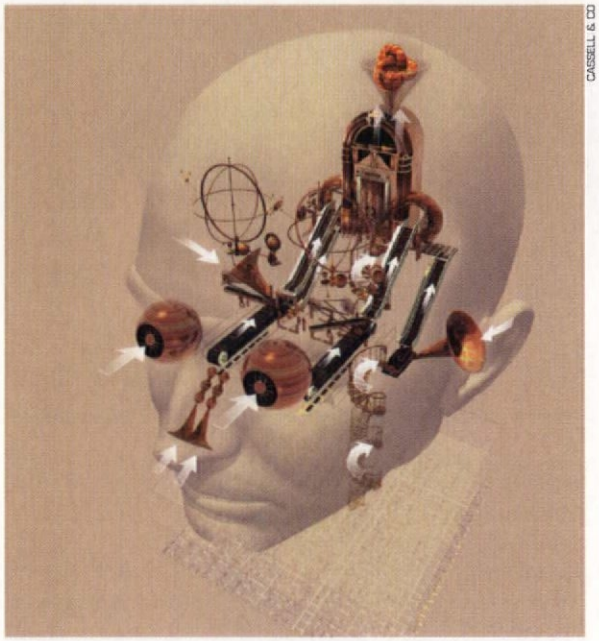
A recent conference examined the relationships between architecture, aesthetics and fields of scientific knowledge

BY DOLAN CUMMINGS

'Building Bridges of Knowledge' was an unusual symposium held at the Royal Society in April, charged with identifying fields of knowledge that might help architects 'build bridges' across scientific disciplines.

Sponsored by the Bartlett School of Architecture, the American Institute of Architects (AIA) and the American Architectural Foundation, the event was the brainchild of John Eberhard, director of Research Planning at the AIA.

The three fields up for discussion were neuroscience, information technology (IT) and climate research. Introducing the event, Philip Steadman from the Bartlett noted that despite 'the promiscuous and compulsive connection-making' that goes on in architecture, neuroscience will be new to most architects.



CASSELL & CO

Mind games: a cut-away section through a typical architect's head

Neuromantics

Quite so, but then it was not immediately obvious what architects have to gain from it. Professor Semir Zeki, co-director of the Wellcome Department of Cognitive Neurology, for example, spent a long time explaining that when things look different from their surroundings, they seem to 'pop-out' at the viewer. This may be true, but it is hardly rocket science, or indeed brain surgery. More modestly, Rita Carter, author of *Mapping the Mind*, suggested that neuroscientists can explain the mechanics of what seems obvious to others.

Zeki showed brain scans demonstrating 'activity' in different parts of the brain when people are looking at different kinds of things. Movement excites one area, colours another, and so on. This is all very intriguing, but the truth is that nobody – even among those working closely in the field – yet knows what it all means.

Carter explained that, rather than taking in everything, the brain selects data and interprets it according to context and personal dispositions or expectations. That is, there are syntactic and semantic stages of perception; the first being when we recognise forms or patterns, and the second when we attach meaning to them. When we look at a building, our brains pick out a few key details and refer them back to pre-existing ideas about buildings in order to form a mental picture of what we are looking at.

Carter concluded that since we can only fully take in what we already know, architects ought not to defy convention altogether, but simply stretch expectations within existing traditions.

Challenging this view, some suggested that it is possible to appreciate pure form. Zeki had already likened Frank Gehry's Guggenheim Museum in Bilbao to the paintings of Paul Cezanne, arguing that both are about form and not simply recognisable meaning. For Zeki, this is 'the art of the receptive field'; it is about the physical brain as much as it is about culture.

Similar points were made about what has been called 'ecstatic architecture', buildings that elicit feelings without the need to engage the intellect. In art, such direct, 'pre-semantic' effects have long been a holy grail. But how can we be sure that our responses even to 'pure form' are not in fact conditioned by culture?

Stress levels

Links between IT and architecture are rather better established, and probably less controversial. Daniel G Bobrow, of the Palo Alto Research Center in California, divided the subject into three parts: smart materials, smart buildings and smart communities. The first of these is quite straightforward: for example, bridges can be built using materials fitted with fibre-optic cables so that engineers are alerted when stress levels are becoming dangerous.

Smart buildings are basically full of gadgets. But smart communities are less obviously related to architecture. Bobrow talked about communities as expert systems, citing the Eureka system, which rewards individuals who share knowledge with a group, which is really about the 'architecture' of information itself. Gerhard Schmitt, professor of architecture and CAD at the Swiss Federal Institute of Technology suggested that IT depends as much as architecture on the Vitruvian qualities of commodity, firmness and delight. The analogy is intriguing, but it is still hard to see any practical benefits for architects.

Climate change, perhaps, puts more demands on architects. Professor Vivian Loftness of Carnegie Mellon University in Pittsburgh attempted to bring together climate research with neuroscience and IT, arguing that architects need to consider a range of issues, from temperature and ventilation to light and colour. Of course, the sustainability agenda complicates this. Can air conditioning be justified if it creates massive heat loads that disrupt the climate?

Ultimately, the conference made the reasonable suggestion that architects should build for the human mind, as well as the human body. To that end it was well worth exploring some less obvious scientific connections; to examine the gains being made in other intellectual fields – even if the results sometimes came across as being highly eccentric.

Dolan Cummings is a representative of the Institute of Ideas, www.instituteofideas.com

Planning bids

A variety of American-style zones, designed to simplify the planning process, will not work without financial inducements

BY BRIAN WATERS

Attempts at deregulation are most likely to be effective when they deal with the underlying problems, rather than their symptoms. As an antidote to the highly regulated planning system, the Planning Green Paper proposes to introduce the BPZ (Business Planning Zone). The idea is to allow local authorities to create a zone where no planning consent will be necessary, provided that the building accords with tightly defined parameters. This is the norm for American run-of-the-mill development.

While superficially attractive, in particular for the presently fashionable knowledge-based industries, it is unclear how this idea will add to the existing unsuccessful statutory arrangements for Simplified Planning Zones. Unlike the very successful Enterprise Zones which launched the regeneration of London's Docklands, neither of these comes with any fiscal incentives and so they look unlikely either to proceed or to succeed.

There is a greater prospect of success for BIDs (Business Improvement Districts). The model is American and the pressure for them comes from commerce. The government response is last December's local government White Paper (Strong Local Leadership – Quality Public Services). The aim of a BID is to provide business funding for improvements to the public realm: such things as extra policing, CCTV cameras, street furniture and enhancement of the public realm, both physically and in its management. In London, six such schemes are already in the pipeline.

Business democracy

Under the government's proposals, businesses in an area to be covered by a BID would vote on whether or not it should be introduced. The rules for the vote will be covered by legislation but most other aspects are to be settled between local authorities and the local businesses affected. They may even extend their scope to the provision of local training and employment schemes, or to funding a better rural bus service. A BID may focus on a very small area, such as a high street, or might cover a whole district council.

New York's Tammany Hall. An example of deregulated planning authority?

In an obvious way, the British BID is a response to the nationalisation of the local business rate and the removal from local business of any local democratic influence. This contrasts greatly with the way in which business in America influences, funds and identifies with local community needs. The British version might be billed as a 'Public Private Partnership initiative' but, in reality, it is being facilitated by a government which sees it as a vehicle for voluntary additional taxation.

It would be much enhanced if a proportion of the local business rate for the area were to be returned to the BID, and if the local businesses involved were to be given a vote alongside council tax payers. In this way, a BID would retrace some of the retrograde steps taken by governments in their imperative to centralise controls and would as a result be more widely supported and so provide even more resources for the public realm.

The need to address the cause rather than the symptom has a parallel in housing. Many architects today find themselves and their clients struggling inordinately with processes relating to affordable housing as they affect individual planning applications.

The present ever-shifting basis of policy, the inconsistency of its application by different authorities and the national shortage of housing corporation funds to allow registered social landlords to pay for the construction of the subsidised housing, are all causing uncertainty – from conception, to brief, to viability – of many housing and mixed-use schemes.

Costa packet

The Green Paper's proposals for tariff payments, which will extend the burden of affordable housing contributions to commercial developments, will make these complexities even more pervasive. It is not surprising then that last year, a year of boom in the housing market, the lowest number of new homes were built since 1924. The constraints of the planning system are, of course, part of the story, but the way in which the planning system is now distorting the housing market is equally significant in inhibiting supply.

Bernard Hunt of HTA Architects and chairman of the RIBA Housing Group has often suggested that the seed of the problem is the attempt to subsidise the houses rather than the people who need them. Interestingly, they do so in Spain, where home ownership is enjoyed by an even higher proportion of the population than it is in the UK.

If a family needs assistance, it is provided with a subsidised mortgage so as to make the property it needs affordable. Conditions attaching to the loan result in some of the subsidy being reimbursed when the property is eventually sold at a profit.

As a result, families in need can afford a home where they need it, they get onto the housing 'ladder', the subsidy by the taxpayer is often returned and recycled and, above all, the market which provides the homes is not distorted or the subject of social engineering. Is this really too difficult for us to adopt?

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Administration of justice can at times be a meaningless palaver

Gormenghast, Mervyn Peake's tale of crumbling decadence and everyday castle life, strangled by ancient, meaningless tradition, was inspired, apparently, by Peake's experiences in the army. Collecting judgment in the House of Lords in *Co-operative Retail Services v Taylor Young Partnership*, evoked similar images of magnificence, ceremony and, ultimately, pointlessness.

These days when a court reserves judgment, that is, goes away to think about it rather than give an extempore judgment on the spot, a written version of the judgment is usually circulated to the parties in advance. Any slips are reported back and the corrected version is then formally handed down. The parties usually attend court to pick it up and to argue about costs, but otherwise the judgment just slips into the legal ether.

Not so in the House of Lords. I was alerted to the fact that something was up when I received a page of instructions entitled 'Procedure for Judgement', which is given, not in a court, but in the chamber of the House. Counsel are required to attend in wig and gown, but leading counsel have to wear their full bottomed wigs. The member of her majesty's counsel I discovered in the robing room struggling to climb under his long wig confessed that it was the first time he'd had cause to wear it since the day of his appointment.

> 'It smacks of the ridiculous that the administration of justice should involve such a palaver'

Suitably attired, counsel made their way through the labyrinthine palace to gather outside the Brass Gates in the gilded splendour of the peers' lobby. The instructions were then at pains to make two points. The first was that although judgment is given by means of a series of questions and answers, counsel is not expected to say anything. This was a first. Never before had I been briefed to attend anywhere with express instructions to keep quiet.

The second was to mind the step. 'Oh, yes', the doorkeeper, resplendent in white tie explained. 'They always forget the step, usually trip, and sometimes bring the chair down with them.'

When the House is assembled, the brass gates are thrown open, the cause is announced and counsel are called in. Instead of finding the red leather seats thronged with peers, agog to discover whether design professionals can indeed claim contribution from contractors who are jointly insured with the employer against the subject matter of the claim, the vast chamber was populated only by the handful of law lords who heard the appeal. Between them they reported to each other on the outcome of the appeal, were asked whether they were content or discontent and were, presumably wholly unsurprised to learn that the 'contents' had it. Proceedings were concluded with a nod to counsel to leave, silently, and sure footed.

Outside in the lobby there was then a crush to obtain copies of the judgment. The team then retired for a celebratory glass, for it transpired that the answer was, no, the design professionals could not claim contribution for fire damage from our contractor clients because the contractors were insured with the employer under the joint names policy.

Of course, it smacks of the ridiculous that the administration of justice should involve such a palaver, but the law will have its traditions. Surprisingly, there is a move afoot, spearheaded by Lord Bingham of Cornhill, to take the lords out of the House and provide them with their own properly equipped, judicially efficient supreme court. The primary objective for such a move would be to distinguish between the House of Lords as an appellate court and the House of Lords as part of the legislature. At present, the court is wholly independent but its procedures are tied up with the business of government.

The second advantage would be purely practical. As Lord Bingham said in the annual justice lecture last year, it is to be doubted whether any supreme court anywhere in the developed world operates in such cramped conditions.

Lord Bingham may seem an unlikely Steerpike but until such time as he succeeds with his reforms, the splendidly anachronistic business of taking judgment in the House of Lords will continue smoothly enough, provided counsel keep their mouths shut and do not fall flat on their face.

Kim Franklin

Oh pussy cat, pussy cat, where have you been?

The *Guardian*'s Internet guru Jack Schofield is disillusioned because so many sites are of poor quality. He speaks about how 'the majority of web designers simply don't have a clue about usability... [they] typically spend hours worrying about the typeface used, the precise colour of the background and whether a button is one or two pixels too far right or left, but the fact that the site does not actually work rarely seems to bother them'. You can read Schofield's words of rare wisdom at http://www.guardian.co.uk/online.

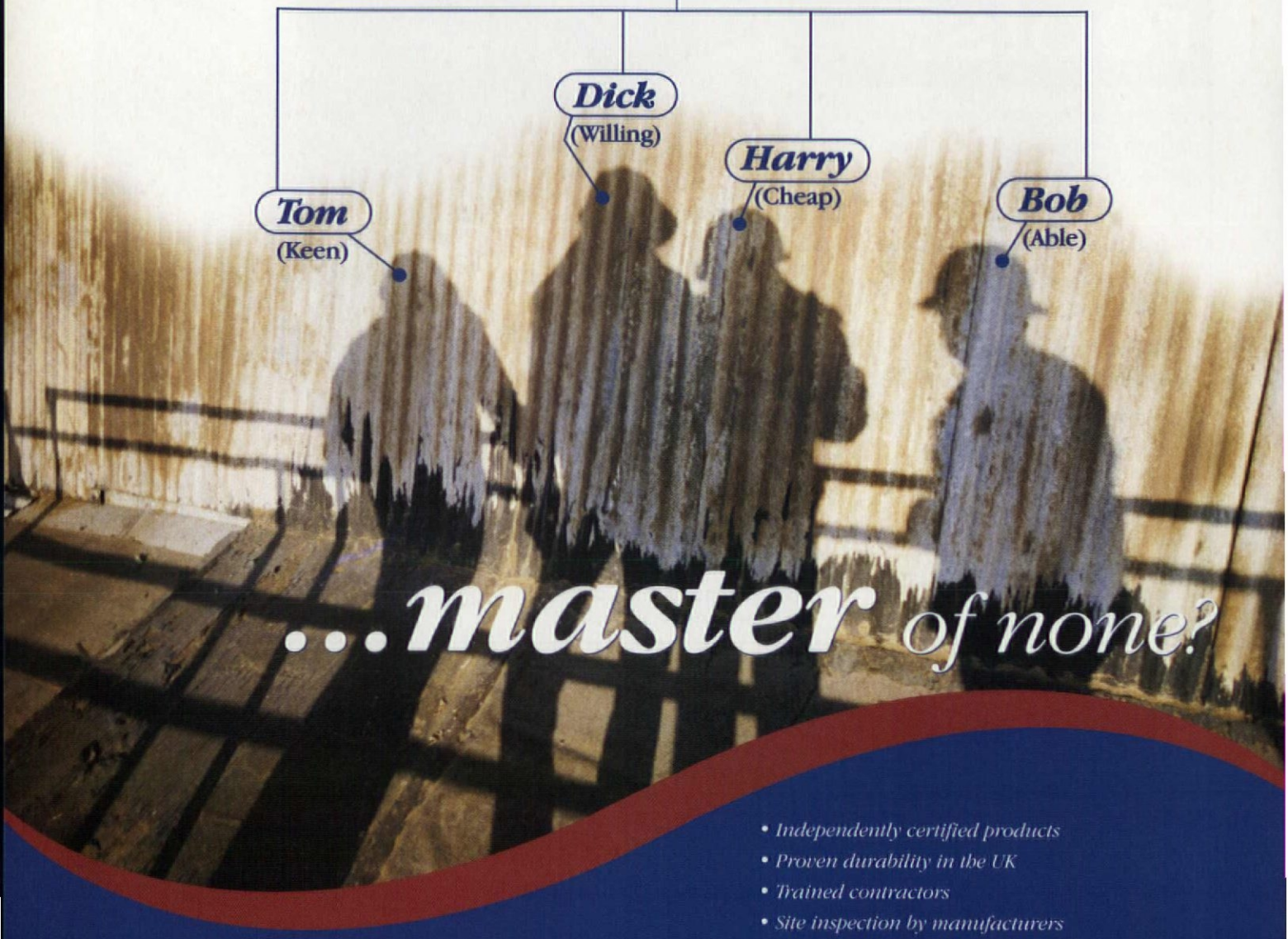
I have passed this on before but one bit of advice he repeats here is that if you cannot change the size of the type on your site (using Explorer's View, Text Size), fire your designer.

Everyone has been faced with the message 'Page not found'. It seems final. But it might not be. There are two strategies. One is to surf off somewhere else and then make a surprise return. It sometimes works and although you have the firm belief that you have outsmarted the Internet, it is more likely that the site has been overloaded with surfers.

The other strategy is for you to start chopping bits off the end of the URL in the address box. So, you might have *www.extremelyboring.com/projects/snooze/pussycats.html* in your address box. It elicits the 'not found' screen. OK, try *www.extremelyboring.com/projects/snooze/*, leaving off the *pussycats.html*. Still no go? Try leaving off *snooze/*. And then do just *www.extremelyboring.com*. And then you could try *www.extremelyboring.co.uk*. Or even *www.extremelyinteresting.com*. You really want this address? OK, try a Google search. It usually shows you that the site address really ended in... *pussycat.htm*. On the other hand, the site may have disappeared because the owner forgot to renew their two-year ownership of the URL – or decided to go to Tahiti for the winter.

sutherland.lyall@btinternet.com

Jack, of all trades...



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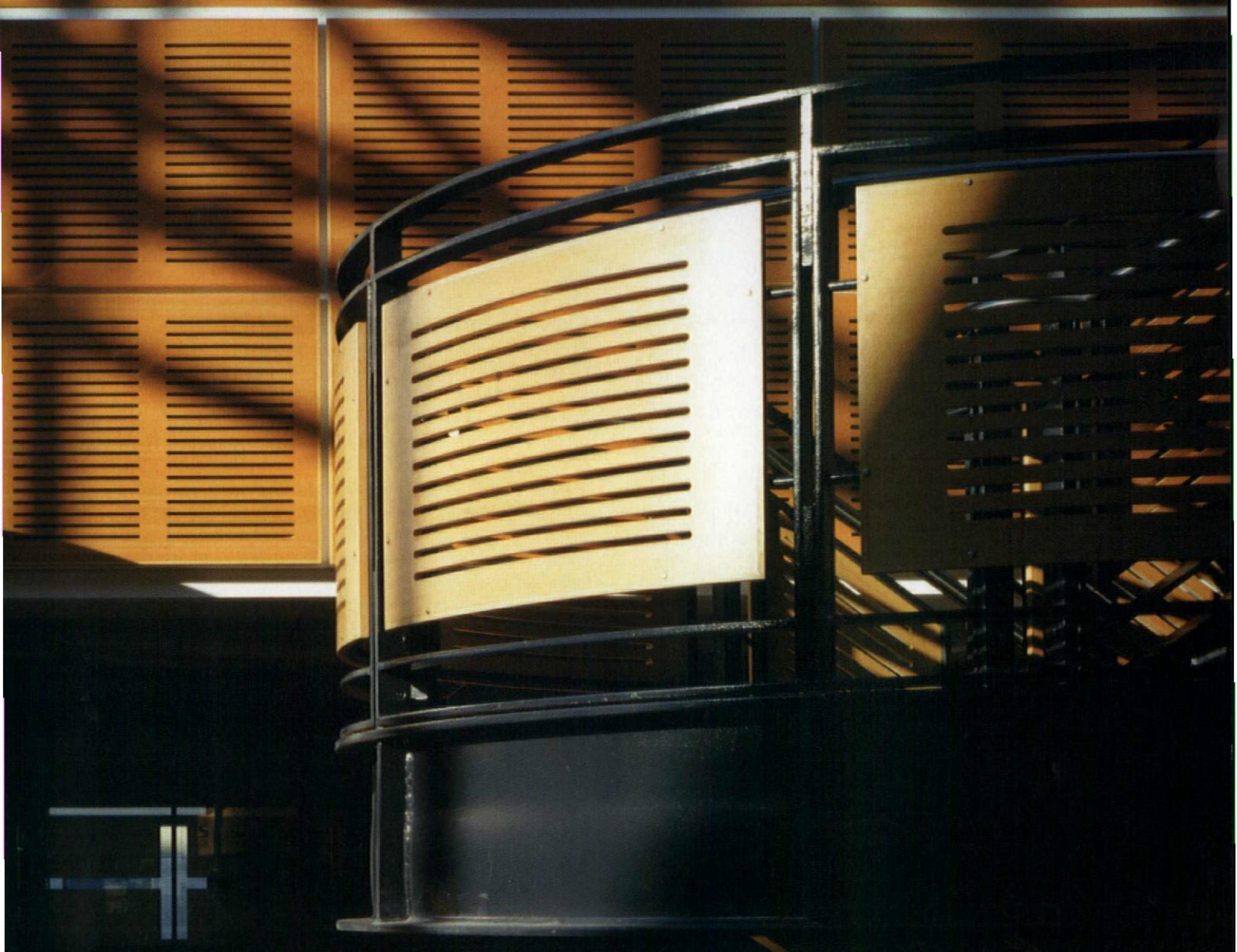


Timber in Architecture

a supplement to the architects' journal

'It will never work,' the builder told me sadly. 'The client will have problems within 18 months, and then they will blame me.' He was talking about a new building, beautiful in concept and where the architect had made substantial use of timber. The problem, he said, was that the architect had not understood the material and was treating it in a way that would make it prey to damp – to swelling, distortion and, possibly, even to rot.

This was not a builder who wanted to be negative about contemporary architecture, and neither is it a negative story about timber. All materials must be understood to be specified properly. Pushing materials to their limits so that they can be used in new and imaginative ways is admirable; ignoring their limitations is not.

The wood.for good campaign is now well established in the consciousness of both the public and the profession. Awareness is growing that timber is an attractive, versatile and environmentally good material to use in buildings. But to use a material well, you must understand what it can and cannot do.

Pitfalls are not a problem with timber alone. My builder friend had equally sorry tales to tell me about other materials. And there is really no excuse for getting it wrong. There are plenty of existing sources of information on timber – TRADA is an obvious one; wood.for good is doing a sterling job; and publications like this supplement aim both to inspire and educate the reader about the use of timber.

My builder friend was depressed because he loved contemporary architecture but disliked seeing exciting concepts ruined by poor detail. The projects shown here are by architects who are also excited by the potential but have not allowed that excitement to overwhelm their judgement. I hope you enjoy reading this supplement as much as I enjoyed editing it. If you treat it as a step in your learning process about a terrific material then in years to come my builder friend, and his successors, may find themselves doing a little less head shaking and a lot more celebrating.

Ruth Slavid
Special projects editor, *The Architects' Journal*

Cover image shows Temple Quay, Bristol
Photograph by Paul Highnam

Visitor centre fit for a king

Timber frame and softwood cladding have been used on the new visitor centre at Sutton Hoo in Suffolk, the burial ground of the seventh-century kings of East Anglia. Architect van Heyningen and Haward designed the two buildings, one to house the exhibition and audio-visual theatre and the other as a reception area with cafe, kitchens and shop. The exhibition contains the reconstruction of a burial ship, a treasury room where some of the original finds are on display, and a film viewing room.

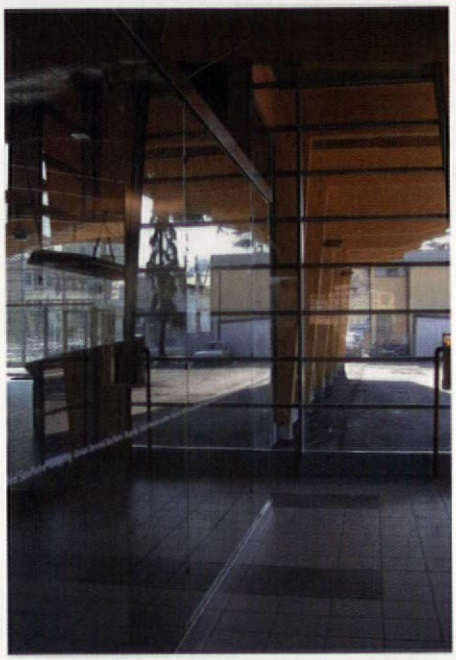
Both buildings are framed with Douglas Fir and clad with softwood weatherboarding, a traditional construction method common to the region. The cladding and frame are treated with environmentally non-polluting preservatives.

Douglas Fir echoes the materials used in the Anglo-Saxon burial ship. The buildings have pitched roofs with purlins and rafters supported on 150 x 150mm square Douglas fir columns. The frame is braced and connected using exposed metal rods and brackets, echoing the metal rivets that connected the timbers of the Anglo-Saxon ship. The ceiling is clad with softwood boarding slats with an intumescent coating; the slats are spaced apart and backed with acoustic insulation to allow sound to be absorbed. The structural engineer was Price & Myers.

Chris Wilderspin, project architect for the visitor centre, said: 'Timber is part of our ethos, it's a very sustainable resource and the use of timber matches the philosophy of the National Trust to commission buildings which are sympathetic to their surroundings.'

Decking firm makes its mark

Decking can be used far more extensively than simply to make a small garden look almost trendy. One instance of this more widespread use is at Roberts Primary School in Dudley, where the extensive surrounding timber decking was designed and installed by HLD. The company is currently celebrating the fact that it has achieved DeckMark accreditation from the Timber Decking Association for the design and installation of timber decks.



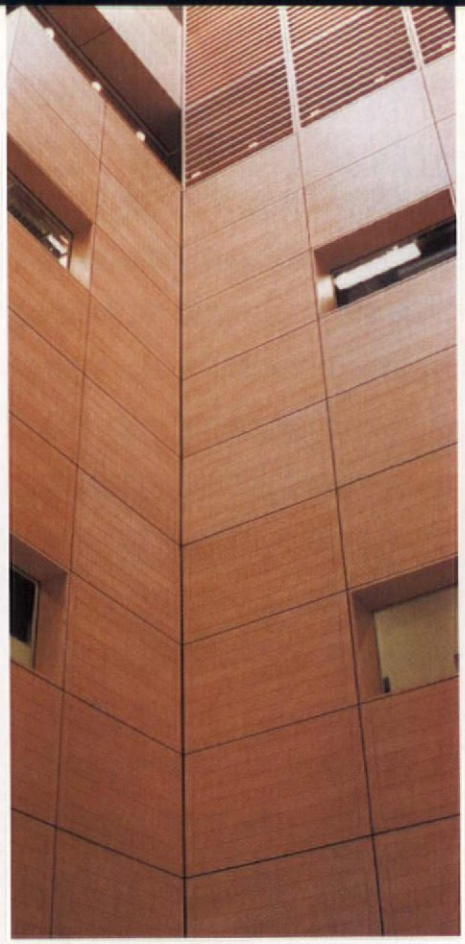
When in Rome...

Try and think of the five most famous places in Europe and Saint Peter's in Rome is likely to be on the list. The historical associations are manifold – the basilica itself, the Pope, the Vatican city, all set within a city packed with Roman remains. It is therefore both surprising and exciting to see a piece of unassuming, but confident, contemporary design inserted in the heart of Roman Catholicism. The building, only 300m from the basilica, is a railway station, built as the terminus for a new metro line constructed as part of the 2000 jubilee celebrations.

Designed by architect Marco Tamino, working with technical staff of the Grandi Stazioni team, the building uses sinuously curved fir glulam. This achieves spans of up to 18m, with elements joined by carbon steel plates. The building has extensive glazing and a prefabricated concrete floating floor with a grey ceramic finish above it.

As well as fitting into such a sensitive site, the building had to be designed in a manner that allowed simple prefabrication. This was essential since not only was the construction period very short, but so was the projected lifespan of the building. With other uses earmarked for the site, the station had to be designed with disassembly and removal to a new site in mind. It was prefabricated in three sections each of about 400m^2. With two zones of connection as well, the total structure covers about 1,400m^2.

Timber is probably not the first building material that comes to mind in this most monumental of cities. But as this station demonstrates, it has great advantages both in practical terms and in providing an architectural solution that neither jars nor smacks of embarrassing pastiche.



Atrium triumph

Timber cladding has been used extensively for the atrium of a large telecommunications company's office in Dublin. The atrium has viewing windows made with fire-resistant Pyrobel glass – an indication if one were needed that timber can be used successfully in environments with rigorous requirements for fire performance.

Cowshed timbers up for Pilates

It took television presenter John Revell (formerly Virgin Radio's Johnny Boy) only six days to turn an unsightly cowshed into a Pilates studio for his wife and a carpentry workshop for himself. Revell, appropriately considering the use to which he was putting the building, clad it inside and out with softwood. He said:' The project, which took just six days, used softwood cladding throughout and aside from being the most economic route, it was agreed to be the most attractive way of disguising what was once an ugly brick building.' Revell's enthusiasm for timber is reflected in the fact that he is a member of the Wood.for Good advisory board. His cowshed conversion forms the basis of a series on the Discovery Channel, *The House John Rebuilt*.

Hitting the right timbre

With the plentiful use of timber, Pringle Richards Sharratt, architect of the new music school and auditorium at Shrewsbury School, has been able to overcome the problem of acoustics, and at the same time design a building appropriate to its country surroundings

By Ruth Slavid. Photographs by Edmund Sumner

Acoustics is a tricky subject. Look at most well-designed buildings and you can immediately grasp the main points of the architect's thinking and, unless any tricks have been played deliberately, of the structure. Glance at a section, at the orientation and at any shading and vents, and you can get a pretty good idea of the environmental strategy as well. But acoustics is a subject with far more pitfalls, affected in a complex manner by shape, by choices of material and even by the routes by which air enters and leaves a building.

John Pringle of Pringle Richards Sharratt, architect of the new music school and auditorium at Shrewsbury School, says: 'Acoustics has far more hidden traps than other aspects of the building'. At Shrewsbury, these traps had to be avoided, and at the same time the school had to be built on a restricted budget (at £1,350,000 for 1,315m^2 only £1,025/m^2) and to a tight schedule.

Pringle worked with Richard Cowell of Arup Acoustics to produce a solution that kept the architect's vision intact while providing an excellent acoustic and adopting solutions that were new to the UK. It makes plentiful use of timber, partly for its acoustic properties and partly because it seemed appropriate to a building in the grounds of a country school.

The auditorium sits at the centre of the building, with the practice rooms around it. One of the first changes that Cowell and Pringle came up with was to set the auditorium more deeply into the ground to give it more height, and hence volume. The sloping tiled roof, with a clerestory near the top, rises above the practice rooms but manages not to dwarf them. Facing outwards, these practice rooms have splayed outer walls that prevent standing sound waves developing, and they benefit from daylight and views.

But the elliptical form that gave the practice rooms their splayed walls posed potential problems for the auditorium itself. Any concave curved surface can focus sound in an undesirable manner. Architect and acoustician therefore devised an octagonal shape for the auditorium to fit within the ellipse. For the ceiling, explains Pringle: 'We went out to tender on a studwork panel system of joists with plywood screwed on either side to create a stressed skin. But this didn't give enough mass for acoustic attenuation.' Looking for alternatives, the architect, which has worked in Germany, came across a system from Merk Holzbau. Its Dickholz (literally 'thick wood' or laminated timber) panels are made of spruce and were supported on an elliptical spruce ring beam. They were strong enough not to need additional structural support and in fact could support directly a high-level cupola containing lighting, ventilation and sound baffles.

Cowell explained that 'in order to stop absorption at very low frequencies, we needed to have a stiff roof structure. On the long sides of the roof, we wanted to put more material. In the end, for economy, the panels were framed out and stiffened.' At the ends it was necessary to have convex panels. These panels do curve into the room but, due to the optical effects of the roof shape, this is scarcely visually perceptible.

Because of this and other requirements, the Dickholz panels in the auditorium had to be lined. However, they are visible in their original form in the practice rooms. Pringle was full of admiration for Merk's technology and craftsmanship: 'They took our 3D CAD files, then programmed directly the CNC cutting machines, to a very precise geometry. This meant there were few carpenters needed on site but that they, subcontracted to Merk, were excellent.' In fact Pringle also persuaded them to construct the building's larch-framed windows which they did 'beautifully'.

The building stands on a slope so that part of it can be set into the ground. Practice rooms for noisy activities are kept on this lower level, well insulated acoustically from their surroundings. A corridor running around the auditorium isolates it from the practice rooms, which are of a shape that means they throw their sound outwards. Timber fins between the rooms prevent the transmission of sound from one room to another around the perimeter.

The building stands on a brick plinth, constructed in traditional 'English garden wall' bond to echo its surroundings. Above this level, it is built using timber-frame 'breathing wall' techniques, with the wall panels in Western Red Cedar.

With engineer Buro Happold, it was decided to use natural ventilation, not just in the practice rooms but also in the main auditorium. Air is drawn in from the undercroft, mainly from under the seating, and by a stack effect rises to the roof from where it is extracted. Sound attenuators at low and high level have all been sized similarly, presenting an economy of scale.

Describing the collaboration in general terms, Cowell says: 'I think it was very productive. I felt that John [Pringle] managed to pull it all together quite nicely.'

Reaction from the users has been positive. For a modest sum, the school now has a handsome building with excellent acoustics, plenty of daylight, low running costs and good environmental credentials.

CREDITS

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April 2000
FINISH DATE
February 2001
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Arup Acoustics
QUANTITY SURVEYOR
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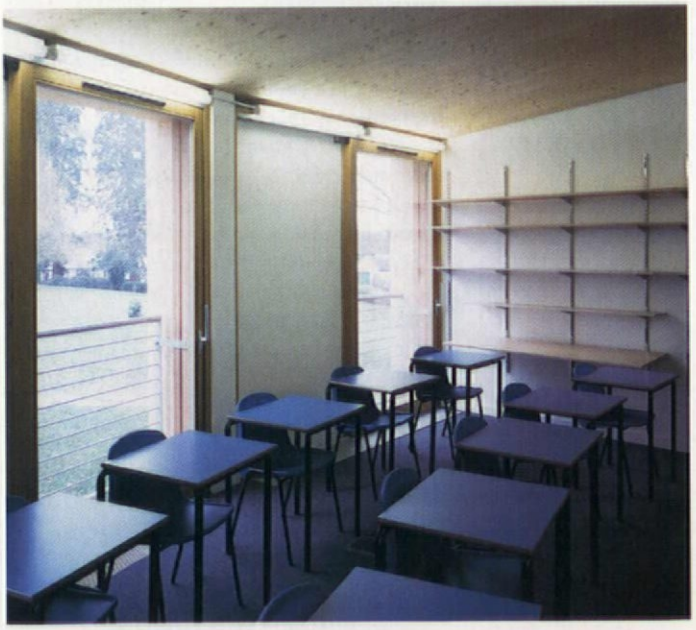
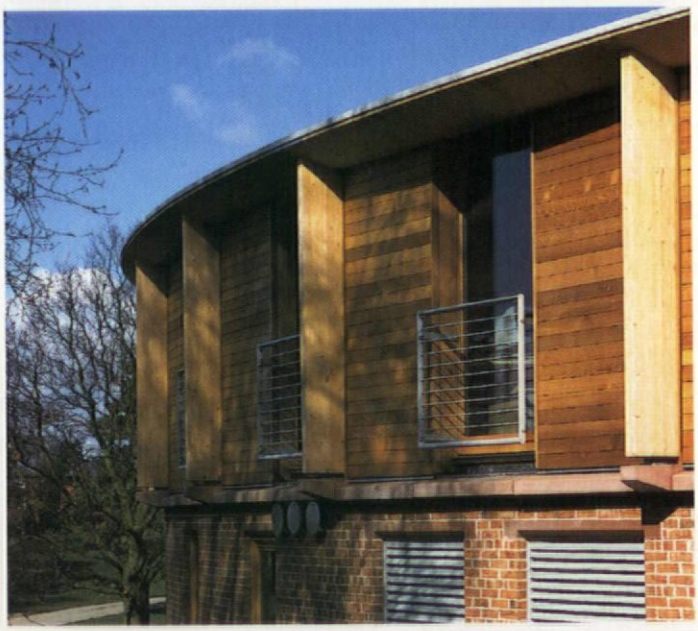
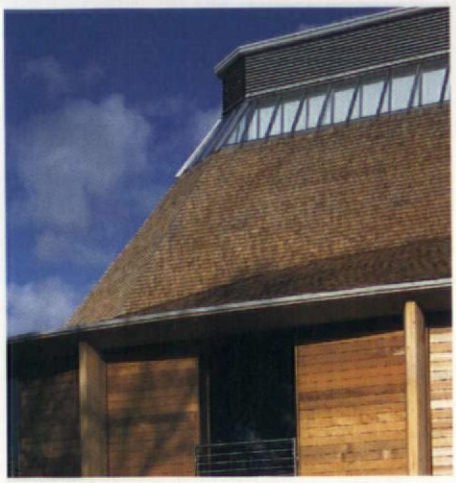
CONTRACTOR & PLANNING SUPERVISOR
Bowmer & Kirkland







The Dickholz system was used for the polygonal ceiling of the auditorium (top) and the practice rooms (above left). Placing these rooms around the perimeter of the building allows them to benefit from natural light, and timber fins prevent sound transmission between them (above and left)

A breath of fresh air

The new library in March is the first in Cambridgeshire to be naturally ventilated. Bernard Stilwell Architects has used the financial savings to create a contemporary design that uses timber with deceptive simplicity

By Ruth Slavid. Photographs by Jeremy Cockaigne

Because the elements of the elegant timber structure are relatively large, they create a visual barrier between inside and outside. There are opening timber windows in alternate bays (above)

My first thought when looking at images of the new library in March, Cambridgeshire, was how refreshing it was to see such uncompromisingly contemporary design executed in timber. But for the architect, Bernard Stilwell, the material also acts as something of a Trojan horse. 'If we are doing some fairly serious architectural things with severe geometry,' he explains. 'Timber avoids people's feeling that the shape is too harsh, and hence trying to soften it up. It is something they can empathise with.'

However, this was not Stilwell's only reason for selecting timber. 'The structural sizes tend to be slightly bigger than for steel,' he says, and in this case that is an advantage. The main library is a single, wedge-shaped space with glulam beams supporting the sloping roof, themselves supported on the glazed side by glulam beams. There is a steel truss beam running along the centre of the building.

As one looks along the length of the library, the glulam columns form an important visual element. 'You have the feeling of internal space,' says Stilwell. 'You get a lot of natural light, but you don't feel that you are outside. At the walls and ceiling level, it gives a more interesting feeling of being inside.' With more slender steel columns, this effect would have been largely lost.

This typifies Stilwell's approach to the building, which has a deceptive simplicity achieved as the result of some complex thinking.

He has combined a number of potentially conflicting elements in a single building, given the town a new urban space and, through careful environmental thinking, found the money for quality within a tight budget by cutting out the cost of air conditioning. This he did through some exhaustive discussions with the mechanical and electrical engineering consultant, Jenks Associates, proving that the building could successfully be passively ventilated. It is the only library owned by Cambridgeshire County Council not to have air conditioning.

The building was commissioned because the existing library was too small. It was funded by combining it with the register of births, marriages and deaths, and with computer training facilities for Isle College, a local further-education college. The £1,250,000 of funds were assembled from a variety of sources. Costs came to about £1,000/m^2.

The site, owned by the district council, was disused although in a prime position – near the town centre, beside the River Nene and near a public park. It was also next to a leisure centre that architecturally was 'very mediocre', according to Stilwell.

The site had no real boundaries. Stilwell's first decision was to push the building right to one side of the site, turning its back to the

leisure centre and acting as a catalyst building for the area. By creating a 10° shift between the main space and the enveloping space, it was possible to frame the backs of the town in a satisfactory way and create a new urban space. This twist also set up some interesting geometry, ensuring that the main space, although fundamentally simple, looks different depending on which way one is looking.

The glazed front wall cants forward, reducing glare and solar gain. Set into it are opening timber windows from Velfac, in every other bay – a continuation of the language of timber.

Because the glulam beams are canted as well, the engineering of them was relatively complex. They have been resolved beautifully, with a supremely rational positioning of the fixings. Stilwell worked closely with Danish glulam manufacturer Molven. 'They gave us a lot of help,' says Stilwell. 'We did virtually all the engineering details, and got Molven to sanction some of it.' Unfortunately for Molven, when the contract for the glulam was awarded, it went elsewhere, to Lamisell. The timber used is Scandinavian whitewood.

Stilwell wanted the shelving within the library to follow a similarly rationalist line, but had to bow to the accepted wisdom of librarianship which decrees that long runs of shelves are intimidating to users. But a compromise arrangement in fact gives a liveliness to the space.

There were other compromises, not surprisingly with a tight budget. The lighting is more basic than Stilwell would have liked. A planned collaboration with artist Chris Drury failed to happen when Lottery funding was not forthcoming. But Stilwell managed to incorporate some of Drury's ideas about water and flow into the design of the external landscape.

No publicly funded project on a tight budget is likely to be entirely satisfactory to its initiator. But the March library is an elegant, confident piece of work of which the town must be very proud. By careful juggling of finances it has created an exemplar of a building type that is often under threat. And through its choice of architect, March has ended up with a building that is bold, uncompromisingly contemporary and not at all threatening – a combination of achievements in which timber played a significant role.

ARCHITECT
Bernard Stilwell Architects
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MECHANICAL & ELECTRICAL ENGINEER
Jenks Associates
QUANTITY SURVEYOR
Tillyard
LANDSCAPE CONSULTANT
Jeremy Lever
CONTRACTOR
John Mowlem

A glulam column and beam structure

working details

The single-storey library building consists of a lofty wedge-shaped public library area encompassed on three sides by cellular office accommodation.

The long east wall of the library area is fully glazed to minimise the use of artificial light; it slopes outwards as it rises, protected by an overhanging eaves, to avoid glare and solar gain.

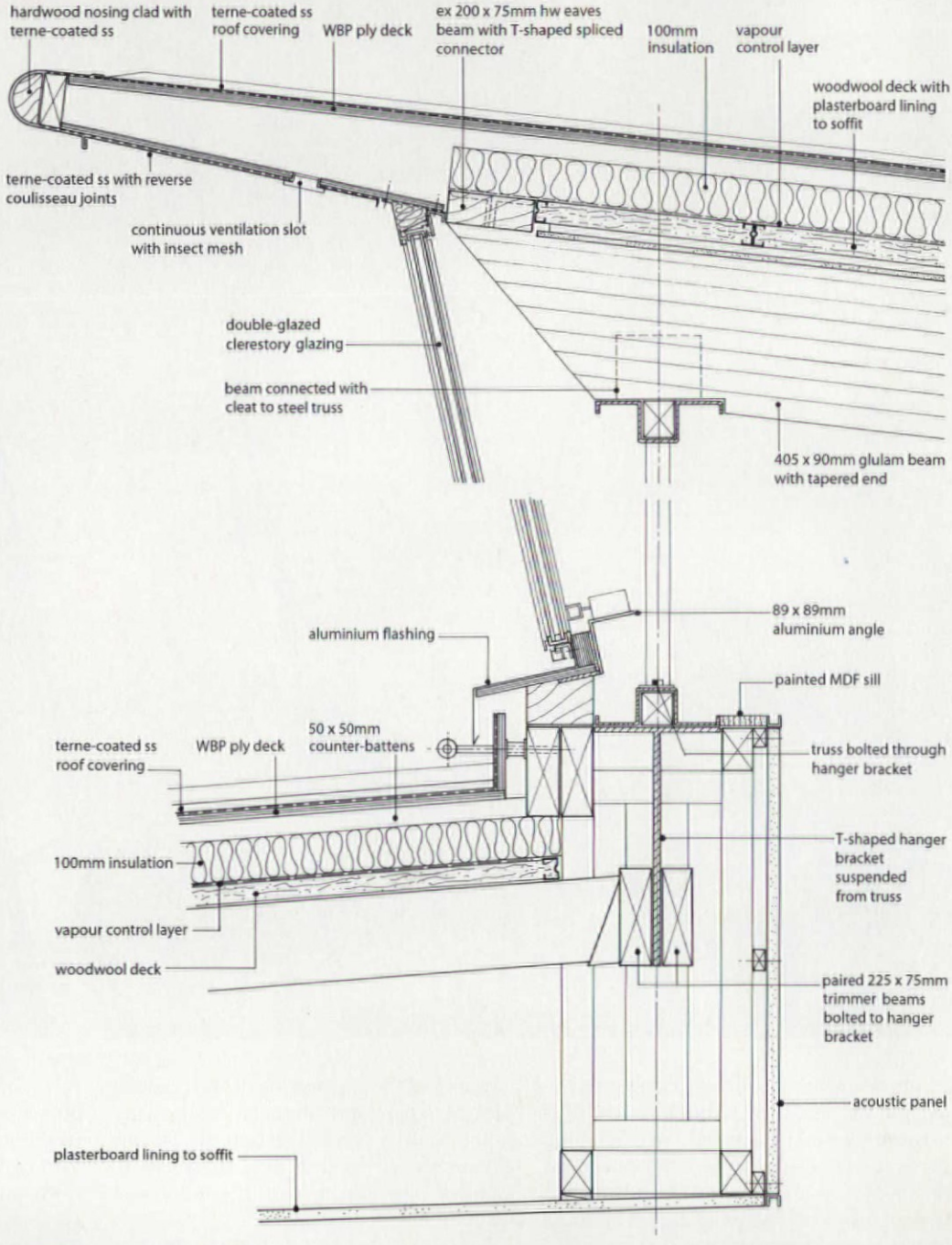
The structure consists of a series of 405 x 90mm glulam columns which run along the east wall at 2.1m centres and slope to match the inclination of the glazing. They support 405 x 90mm glulam beams which run the full width of the building, supported at the centre by cross beams which in turn are supported by four circular steel columns at 6.3m centres.

The west wall of the building is of dark blue cavity brickwork with a 1.6m deep glazed clerestory running above. The ends of the glulam beams rest on a delicate steel truss which runs the full length of the clerestory.

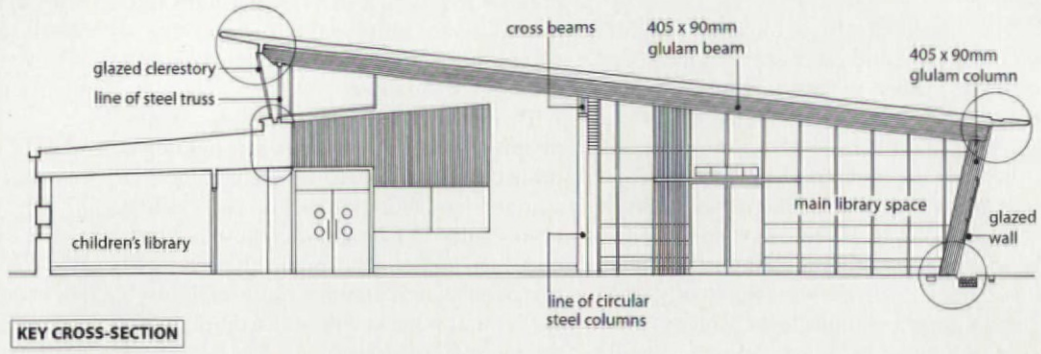
Each glulam column is flitched at its base with 24mm diameter bolts to a steel flitch plate with a welded base plate bolted to the concrete foundation slab. At the eaves the column is flitched with a steel flitch plate to the glulam beam and bolted with 24mm diameter bolts. To distribute loads effectively the bolts are slotted with 70mm diameter galvanised steel washers. A 200 x 75mm timber eaves beam runs above the eaves flitch to brace the structure and act as a trim to the glazed wall and the insulated wood-wool roof deck.

The roof is covered with a WBP ply deck and terne-coated stainless steel sheet. The eaves is formed of a projecting ply box structure covered with terne-coated stainless steel and terminating in a treated softwood nosing.

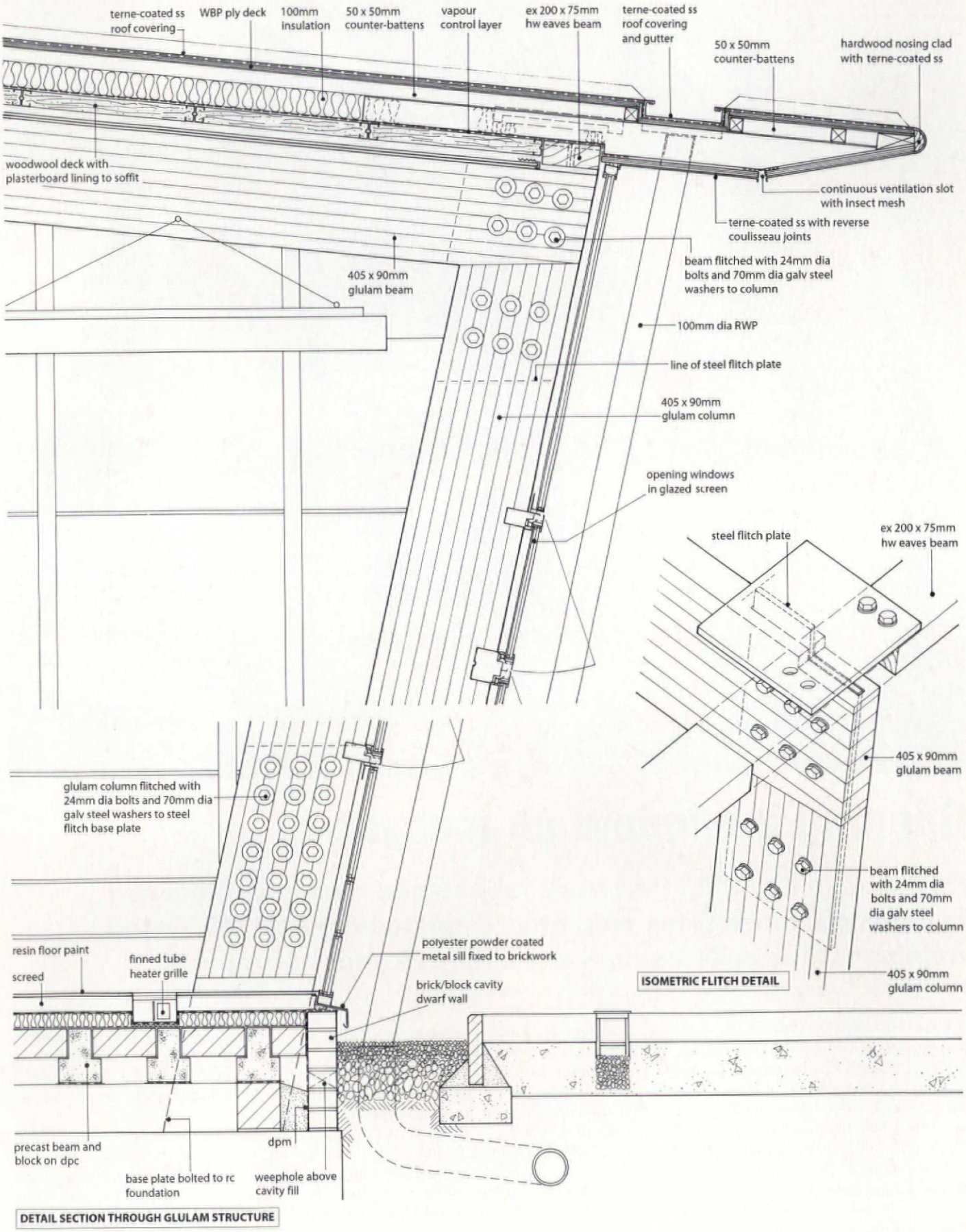
Susan Dawson



DETAIL SECTION AT CLERESTORY



KEY CROSS-SECTION



DETAIL SECTION THROUGH GLULAM STRUCTURE

Opening a window on innovation

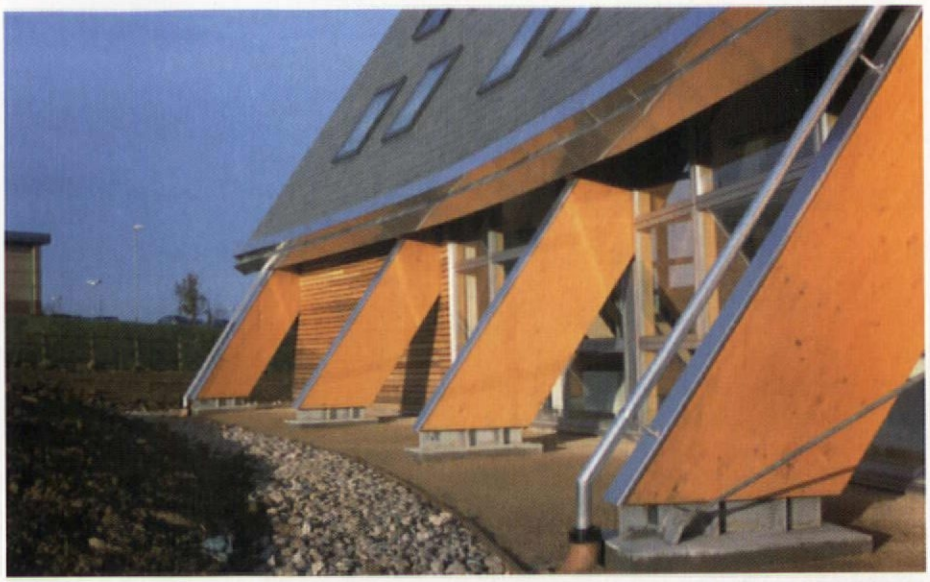
Designed to highlight the structural, aesthetic and environmental benefits of timber, Velux's recently completed regional offices and training facility in Kettering is also a showcase for its products

By George Demetri. Photographs by Adam Wilson

It is a sad fact that when it comes to considering materials for primary structure, timber is still not thought of in the same way as steel, concrete and masonry. But it is catching up fast. Timber's credentials as one of the most sustainable building materials on the planet – indeed, the only renewable building material – are giving it a slowly growing market share in an increasingly ecologically minded construction industry. Timber becomes an even more attractive option when all its many advantages are considered, particularly structural performance.

According to the Glue Laminated Timber Association, a 550mm x 135mm softwood glulam beam has the equivalent performance to a 305mm x 165mm steel 'I' beam. Yet the glulam beam requires only a sixth of the energy for its production, and only a fifth of the energy required to produce a comparable 400mm x 250mm reinforced-concrete beam. In terms of weight, a structural steel beam can be up to 20 per cent heavier and a concrete beam 600 per cent heavier than an equivalent glulam beam. Yet the production of steel and concrete results in polluting by-products.

One architectural practice that has capitalised fully on the benefits of timber is White Design Associates, architect for Velux's recently completed regional offices and training facility in Kettering. Designed mainly in timber, the striking building,



The dramatic building combines a Scandinavian aesthetic with low embodied energy and minimal energy consumption

engineered by Buro Happold, not only has a low embodied-energy glulam structure and a highly insulated envelope to minimise energy consumption, but also natural cross ventilation and maximum daylight to optimise user comfort. As such, it is a fitting advertisement for the client's environmental credentials.

Highly photogenic

In addition to the durability, sustainability and economy targets the client had set, the building also had to showcase the company's roof windows and have the 'most photographed roof in Europe'. Whether this will be achieved remains to be seen. The highly conspicuous structure comprises a glued-laminated (glulam) timber A-frame configuration which gives the building both its characteristic triangular form and transverse stability. This arrangement has created two large roof slopes accommodating a variety of Velux windows in a way that is not too dissimilar from the company's Glenrothes HQ.

Two opposing lines of glulam ribs spaced at 6m centres form the sloping sides of the A-shape. This configuration is asymmetrical both in height and in shape: the north-elevation ribs are cruck-shaped and overlap the ridge on a higher level than the straighter ribs of the south elevation. This creates a convenient gap which is exploited both for ventilation and clerestory lighting, but it also creates two distinct roof forms: on the south elevation, an elegant concave sweep clad in natural slate; on the north, a double-convex slope covered with shingles of Canadian cedar. Arranged along a broadly east-west axis, the plan curves as the grid rotates by 4° and 9° in response to the site boundaries.

Imported from Denmark, the impressively engineered glulam beams were chosen by the architect as a high-quality, structurally efficient material that could be formed easily to create the shape and scale of the ribs. Spanning 15.5m and reaching 12m high to the apex, the 800mm x 200mm glued laminated components define the form of the building and provide the structure from which the steel second floor is hung.

Each pair of opposing glulam ribs is connected by a circular steel column rising from the ground-floor slab and repeating along the central axis of the building. Horizontal glulam purlins on each side of the building give lateral stability and these are formed into continuous members running the entire length of the building by carefully detailed steel connectors bolted to the primary ribs. Where ribs meet the ground concrete slab, they fit into a steel-foot fixing detail. Connections such as these, which transfer stresses from timber components into concrete, are often the most difficult aspect of an engineered timber structure to detail.

The pleasing aesthetics of exposed glulam structural members allow them to protrude here and there to add to the overall Scandinavian aesthetic – clearly important to the Danish client. Penetrating the external envelope is not a problem for glulam, as its insulation properties are sufficient to eliminate the risk of cold bridging. In addition, energy consumption is further reduced as glulam has a low thermal mass and does not readily absorb space-heating energy.

Breathable structure

Timber is the predominant material throughout the building. The external vertical walls are made of a breathable construction which comprises 250mm-thick softwood framing with Rockwool insulation infill. This is faced with a breathable, 15mm bitumen-impregnated fibreboard onto which a rainscreen construction is applied, comprising 25mm x 70mm untreated horizontal cedar slats on treated battens. Ample ventilation is provided by 15mm air gaps between each slat. Two layers of plasterboard on a vapour barrier are applied to the framing on the internal side. This construction, which borrows much from breathable roof constructions, is broadly similar to that used on the north- and south-facing slopes, where a Tyvek membrane was substituted for the impregnated fibreboard. The resulting highly insulated construction plays a great part in saving energy and providing comfortable working temperatures.

The building's highly insulated, low-mass timber envelope is built around the thermally massive concrete construction of the ground and first floor, which helps to regulate internal air temperature. Environmental performance was high on the agenda of the building's design, and this extended to all timber used, which had to be from responsibly managed sources. The architect was keen to enforce such a strict policy.

Project leader David Noble of White Design Associates says: 'Where possible, we insisted that all timber for this project, whether hard- or softwood, should be from sustainable sources. We inserted a clause to this effect in the specification. However, we had to reject a delivery of plywood as it was from an unknown source and did not conform.'

The architect also wanted to avoid the inclusion of products that contained tropical hardwoods. Such species would only be allowed if the contractor could furnish information that included: the species and country of origin; the name of the concession/plantation within each of the origin countries supplying the products; copies of appropriate forestry policies to confirm adherence to sustainable policies; and, evidence to confirm the UK supplier actually obtained the timbers from the given plantation.

It may sound rather involved, but such detail has resulted in a building of exceptional design quality, where the use of glued laminated timber components fulfils structural, aesthetic and environmental roles. The client is clearly impressed, as is Kettering Planning Committee, which has already highly commended the building. This looks to be the first of a series of commendations and awards which this innovative design should win in the coming months.

Sustainable credentials

Architect Stride Treglown's use of timber in two buildings in Bristol – part of a new office complex in the old Temple Meads railway yard – has highlighted the green nature of this under-utilised building material

By Sutherland Lyall. Photographs by Paul Highnam

Glass, steel, concrete yes. But you do not necessarily associate atria with the other mainstream building material, timber. It may be something to do with the perception of fire ratings. Yet concrete has to be fireproof, steel has to be fireproofed – and it is not exactly difficult to impregnate timber with fire retardants. Spread of flame is probably seen to be the big issue. Despite promising work by the BRE on its big, multi-storey timber structure test rigs at Cardington, timber is still likely to find most of its use in commercial buildings as skins and fittings and furniture.

But Bristol-based Stride Treglown has used timber panelling in two new buildings – part of a new office complex in the old Temple Meads railway yard. The first building has a trapezoidal plan with a similarly shaped atrium in the middle, lit from above by a glass roof. The second, just completed, has a roughly U-shaped plan with one side of the atrium a sheer planar glass wall. In both cases the architect has used laser-slotted timber panelling which has, according to the clients, a humanising effect and, with the aid of an absorbent quilt, attenuates sound in spaces which have the potential for prolonged echoes.

BREEAM rating

Temple Quay House is the earlier of the two Stride Treglown buildings on this brownfield site and has special sustainability credentials. The client was a partnership between developer Castlemore Securities and the prospective occupant, the DETR – now DEFRA.

Their brief was that the building should be green and, although what that meant was partly down to the architect, they asked that the building should have an 'excellent' BREEAM rating. The architect and services engineer achieved that with a score of 74.7 and an environmental performance index (EPI) score of nine out of 10. This was partly achieved by measures such as harvesting rainwater for WC cisterns and indoor plants – and the use of a brownfield site. But the main measure was designing the office as a naturally lit and ventilated building with back-up during extremes of temperature. The atrium's natural stack effect is used to draw air from the offices where it is exhausted via louvres in the glass roof. The exposed soffits of the concrete floors are deployed in the service of absorbing heat by day and releasing it during a night-time cooling cycle when the roof vents are opened. During winter, heat in the atrium is recycled to indirectly pre-heat fresh air and adiabatic, rather than steam, humidification is used during this cold season. Whatever artificial light is needed is controlled by detectors in each light fitting.

Martin Pease, project architect for Stride Treglown, says although green buildings are reckoned to be more expensive to build, Temple Quay House shows it is possible to go convincingly green at current market rates.

The DETR/DEFRA had occupied a number of buildings one of which had a steel, concrete and glass atrium. Pease explains: 'They wanted a counterpoint to that, a building which was soft and warm and inviting. We did a lot of work on the kinds of materials we could use to achieve that. Acoustically the space was like a large cathedral. What we needed was something that would absorb sound.'

Part of the design solution was to use curving balconies that extended the edges of the office floors on the south and east edges of the atrium. The glazed office walls remain orthogonal but these flowing walkway routes, however redundant they seem in terms of pedestrian traffic, actually animate the space – and also provide lots of soffit area to which acoustic treatment can be applied.

The basic sound-absorbent element is CNC machine-cut slotted 18mm ply laid over a 50mm absorbent quilt. This is used as flat, shaped acoustic ceiling panels to the balcony soffits, and as rectangular spandrel panels to all the office windows overlooking the atrium. All these came from Kidlington firm Kingerlee. The windows and spandrels are framed in timber painted the same grey as the structural steelwork of the balconies.

According to Pease, the great advantage with CNC machine cutting 'is that you can have curved slots just as easily as straight slots'. The curving slots to the shaped panels of balcony soffits are reminiscent of the filigree on a guitar. The sweeping curves of the balconies, reinforced by natural material, are counterpoints to the man-made steel of the balcony structure.

'We chose birch as the facing layer for the ply. We wanted a consistent colour and finish, one which was quite pale and blonde and which would make the slots look quite dark and show them up.'

Noise absorption

On the ground floor, there are low-curving slotted screens demarcating the public realm from user space. These screens have the same construction except that the quilt is sandwiched between two facings of slotted ply. This is not deploying the economies of scale because they are specially curved and the quilt has the real function of absorbing noise from people walking on the hard marble ground floor and talking at the tables in the adjacent non-public zone of this floor.

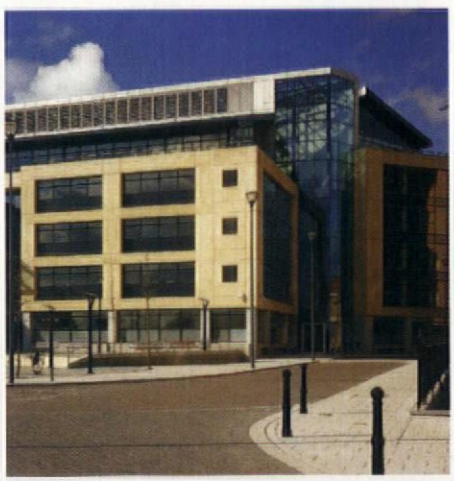
A special timber feature is the reception desk. It has a canopy whose structure is a bit like an old-fashioned light-aircraft wing, timber ribs and a veneered ply skin. It is suspended by cables and stabilised by props attached to a wooden mast. It is a single straight piece of kiln-dried ash cantilevering up from a metal shoe cast in the floor. The load of the canopy and the tensioning of the rigging mean that it is bent. Once the loads are removed, Pease promises, the mast will straighten out.

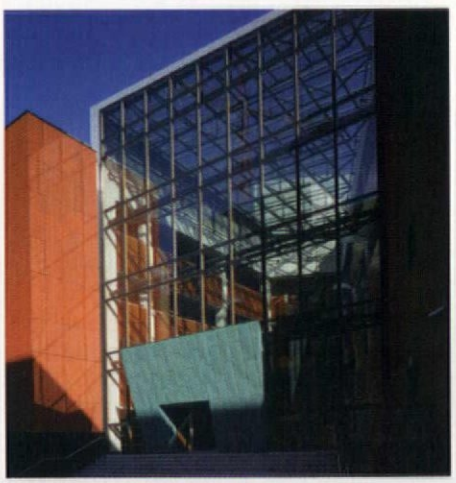
Although it is not related in any way in terms of tenancy, the newly completed adjacent building, No 2 Rivergate, has the same aluminium-faced timber external windows from Velfac and much use of the same slotted panelling inside, this time from Davis Carpentry of Bristol. This is a different building: the office floors are open to the atrium and separated from it at each of the three floor levels by balustrades. These are made up of slotted panels whose 2.7m depth accommodates both the edge of the slab and the depth of the raised floor behind.

Pease used the panels on the sides of the freestanding main staircase as well as on the edges of the slabs. He says: 'The timber detailing is much the same as at Temple Quay House but because of the smaller scale, we tried to use a richer, warmer material. We chose Columbian pine. You get colour variations but we quite enjoy the fact that some panels are red, some pink, some yellow. This building has simpler fire issues and we used a matt clear surface treatment to cope with spread of flame.'

Here the flat panels are veneered MDF and the curved panels on the staircase are three layers of flexiply which is curved and then veneered and given hardwood lipping before the slots are cut.

A feature of the sheer glass wall is a big irregularly shaped copper-clad entrance box inserted through the lower glazing. It is lined with horizontal panels of American white oak. Pease says: 'This is an inside-outside space. The white oak is stable when it's wet and, lovely, dense wood that it is, it's like a piece of furniture inside.'





Both the first building at Temple Quay (above, left and right) and the second building (above right and above far right) make extensive use of timber internally for both its aesthetic and its acoustic properties

Whirlwind walls

A house under construction in Cornwall, designed by architect de Rijke Marsh Morgan, is the first UK project to make use of Steko, an innovative wall system that will advance the use of engineered timber

By George Demetri. Photographs by Alex de Rijke

The past few years have seen a revival of interest in timber as a 'green' structural option, yet its use as an engineered material here in the UK has been slow to materialise. As the Velux case study (page 10) shows, greater usage will probably be championed by non-domestic applications.

But recently, the introduction of a new wall system has proved that the domestic sector can also produce a few solutions that advance the use of engineered timber in construction.

Steko is such a solution. The innovative system comprises loadbearing timber blocks that allow the rapid construction of walls. Developed in Switzerland seven years ago, it is distributed in the UK by London-based Construction Resources (www.ecoconstruct.com) – an ecological building centre and supplier of sustainable building products and systems to the UK construction industry. The first-ever UK application of Steko is on a house designed by architect de Rijke Marsh Morgan (dRMM) which is currently under construction in Cornwall.

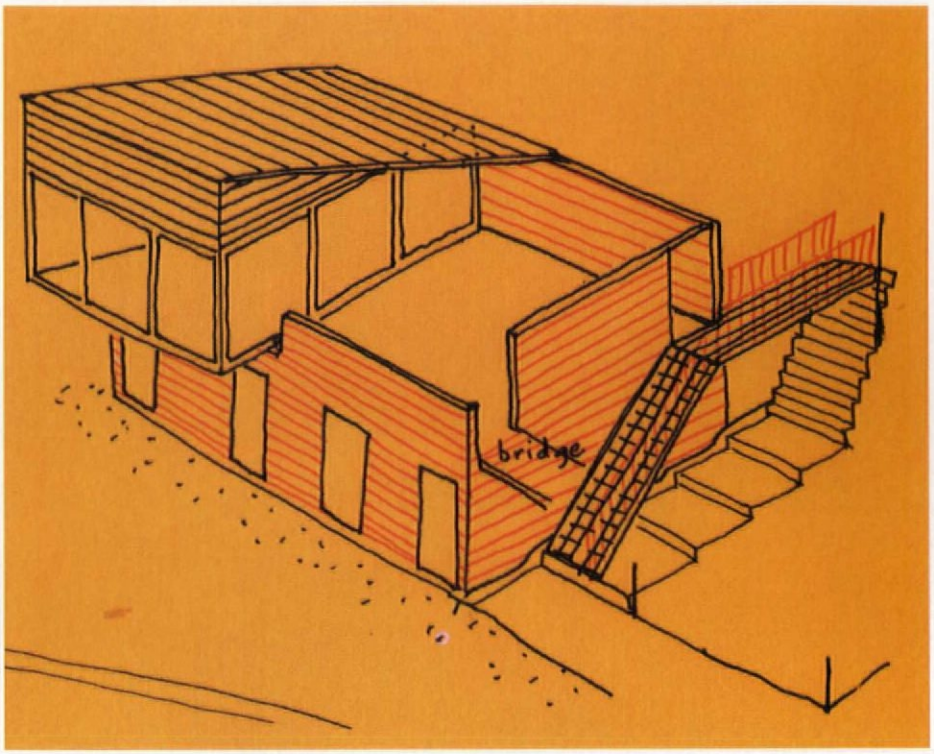
Requiring no adhesives or fixings, Steko's precision-made spruce blocks slot together like a Lego system, requiring no drying-out time and so enabling walls to be constructed easily and rapidly. At about £95/m², the system is not cheap, but this has to be balanced with the construction time saved. Steko claims that a house shell can be erected in two to three days, with typical laying rates of 15-20 minutes per square metre being possible.

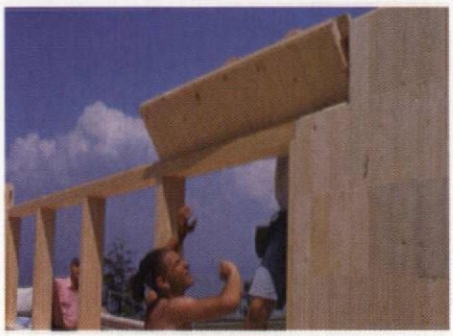
The vertical walls of each block – comprising 20mm-thick outer and inner panels glued to two horizontal battens – are separated by vertical studs which create a segmented cavity. Thanks to their top and bottom profiles, the blocks fit together by a large tongue-and-grooved profile, as well as by dowels which slot into the bottom of each vertical stud and locate into the studs of the blocks below. The timber elements of each block have their grains arranged at right angles to each other to ensure dimensional stability. Easily lifted by hand, the 6.5kg basic unit measures 640mm x 320mm x 160mm wide, although it also comes in quarter, half and three-quarter length variants.

Suitable for above-ground applications only, a Steko wall requires a concrete, masonry or timber upstand that is at least 300mm above ground level. A profiled timber base plate on a strip DPC sets off the construction, anchored at 1-1.5m centres into the concrete or screwed into a timber ring beam. The blocks can then be stacked onto the level base, with the uppermost wall section capped at soffit level by a screw-fixed top plate onto which the first floor joists will bear. Fixing the next base plate onto the floor construction starts the first-floor wall sequence. Once the walls are complete, a breather paper is stapled to the external face as it is critical the blocks do not get wet at any time during construction.

The blocks' integral hollows can be used for routing vertical services, while horizontal services are confined to below-floor finishes or above suspended ceilings. In order to avoid vibration of the wall, it is recommended that waste pipes and ducts be excluded from the wall structure and, instead, run through independent service zones.

As well as being convenient for wires and cables, the hollows can be filled subsequently with blown cellulose insulation to give a U-value of 0.42W/m²K. As this is insufficient to meet recently strengthened Part L thermal performance requirements, an external insulation system must also be attached. Steko claims that a 295mm-thick Steko wall construction – comprising 15mm gypsum plasterboard, the standard 160 block filled with cellulose insulation, breather paper, 100mm external mineral wool and 20mm render – achieves a U-value of 0.20W/m²K, which more than satisfies both English and Scottish house-building regulations.





The Steko system is simple enough to allow the owners of the house at Downderry in Cornwall to construct it themselves. Where on-site adaptation was needed, it was easy to saw the blocks

Cladding options are those of traditional timber frame and can include insulated render, timber rainscreen and brickwork.

Walls can be up to 20m long; any longer and they will require vertical bracing. Maximum buildable heights can reach 4-5 storeys, although without the horizontal bracing provided by floors and roofs the maximum wall height is 3m. Post-tensioning with steel rods is also possible where high wind loadings are encountered. A typical permissible wall loading is 64kN per linear metre when using the standard spruce base and top plates; this increases to 128kN per linear metre when the special beech base plate is used.

Special components in the system include lintels, reveal closing plates and liners, as well as solid blocks to be used where point loads are to be carried. The blocks do not come treated with preservative, but a natural borax treatment can be included if attack from longhorn beetles is anticipated. A minimum half-hour fire resistance is achieved when a single layer of plasterboard is applied.

The system also gets high marks for sustainability. Steko's lumber originates from well-managed European forests and is converted by a production process claimed to use little primary energy. Furthermore, when compared to stress-graded timber, the manufacturing process is able to use more timber from any given tree.

For the £80,000 3H House at Downderry, Cornwall, dRMM Architects opted for Steko after spotting the system at a building exhibition and promptly snapped up the entire display. Demounting it was not a problem, given the system's integral reconfigurability. While the quantity available proved enough for the external walls, internal partitions had to be made of traditional timber studs. It was also fortunate that the blocks on display were of the fair-faced quality that has resulted in an internal finish of great warmth and character.

For Alex de Rijke, one of the attractions of Steko is that it can be assembled by non-skilled workers, in this case the client himself, leaving things like services installation to more-skilled tradesmen. De Rijke sees the system as economically viable for specific sectors, particularly self-build, although traditional timber frame, he notes, is cheaper when constructed by professionals.

dRMM did not make use of Steko's structural engineering package, preferring its own engineer who decreed that the exposed Cornish site demanded extra bracing for wind load; this was incorporated as vertical battens beneath the cladding. In some places, unrestrained walls of the house extend through a height of more than two storeys, so have been post-tensioned by threaded steel rods.

The lower walls – filled with blown cellulose insulation – are clad with a cedar weatherboard rainscreen on battens, while on the upper floor, local planning requirements favoured reconstituted slate. No external insulation was used for this project as it was submitted before the recent amendments to Part L were implemented.

As the layout includes some non-90° angles, a degree of on-site adaptation of some blocks was necessary, although this proved easy enough: the blocks are easily sawn. Yet some difficulties were experienced. The blocks may be fine in a relatively dry alpine climate but they need special precautions in high-humidity coastal locations which can cause movement problems if moisture content rises above 10-12 per cent. Nevertheless, de Rijke is sufficiently enthused by the whole process to admit that, given the chance, he would definitely use the Steko system on future projects.

ARCHITECT
de Rijke Marsh Morgan
ENGINEER
Buro Happold

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* Europe enjoys an annual surplus of growth over harvest of 252million cubic metres (source: UN-ECE FAO TBFRA 2000). That's almost 30 times the annual UK consumption of wood.

Urban blueprints

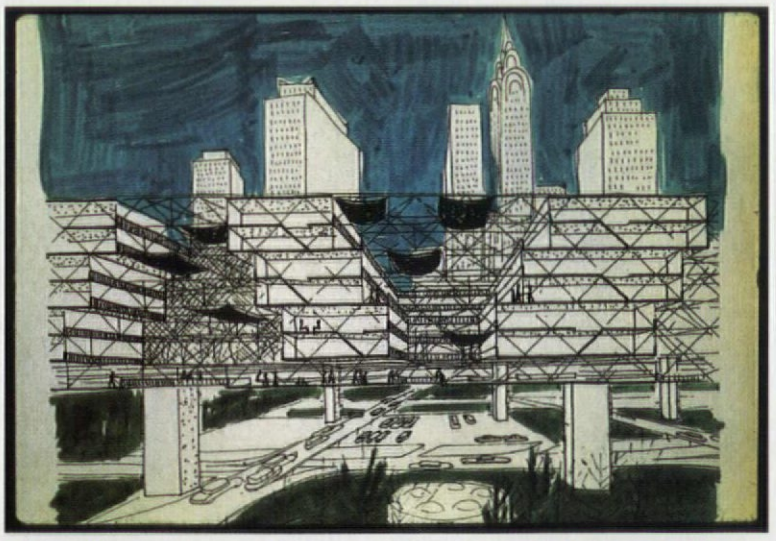
WILLIAM MENKING

Ideal Cities: Utopianism and the (Un)built Environment
By Ruth Eaton. Thames & Hudson, 2002. 256pp. £39.95

In 2001, for the Bibliothèque Nationale de France, Ruth Eaton co-curated an exquisite exhibition on utopian city plans – 'The Search for the Ideal Society in the Western World'. This follow-on book is itself rather like an exhibition: it has beautifully reproduced images of landmarks in utopian theory, design and planning (both familiar and obscure), with a text brief enough to serve as plaques on a museum wall.

That text seems to be constructed around the book's images, rather than develop its own compelling narrative, or convey the true complexity of the subject. In, for example, her discussion of utopian thought in 20th century Western society, Eaton says: 'As every aspect of life became mechanised, human beings increasingly resembled cogs in a massive machine aimed at achieving maximum productivity and guaranteeing future material well-being.'

This might be an acceptable introduction for a public new to the topic, but it is fairly lightweight. This was, after all, a period when the ideal of 'utopianism' thoroughly saturated architecture and urban planning. Since the Modernist critique of Manfredo Tafuri and others, it is hard not to think that utopianism was as much responsible for the mechanisation of daily life as it was a product of the period, but this is never mentioned in *Ideal Cities*.



Hudson River Development, 1964 – one of Yona Friedman's Manhattan projects

In fact, Eaton's survey of 20th-century utopias before 1940 is little more than a cursory glance at the highlights of the period: Frank Lloyd Wright, Le Corbusier, Hilberseimer, etc. There are, however, movements that she favours, and when she writes about them, the book comes to life with fresh research, observations and insights.

One of these is Russian Constructivism, to which (along with Suprematism and Rationalism) she devotes nearly the same number of words as to the rest of the first half of the 20th century. She presents interesting perspectives on the influence of Fordism and Taylorism on the artists, architects, and even Lenin, during the period. In addition, she details the plans of Alexei Gastev, inventor of the term 'social engineering', for a super-urbanised, industrialised territory of geometrically shaped megalopolises that would spread across Siberia to North America in a single continuous continent.

Here Eaton uses little-known but seductive utopian drawings by Kontsatin Youon and Nathan Altman to bring her story to life, and highlights many figures usually thought to be peripheral to the movement, including Georgy Krutikov and Yakov Chernikov.

Ideal Cities not only details visual explorations but literary attempts to imagine perfected landscapes. Eaton naturally devotes many pages to Thomas More and to the influential writings of Edward Bellamy, and marks the historic change in utopian thought with Sébastien Mercier's *L'An 2440. Rêve s'il en fut jamais* (1771). This, she points out, was the first 'uchronic' work – one that places an ideal society elsewhere in time than in space.

In one of the book's most interesting chapters, 'Exporting the Ideal to the New World', Eaton methodically links the intellectual concept of utopia to built settlements. She describes how Spanish conquistadors and religious leaders (especially the Jesuits) imported their ideas and utopian dreams from Europe to the Americas, which they considered an untouched land reminiscent of an earlier golden age. They built gridded compounds that rejected vernacular models, with their deep spiritual and cultural significance for the indigenous population, to impose European rules and religion. Utopian spatial and social planning were partners in crime once more.

Eaton claims that American planning in the first half of the 20th century 'was characterised by an almost unadulterated enthusiasm for the material benefits brought about by technological breakthroughs and industrialisation'. She supports this with a discussion of Wright's brilliant Broadacre City scheme and with Hugh Ferris' seductive drawings. But she never mentions the Regional Planning Association and Lewis Mumford's ideal suburban plans that lead to Radburn, the green-belt towns and, perhaps most importantly, the Tennessee Valley Authority.

In fact, Mumford and other members of the RPA eventually became critical of technology, and their critique represents an important utopian strain in American thinking about cities. Eaton's version of American events is simply too superficial.

Ideal Cities concludes in a most unexpected manner. 'Almost all the urban blueprints we have reviewed represent examples of humankind's quest to dominate nature, and in this way have all contributed to our increasing divorce from it,' says Eaton – who goes on to promote her own utopian vision of the future.

Based on the declaration of Rio, she proposes a new utopia based on sustainable development. She argues that a new model of utopian ideal cities must recognise that it cannot impose a single idea across the globe but be one of modulated local initiatives and solutions. But she never describes how this notion of development and planning at the local level will make any difference, as long as leaders like George Bush say 'no' to the Kyoto agreement and turn a blind eye to the melting polar ice cap.

Ideal Cities is a perfect book for someone teaching a university course on utopias or ideal cities, but it is too basic to be of interest to scholars, and its narrative lacks the passion to engage the general public.

William Menking is an architectural historian

Left: park bench and the Atomium. Above: National Glass Centre, Sunderland. Below: football pitch on the urban fringe

Marginal pursuits

PAUL TEBBS

Stephen Hughes: Photographs

At Photofusion, 17a Electric Lane, London SW9 until 1 June

The final image in the catalogue to Stephen Hughes' first solo exhibition, shows a couple seated on a park bench in the shadow of the Atomium in Brussels. The park looks uncared-for and the couple and their surroundings are strangely disconnected.

It is an apt and melancholic conclusion to this impressive body of work, and provides a context in which the less familiar spaces photographed by Hughes might be understood.

The Atomium is a slightly absurd relic of a bygone age. Mastery of the material world is now a largely forgotten frontier of scientific endeavour (displaced by the challenges of the virtual, digitalised realm). Hughes' photographs remind us of man's continuing awkwardness in regard to a basic material reality: people, architecture and the landscape coexist in these pictures with a sense of estrangement from one another. The social emancipation once heralded by the Atomium fizzles out in these spaces into apathy and disenchantment.

Typically, Hughes is attracted to places where an urban fringe meets a vestige of the natural – places where land use is resolved on an ad hoc basis. This is exemplified in one of the photographer's better-known images: a goalkeeper stands in existentially charged isolation on a once-grassy football pitch (now reduced to sodden clay), with a backdrop of bridges, housing, agricultural land and mountains. This is very much a non-place: a transitional zone of discontinuous land usages, a somewhere (or nowhere) defined by being in-between.

Often, these places are close to the sea, where an improvised architectural vernacular delivers the promise of fun and leisure with casual aesthetic brutality. People appear almost always as a solitary figure and they are never shown engaged in productive, mainstream, economic activity. This is a world populated by disorientated recreationalists and individuals eking out a precarious existence. One image shows a man scavenging for sand beneath an imposing bridge in Port Talbot. Another man cuts plastic piping with an axe on an expanse of land prepared for development.

It is a recurring feature of this work that the land depicted is barren and infertile – either simply wasteland, or building land. Only three images out of the 21 reproduced in the catalogue (the exhibition has a slightly reduced selection) feature grassed areas. The Hotel Beatriz in Lanzarote, for example, stands isolated on a dry infertile plain. The wasteland surrounds it in an almost predatory way; the separation between building and environment is stark.

In Benidorm, Hughes takes a high vantage point to depict a cascade of white apartment blocks. In the bottom right of the picture are the unfinished foundations of an abandoned development – a few heaps of rubble and weed. It is a negative portent, suggesting something of the contingency of these structures. It hints at the previous state of the land, or its possible future.

Hughes' work belongs to a well-established photographic interest in marginal spaces. Unlike his immediate contemporaries (such as Gerhard Stromberg, who is also showing in London), Hughes does not seek to bring these spaces back into an aesthetic fold. There is no latent sentimentality in his vision. These spaces occasion little hope or energy. To say this is not, however, to criticise the work. Photography (both in the documentary and fine art traditions) remains a key medium by which the relation of man to his material environment can be understood.

Paul Tebbs is a writer and critic

HÉLÈNE BINET

Architectural dialogue

ROBIN WILSON

Hélène Binet: Cornerstone

At the Shine Gallery, 3 Jubilee Place, London SW3 until 1 June

In a recent text written to accompany a photographic study of the play of shadows at Le Corbusier's monastery of La Tourette, Hélène Binet described her work as a 'process of reduction', saying: 'In the process of taking photographs of architecture, I want to move away from the idea that you can represent architecture with photography' (AJ 2.5.02).

This is, of course, a very different attitude to that inherent in the imagery normally used in the profession's books and journals. Binet claims that, if the relationship between architecture and photography has proved to be productive, it is not because of the technical proficiencies of large format photographic documentation, but because of the degree of estrangement between the two disciplines.

The current exhibition of Binet's work, in a commercial gallery off London's King's Road, emphasizes product rather than process. But it presents an interesting quartet of contemporary architects: Zaha Hadid, Daniel Libeskind, Peter Zumthor (see picture) and Dom Hans van der Laan.

All the images imply a hermetic fusion with architecture – the wider, surrounding context is completely excluded. Most are interior details, while Hadid's Land Formation at Weil am Rhein is shot at night, its concrete forms embedded in an impenetrable mezzotint black. The disorientation of the close-up is unremitting. There are no overviews, no complete architectural objects, just one endoscopic slice of light, shadow and matter after another.

The exhibition is not, however, simply a sequence of formal, abstract compositions procured from architecture. The best images attain an experiential fullness, reflecting a heightened awareness of ambient conditions. Bodies apprehended in movement appear in the images of Zumthor's thermal baths at Vals – fragmented views of the users of the space, recorded as trace elements.

As the title 'Cornerstone' suggests, as well as portraying architecture's primary forms, Binet searches out spaces where the stylistic traits of an individual architect meet with the universal elements of built structures. This infers a pursuit for the emotional essence of a building, which steers representation away from the crescendos of design, in the belief that a certain order and sensibility might persist quietly at the margins of a space.

This strategy is not without risk for the architectural photographer – blurring the distinctions of stylistic signature in a milieu where the creation of identity is often of paramount concern. Indeed, at Shine, the hanging would seem actually to support a certain confusion of identities. The transition from Libeskind's spaces to those of Hadid is particularly ambiguous.

This is indicative of the privileged position that Binet has earned, that her work has achieved dialogue as opposed to simple documentation. Both Hadid and Libeskind have written eulogies to Binet. Hadid in particular claims that these images have directly influenced her thinking, that they have enabled her to advance the more fugitive aspects of design, toward increased awareness of 'phenomenological complexity' – spatial tension, defamiliarizing light effects, atmospheric variables.

The significance of Binet's photographs lies in the subtlety of the equation established between the photographic medium and the architectural object, a slowly calculated contract drawn up between architectural space and the chemicals of the dark room. This work is not about the creation of architectural details, but the reduction of the degree of contrast between architecture lived and architecture represented.

Robin Wilson writes on architecture, art and landscape

diary

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

London

Julia Barfield, David Marks, John Roberts *Tuesday 21 May, 18.30.* A lecture at the RIBA, 66 Portland Place, W1. Tickets 020 7307 3699.
Hardcore: Concrete's Rise from Utility to Luxury *Until 25 May.* An exhibition at the RIBA, 66 Portland Place, W1. Details 0906 302 0400.
Zaha Hadid *Sunday 26 May, 15.30.* A lecture at the V&A. Tickets (£7) 020 7942 2211.
Making the Most of Public Relations *Wednesday 29 May.* A Colander course at the Building Centre, WC1. Details 020 8771 6445.
Hélène Binet *Until 1 June.* Architectural photographs at the Shine Gallery, 3 Jubilee Place, SW3. Details 020 7352 4499.
Stephen Hughes *Until 1 June.* Marginal urban sites in photographs at Photofusion, 17A Electric Lane, SW9. Details 020 7738 5774.
Will Alsop: Beauty, Joy and the Real *Until 8 June.* An exhibition at Sir John Soane's Museum, 13 Lincoln's Inn Fields, WC2. Details 020 7405 2107.
Nigel Henderson: Parallel of Life and Art *Until 14 June.* An exhibition at the AA, 36 Bedford Sq, WC1. Details 020 7887 4000.
Neighbourhoods by Design *Until 15 June.* An exhibition at the RIBA, 66 Portland Place, W1 (020 7307 3681).
Art of the Model Maker *Until 15 June.* An exhibition at the Building Centre, 26 Store St, WC1 (020 7692 6209).
Atelier van Lieshout *Until 16 June.* An exhibition at Camden Arts Centre, Arkwright Rd, NW3. Details 020 7435 2643.
Design Skills for the New Urban Agenda *25-28 June.* A residential course at the Prince's Foundation, EC2. Details 020 7613 8500.
Gio Ponti *Until 6 October.* An exhibition at the Design Museum, Shad Thames, SE1 (020 7940 8790).

Eastern

Construction Safety Conference *Thursday 23 May.* A conference at the BRE, Garston, Watford. Details Angela Mondair 01923 664775.
Architectural Metalwork *Thursday 30 May.* A one-day seminar at Cressing Temple, nr Witham. Details Pauline Hudspith 01245 437672.
Introduction to Shading Design *Monday 10 June.* A course at the BRE, Garston, Watford. Details John Kempster 01923 664800.
Enrico Castellani *Until 23 June.* An exhibition of monochrome reliefs at Kettle's Yard, Castle St, Cambridge. Details 01223 352124.

NEW YORK NOW AND THEN

Photographs of New York from the 1950s and '60s are at the Tom Blau Gallery, 21 Queen Elizabeth Street, London SE1 until 8 June (pictured is a detail of 'Coney Island' by Garry Winogrand). More recent images of the city, focusing on September 11 and its aftermath, are at the Wapping Project, Wapping Wall, London E1 until 10 September (020 7680 2080).

East Midlands

Office Manager Health & Safety Course; Designers and the New Approved Code of Practice for CDM *Tuesday 21 May, 14.30.* Two RIBA courses at Derby (0121 233 2321).
RIBA CPD Event: Party Wall Act *Wednesday 26 June, 16.00.* Details of venue 0121 233 2321.

North West

Upside Down House *Until 19 May.* An installation by Sumer Erek at the Bluecoat Arts Centre, School Lane, Liverpool. Details 0151 233 1207.
Brian Park (Page & Park) *Thursday 23 May, 19.30.* A lecture at the Foster Building, University of Central Lancashire, Preston. Details Doug Chadwick 01254 59835.
Rendering the Unseen: Art & Architecture in Japan *Until 31 May.* An exhibition at the Holden Gallery, Manchester Metropolitan University. Details 0161 247 1911.
A Matter of Art: Contemporary Architecture in Switzerland *Until 31 May.* An exhibition at Cube, 113 Portland St, Manchester. Details 0161 237 5525.

South Eastern

RIBA CPD Event: Planning Update *Thursday 23 May, 16.00.* At Gatwick Le Meridien Hotel (01892 515878).
Building the Homes of Tomorrow *Tuesday 28 May.* A CIEF conference at the County Hall, Maidstone, Kent. Details fax 020 7222 0445.
RIBA CPD Event: Fire Safety *Thursday 13 June, 16.00.* A seminar at Gatwick Le Meridien Hotel. Details 01892 515878.
Conservation and Repair of Timber *18-21 June.* A conservation masterclass at West Dean College, West Dean, nr Chichester. Details 01243 811301.
Colour White *Until 7 July.* An exhibition at the De La Warr Pavilion, Bexhill-on-Sea. Details 01424 787900.

Southern

Richard Sennett *Wednesday 22 May, 19.30.* A lecture at the Nightingale Building, Southampton University. Details 023 8059 7707.
Todd Erlandson *Thursday 23 May, 18.00.* A lecture at the School of Architecture, Oxford Brookes University. Details 01865 483 200.
Arne Jacobsen *Until 23 June.* An exhibition at the Museum of Modern Art, Pembroke St, Oxford. Details 01865 813830.
Time for Timber *Thursday 27 June.* A conference in the new Downland Gridshell at the Weald & Downland Open Air Museum, nr Chichester. Details 01989 762470.

South West

Challenges of Climate Change for Architects *Wednesday 26 June.* An exhibition and seminar at the Sherwell Centre, Plymouth University. Details 01752 265921.

Wessex

Regeneration Through Conservation: Reviving Our Urban Communities *Friday 24 May.* A conference at The Watershed, Bristol. Details Charlie Bisnar 01732 220151.
The Rough and the Smooth *Until 31 May.* An exhibition on earth as a building material. At the Architecture Centre, Narrow Quay, Bristol. Details 0117 922 1540.

West Midlands

Facing the Future *11-12 June.* The RIBA/AJ conference at Interbuild, the NEC, Birmingham. Details Martin Davies, fax 020 7505 6650.
RIBA CPD Event: Adjudication – How It Affects You *Thursday 20 June, 16.00.* A seminar at Birmingham. Details 0121 233 2321.

Yorkshire

Richard Wilson *Until 1 June.* A retrospective exhibition of Wilson's installations at Leeds Metropolitan University Gallery, Leeds. Details 020 8858 2379.

Scotland

Alex Lifschutz (Lifschutz Davidson) *Wednesday 22 May, 14.30.* A lecture at Theatre 5018, Matthew Building, University of Dundee. Details scottmcnlindsay@btopenworld.com
Terry Farrell *Thursday 23 May, 18.00.* A lecture at Edinburgh College of Art, Lauriston Place, Edinburgh. Details 0131 221 6071.
India of Inchinan *Until 26 May.* An exhibition on the building's recent restoration at The Lighthouse, Mitchell Lane, Glasgow. Details 0141 225 8414.

Wales

RSAW Design Forum 2002 *Tuesday 28 May, 18.00.* At the Old Library, The Hayes, Cardiff. Cost £3. Details 029 2087 4753.
Piranesi's Sublime Dreams *Until 4 June.* An exhibition at the National Museum & Gallery of Wales, Cathays Park, Cardiff. Details 02920 397951.

International

Teaching Construction in Architectural Education *30 May-1 June.* A workshop at the University of Thessaloniki, Greece. Details mvoyat@arch.auth.gr

Deadlines:
bookings: 5pm monday
copy: 5pm monday
artwork: 12 noon tuesday
cancellations: 12pm monday

people & practices

Gareth Maguire has been appointed architect director of **BDP**, based in the Belfast office.

SOM has appointed **Kevin Peters** as director of technical services based at the London Millbank office.

Construction consultant **Paul Davis Management** has appointed **Paul Millson** as construction director.

Jim Harper and **Alistair Wallace** have been made associates of construction and property consultant **Thomas and Adamson**.

ID Architects has moved to Pelham Works, Pelham Street, Wolverhampton WV3 0BJ, tel 01902 425325, fax 01902 425636.

Lee Grady and **David Perkin** have been made associates of architectural and town planning practice **Hulme Upright**.

Ettwein Bridges Architects has appointed **Theo Mazaroli** as an associate.

Hazle McCormack Young has appointed **Peter Dye** as associate.

Andy Scott has been appointed to head the design and engineering team of **Atkins** in Birmingham.

Greenwich Millennium Village has consolidated its senior management team with the appointment of **Adrian Putman** to the position of development director. **Ross Hammond** has been promoted to board director of **GMVL**.

● Send details of changes and appointments to Victoria Huttler, The Architects' Journal, 151 Rosebery Avenue, London EC1R 4GB, or e-mail victoria.huttler@construct.emap.com

Recruitment enquiries
Tracey Hendle
Tel 020 7505 6737
Fax 020 7505 6750
e-mail: tracey.hendle@construct.emap.com

Susie Cliff
Tel 020 7505 6803
Fax 020 7505 6750
e-mail: susie.cliff@construct.emap.com

Recruitment advertisements in the AJ can be found on our Internet recruitment service www.CareersinConstruction.com

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artwork: 12 noon tuesday
cancellations: 12pm monday

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copy: 5pm monday
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competitions

RIBA-APPROVED

Details are available from the RIBA Competitions Office, 6 Melbourne Street, Leeds LS2 7PS, tel 0113 234 1335, fax 0113 246 0744, e-mail riba.competitions@mail.riba.org

PAVILION, PLYMOUTH
Redevelopment of Armada Way including a unique 'pavilion' to provide a food and drink facility as well as remodelling of the existing landscape. Interest is sought from teams capable of producing designs that demonstrate contemporary innovation, high design standards and commercial viability. Deadline 11.6.02.

BLACKPOOL WIND SHELTERS
Open competition for the design of three swivelling wind shelters on Blackpool seafront. The new shelters will sit among a series of artworks along the South Shore seafront. The competition seeks exciting and innovative design solutions. Deadline 4.6.02.

OTHERS

STOCK CONDITION SURVEY
Survey of housing units in the London Borough of Southwark. Includes 60 per cent external survey and 11 per cent internal survey. Contact Peter Norman, London Borough of Southwark, Housing Department, 9 Larcom Street, London SE17 1RX, tel 020 7525 1267, fax 020 7525 2039. Application by 28.5.02.

BURRELL COLLECTION ROOF
Refurbishment/replacement of roof of the Burrell Collection building along with the entrance, foyer to the gallery and gallery shop. Contact J Meenan, Glasgow City Council, Cultural & Leisure Services, 20 Trongate, Glasgow G1 5ES, tel 0141 287 5104, fax 0141 287 0491. Application by 29.5.02.

● Richard Haut operates the weekly 'competitions' e-mail service – telling architects about projects they can apply for across Britain, Ireland and Europe. Tel 0033 673 75 02 76, e-mail hautrichard@hotmail.com, web: communities.msn.com/RichardHautscompetitions

Recruitment enquiries
Tracey Hendle
Tel 020 7505 6737
Fax 020 7505 6750
e-mail: tracey.hendle@construct.emap.com

Susie Cliff
Tel 020 7505 6803
Fax 020 7505 6750
e-mail: susie.cliff@construct.emap.com

Recruitment advertisements in the AJ can be found on our Internet recruitment service www.CareersinConstruction.com

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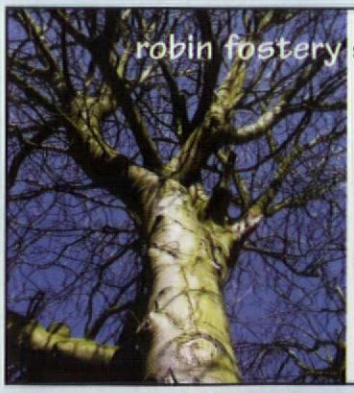

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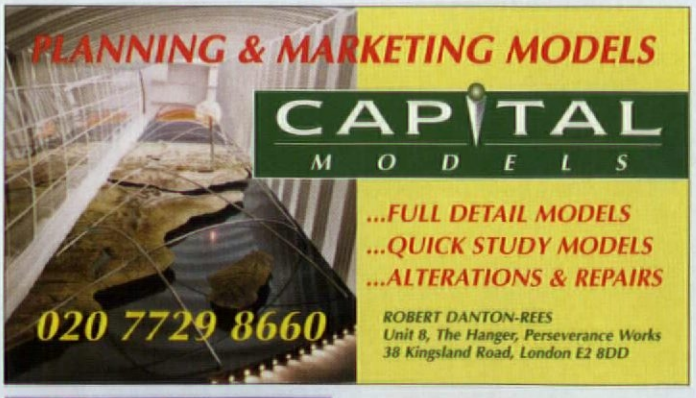

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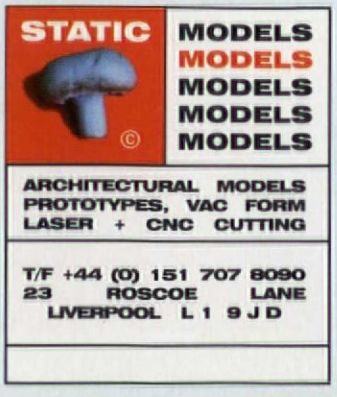

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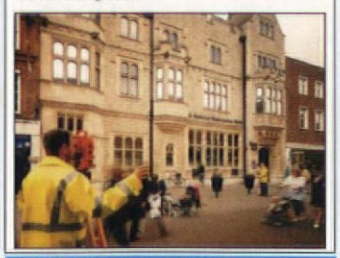

PRINTING / DESIGN MATERIALS

REPROGRAPHICS

archicharades

Champagne goes to Patrick Casey of CODA Architects in Bristol who correctly identified Antonio Gaudí from the clues in our 'archicharades' competition last week. Can you identify the famous architect from this week's clues? Send your answers on a postcard please, by first thing Monday morning, to: AJ Astragal, 151 Rosebery Avenue, London EC1R 4GB, or fax your entry on 020 7505 6701. The first correct entry pulled out of the hat wins a bottle of bubbly.

Stadium blues

Tessa Jowell, the woman handed the poisoned chalice of Wembley, was called to account by **Gerald Kaufman** last week in the House of Commons. He told her to stop dithering and get the damn thing built rather than keep hanging onto the 'tar baby' (his words). Others wanted to know what exactly is her idea of a deadline when they keep proving to be far from dead, with banks handed yet more time to assemble their finance? Jowell's response was less than persuasive. Her most mystifying line concerned the eternal bugbear, costs. 'If Wembley fails,' she said, 'Birmingham is an option, but it is a more expensive one.' That's news to all of us, although Foster says the Wembley Stadium itself is £340 million of the total £715 million cost, compared with Birmingham's £400 million scheme. Ex-sports minister **Tony Banks** would have something to say about it being pricier in Britain's second city. He used to take holidays as a family there 'because we were so poor'.

Don't get it

Now **Annette Fisher** and her RIBA-presidency supporters are going round saying she is the victim of a dirty tricks strategy because attention has been drawn to her 'fund me for president' campaign. This has included seeking support from a developer who she assumed (wrongly) would back her because her big rival had dared to criticise the said developer over the quality of one of its schemes. Fisher's supporters are doing her no favours with this sort of campaign, which is fundamentally misconceived. Asking for financial support from architects is one thing; asking for it from developers and contractors is quite another. Not that all architects have rational views about this. **Marco Goldschmied's** increasingly bizarre pronouncements make you wonder what he would have said had Fisher been standing against him when he bid for the presidency. Goldschmied, as he would be the first to acknowledge, is white, rich and middle class. Is he saying he should never have been president, or is it just *apres-moi le deluge*? Astragal has always believed that the president should be supported in office, but it should be by the institute and its members. Sponsorship has real merits, but it has its limits. A sponsored president would, in effect, mark the end of the RIBA as a professional body.

Flying Dutchman

Landscape design can sometimes seem a worthy afterthought to the main event, but not in the mind of **Adriaan Geuze** of Dutch firm West 8, who gave a scintillating lecture at the Royal Society of Arts last week. A series of beautifully considered projects delighted a lively audience who asked good questions about, for example, his attitude to cars ('I love them'). Best project of all was a shortlisted proposal being judged by Frank Gehry for downtown Pasadena, to give it more civic presence. Geuze's extraordinary proposals envisage a boulevard of 30m metal pods, shaped like cigarette holders, from which emerged 20m Washingtonia palm trees. The effect is staggering. Fingers crossed.

Wired up

Talking of **Frank Gehry**, I notice the Great Man's thoughts on technology, of which he is assumed to be a master, in the current issue of *Tate* magazine: 'I don't know how to use the computer myself; I'm computer illiterate. I can use a cell phone now – I'm very proud, I know how to dial it and stuff, but the VCR, I don't know how to do that yet'. Hope for us all.

Tower wait

I hear the inspector's report into the Heron Tower inquiry has now been completed and is with the department. It will be interesting to see whether several developers, with tall schemes waiting to hit the headlines, will wait until the results of Heron are known. Whatever the result, what the inspector says, and what secretary of state **Stephen Byers** says in his report on the decision, could have a big impact on the thinking of applicants, funders and not least planning authorities.

Awards high

A good crop of RIBA Award entries should ensure the success of the first National Awards dinner, taking place in Birmingham on 11 June. Some 60 schemes have been earmarked by regional panels and the RIBA Awards Group, chaired by **Ian Davidson**. This year promises to be a good one in which to bow out from the chairmanship, with the Stirling Prize to come in October (the dinner and party will be held at the Baltic Arts Centre in Gateshead). From October, the new chairman of the group will be Eric Parry.

Open and shut

Gates – and in particular the memorial gates on Constitution Hill – never fail to arouse controversy. Designed by Liam O'Connor after a competition, they commemorate the part played by the Indian sub-continent in various wars fought for Britain. Topped out this week, the ceremony was followed by 'light refreshments' in Green Park. The patron of the Memorial Gates Trust is the **Prince of Wales**, which probably explains O'Connor's appointment. But other more New Labour figures are part of the trust scene. One trustee is **Lakshmi Mittal**. A vice-patron is **Gopichand Hinduja**. Money no problem, then.

On track

Yes, we know the Sale Harriers athletes on our cover shot this week, getting the feel of the Manchester Commonwealth Games stadium track, are running round it the wrong way. Just thought we'd get that in before the sporting pedants start up.

Designs on...

Edward Albee's latest play, wowing them in New York, is called *The Goat*. It concerns a 50-ish architect who falls in love with, and has carnal knowledge of, the said goat. Sheep may safely graze.

products

Readers may obtain information about these products by filling in the enquiry numbers on one of the AJ enquiry cards. Advertisers wishing to promote their products on these pages should contact Peter Brookes on 020 7505 6816.

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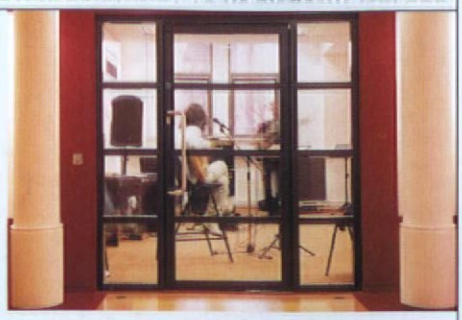
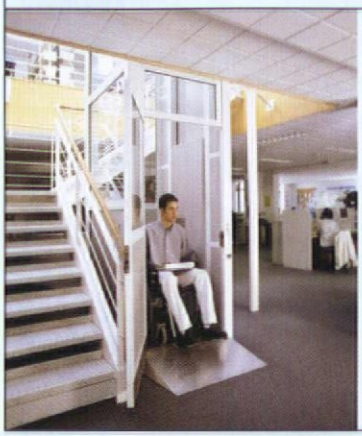


Internal dual acoustic screens have been designed and installed by FendorHansen at the Royal Academy of Music, London. FendorHansen's Fineline glazing system and Swingline doors offer high-performance acoustic separation from the main rehearsal room. External Fineline glazing was also used to construct an external curved head curtain wall.

STANNAH — AJ ENQUIRY NO: 203

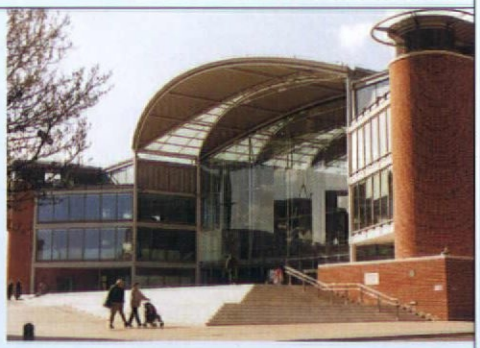


A Stannah Midilift has ensured equal access to learning in Gloucester College of Art and Technology (GLOSCAT). The lift is installed in the college library to ensure disabled students and staff have full use of the learning centre. Stannah has installed a vertical platform Midilift with a glass shaft that literally reflects the features of the surrounding environment.

STOAKES: PROJECT OF THE WEEK — AJ ENQUIRY NO: 204

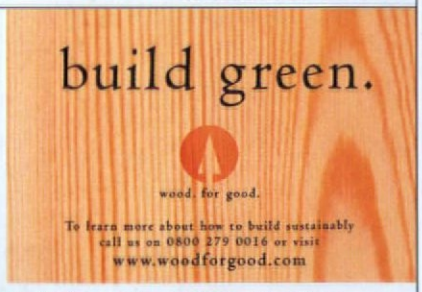
This spectacular Kalwall application in the David Giffen Foundation Building, Beverly Hills dramatically illustrates the flexibility of Kalwall and its ability to diffuse natural daylight, without shadows and glare and without the problems of normal glass. Kalwall for cladding and roofing is supplied and fixed by Stoakes Systems, tel 020 8660 7667 or visit www.stoakes.co.uk

KEIM — AJ ENQUIRY NO: 205



Keim Mineral Paints have been used to decorate all the exposed concrete on the impressive Forum building at the heart of the Norwich & Norfolk Millennium project. Keim Concretal Lasur was specified to unify the colour of the exposed concrete surfaces and to provide a truly long-life finish.

WOOD FOR GOOD — AJ ENQUIRY NO: 206



wood. for good, the voice of the UK and Nordic timber industry, is promoting wood as the only truly sustainable building material. Wood is renewable, has low embodied energy and is an excellent insulator. A constantly updated 'toolbox' of information and specifications for the architect on sustainability and climate change, timber frame, windows and cladding is available on the website at www.woodforgood.com, or contact 0800 279 0016.

MUMFORD & WOOD — AJ ENQUIRY NO: 207

Mumford & Wood, leaders in timber sash windows manufacturing, has launched a new website to aid the specification of premium traditional windows and complementary products. The site, www.mumfordwood.com, is available to access in Quick View and Longer Load Broadband options, and features the company's corporate history and pedigree in the manufacture of high-quality timber doors and windows. Mumford & Wood's products have been used in conservation areas and listed buildings.

MENDIGER BASALT — AJ ENQUIRY NO: 208

Mendiger Basalt Lava was used to build Ortner & Ortner's Ludwig Museum of Modern Art in Vienna – for the facade, the curved roof, and the inside walls. The outer wall is 500mm thick, with 10mm air gap behind the shell of Basalt slabs. It is a monument to this volcanic material, chosen for its character and resilience. For Basalt Products, tel 020 7407 1157, fax 020 7407 5364, or e-mail info@lavastonedesigns.co.uk

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