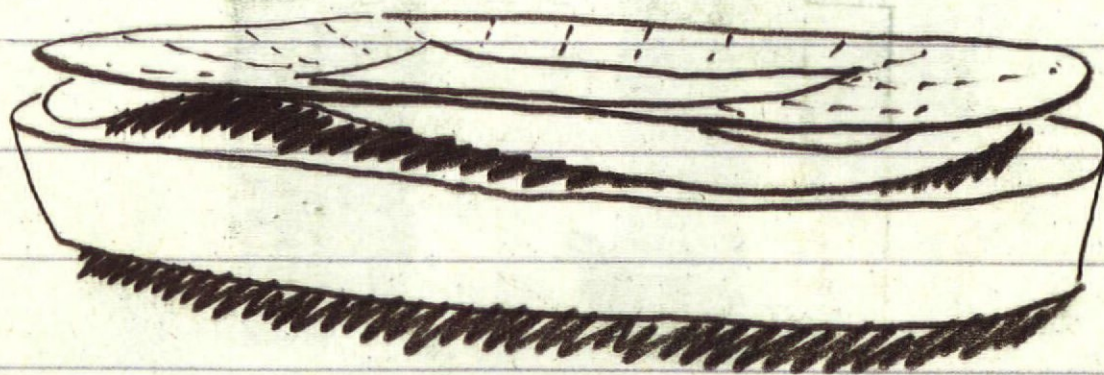


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LONDON HAS BEEN RIGHTLY CELEBRATED FOR ITS INDOMITABLE SPIRIT

By Ed Dorrell

Two weeks ago the RIBA launched a new body called the Institute of Urbanism. At the time it seemed an interesting concept based on the worthy values of out-going president George Ferguson and his mate John Thompson.

While the institute remains a vague, if worthwhile, entity without an entirely clear remit, 'urbanism' as a word and movement suddenly became an entirely different proposition last week.

First came the extraordinary and wonderful decision to hand the 2012 Olympic Games to London, the result of which will catapult ideas of urban living and urban community to the forefront of everybody's minds over the next seven years, whether they know it or not. This will be true both in the build-up, as the capital struggles to create an entirely new urban quarter capable of hosting the event, and in the actual two weeks of the Games, as people come together to celebrate the sporting bonanza.

Secondly – just one short day later – came the bombs. Can anything focus people's minds on the concept of community more than such an outrage? One hesitates to use this cliché, but undoubtedly there was something of the 'Blitz spirit' about London in the days that followed. While the papers focussed on the sense of 'community' that was born of the carnage, much of their rhetoric was distinctly 'urbanist' in its tone and outlook. London as a city and a place was rightly celebrated for its indomitable spirit.

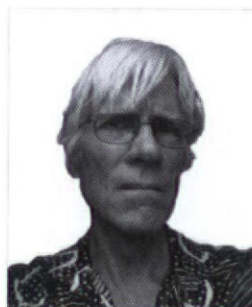
It may seem crass to make such a link, but Ferguson and Thompson's determination is to ensure that new developments in the Thames Gateway, and of course the Olympic Park, foster such spirit.

While some might think this secondary to creating beautiful buildings, it is the development of places where the majority might choose to live and feel proud that can prove the most important gift that architects can give to society.

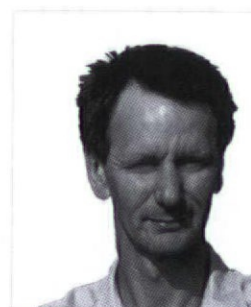
CONTRIBUTORS



Jonathan Foyle, who wrote about the history of the practice of architecture on pages 42-45, is an architectural archaeologist and television presenter.



Robert Harbison wrote the review of London 5: East on pages 60-61 and is professor of architecture and interior design at London Metropolitan University.

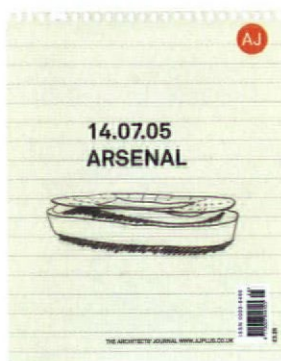


Andrew Holmes, who drew the sketchbook on page 74, was a founder member of the Richard Rogers Partnership and is Britain's leading SuperRealist artist.

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SHARD OF GLASS 'FIT FOR THE QUEEN'

Renzo Piano, the mastermind behind the controversial London skyscraper dubbed the Shard of Glass, claims he has the backing of the Queen for his massive mixed-use project in Southwark. He has also vowed to press on with the 72-storey scheme in the face of strong criticism, particularly from conservation groups.

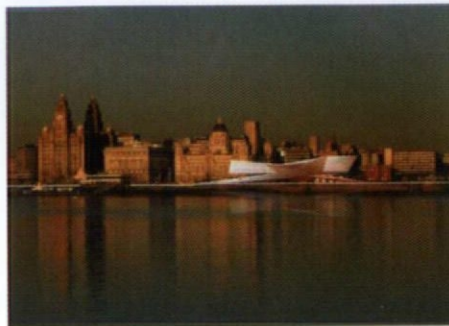
BMW TRIUMPH FOR HADID

Zaha Hadid's recently completed BMW Central Building in Leipzig has scooped Germany's equivalent to the Stirling Prize. The £34 million administration block saw off competition from more than 420 entries, including Rem Koolhaas' Dutch Embassy in Berlin, to win the Deutscher Architekturpreis 2005 – the most prestigious architectural award in Germany.



ALL-CLEAR FOR ENGINEERS

This image for a new £29 million engineering department by Sheppard Robson has been released after the scheme received planning permission. The project, for the University of Liverpool, comprises refurbishment of four existing buildings and the creation of a new entrance foyer.



MERSEY TURBULENCE

CABE's design review panel has highlighted a series of concerns over 3XN's plans for the Museum of Liverpool. While the panel insists it is supportive, it said problems remain on the scheme – which is sited on the plot previously set aside for Will Alsop's Fourth Grace. These include concerns over the landscaping and the proposed gallery space.

FOSTER ARCHITECT RECOVERING AFTER BOMB ATTACK

Foster and Partners architect William Walshe is recovering from burns and lacerations after being injured in the terrorist bomb attacks in London. His mother, Barbara Walshe, flew from her home in Galway, Ireland, on Friday to be at his bedside as he underwent surgery at the Royal London Hospital in Whitechapel, east London. She said: 'Thankfully we knew from the beginning his injuries weren't life-threatening.' See page 12 for more recollections of Thursday's attacks.

HEMINGWAY HITS OUT AGAIN

Designer Wayne Hemingway has launched an attack on modern landscaping standards in mass housebuilding, slamming the outdoor spaces of most British housing projects as 'uninspiring'. The fashion guru, who sparked controversy in 2002 by berating both architects and housebuilders, condemned modern landscape standards.

CLISSOLD DEAL AGREED

A deal to cover the costs of reopening Hackney's troubled Clissold Leisure Centre has finally been agreed between Hackney council, Hodder Associates, Whitbybird and contractor Gleeson. It is understood that all that the parties now have to agree on is the publicity surrounding the highly secretive deal.

DESIGN STATEMENTS 'LIES'

Many design statements are 'no better than a pack of lies' and are threatening to 'bring the planning process into disrepute', according to the Urban Design Group. The organisation believes some architects and developers are misusing the process by hamming up documents to deliberately bamboozle planners. Visit www.ajplus.co.uk/news to see some of the top tricks of the trade used to hoodwink the authorities.

CALL TO HALT DEMOLITION

Save Britain's Heritage, Friends of the Earth, the Civic Trust, the Victorian Society, the Merseyside Civic Society, the Council for British Archaeology and the Ancient Monuments Society have written a joint letter to the government to call for the halt of widespread demolition plans that are central to the government's contentious Pathfinder programme.

BLETCHLEY DEAL APPROVED

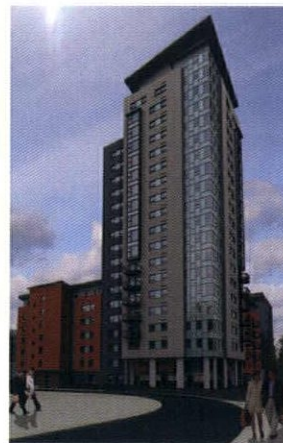
A controversial housing development, close to famed World War Two codebreaking site Bletchley Park, has been granted planning permission by the ODPM. The go-ahead has been given for a move by Bryant Homes and Bellcross to redevelop the site for 289 dwellings. The decision brings to an end a planning battle that ensued after a council decision to refuse planning permission for the scheme.

GRADUATE CASH CALL

Architectural giant Broadway Malyan is demanding more firms 'put their money where their mouth is' by sponsoring students. Managing director Peter Crossley warned that up-and-coming architectural starlets could be frightened off entering the profession by the increasing costs of university, as he unveiled the practice's new £8,000 graduate bursary scheme.

OLYMPIC TOWER APPROVED

PRP Architects has won planning permission for a £22 million high-rise residential tower block in the heart of the London Olympic regeneration area. The 20-storey building in Stratford, for the Dominon Housing Group, will house 161 homes, mostly offered on a shared-ownership basis.

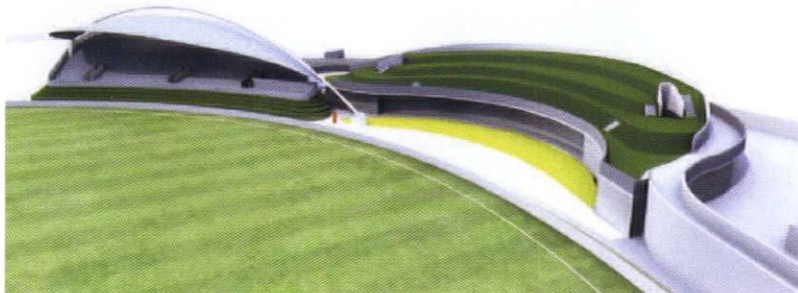


LONDON MAYOR CALLS FOR OLYMPIC EXPERT

Ken Livingstone has called for the appointment of an Olympic-hardened organisational expert to steer the London 2012 Olympics away from problems of the new Wembley stadium. The mayor believes the appointment of key personnel, particularly a chief executive, to the London organising committee will keep potential problems to a minimum. See pages 14-15 for analysis.

NEW LOOK FOR CRICKET WORLD CUP VENUE

This image has been released of Arup Associates' reinvention of the Kensington Oval cricket ground in Barbados. It was recently announced that the ground has won the race to host the final of Cricket World Cup games in 2007, which will be held in the West Indies. The Kensington Oval is to be almost entirely rebuilt, with a new media centre, players' pavilion, museum and indoor sports facilities.



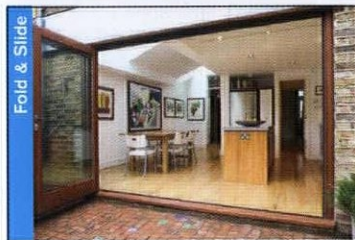
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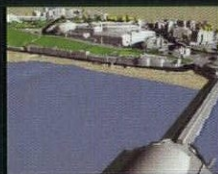
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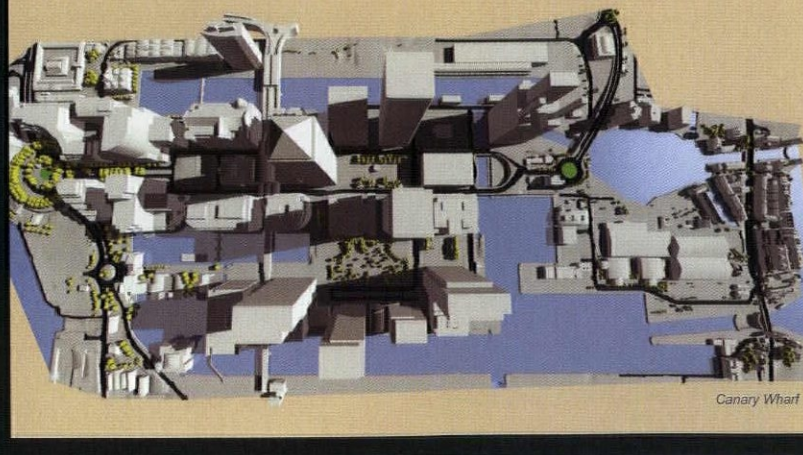
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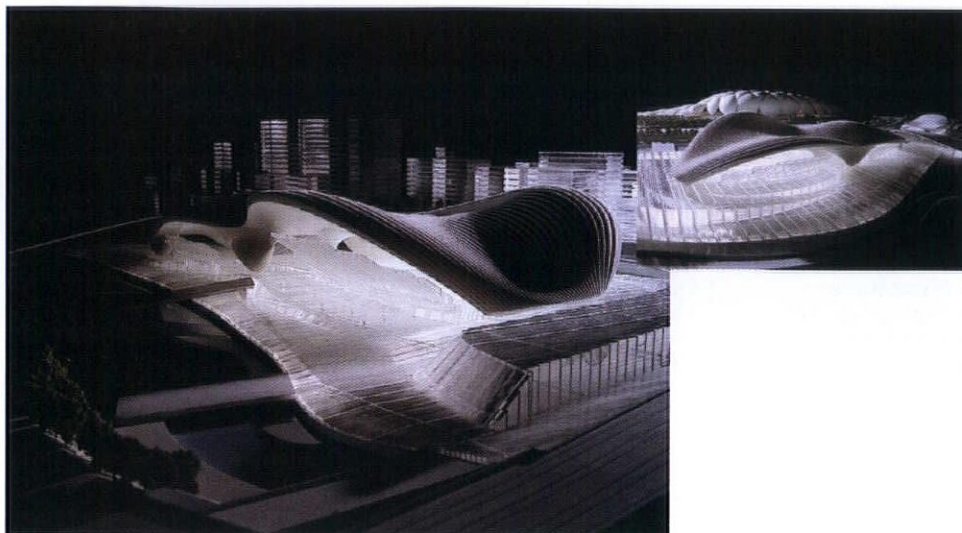
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Zaha Hadid Architects has released these new model images of the Olympic Aquatic Centre to mark London's success in being appointed to host the 2012 Games last Thursday. The centre – which would have been built whether the capital had won or not – will include two 50m swimming pools and will have capacity for 20,000 spectators. For HOK Sports' views on London 2012 see pages 14-15.

REWARD US, SAY OLYMPIC FIRMS

By Ed Dorrell

Two of the architects who were pivotal in bringing the 2012 Olympic Games to London have called for their 'selfless' work to be rewarded with more commissions on the project.

Both Foreign Office Architects and Allies and Morrison – who, together with HOK Sport and EDAW, masterplanned the successful bid – say they deserve to remain involved in the scheme.

This group were told when they were appointed at the end of 2002 that they would only be employed up to the date of the International Olympic Committee's decision. It was always policy that the architectural work would then be re-tendered.

But Foreign Office Architects founding partner Farshid Moussavi insisted that the team's extremely successful

work on the scheme should now be recognised with further commissions. She claimed that the office went above and beyond the call of duty when working on the London 2012 bid and had 'given away many of our best ideas'.

For example, FOA had drawn up extensive concepts for the various stadia that will be situated on the masterplan in east London's Lea Valley.

'We are not officially involved any more in any capacity,' Moussavi told the AJ after the 2012 decision. 'And that, I think, is sad.'

She said that her office should be rewarded with more work. 'When the masterplan went three-dimensional we had a big debate in the office about whether we should be involved because we would have to give away some of our best ideas.

'In the end we decided that we should be unselfish and we gave our utmost to the bid so that it stood the very best chance of winning.

'But now we feel this selfless decision should be recognised and we should be allowed to work on the development again in the future. It really should be recognised – it was a big thing to do,' she added.

And Moussavi picked up the backing of Bob Allies, founding partner of Allies and Morrison. 'I would be very disappointed if the four of us (the four practices on the bid team) were not involved again on the project in the future,' he said. 'It would be a bit mean if we didn't have a part to play.

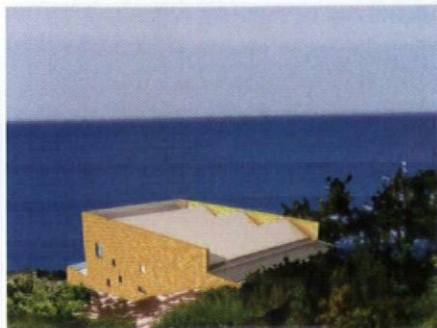
'It was a huge commitment on our part to carry this through and we'd be very sad

if we had no more involvement following London's win.

'People keep asking me whether we are very busy at the moment, but the simple answer is we are not because we're not on the project anymore.'

The London Development Agency (LDA) said there was little the 2012 team could do for the architects. 'The LDA is a public body and as such is obliged to follow the standard government procurement procedures to ensure that taxpayers receive value for money for any expenditure made on a project such as delivering the Olympic Games,' said a spokeswoman.

But, she added: 'Within the procurement procedure, previous experience, capability and ideas for innovative design will be taken into account in the selection process.'



1.

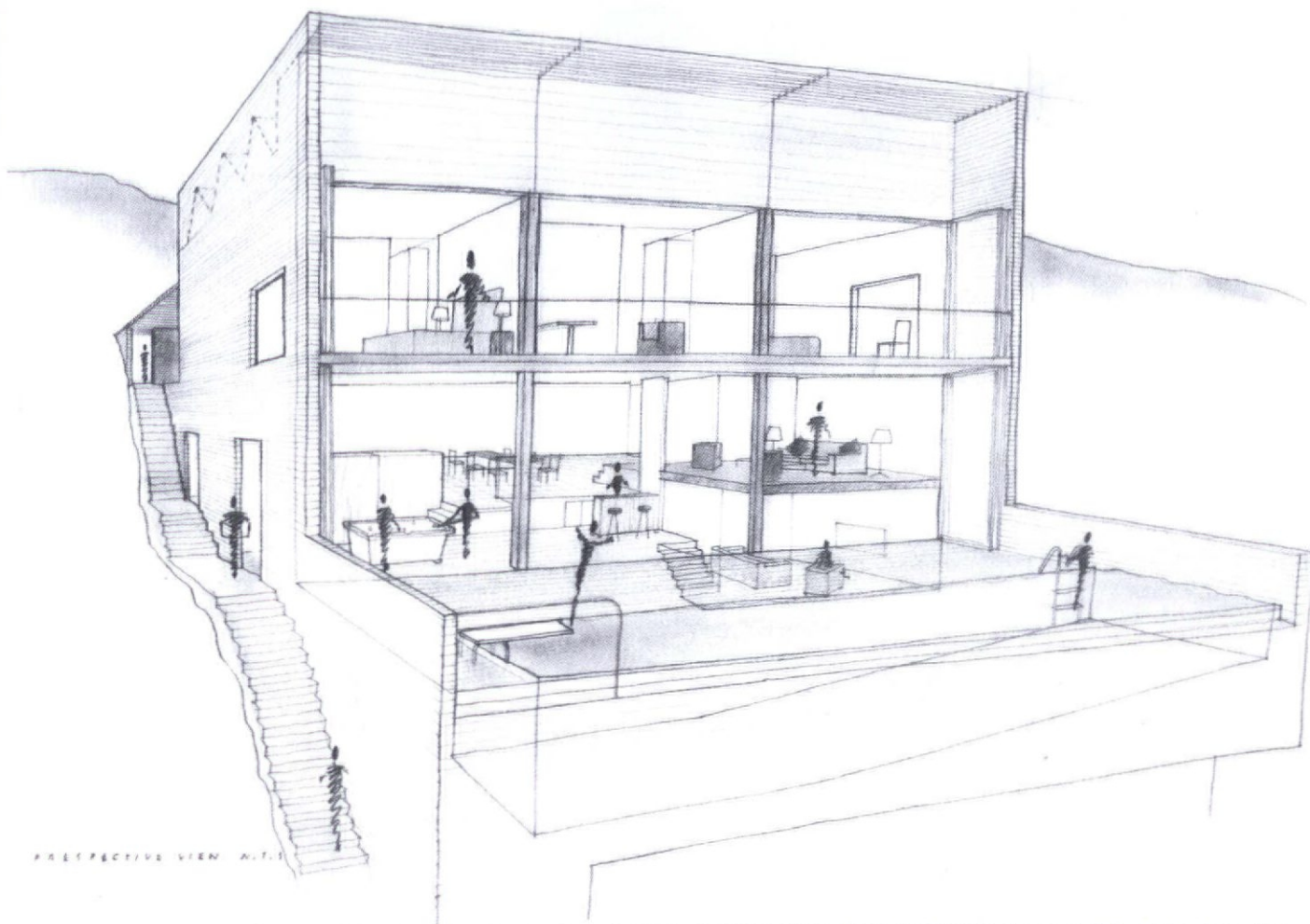


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POWELL TUCK TO BUILD AFRICAN CLIFF-TOP HOUSE

London-based Powell Tuck Associates has revealed these images of a proposed new beachfront house in KwaZulu-Natal, South Africa. The five-bedroom private villa on the edge of the African bush is to be 'cut into the cliff face' and will overlook the Indian Ocean. Less than half an hour's drive from Durban, the 500m² Van Niekerk House will also incorporate separate staff accommodation and a pool. The external walls, poolside area and living spaces will be made of local stone. The upper levels, including the sleeping areas and the roof structure, will be made of timber. Julian Powell Tuck, who dreamt up the scheme for an existing client in London, said: 'The deep interior spaces step up in a series of half levels so, while remaining cool, all will have fantastic ocean views across the terrace and cantilevered horizon pool.' A timetable for the project has yet to be finalised.

By Richard Waite



3.

1. The house will have fantastic views over the Indian Ocean
2. The building steps up in half levels
3. A sketch shows the living accommodation, which includes two bedrooms



LONDON UNDER ATTACK

By Ed Dorrell

Those in the world of architecture, design and construction relate their experience of the terrorist attacks on London last Thursday, which killed more than 50 people.

RICHARD NIGHTINGALE

Founding partner, Cullum and Nightingale Architects
When the tube network went down I had a meeting to go to in Westminster. Instead of cancelling I persuaded one of my colleagues at our office, which is very close to both King's Cross and Tavistock Square, to get on the back of my scooter. When we were riding off we heard the most enormous noise – not dissimilar to the noise of a skip being dropped by a skip lorry, but louder. There were loads of people around. But we just carried on to the meeting. London was very odd. Down

in Westminster there were lots of police around with machine guns. We do a lot of work in the Third World where this kind of thing is normal – but it seemed very strange in Britain.

ROGER MADELIN

Chief executive, Argent
I'd arrived in King's Cross some minutes before the bomb went off and sat down to have a coffee when it all happened. I decided to make my way back to my office through Bloomsbury because the tubes weren't working. Then I got caught up in the mayhem around the bus bomb in Tavistock Square. So I sat down and had another coffee. A bloke walked into the café and also had a coffee. He was covered in dust and looked shocked. Suddenly he just said: 'I was on the bus when it exploded'.

He was clearly in shock. It was a very odd day.

ANTON SIWICKI

Associate director, Whitbybird
I was scheduled to have a client meeting on the Thursday afternoon with a client who was flying into Gatwick from Northern Ireland. The tube and trains were shut down and there were no taxis. I decided to get on my fold-out bike to see what was happening at Victoria Station. In the event I just kept going all the way down to Gatwick for the meeting – it took about an hour and 50 minutes, I think it's about 30 miles. The client was a little surprised to see me but we wound up having a two-hour meeting in the airport. I felt I had to go as it was a very important meeting due to our tight scheduling.

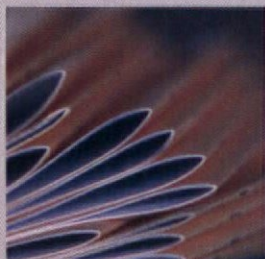
ANDREW HARRISON

Director of research, DEGW's London office
We were very lucky that none of our staff got caught up in the trouble given how close our office is to King's Cross. One staff member was evacuated from one of the trains but was OK. Very early on in the day the senior management team said we could all go home if we wanted – they thought it was important to be with our families. It was very nice that we are part of a massive international firm – our other offices were emailing to make sure we were safe. We were also advised to stay at home on the Friday immediately afterwards but quite a few members of staff made it in, including the guy who was evacuated from the train.

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JOHN BARROW

By Rob Sharp

Ken Livingstone needn't worry. Earlier this week, London's favourite political Rottweiler issued another of the calls to arms that are becoming his hallmark. He asked for a logistician with experience of previous Olympics to come forward to lead a central organising committee, to get London into shape in time for the 2012 games.

But even as Livingstone made his wishes plain, others were at pains to point out that the capital's athletics aspirations have been led by the best from the beginning.

John Barrow, a senior principal at Olympic masterplanners HOK Sport, will no doubt be at the vanguard of Livingstone's army of advisers, setting London off on one of the biggest periods of redevelopment in its history.

Barrow, a former head of architecture at WS Atkins, who has twice set up his own practice and emerged from the same Brisbane college as fellow HOK big gun Rod Sheard, was confident from the beginning London would be victorious.

'I have been telling people that we were going to win for some time and I don't think anyone believed me,' he said. 'I think it's the strongest package since Atlanta. I was always confident that we could technically match up with Paris,' he continued.

The Olympics masterplan, for which outline planning permission has been granted, represents a cross-section of Britain's best architectural talents, including HOK Sport, EDAW, Allies and Morrison and Foreign Office Architects. Zaha Hadid joined the party later

when she won the competition to design the aquatic centre.

The practices have spent most of their time working on the main site for the games – a 500-acre Olympic park in east London, which will include an 80,000-seat athletics stadium, a 20,000-seat aquatics centre, a velodrome and a BMX circuit.

Barrow is happy with the support the scheme has received from Westminster so far. 'I'm pleased that the government piled in with Sebastian Coe in support of the bid,' he says. 'Now it needs to look at everything, set out the strategy.'

The architect will be instrumental in setting up an interim strategy group with the other masterplanners to bridge the gap between the bid and working up towards the Olympics proper.



With an 'iconic' athletics stadium as its centrepiece, the London Olympic development will provide revenue-generating facilities and 'no white elephants' says Barrow

The Australian architect is particularly proud of this involvement, and the fact that the mistakes of previous Olympics, not to mention the delays and political wrangling which have beset Wembley, will hopefully not be repeated.

'The athletics stadium will give all spectators the perfect view, as opposed to conventional football stadiums. It will accommodate 80,000 spectators, and will revert to accommodating 25,000 people when in "legacy" mode after the Olympics, through the use of demountable grandstands,' he said.

Barrow will urge for the stadium to be finished a year in advance. 'Six to seven years – which we have left before the Olympics begin – is precious little time. The whole essence of timing is critical,' he said. 'We're

currently working on the Turin Winter Olympics, which is having trouble getting itself together in time.

'But the organisation in London has been very good indeed. I don't expect it will experience the same kinds of problems,' he added.

Last year's Athens Olympics was mired in scandal after it emerged that the Greek government made massive losses, the games costing them more than \$8.5 billion (£4.8 billion), considerably more than expected. This was compounded by the fact that many of the facilities were unusable after the Paralympics finished in late 2004 and thus couldn't generate revenue to recoup the government's losses.

Barrow said: 'We don't do white elephants. We try our utmost to bring in

revenue-generating facilities.'

'The stadium needs an iconic feel to it, so people want to go and see it, like the Sydney stadium,' he continued. 'That created life and soul. You need to create the right balance.'

He is keen to distance himself from Wembley, where HOK Sport was the principal architect with Fosters. 'Wembley has a very chequered history. It wasn't to do with the design, it was more to do with the politics,' he said.

So despite the fears – for its budget, for its security, for the possibility that it might not match up to expectations – Barrow is keen to prove to the world that the UK can come up trumps with the 2012 games.

'Focus is the way forward,' he said. 'We now have the opportunity to show the world how to do it the UK way.'

JOHN BARROW CV

1973

Graduates from Queensland University of Technology, Australia

1978-1990

Founding partner of Marshall Haines & Barrow

1987

Merges his practice to form Lister Drew Haines Barrow with offices in the UK and Germany

1990

Becomes chairman of the group

1990-1993

As managing director of Atkins Lister Drew, part of the W S Atkins group, his responsibilities include the design and management of major projects in the commercial, educational, industrial and leisure sectors in the UK, Europe and Middle East

1993-2000

Returns to work again with Marshall Haines & Barrow

2000

Joins HOK Sport as senior principal

A BLACK AND WHITE ISSUE

By Clive Walker

It's no secret that black and minority ethnic (BME) architects face an obstacle course when it comes to career progression. Until now evidence of inequality in architecture has been largely anecdotal.

But CABE's latest study on racism, 'Minority Ethnic Representation in the Built Environment Professions', proves that this is no longer empirical supposition – it's hard fact.

The report proves that architecture is perceived as white male-dominated and not representative of Britain's diverse society.

Non-white architects struggle to find jobs and, once recruited, face continual doubts about their competence. For ethnic women the struggle is twice as tough because colour and gender prejudice form a double barrier to progression.

Ethnic staff account for half the growth in the working

population. Yet BMEs are less likely than white counterparts to enter construction after leaving university.

In fact, CABE's research shows that only 35 per cent of ethnic students studying architecture, building and planning subjects secure jobs in the sector, against 51 per cent of white students.

So what is driving this yawning disparity? CABE's chief executive, Richard Simmons, is convinced it's about having a face that fits.

'In the built environment sector many acknowledge that BME professionals face barriers in pursuing a career that are not experienced by their white colleagues,' he told the AJ. 'This new research confirms this view.'

Assumptions about the competence of non-white architects is deeply ingrained, the report shows. BME applicants apparently send out

more job applications than white applicants before securing an interview. That's bad enough. But increasingly non-white architects delay revealing ethnicity and target practices known to be 'colour blind'.

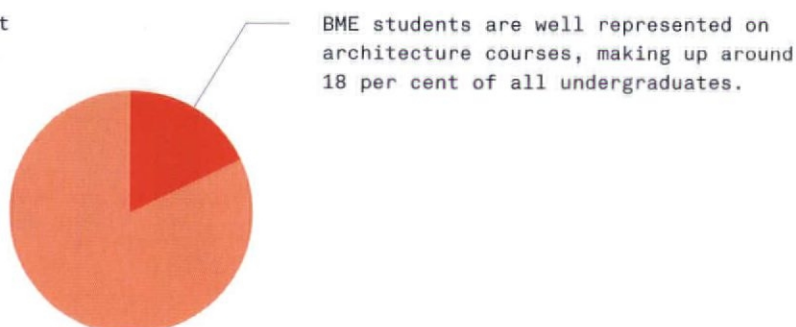
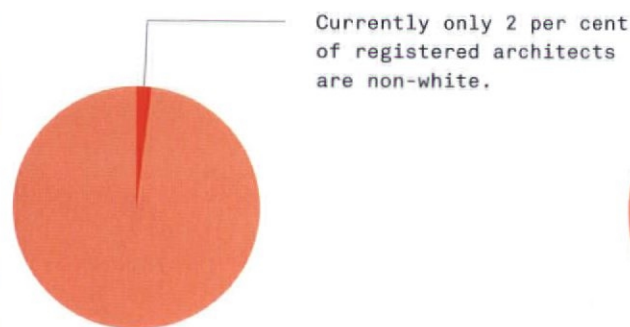
Those reaching the interview stage tend to face a completely white, male selection panel, adds CABE. Though treated fairly, many report being made to feel unwelcome.

'The built environment sectors are not attracting BMEs into employment at the same rate as their white counterparts. There are signs of change, but only in pockets and more could be achieved with committed leadership,' Simmons added.

Lack of opportunities and support inside a practice can conspire to create a vicious cycle of disadvantage. BME professionals speak of a 'glass ceiling' on career progression.



Only 35.5 per cent of BME architecture, building and planning students go into construction and property jobs, compared to 51.5 per cent of white students



This invisible barrier often causes people to think twice before chasing a promotion. Ironically, this hesitation is sometimes read by employers as a lack of ambition.

'Most [black] architecture firms now get black housing work: black this, black mental health – give it to a black architect,' one black architect who has left the profession said.

'I mean, I want to design Diana's memorial, I'd like to have a say in the Royal Festival Hall and I'd love to design a couple of galleries in town. That's one of the reasons I left the profession – I would never be given any of this.'

It's somewhat perverse that BME representation across UK practices belies a relatively healthy volume of non-white students in British schools of architecture. But simply attending a school with a diverse population does not

automatically guarantee a globally inclusive agenda.

Students are critical of the predominantly Euro-centric curriculum which tends to filter out architecture from Africa, Asia and the Caribbean. Courses are condemned as uninspiring – a major contributor to the high drop-out rate among BMEs.

Ethnic students also lack key contacts within the profession. This, argues CABA, is a primary concern because it inhibits students' chances of securing work placements and, ultimately, employment. White students, meanwhile, can usually rely on friends and relatives to gain a foothold on the career ladder.

Data describing BME representation in architecture is patchy and actual examples of racism remain largely subjective. Only a handful of employers collect and, crucially, act on

ethnicity research. Professional bodies are equally lax and uncoordinated, says CABA.

The RIBA's equal opportunities forum, Architects for Change, was unable to comment on CABA's findings, having not seen a summary. However, the Society of Black Architects (SOBA) greeted the report as long overdue.

Its chairman, Chris Nasah, runs Knak Design and has first-hand experience of inequality within construction. His practice is working on two New Deals for Communities projects at Clapham Park and Kilburn. The schemes are run by the ODPM with the aim of regenerating deprived areas containing a high ethnic population. Yet, there is a conspicuous absence of BME professionals on either project, Nasah claims.

'Central government has initiated the trend for inclusion

but this move has been faster in other sectors than architecture,' adds Nasah.

'Correcting the imbalance is a two-way process. BMEs have got to demonstrate ability. Recruitment should be by merit not by colour. There is a danger here that colour may be prioritised over competence.'

From CABA's research a picture emerges of a profession in dire need of reform. Potentially, the greatest driver for change is the projected skills gap in construction. If the ODPM's vision of a sustainable built environment is to be achieved, then greater opportunities must be offered to non-white professionals.

Achieving this aim depends on professional bodies and large employers leading by example and committing to diversity and equality. The choice is black and white. Standing still is not an option.

'If Ken Livingstone was a building, he'd be Wembley Stadium – over-designed, over-budget, aggressive and hard to ignore'

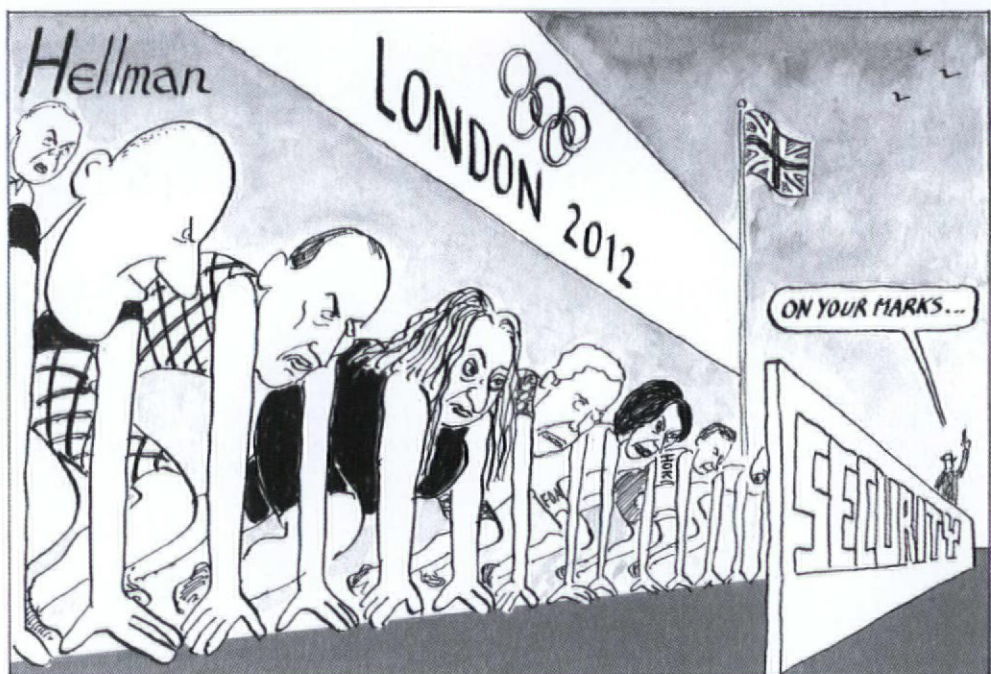
Janet Street-Porter.
Independent, 07.07.05

'I thought this is what a genuinely new architecture might be like. So I bought it and took it to Battersea, where it reminds me how creative we have to be here'

Victor Hwang, owner of Toyo Ito's Serpentine Pavilion and developer of Battersea Power Station.
Guardian, 11.07.05

'Norman Foster should have thought that one through properly'

GLA member Val Shorecross thinks the front door to City Hall is on the wrong side.
Guardian, 11.07.05



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GOD AND MAMMON

To Istanbul for the triennial UIA congress. The opening party was in Hagia Sophia, the 1,400-year-old church converted to a mosque. It is now a museum, but what remains of its Byzantine mosaics were unfortunately upstaged by the UIA's main sponsor, a bathroom manufacturer, which placed copious displays of its wares around the upper galleries. As if this wasn't crass enough, the ubiquitous CNN, which was televising interviews with **Zaha Hadid** and **Peter Eisenman**, had its logo beamed down on to the most holy spot in the building.

QUEEN FOR THE NIGHT

Zaha's subsequent public lecture was a standing-room-only affair, staged in possibly the world's largest and most

inaudible banqueting hall.

La Hadid herself swept in a queenly 20 minutes late to the flashbulb strobing of 2,000 digital cameras and mobile phones. This panting adulation only made her grumpy – 'I can't talk when you're flashing at me', she wailed. The new Phaeno Science Centre in Wolfsburg, due to complete later this year, looked astounding however. Surely it's only a matter of time before she scoops the RIBA Gold Medal.

POOLING RESOURCES

The RIBA itself staged a very jolly cocktail party in the handsome confines of Pera House, the British Consulate. RIBA president **George Ferguson** revealed that in his younger days he blagged his way in to swim in the Hilton Hotel pool. Spotted

in the scrum for the canapés was the distinctive Panama hat of former *Architectural Review* editor **Peter Davey**, in town to pick up the Jean Tschumi Award from the UIA for services to architectural criticism (and lunch).

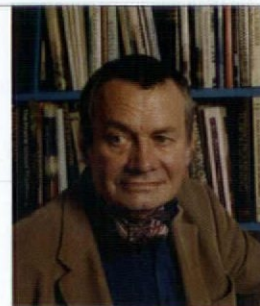
STRENGTH IN ADVERSITY

Security was tight at the British Consulate after it was bombed in 2003, killing 14. Originally designed by **Charles Barry** and **William Smith**, Pera House has been restored by Tabanlıoğlu Architecture. The glass atrium has been reinforced with plastic pillows and the walls have been strengthened. As **Prince Charles** remarked at the reopening ceremony: 'Far from sowing division between us, those who planned these murderous attacks simply brought us together'. We'll drink to that.

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AS A STUDENT, SOME 50 YEARS AGO, I WAS SMARTLY ESCORTED TO THE DOOR OF THE ISTANBUL HILTON FOR BEING TOO SCRUFFILY DRESSED

Istanbul was a splendid venue for the UIA congress. The city that bridges Europe and Asia, the capital of Theodosius and Justinian, of Mehmet and Süleyman, has a tradition of architecture that ranges from Isidorus of Miletus and Anthemios of Tralles through Sinan to Modernism. Every generation has been ruthless with the works of predecessors. Only recently is there any understanding of continuity, with several rehabilitations of fine old buildings.

One of these is Charles Barry's British Embassy. Designed in the early 1840s, it is a huge neo-Renaissance palazzo with a central glazed court, a bit like his Reform Club. Grand chandeliered rooms on the piano nobile look out over a lavish garden hovering above the Golden Horn. The embassy (consulate general since Atatürk moved the capital to Ankara) was the site of an excellent RIBA reception held by the ever ebullient George Ferguson as one of the final acts of his lively presidency. The building has been thoroughly restored after the bombing of November 2003, which killed the consul general and 13 others. New stonework is excellent, but the glazing bars seem a bit heavy.

It turns out that they are of powder-coated steel holding a many-layered transparent sandwich, apparently designed to withstand future blasts. Several surrounding buildings are still ruined.

We stayed in another of Istanbul's grand old buildings, the Pera Palace Hotel, built in 1892 by the Orient Express company to house passengers. It still has the first-ever lift in Turkey, a beautifully crafted and upholstered cabin that groaningly ascends behind wrought-iron gates. Its central hall is Moorish, with little Ottoman domes that can be folded open for ventilation. Bedrooms are vaguely Egyptian, with marvellous robust 19th-century plumbing, rather dusty deep-red curtains and Murano electroliers. Our room had apparently been used by Pierre I, King of Serbia, and the Queen of Romania had been next-door. Elsewhere had slept such figures as Agatha Christie, Mata Hari, Trotsky and Atatürk himself.

Nowadays, celebrities go to big international hotels like the Hilton. Now 50 years old, it is a really fine and elegant example of Modernism at its best by SOM. Crisply and solidly detailed throughout, it has a long, luminous lobby that

floats as a serene platform over the Bosphorus. As a student, I was smartly escorted to the door for being too scruffy. Getting on for half a century later, I can see why, though now many dress shambolically and the Hilton doesn't care.

The congress was a success. Masterminded by the great Suha Özkan, whose day job is secretary general of the Aga Khan Architecture Awards, hundreds of lectures and dozens of exhibitions were offered. More than 7,000 delegates were registered. Most of the stars behaved in their normal way: Rem Koolhaas didn't turn up; the fabulously popular Zaha Hadid demanded a special posh room in a different hotel.

The great surprise was Peter Eisenman's renunciation of formalism in favour of humanity. This is of course only the latest of his public recantations, but it's one of his most radical. He is only in his early 70s and seems stockily healthy – there is a real chance that he could become a good architect in his old age. His powerful and moving Berlin monument to the murdered Jews is a good start.

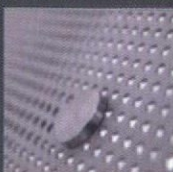
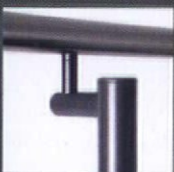
Peter Davey is the former editor of The Architectural Review
Email: ajcolumnists@emap.com



Andri Hafliðason, a fourth-year BSc architecture student at Strathclyde University, designed this headquarters building for Scottish Ballet. The design sought to find ways to both protect and reveal the performance of ballet to the city of Glasgow, in the belief that through this the building itself would become a performance; a valuable and inspiring stage for both the company and society itself.

STUDENT SHOWCASE

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



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JUDGED ON ACCENT, NOT ABILITY

At secondary school I made it my ambition to become an architect. Since then I have studied hard to gain the education and qualifications that are needed to achieve my aim. I completed my RIBA Part One, and was excited by the prospect of working in the industry I have chosen as my profession.

The problem is that I have applied to hundreds of practices. All have been unwilling to give me at least an interview and some have even been bad mannered and rude. This is why I now have the opinion that the architectural industry is full of snobs, who judge me not on what I can do, but instead on my postcode, East End accent and my background.

Not everyone who grew up on a council estate wants to stand on street corners wearing a hood and causing trouble. Some of us want to make something of our lives. Many of the friends I grew up with have studied hard for different careers, and all are unemployed. So what are young people studying for?

My interviewers probably think I should be labouring on the building site rather than working in the design office. I have not given up on architecture, instead I will try somewhere else. Maybe I will find somewhere where most architects are not incompetent snobs, like most of the ones I have come across.

Sean O'Driscoll, London E9

PEEKING TOO EARLY

I enjoyed your coverage of the Diener & Diener buildings (AJ 07.07.05). The Basel Forum centre has a spectacular facade and does 'sit happily with the paraphernalia of the building site'.

But seeing the big picture on pages 24-25, and the smaller one on the page before, made me worry that the AJ is buying into a tendency I've noticed in many architecture magazines, which seem to be so keen to publish a building first that they send along photographers before the work is really complete.

If you are doing some sort of construction study, then that would be fine. But if not, your readers can miss out on vital

information about the building – namely, how it sits on its site and how it meshes with the landscape around it. This just reinforces the old prejudice that landscape is an afterthought when a building goes up, which anyone can take care of later on. I hope the AJ will keep an eye on this in future.

Don Livingston, Kettering

NATURE NEEDS NO ADVISERS

Nice to see a note of gentle cynicism creeping across Austin Williams' article on green roofs (AJ 07.07.05) like so much lichen.

Nature abhors a vacuum, but there's no danger of that developing in local government offices where it seems room can always be found for yet more consultants and soothsayers.

Plants and wildlife can and do thrive in urban environments. Planning departments and developers do not need 'biodiversity advisers' or whatever titles these latter-day witchdoctors choose to adopt, to design and develop a successful landscape. Their pay cheques could be better spent elsewhere. Nature is quite capable of reclaiming what is rightly hers.

Mike Hedger, London SW2

MISSING A CRUCIAL DIFFERENCE

Thank you for publishing a review of my book (AJ 23.06.05). However, it is not 'An introduction to urban design' but to 'urban housing design'. Unfortunately no one would appreciate this crucial difference from reading the review.

Austin Williams seems to have been diverted by an arcane agenda of his own. The book is not about population control (far from it) nor about 'sanitising' cities (whatever that may mean). What it *is* about is developing and renovating urban housing to meet two key contemporary issues – the increased demand for housing and the pressures of climate change – and doing so in a way which is sustainable, in terms of both our use of land and of energy. It is regrettable that this message seems to have been lost.

Dr Graham Towers, Brighton



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BREWING UP A STORM

Your article 'Brewery Heritage Denied' (AJ 09.06.05) argues that a building's designer should influence the indefinite life of said building. I would strongly argue who cares? There are good buildings and bad buildings. Some are fit for purpose at the time of building and remain so, others have outlived their intended use and are frankly an eyesore. The fact is that this building is not attractive. Nostalgic maybe, but not now able to fulfil any useful purpose. Why can't we accept redundant, ugly buildings need to make way for new, useful buildings that serve the community as it is today?

Giles Gilbert Scott may have been a major contributor to groundbreaking design in the past, but I wonder, if he was around today, would he be happy with the design of the brewery building in today's world? Or would he ask himself 'can I design something that would better serve the community's needs now?'

Better to demolish this building, recycle the materials and build new homes.

Name and address supplied

CLEARLY, YOU'RE ON TO A GOOD THING

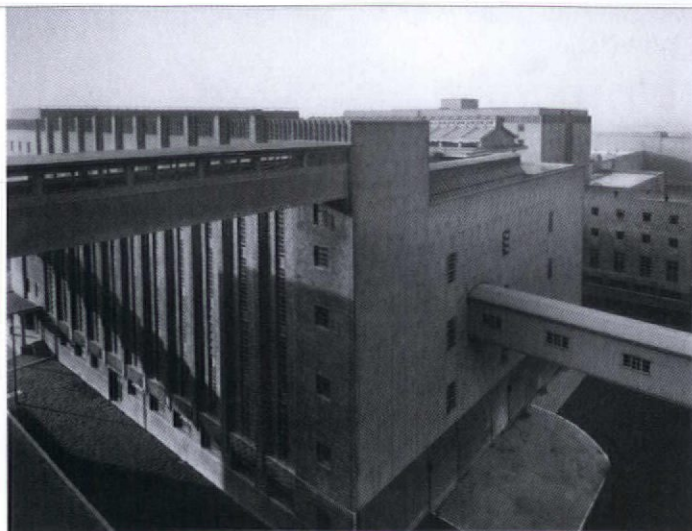
Excellent, excellent, straight to the point 'AJ' and 'Specification'. From a magazine and supplement I could hardly bear to open as it offered 'too much' in 'too small' a space you have spread it out, made the text bigger and the articles concise and clear. Thank goodness the tired, overworked and costly CAD systems have been put to one side. Suddenly the magazine is approachable, readable and somehow doesn't make you feel bad for not reading all of it. Don't worry about all those tired old 'flunkies' from the '50s who don't like it. Keep it up.

Mark Parsons, Anthony Short and Partners

To discuss these issues visit www.ajplus.co.uk/forum

CORRECTION

AJ 07.07.05 should have been numbered Volume 222 Number 1



Would it be missed? Scott's Park Royal Guinness brewery

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

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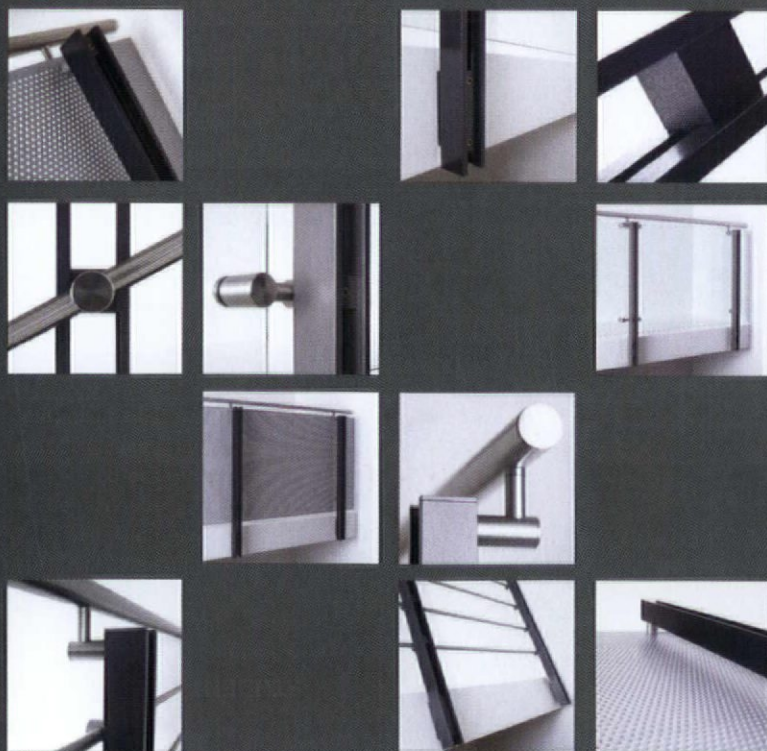
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ARSENAL



AS YOU TURN THE CORNER THE FULL MAGNITUDE OF THE TOWERING STADIUM REALLY HITS HOME

By Austin Williams

Boring, boring Arsenal? Don't you believe it! HOK Sport's £220 million Emirates Stadium in the heart of inner-city north London has had a bumpy ride getting off the drawing board and posed challenging architectural and engineering demands on the design team in the process.

In Chris Cleave's atrocious new book *Incendiary* – presuming to be a take on post-9/11 society – suicide bombers manage to launch a devastating attack on a major construction project in mainland Britain. 'I'm deliberately going out to scare people,' says Cleave. But given that the terrorists' target is Arsenal Football Club's as-yet-unfinished Emirates Stadium, he has probably only succeeded in giving Chelsea fans a laugh. In reality, there are probably a lot of Arsenal's financial backers out there who are already perspiring profusely.

Much has been written about the decision to move from the club's existing stadium in Highbury – which has been its home since 1913 – to a new site just around the corner in Ashburton Grove and I won't rehearse those arguments here. Nor the malicious rumours that the club is spending so much money on the stadium that it cannot afford any players. Suffice to say that after exploring a range of locations for the new stadium, from King's Cross to Finsbury Park (and even moving to Wembley), the club is now mid-way through the construction of its new facility that will increase its capacity from 38,500 to 60,000 seats. I was allowed in for a sneak preview and taken around by Caroline Mills of HOK Sport and Paul Hallam of Sir Robert McAlpine & Sons.

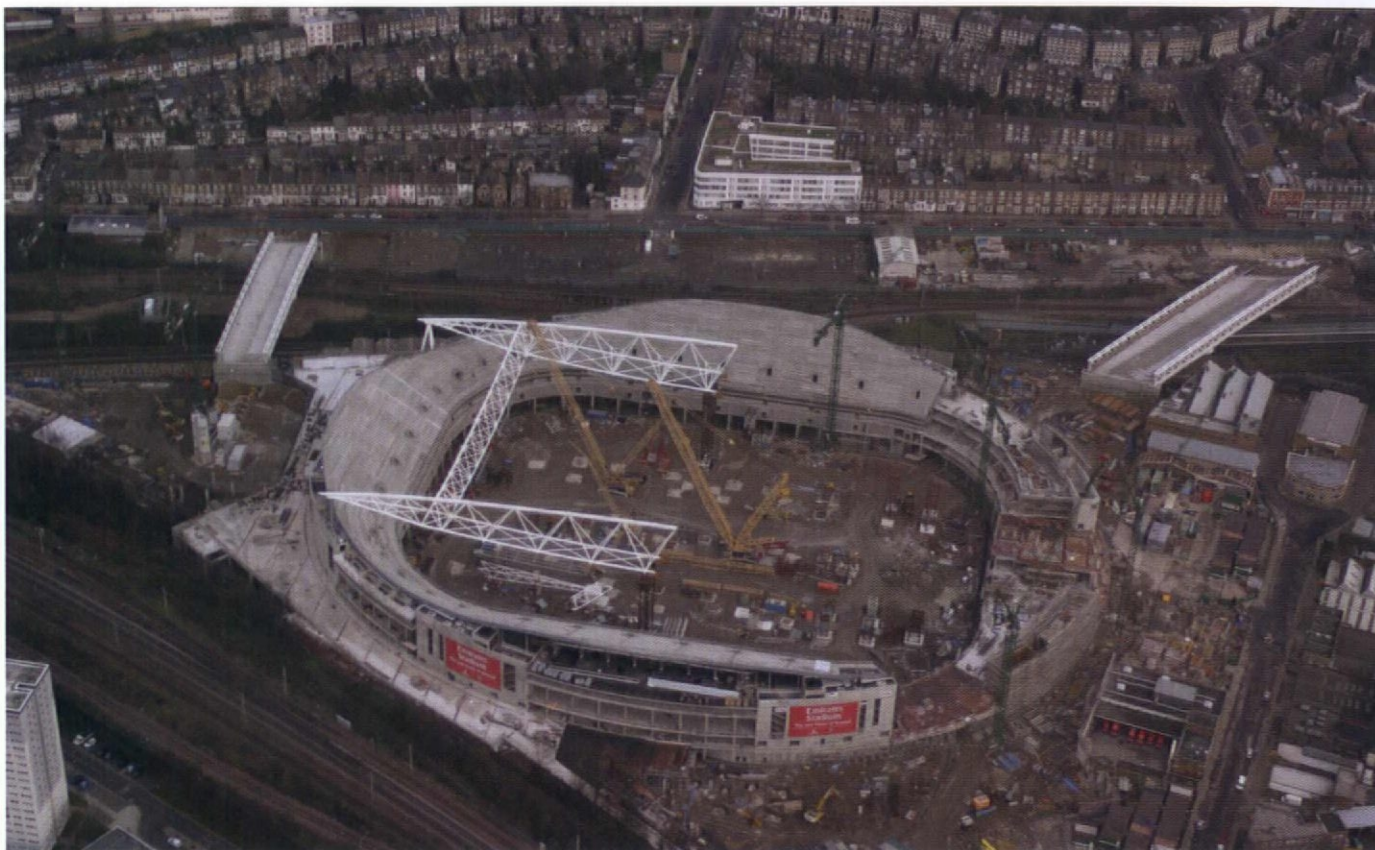
This scheme has already seen a massive investment in time, money and energy, with more than two million manhours expended to date on the £220 million (capital cost) project. And the money has to be recouped. Undoubtedly naming it the Emirates Stadium has contributed significantly, and it is hoped that 150 corporate hospitality boxes – each costing between £65,000 and £150,000 per season – might go some way towards it.

On arriving at Holloway Road – described by local journalist Robert Elms as 'gloriously run-down' – navigating the traffic lights, avoiding Libeskind's monstrous London Metropolitan University sprawl and ducking down Hornsey Road, there are still only glimpses of the towering stadium ahead.

Such is the narrowness of the streets around the western approach to the site that its scale never really dominates, or threatens, the local area. Until you turn the corner at the Little Wonder Café, that is, when the full magnitude of the project really hits home. After all, this is a 46m-high concrete and steel structure covering 7ha.

Alongside the HOK-Sport-designed stadium, and part of the overall stadium relocation project, is a housing development by CZWG which covers an additional 4ha, and then there is the £60 million redevelopment of the original Art Deco stadium itself, converting it into flats designed by Allies and Morrison.

Compared with rival Manchester United's 40ha Old Trafford stadium site, this all seems like a modest undertaking but the tight site has imposed different, but equally challenging,



Despite the south side of the stadium not being completed, half of the primary beam is craned into position. The two new bridges are installed over the local railway lines and the East Coast Mainline is at the bottom

architectural and engineering demands on the design team. Geoff Werran of engineer Buro Happold says the initial difficulty was trying to make optimum use of the triangular site, while maximising the potential for external circulation and development opportunities. Essentially, the plan shape is pretty much a given, and the elevation was generated by the site constraints.

Externally, the building is quite straightforward: a lower-ground-floor concourse that absorbs the changes in level across the site and provides space for vehicular and service access; a main pedestrian concourse/entry level above; intermediate levels of access and hospitality with tiered seating above; and the dramatic steel roof. A concrete structure from the lower concourse, the steel structure kicks in at about 34m above lower ground level, with a false eaves line above the elevated glazed facade to further minimise the massing of the overall structure.

From the lower ground level, a 13m-wide ramp and vast staircases rise to the concourse-level. At the head of the stairs, 150mm-thick concrete guard rail baffles have been installed to break up the flow of supporters at the end of the game and help prevent anyone falling down the stairs due to pressure of numbers. Unfortunately though, these do spoil the drama and perhaps, over-inflate the health and safety risks (even though I am told that it is to prevent a repeat of the disaster that occurred at Glasgow's Ibrox Park in 1971 – and which led to the *Green Guide* (*Guide to Safety at Sports Grounds*) – it seems to me that the Health & Safety implications are not exactly comparable).

As befits a major public project though, health and safety is very much in evidence on site. Signs abound about hand/arm vibration syndrome (which used to be called vibrating white finger in my day) and notes remind workers that 'urinating on site is a dismissible offence'. As I complete my tour, there is a van owned by Pacific Construction – 'specialists in formwork' – that has obviously had something very large and very heavy fall onto it from a very great height. Apparently no-one was hurt but it sits in the compound smashed to smithereens as a visible warning.

The external glazing is nearing completion – installed by workmen assiduously wearing hard hats – and the site is remarkably clear of obstructions, rubbish and storage mounds. We walk alongside the East Coast Mainline, where a part of Network Rail's land has been incorporated under an easement to ensure that there is a minimum 9m access around the entire site, bounded by the aforementioned concrete guarding, which will be topped with steel mesh railings.

Reaching the north of the site (the building is orientated on the exact north-south axis), a void opens up between the stadium complex and the Lough Road housing development. This access void will eventually be covered over by the main concourse level, burying in the basement all that is now visible including the exposed railway arches, and enabling a wider pedestrian access to the new bridge over the local rail line. Mills explains how this 14m-wide northern bridge was installed in two sections, each weighing 180 tonnes. The south-east bridge – 100m long and 22m wide (as



1.

1. The temporary trestles are being removed gradually from the primary trusses

2. The completed roof structure about to be topped out last week

3. The painted trusses were fabricated within the stadium

4. Final jointing and making good



2.



3.



4.





5.



6.



7.

5. Preparing to lift a section of secondary and tertiary truss

6. Triangulated support nodes to the truss ends

7. Craning the structure into place

wide as a dual three-lane motorway) – was installed in one piece and will take the bulk of the arrivals but will remain open to the street beyond as an attempt to create more public space – to draw people into the concourse level and populate the area even when matches are not on. This was one of CABE's original suggestions which it will be interesting to watch develop.

Internally, the floor-to-ceiling heights are reasonably generous, especially at the turnstile (swipe card) entrance level, and the mezzanine galleries for the higher-paying customers are large well-lit spaces with views out. The normal punter also gets a better than average specification. The exposed concrete-block walling – a standard aesthetic for football fans – has been supplemented in places with finishes. Unheard of. The WC blocks, for example, notoriously bleak places in football stadia, have already been tiled out in club colours, with a Sika floor system and Tubeline aluminium suspended ceilings.

WCs have been provided on a 70/30 male/female split (compared with Highbury's 75/25) in recognition that more women go to matches these days. In the hospitality areas, this ratio rises to 50:50 following the recommendations of the *Green Guide*.

The hospitality boxes, accessed by priority stairs and exclusive lifts, have direct access onto tiered balcony seating through the sliding glazed screens. Internal timber screens have been stained in dark cherry, but in the process of French polishing the surface the red lacquer has streaked badly and this is currently being rectified. Included within the 150 hospitality boxes, there are

a number of what Mills calls 'VVIP boxes' on the same level. These have access down to the players' tunnel and the car-park level if the VVIP needs to be whisked away during or after a match.

The main drama, however, is experienced not in the plush environment of the wealthy but by walking through the tunnel to the topmost tier. Here the enclosing effect of the roof – combined with the fact that the seating has yet to be installed – has, even now, intensified the gladiatorial atmosphere of this empty amphitheatre. Buro Happold's Geoff Werran says that the design team carried out 190 iterations of seating layout: 'Each and every one was valid but not optimum, as small changes in the front tier led to big changes in the rear because of sight-line requirements'.

He adds: 'We've had people working on nothing but the roof for the best part of five years, analysing the structure to keep it as light and thin as possible.' On this project, every millimetre gained in structural terms is a bonus for internal headroom.

The four main drivers for the roof's inward sloping design were: the need to minimise the external massing and comply with the height restriction; the need to maximise the pitch's natural microclimate – ensuring a gentle natural flow of air over the surface of the grass to improve 'photosynthetic activity,' ie, the turf's condition; the desire for an exciting atmosphere for the viewers (realising the club chairman's desire for an 'intimidating and intense structure'); and the choice of a constant eaves line.

By forming an ellipse with a rectangular hole in the middle (the cut-out in the roof over the pitch) and providing



8. The concrete seating base in place with cantilevered executive-box seating at first-floor level. The pitch, canted from the centre, will spring from a level 1m higher than that shown here

it with a constant eaves and roof slope, the saucer shape is created automatically. The question is then how to hold it up.

The two primary trusses span 204m and are 15.5m deep. Werran says that these trusses 'want to be 17m deep but are 1.5m shallower than is structurally optimum to comply with height restrictions. This means that they are slightly heavier than would otherwise be the case' – 720 tonnes in total – welded on-site and lifted in two sections.

The secondary and tertiary trusses take the roof build up, which has clear polycarbonate eaves to soften the shadows on the pitch (for the benefit of the TV cameras' contrast control). The temporary support trestles are being removed gradually to allow the structure to settle by 450mm under self-weight and a further 150mm when the cladding is installed.

The players' areas are just block shells at the moment. (I assumed that the first vast space was the changing area but, in fact, it was the manager's office.) A hydrotherapy pool (for the home team only), physiotherapy facilities and a boot room are all walled in ready to receive finishes. From here, the team will walk out on to a pitch which will be around 1m higher than the current level. For all its reliance on natural breezes, the pitch will be raised to have a hi-tech computerised management system underneath.

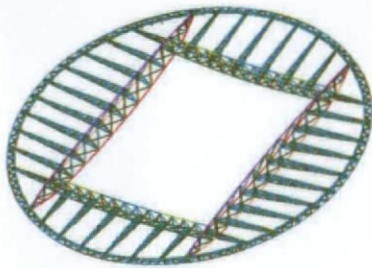
The scheme proposes a range of environmental measures that have satisfied the planners – from passive and mixed-mode ventilation systems to minimise the use of air conditioning to photovoltaic energy generation in parts. Most important, however,

has been the proposal to reduce spectators' use of cars to travel to the new stadium but, in truth, this is as much a determining constraint on the use of the site as a conscious environmental strategy. With 60,000 people arriving at a given time, nearby Holloway Road tube station is dangerously inadequate and, as part of the £7.9 million Section 106 upgrade of the three major public-transport arrival points, it will be provided with an additional lift and staircase. The lower ground floor of the stadium will have 600 car parking spaces, of which 100 will be mobility-impaired access spaces, and room for 30-40 coaches.

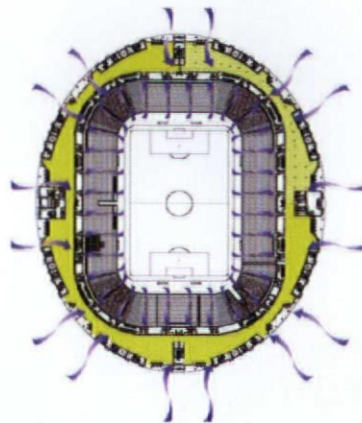
As I wend my way from the site, back to the tumult of the Holloway Road, I pause to consider that this major development has been housed in an inner-city site, a stone's throw from the original football stadium, in the heart of the capital.

Only two houses were compulsorily purchased to facilitate this new construction and a couple of local businesses have been relocated because of it. When you consider that Arsenal FC can stick a mega stadium project in the middle of Islington with minimal disruption, it makes you realise that we are probably over-paranoid about London's so-called spatial density and congestion problems and in so doing are underselling its development potential.

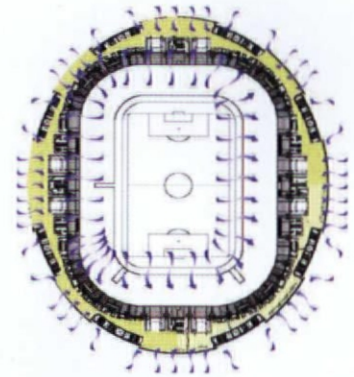
The contract is a bespoke Design and Build with guaranteed maximum price (with L&A damages of £250,000 per week or part thereof) and Werran indicates that they are 'comfortably on schedule' to complete on 31 July 2006.



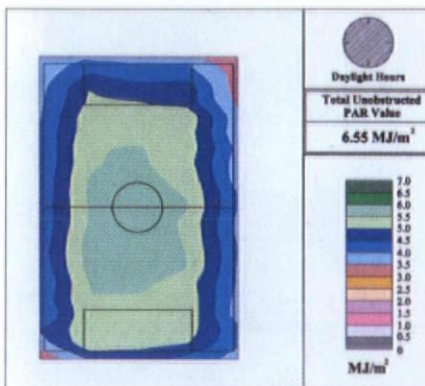
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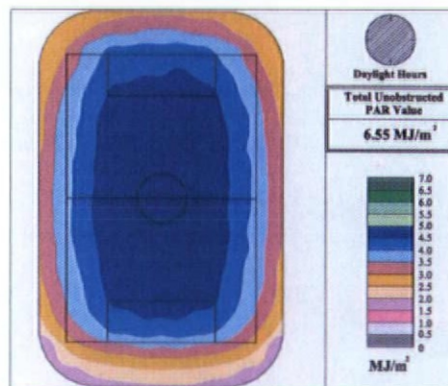
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12.



13.



14.



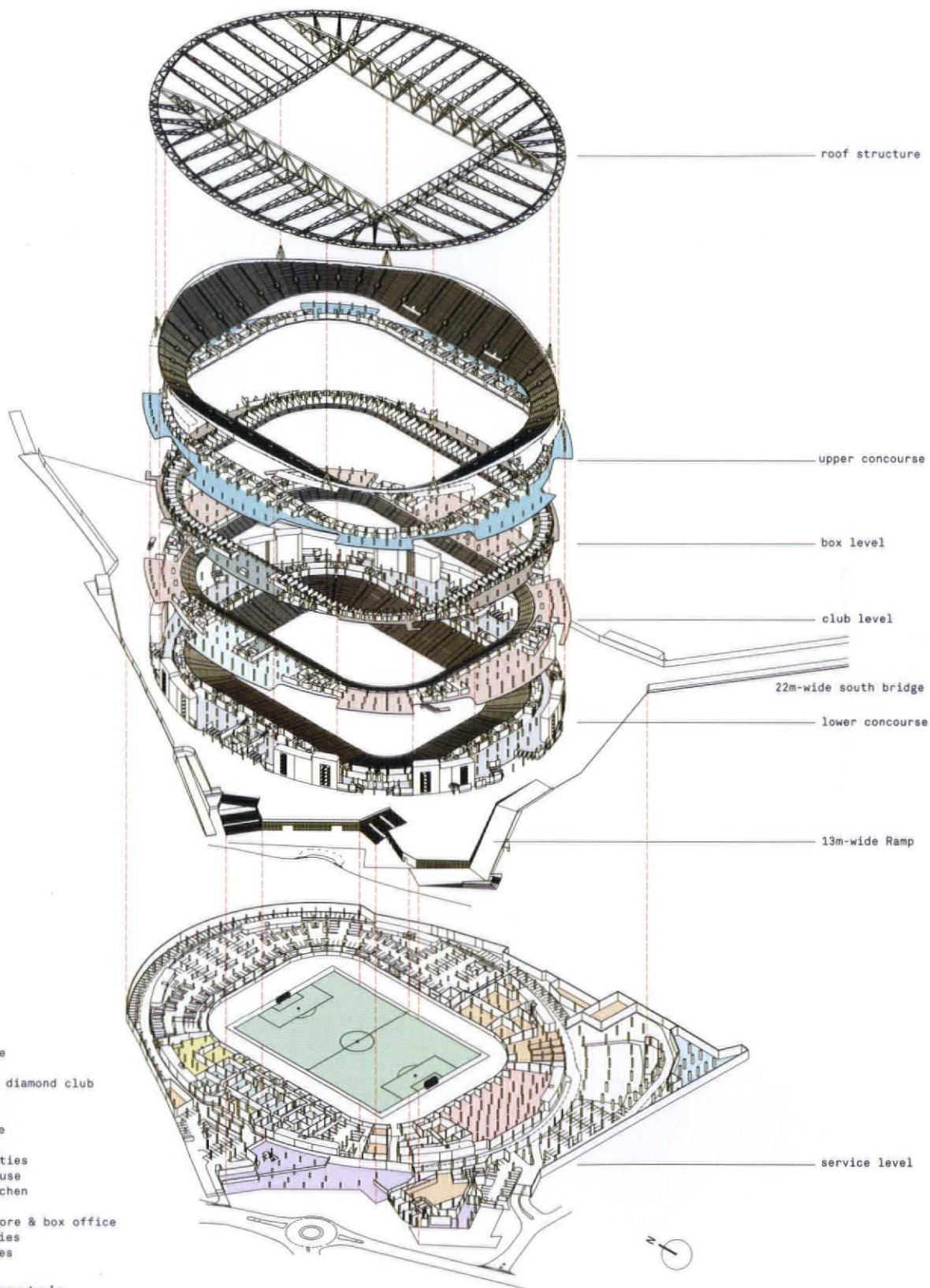
15.

9. Stress modelling of the roof structure

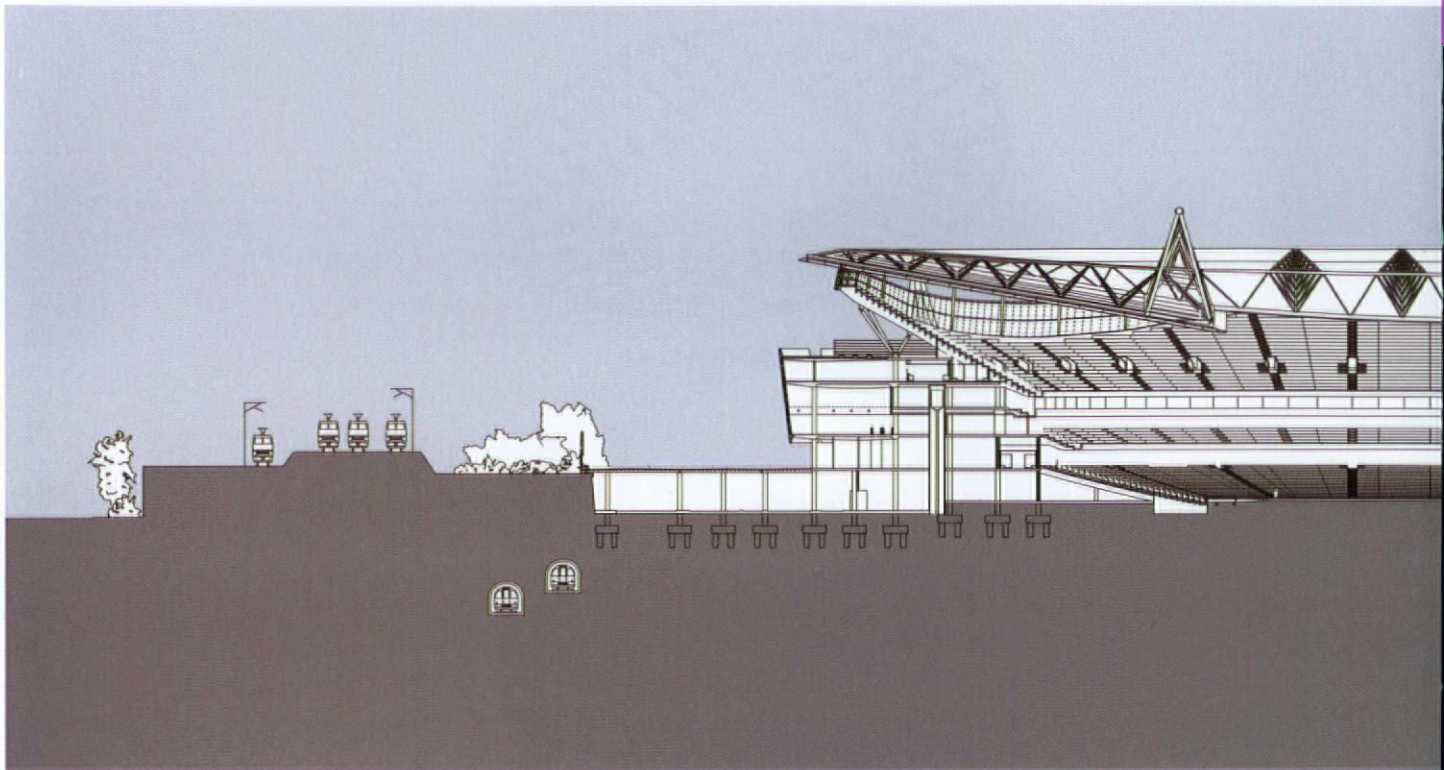
10, 11. Natural ventilation flows
to concourses

12, 13 & 14. Computer modelling of
Photosynthetically Active Radiation (PAR)
values at various sun angles and intensities

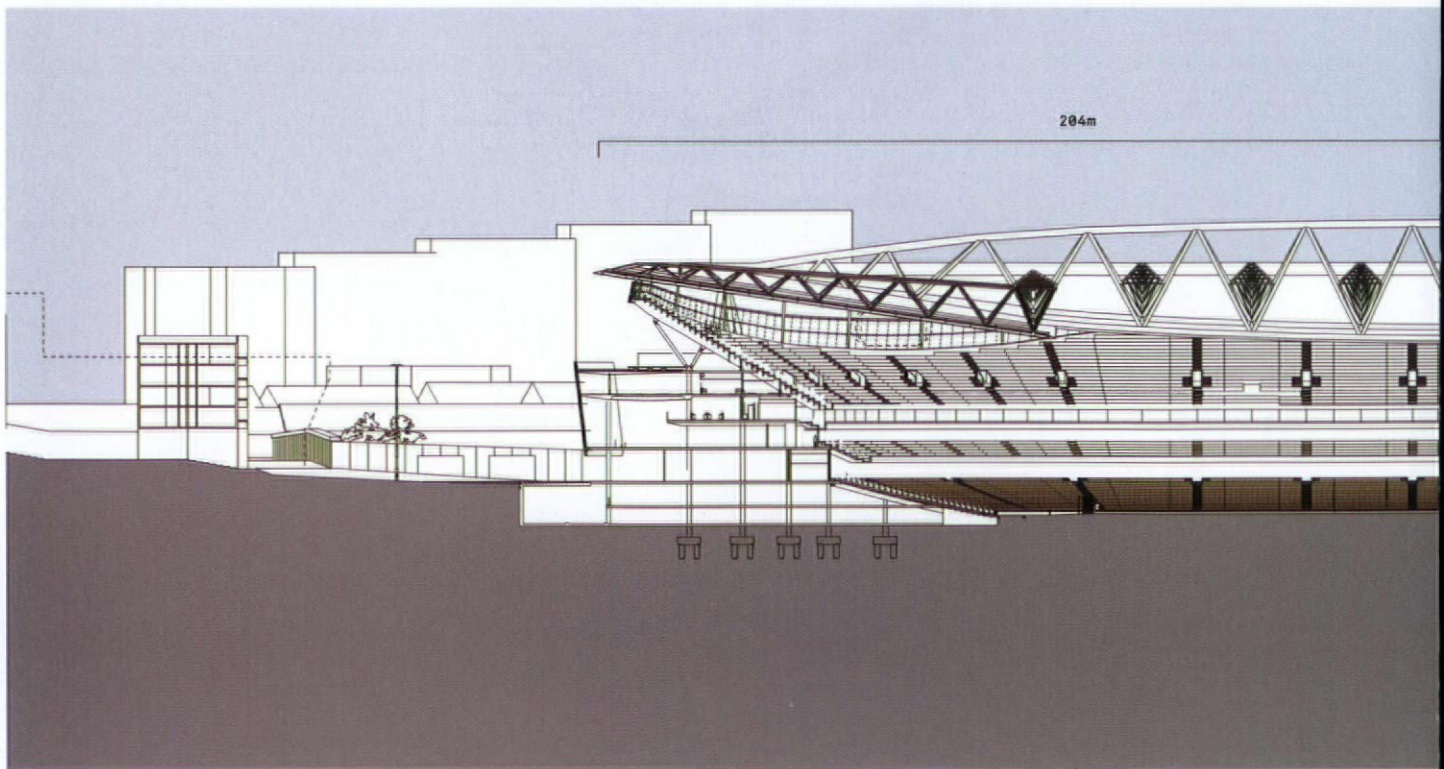
15. Completing the installation of the external
glazing above the open lower-concourse level.
'False eaves' and roof structure above



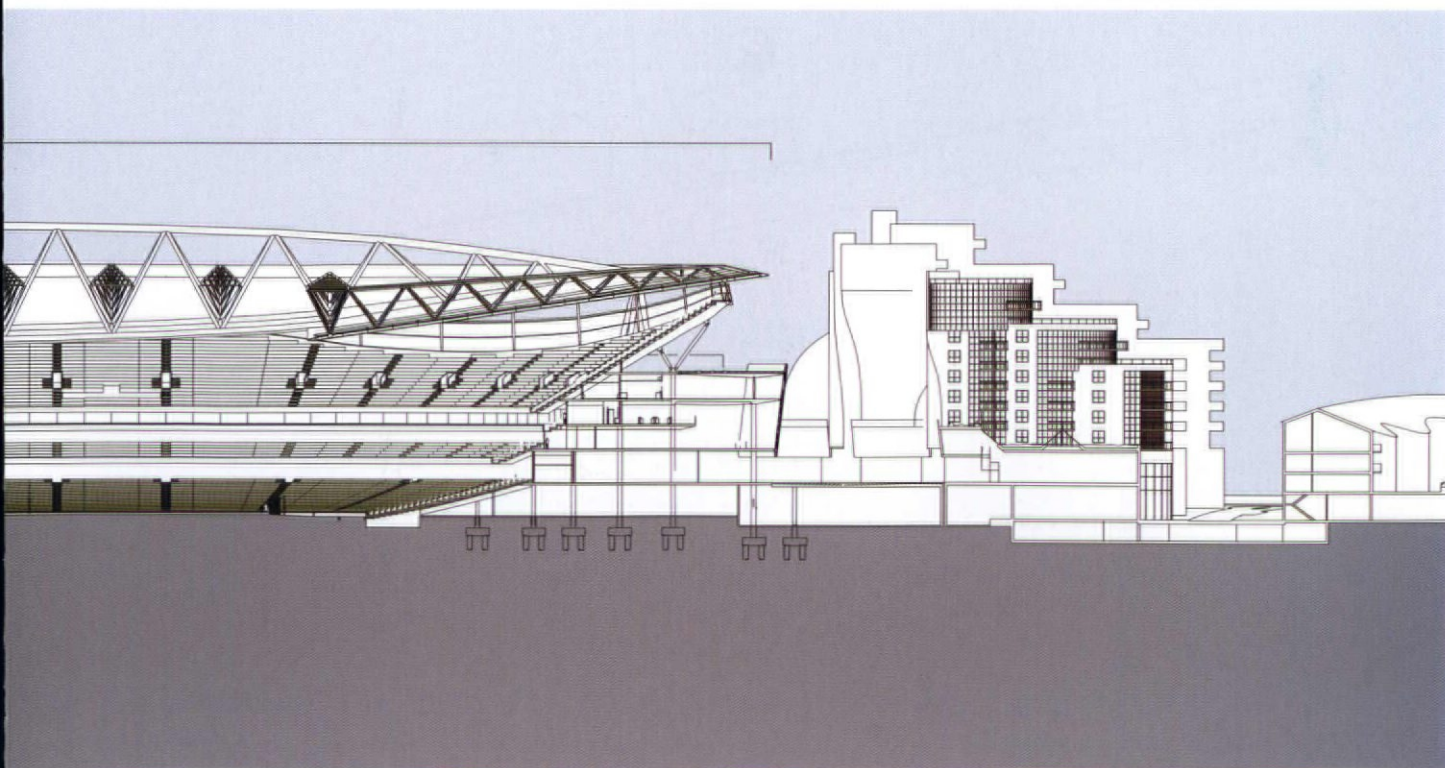
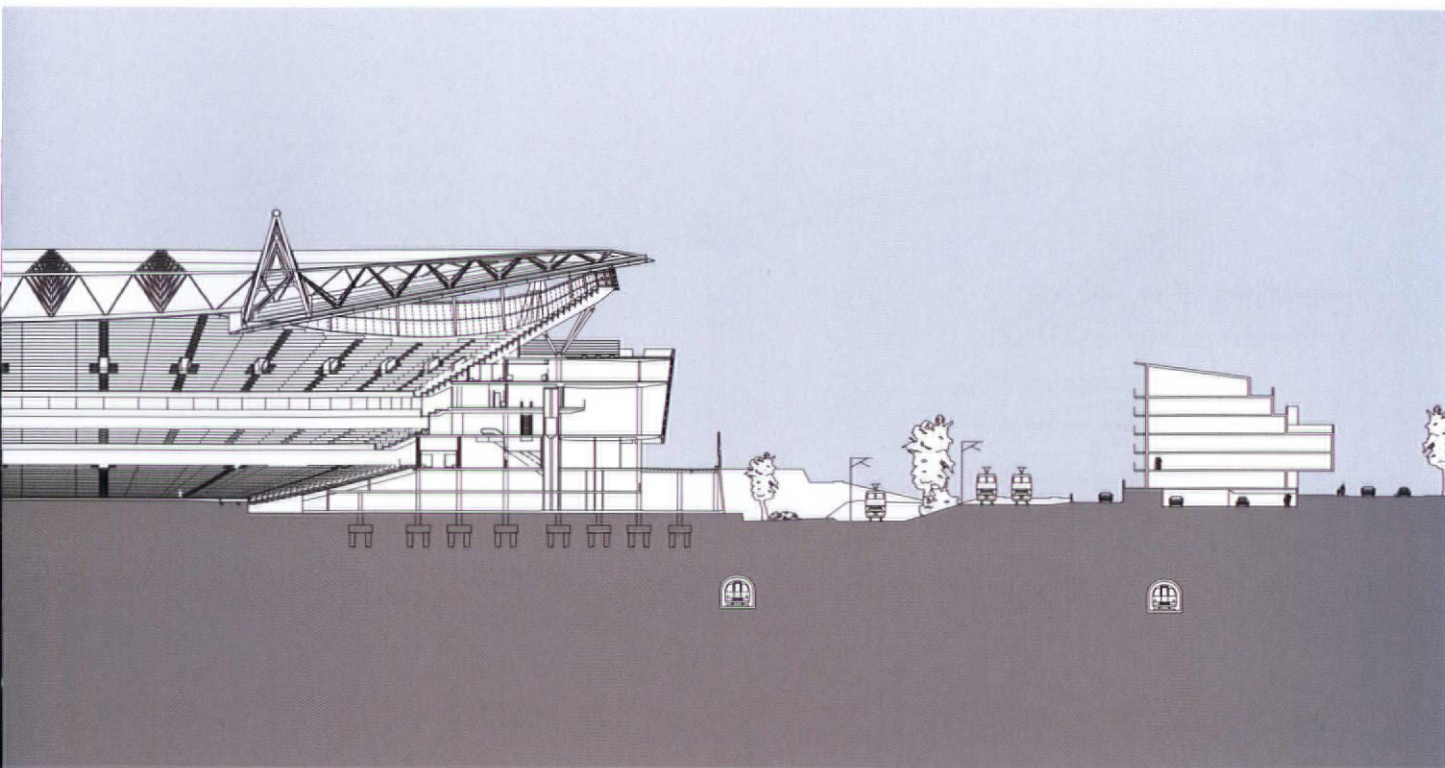
16. Exploded axonometric

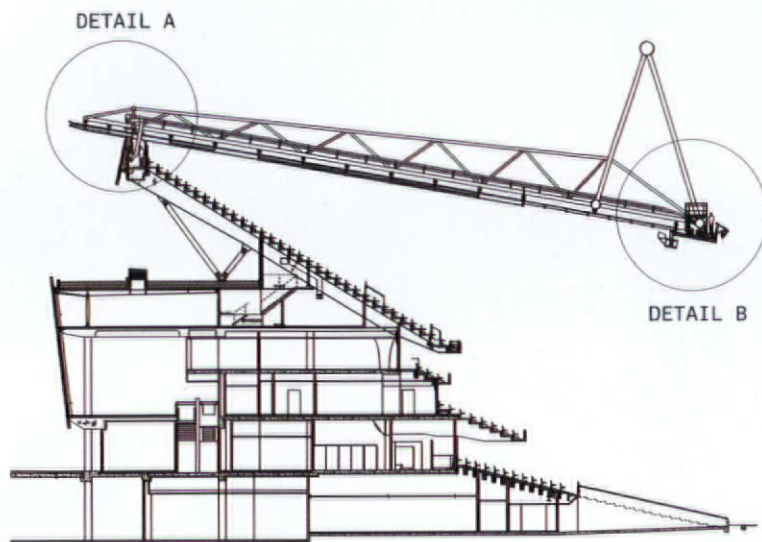


17. West/east section through mid point showing tube lines

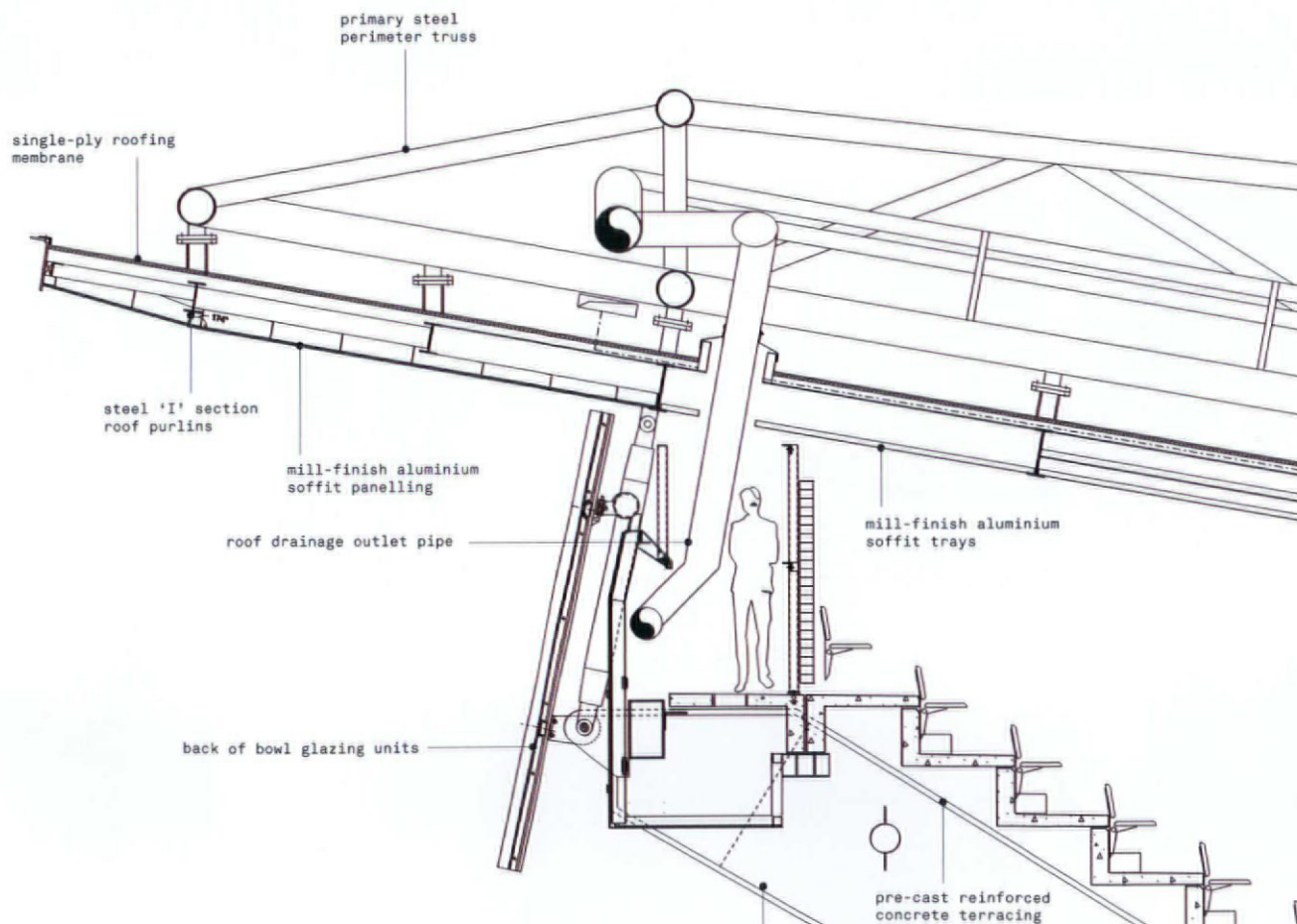


18. North/south section through mid point

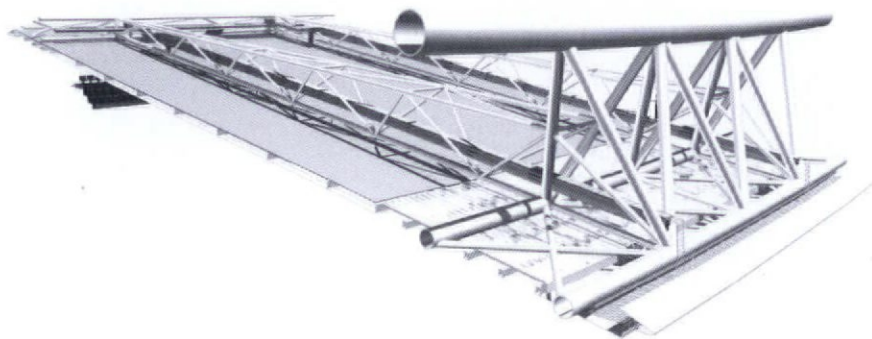




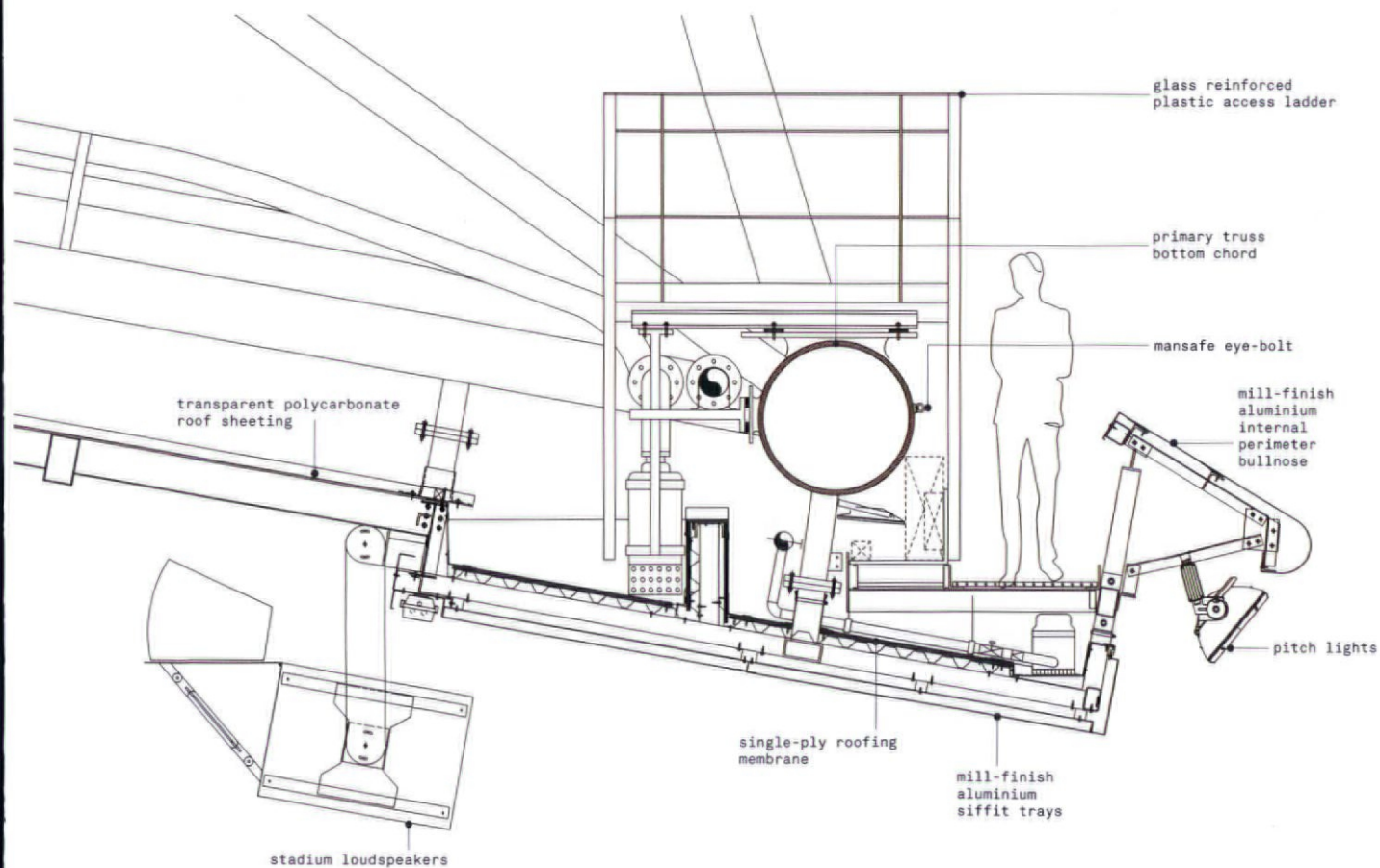
Section through the main stadium showing roof incline and 15.5m-deep primary truss



DETAIL A



Rendered sketch of the cladding and polycarbonate eaves at the secondary and tertiary structure



DETAIL B



19. The massive 13m-wide, 1,200-tonne south bridge was installed over a single weekend. The intention is that this will become part of the public space from the east side

Credits

ARSENAL EMIRATES STADIUM, LONDON

Planning application submitted

November 2000

Planning consent

May 2002

Start on site date

February 2004

Tender date

Tender process completed January 2002

Proposed completion

31st July 2006

Gross internal floor area

Circa 104,000m²

Form of contract

Design and build (2 stage tender). A bespoke design and build with guaranteed maximum price (with L&A damages of £250,000 per week or part thereof)

Total cost

Total project cost £357 million. This includes the cost of the land, planning, stadium design and construction costs. It also incorporates the relocation of local businesses and statutory services including the construction of a state-of-the-art £60 million waste-recycling centre and depot for Islington, the upgrading of transport infrastructure and significant regeneration of the surrounding area.

Architect

HOK Sport: Christopher Lee, Sean Jones, Caroline Mills

Development consultant

Anthony Green & Spencer

Planning consultant

Hepher Dixon: Roger Hepher

Project manager

AYH: Sean Andrews

Health & safety consultant

AYH: Keith Bushell

Transport consultant

Steer Davies Gleave: Allan Gooch, Roy McGowan

Structural consultant

Buro Happold: Geoff Werran

Acoustic consultant

RPS Planning Transport & Environment: Darren Humpheson

Steelwork contractor

Severfield-Reeve: Jon Severs

Blockwork contractor

Frank Staddon, Terry Murphy

Carpentry/joinery

Hammal Joinery

Concreting contractor

Byrne Brothers: Bob Elliott, Caroline Hall

Roofing contractor

Sir Robert McAlpine & Sons

Fire prevention contractor

Wormald Britannia Fire Systems: John Hawley

Lifts/escalators contractor

UK Lift: Steve Wayman

Mechanical contractor

MJN Colston: Ian Smith

Mechanical & electrical contractor

Piggott & Whitfield: Lawrence Archibald

Main contractor

Sir Robert McAlpine & Sons: Rolv Kristiansen, Des Senlon

Land agents

Anthony Green & Spencer: Anthony Spencer

Environmental engineers

CPM: Julian Arthur

Subcontractors and suppliers

Soffit insulation Advantage Engineering; *general labour/banksmen*

Avondale Construction; in-situ concrete works Byrne Brothers;

lowvres Colt International; *railway possession operatives* Coyles;

temporary electrics/plumbers Crosby Electrical Services; *ventilation*

E & S Heating & Ventilation; ground contamination investigation

Enviros; roof lighting, back of bowl cladding Facade Engineering

Systems; terrace Mastic Sealant Fastglobe (Mastics); *safety*

scaffold GBG Construction; *general electrical installation*

Goodmarriot & Hursthouse; site security H & M Security

Services; sprinklers Hall & Kay Fire Engineering; *fire alarms*

PA & Voice Alarm System, CCTV, BMS Honeywell Control

Systems; brickwork & blockwork Irvine Whitlock; *OLE alterations,*

isolations, signal & cable service diversion Jarvis Facilities;

demolition/excavation Keltbray; *concrete cutting* Kilnbridge

Construction; lifts/escalators Kone; *mechanical services installation*

MJN Colston; inclined curtain walling MJN Colston; *roofing*

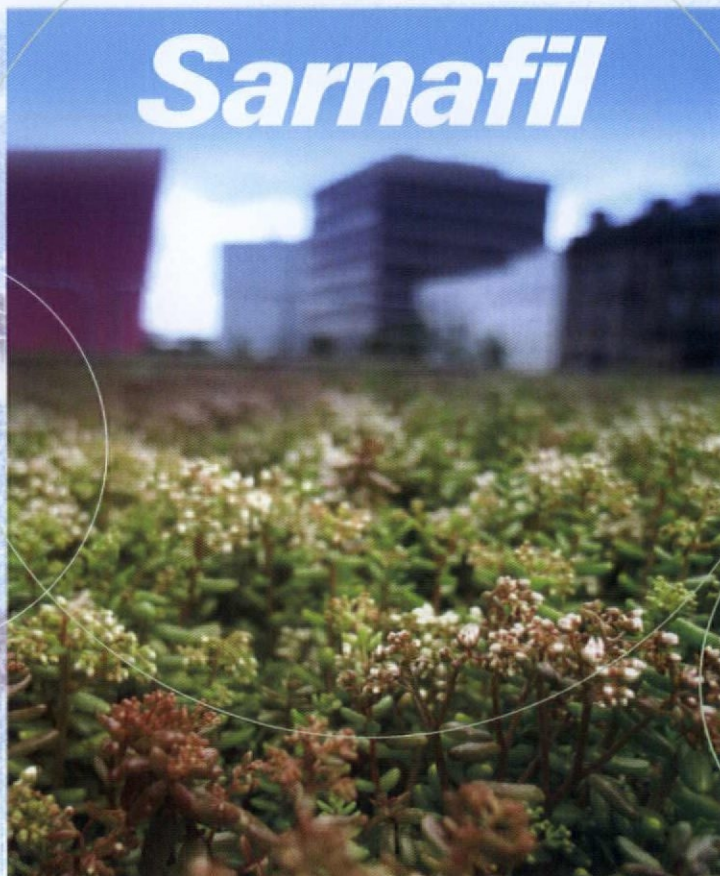
(main roof) Prater Roofing; *roofing – levels 4 & 5* Rock Asphalte;

piling Stent Foundations; *precast concrete terrace units* Tarmac

Precast Concrete; structural steelwork Watson Steel; *facade glazing*

Parry Bowen; electrical installation Goodmarriott & Hursthouse

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- **Energy Efficiency**—The internal environment requires less heating/cooling.
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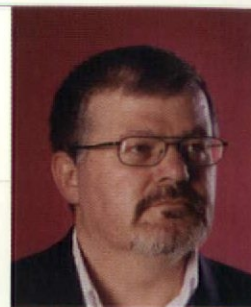
Sarnafil's commitment to green roofing was recognised in the Building Awards 2005 as winner of the Manufacturer of the Year category.

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HISTORY IN THE MAKING

By Austin Williams

And so it seems that it takes the likes of TV funnyman Tony Robinson to discover that the Romans came to Britain a century earlier than is commonly perceived. While pupils have always been taught that the Roman invasion of Britain occurred in 43AD, the *Daily Mail* recently claimed that this is not actually true.

It reported that the TV archaeology programme *Time Team*, presented by Robinson, had found Roman artefacts in the UK that pre-dated the 43AD invasion, indicating that, while conquering Gaul 100 years earlier, the Romans had also settled in Britain. It painted a picture of Sussex peasants chatting merrily in Latin in 50BC. One of Channel 4's *Time Team* team told the newspaper that this revelation is 'like discovering that the Second World War started in 1938'.

Now I know the media gets carried away sometimes but this isn't really news, is it? Simply put, Caesar came to

England in 55BC, went away, and then the full-blooded Roman invasion occurred in 43AD. Finding artefacts of the earlier period is undoubtedly exciting and it sometimes clouds the mind but even with the parlous state of education today, if you type the words 'Roman Invasion of Britain' into Google, it shows that a junior school in Tunbridge Wells already knew this bombshell.

Robinson appears to be the new voice of British archaeology and has captured something of the mood of historical education today. 'One of the frustrating things with history,' Robinson told the *Daily Mail*, 'is that things become set in stone. We all believe it to be true.' Once described as a 'top geezer' by none other than Alistair Campbell, for services to New Labour, Robinson's comments seem to reflect a wider educational agenda.

Obviously, the further back in history we go, the more we

are testing hypotheses: as more evidence is unearthed, so the experts can either fine tune the theory or make a leap of imagination.

This is the way that scientific inquiry goes. However, it does not mean that each theory is inherently untrue. The way we should appreciate and understand scientific thinking and critical enquiry is to recognise that at each stage of research, evidence is produced to help formulate a rounded interpretation of the truth.

Provided that it is combined with genuine peer review, advances the understanding of the subject and uses the scientific method, these staged 'interpretations' are not less true just because they may eventually be refuted.

Unfortunately, history teaching today does not convey a series of factual events to be learned but instead a series of personalised events which are left open to interpretation.

And so, in this issue Jonathan Foyle – writer, curator, presenter and all round clever bloke – has written the first in a series of essays which will explore the role, place and setting of architects throughout history. And this first essay focuses on Julius Caesar's military architect, Vitruvius, the author of *De Architectura*.

Vitruvius' observations, which are commonly reduced to 'commodity, firmness and delight', were part of a broader ambition for the proponents of architecture to appreciate the expertise of specialists and yet to develop a more rounded understanding of the arts and sciences for themselves.

The Roman architect, concludes Foyle, 'was intellectual and technically experienced'. Given the pressures to accept today's more relativistic educative practices, these are two historical traditions that it would be very good indeed for us to reclaim.



1.

THE PRACTICE OF ARCHITECTURE MUST BE AS OLD AS ARRANGING ROCKS

By Jonathan Foyle

1. Trajan's Market, restored in the 1930s
2. Trajan's Forum, Rome

The history of architecture stretches back many thousands of years, long before the term 'architect' was coined.

It is all terribly confusing. When did architects emerge in Britain? Was it when the medieval 'master-masons' fell off their perches, or were they really architects too, as John Harvey's *English Mediaeval Architects: A Biographical Dictionary Down to 1550* has it? Was it when John Shute used 'architect' for the first time recorded in English in a book of 1563, or when in about 1487 the Bishop of Durham, John Shirwood, scrawled *architectus qui* in a margin next to the earliest Renaissance account of an architect's duties in his one-year-old first edition of Alberti's *De Re Aedificatoria*?

It may help if we could first define 'architecture' reasonably well. As with defining 'art', it is almost impossible to gauge the line past which 'architecture' leaves the pragmatism required of mere 'building' and represents a conscious and controlled aesthetic resolution. Sir Nikolaus Pevsner proposed that a bicycle shed is a building, whereas Lincoln Cathedral is a work of architecture. But what if the bicycle shed were made in fine materials, metals and glass, by a master like Calatrava? What about Shuhei Endo's Cyclestation M in Japan – surely that is architecture? Conversely, Lincoln Cathedral is an accumulation of disparate visions over several centuries – so can it hold together as a single work of architecture? Yet it must be architecture, obviously far more than a bike shed in emotional terms, but logically it has the potential to be less so.

So the definition of architecture is a shifting, relative one. Many ancient structures bear obvious sophistications, so I hold that architects were around well before the term 'architect' was coined. Most nouns are applied to things which already exist in a happy state of anonymity, which are then labelled in our instinctive drive to quantify, catalogue and arrange the world into a simplistic picture which we can readily communicate. Species, genres, and RIBA memberships help to form reassuringly identifiable groups. 'What do you do?' 'I'm an architect.' 'Ah, I see.'

Do we see? What should we expect the archetypal architect to do? From the outset, the architect's fundamental ability would seem to be conceptual, especially of structures that satisfy a functional purpose, while using skill in the twin disciplines of formal and spatial design, and ideally also managing the interrelationship of materials and finishes. So an architect is basically a creature of imagination, who sculpts essays in useful forms and spaces. But what about the more technical demands of structure and refined working details? That too, perhaps, but it didn't seem to matter to celebrated fantasist architects such as Boullée, nor even to formal innovators such as James Stirling (at least in his early work).

William Beckford's collapsed Georgian Gothic pile at Fonthill Abbey in Wiltshire has never been relegated from the distinction of 'architecture' despite James Wyatt's structural ineptitude, and today there's no sign of change in university architectural curricula, which tend to avoid building sites.



2.

Can you be an architect solely on paper? Of course. 'Ah, Leonardo's marvellous designs for palaces, houses, and especially the important centralised churches. All written up in Pedretti's *Leonardo Architetto*. What? Actually built? No! Gosh – imagine if they were...' Sometimes, it is preferable for posterity to specialise in the inception and outline design stages.

Now, fair enough, real buildings involve structural physics and have to beat the weather, but we all know that structural engineers are involved to stop architects getting carried away, and that most of the drafting of downpipes is done by minions. Cut all else away and, at the heart of it all – that precious 5 per cent of the project – lies the architect's masterplan. Though it could well be realised by other hands, the lasting credit usually remains with the visionary sketcher who might be rather more concerned with capturing the zeitgeist than the rainwater.

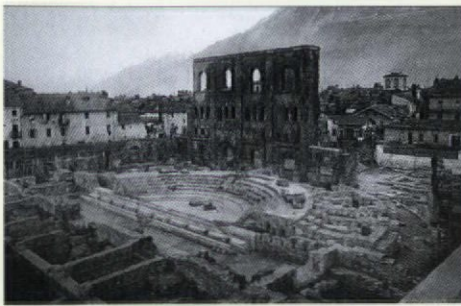
So I'd say the practice of architecture, and the necessary vision of an architect, are as old as arranging rocks. For example, someone must have planned each of the distinct phases of Stonehenge. Three thousand or so years ago the outer ring of 30 sarsen stones and 30 lintels (each representing a rational 12 degrees of a circle) was conceived. The stone selected then had to be quarried with necessarily communicable specifications – whether scratched into bark, scored on to leather, or somehow committed to memory – to relate the intended form and scale. Using this information, each monolith was painstakingly shaped with gentle curves to maintain the circularity of the basic concept,

then hauled from 100 miles away, up a hillside into its perennially fascinating geometrical interrelationship with the 59 others, all to a predetermined orientation. (We don't know if it was ever finished but that's immaterial. It *is* architecture.)

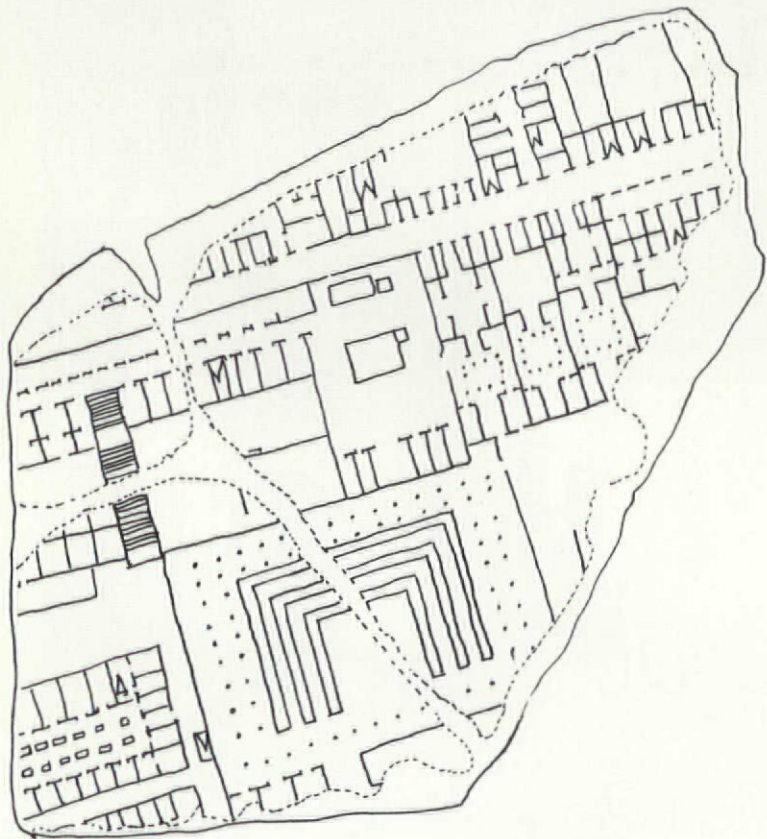
Now, it may be true that some form of authority had to approve any and each of these ancient schemes – but the simpler the design, the more probable that it was the product of clear thinking. Harmoniously designed buildings were usually the product of a single mind. And for fine concepts of any historical – or prehistorical – era, for real or imagined buildings, the instigator might as well be regarded as an architect.

Some of the earliest recorded artisans on earth are architects. What is known of the earliest architects as personalities? Famously, Mesopotamian ziggurats and Egyptian pyramids manifested sophistication in form, meaning and engineering, and the Egyptian Imhotep is credited with the revelation of stacking mastabas (platforms) into a pyramidal form for King Djoser's tomb at Saqqara (c2700 BC). But much belongs to myth: Daedalus (meaning 'the skilful one') was reportedly the architect of the labyrinth of Crete, following the plan of an Egyptian tomb.

Kings, tombs, palaces: from the outset, architects were to realise the most prestigious commissions. The ultimate building type must be the temple; how can a god be suitably represented by feeble mortals? The imaginative solution was to charge a divinely appointed king with the task – or more realistically, give him the credit. Thus, King Solomon is the great biblical architect, who



3.



4.

acknowledged divine instruction on the dimensions and arrangements of his temple (*Kings*, 5-6).

Now, we come to the name 'architect'. The chosen word echoes down the ages, ultimately from Greece, when Herodotus uses *architekton* in the Fifth Century BC. *Chambers' Dictionary of Etymology* explains: 'architect n. 1563, borrowed from Middle French *architecte*, possibly influenced by Italian *architetto*, from Latin *architectus*, from Greek *architéktōn* – n chief builder (archi- chief + téktōn – builder)

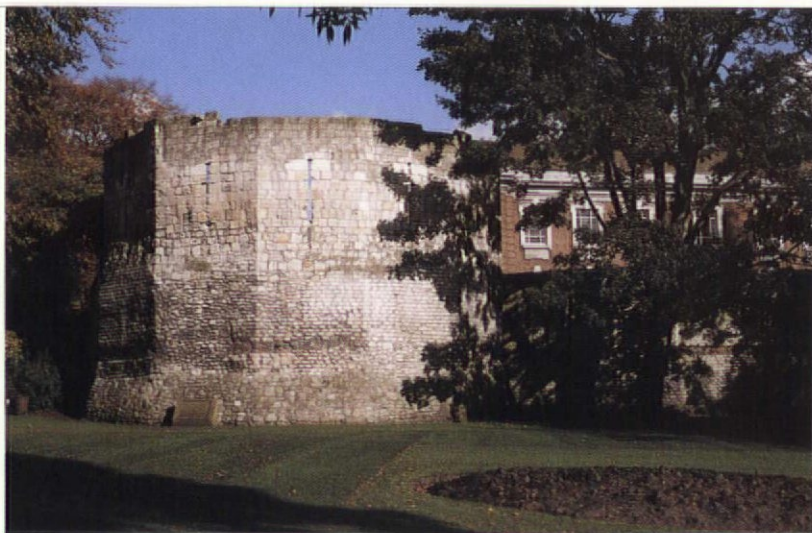
So, the ancient Greeks thought of an architect as a 'chief builder' (some dictionaries propose 'arch builder', with obvious room for confusion). What do we know of Greek architects? There are quite a few references to their names and work in heroic literature, incised slabs and the hearsay of Roman historians.

Some Greek architects were builders and craftsmen: Pheidias (490-430 BC), sculptor of the Parthenon friezes, was charged by Pericles to be superintendent of all the rebuilding work on the Acropolis. But the general situation is not at all clear-cut, as architects usually took charge of all the planning, engineering and building on a project.

Plato, in his *Politicus*, suggested that architects contributed knowledge rather than craftsmanship and that the best architects cost 20 times the rate for a craftsman. Ironically, the closest architects came to being chief builders was not in the Classical period but during the later Middle Ages, when they were craftsmen elevated through the masonic guilds.

But we understand most about the outlook and methods of Classical architects through Vitruvius. Marcus Vitruvius Pollio wrote the only complete treatise on architecture to survive from the ancient world, though it was not unique at the time he wrote in about 25-30 BC. There is much we will never know about him, including his proper name – was his familial name Vitruvius, or was it Pollio? Nobody can be sure. But Vitruvius sounds more poetic, so we have stuck with it. Vitruvius' treatise punctuates a noble tradition of pandering to rulers in the hope of prestigious work, for he was a military architect to Julius Caesar around the time of the first invasion of Britain, and he continued into the reign of Augustus. At that time, Hellenistic culture was much admired by the Romans – its inheritors – who had taken on and adapted Greek temple forms and classical orders. Vitruvius' Latin was peppered with received Greek terminology: *taxis* (order) can be achieved by *diathesis* (design) through *oikonomia* (the distribution of elements), perhaps using peristyle planning, stylobate articulation, and anthemion ornament.

In his 10-part treatise, what Ingrid Rowland calls a 'technical handbook with literary ambitions', the first chapter concentrates on setting out cities, with the last three chapters covering water, sundials and clocks, and machines. Importantly, in the opening sections Vitruvius tells us about the process of the education of an architect. It should begin with the *encyklios disciplina*, a Latinised form of *enkyklios paideia*, a broad curriculum of Greek training for civic leaders. It was retained and championed



5.

- 3. Roman theatre excavated in the early 20th century. Aosta, Italy
- 4. Fragment of a marble plan of Rome, c.200AD, showing houses, shops and tenements.
- 5. Roman turret, St Mary's Abbey, York

by Romans such as the famous lawyer and rhetorician, Cicero, who called them *artes liberales*.

These 'liberal arts' would transfer into the medieval disciplines of the verbal *trivium* (grammar, rhetoric, logic) and the mathematical-scientific *quadrivium* (arithmetic, geometry, music and astronomy). Philosophy was not so much a component of this syllabus as the whole aim, toward preparing a rounded character. So Vitruvius suggests that philosophy 'completes the architect's character by instilling loftiness of spirit, so that he will not be arrogant but rather tolerant, fair, trustworthy and, most important of all, free from greed [...] let him pay serious attention to protecting his dignity by maintaining a good reputation – for these are things that philosophy recommends.'

The architect should also understand the mechanical arts but within reasonable limits, because if 'an architect should not and cannot be a [...] musician as gifted as Aristoxenus, still he should know music [but partly in order to understand the proper tautness of strings so that you can calibrate a catapult to fire a rock in a straight line]; if not a painter equal to Apelles, still not unskilled in draftsmanship; if not a sculptor in the order of Myron or Polykleitos, still he should not be ignorant of sculptural technique [...] no-one, after all, can possibly master the fine points of each individual subject, because it can scarcely be in his power to master and grasp their reasoning.' Incomplete knowledge would be no handicap to the ability of an architect, however, as '...it is not possible for men to judge the state of the knowledge of the arts

that lies hidden within them, because talent is concealed in darkness in men's breasts.'

Another, lesser-known, architectural text to survive from antiquity was compiled by a man who took 'Rule Britannia' literally: Julius Frontinus, a second-century governor of Britain. His *De Aqueductus* was not so much a treatise as an in-depth manual on how to design an aqueduct, with little of Vitruvius' politeness and philosophy.

This was an age when nature was either transgressed or ignored, famously for straight Roman roads, but also landscapes, which could be corrected. For example, Roman engineers diverted the River Itchen at Winchester into a neat canal to the east of the city and built their settlement over the old meandering water course, where the later cathedral still lists and sags into the old stream beds. Water courses were no side issue but were often fundamental aspects of design.

That a Roman architect was both an intellectual and technically experienced was important for the ambassadorial nature of building on behalf of an emperor, for the success of military operations and the sanitation of thousands of people. The standardised playing-card shape of planned towns and the legionary stamp on the backs of *tegulae* (wall-tiles) are testament to the disciplined and systematic nature of Roman building across Europe and North Africa. Roman architects were not just arbiters of style but missionary builders of an empire.

Jonathan Foyle is an architectural archaeologist and TV presenter

RECTANGLES FROM VIENNA

More home page rectangles. And, just to make the point that guess-what's-going-on sites are not a uniquely British disorder, here comes www.deluganmeissl.at, the website of Delugan Meissl Associated Architects of Vienna. It has been designed by a local and very talented designer, a+o. Why, then, did it saddle the poor old architects with a home page of such enigmatic rectangles? This time, *pace* Stickland Coombe, they are thin and very thin. Some of them, five black and one grey, bounce up and down. I give detail because under certain circumstances the number changes to three black and later, when you are in an inescapable loop, two black and one grey.

Whatever, it is mildly amusing at first to glide over a bouncer, because the name of the project it represents pops up near the top right. Click and there is the very tasty first-prize design for the new Amsterdam Filmmuseum. Click on a fixed rectangle and up comes an apartment design for Vienna. Plus, aargh, another bunch of rectangles. This time some of them have horizontal hatching, others vertical. You don't have time to work it all out because you have discovered vertical hatching means an animation – which, as it is the easiest option, you are busy watching. sutherland.lyall@btinternet.com

BEYOND REASON

Under the Arbitration Act 1996, arbitrators in construction disputes (or any other disputes, for that matter) must provide reasons for their awards: unless, that is, the parties have agreed that they need not do so, writes *Sarah McNally*. Such agreements are unusual.

Having gone to the trouble and expense of an arbitration, the parties usually want to know why they have won or, more importantly, lost. They may, however, agree to forego their right of appeal, for brief reasons to be given separately, on the basis that they will not then refer to the reasons in any proceedings relating to the award. What happens if the parties then change their minds and want to use the reasons to challenge the award?

This issue arose in a recent shipping case, *Tame Shipping v Easy Navigation* (2004). The dispute concerned the sale of a ship and was conducted under the London Maritime Arbitration Small Claims Procedure, which includes an agreement to waive all rights of appeal. The arbitrator does not publish a reasoned award but instead gives brief, privileged reasons separately. In maritime practice this means that the reasons will not be referred to in any proceedings relating to the award.

The unsuccessful buyers challenged the award under Section 68 of the Arbitration

Act on the grounds of 'serious irregularity affecting the tribunal, the proceedings or the award', which, they said had caused 'substantial injustice'.

The buyers claimed that the arbitrator had based his decision on an argument of which they had no notice and he had disregarded an important item of evidence.

Of course, the buyers could only put forward these grounds if they could rely on the arbitrator's 'reasons' – without that information they had no material on which they could base their objection.

The sellers said that the reasons could be referred to only in exceptional circumstances (such as fraud). The buyers argued for a broader interpretation of the London Maritime Arbitrators Association rules.

Ultimately, it was held that the arbitrator's reasons could be relied upon. While the parties were bound by their agreement, it did not preclude a court from looking at the reasons if appropriate – the court would simply decline to hold the party to the agreement.

An application under Section 68 can only be made if there are real grounds for saying that the irregularity is serious and the injustice substantial. The court can, and should, look at the arbitrator's reasons in any such case unless, for example, it is unnecessary

or it is clear that the allegation is groundless. The court held that there was no evidence of any such irregularity.

It follows that, where serious challenges are made to an arbitrator's award under Section 68, the court is likely to look at the reasons given, even if the parties had previously agreed that they would not refer to them. This decision should not be taken as opening the door to challenges to arbitration awards. The courts still discourage what may be seen as appeals by the back door and the threshold remains a high one. It does show, however, that in some circumstances the courts may bend the rules to ensure that fair play is done – and that it is seen to be done.

Sarah McNally is a barrister at Crown Office Chambers. Visit www.crownofficechambers.com





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Morelands, Monday. Time out from our weekly meeting to show Tim Soar the immediate future – our new annex (currently under construction). A room connected to the office but out of the main loop – a place to facilitate architecture. A room for discussion, debate and, undoubtedly, occasional division. A pin-up space for the whole office. A constantly changing window on to all our current projects, where the delights of coincidence can inform our architecture and make the office a more enlightened place to be. A room that must be protected against the threat of simply becoming more desk space.

Allford Hall Monaghan Morris was photographed by Tim Soar in Islington, north London at 2.59pm on 23 August 2004



THE ARCHITECTURAL REVIEW



Entries are now invited for the Cityscape Architectural Review Awards. **'Design for an Emerging World'.**

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• The Jury

Paul Finch (Editor of The Architectural Review), George Ferguson (President of the RIBA), Martin Giesen, Ali Shuaibi (Saudi Arabia), Ken Yeang (Malaysia) and Raj Rewal (India).

• Entry Details

For a full entry form including details of eligibility and evaluation criteria email tara.ryan@emap.com or visit www.cityscape-online.com

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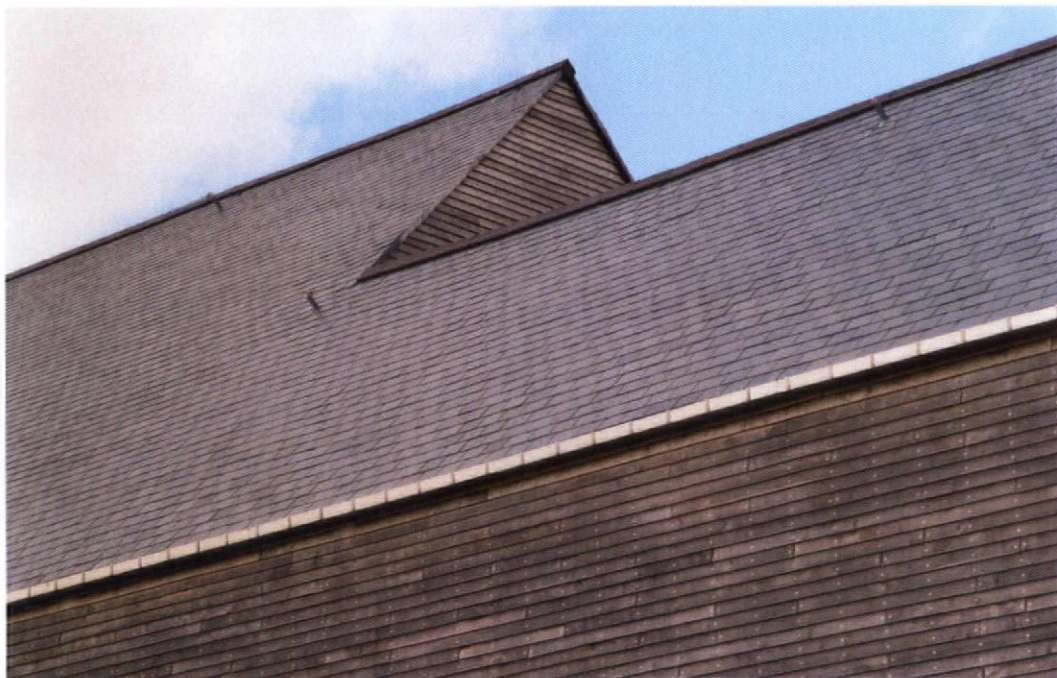


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NATURAL SLATE



National Maritime
Museum, Falmouth



1.

ARCHITECTS ARE SPECIFYING SLATE FOR MORE AND MORE PROJECTS ACROSS THE COUNTRY

By Helen Elias



2.

A familiar material across the UK's rural and industrial landscape, slate has been used for roofing and flooring since time immemorial. People welcome this most iconic of natural materials into both commercial developments and residential buildings across the country.

People like slate. They like it for what it is – a practical, natural material with a durable, traditional association, not manufactured, but quarried in an extraction process that goes back centuries.

Slate beds were formed millions of years ago from deposited silts and mud, subjected to heat and pressure modification and metamorphosed into new rock types. SSQ extracts Del Carmen slate in Spain from an ancient sequence of Ordovician strata laid between 505 million and 438 million years ago. SSQ's Argentine Riverstone slate was formed within a Pre-Cambrian rock sequence, with formation from over 640 million years ago.

SPECIFYING SLATE FOR A ROOF: KEY DESIGN POINTS

When designing a slate roof, the calculation of the overlap needed is critical to long-term optimum performance. Take into account interrelated factors including site exposure, roof pitch and slate type selected, as well as the slate overlap. Consider the following:

- **Roof pitch:** in general, the lower the pitch of the roof, the greater the overlap for the slate tiles laid on it. A longer lap will compensate for higher capillary action. Smaller slates can be used on steeper roofs with free-flowing drainage. Exposed sites call for a wider slate with a greater overlap.

- **Environmental conditions:** local factors need to be particularly carefully noted with high buildings, or structures on the slopes or the tops of hills and along the coast. Any increase in the exposure grading for the site will influence wind-uplift considerations. A longer lap will help compensate for wind uplift.

- **Weathering:** the degree of exposure to driving rain that the building will experience over its lifetime will influence the minimum lap of tiles to be specified.

- **Fixing:** all SSQ natural slates can be fixed by using either traditional holing and nailing, or a hook-fixing system.

- **On site,** ensure that the slates are sorted by thickness on the ground. See that slates of equal thickness are laid in any one course, with the thicker end at the tail. Thicker slates should be used in lower courses and thinner slates in upper courses.

- **Construction:** the rule of thumb for a natural slate roof is to have timber battens of 50 x 24mm, set out horizontally and nailed at 600mm centres. Underlay to BS 5534 Part 1 is needed; use Type 1F reinforced bitumen felt or other approved material if the underlay is not fully supported. Provide a 10mm continuous vent at both eaves for a cold-roof (insulation at ceiling level) construction, and 25mm for a warm roof (insulation in the plane of the roof). A warm roof will also need additional ventilation at or near the ridge equivalent.

Sourced from established quarries, a properly specified SSQ slate roof will provide a service life in excess of 75 years, whatever local weather and environmental conditions prevail.



3.

- 1. Roof slates on the National Maritime Museum, Falmouth, fixed in diminishing courses
- 2. SSQ works with excellently managed quarries
- 3. Quality-controlled slates, ready for dispatch

SLATE STANDARDS: CAUSE FOR CONCERN

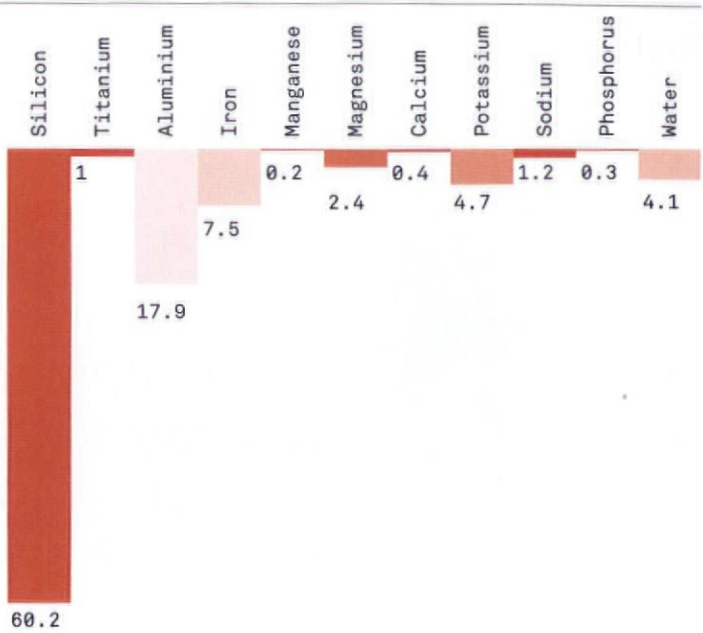
The new European roofing slate standard BS EN 12326-1:2004 has not been well received by suppliers. They are concerned that the dilution of compliance criteria will cause confusion. While the previous BS standard required slates to satisfy minimum performance criteria, the recently introduced standard has no pass or fail criteria, explains Alain Richard, technical director of SSQ.

‘This new certificate gives different levels of acceptance for many tests and a simple statement of the values for others,’ he says. ‘This means that any slate, regardless of quality, can now be CE certificated, even if the compliance levels to one or more of the tests are so low that a roof using such slate would fail.’

‘Under the new standard, a slate certified as complying with code T3 for durability will contain pyrites capable of burning a hole right through the slate,’ he adds. ‘Busy architects are now expected to know this. Additionally, much of the required detail is not apparent on the certificate, so they will need to request it from suppliers to be absolutely sure of quality.’

Barry Hunt of Independent Building Investigation Services, a firm of chartered geologists and chartered surveyors, says: ‘This new industry standard fails to set minimum standards for compliance.’ He recommends that specifiers use the following checklist to ensure slate quality:

- Flexural strength at standard thickness >70MPa.
- Water absorption of <0.3 per cent – generally, the lower, the better.



4. TESTING NATURAL SLATE

The chart illustrates the elemental oxide analysis of SSQ Riverstone slate. It shows the type of constituency that delivers A1 (moisture), T1 (oxidation) and S1 (acid) performance ratings against these criteria in the new British (and European) Standard EN BS 12326-1. The composition of slate is the major determinant of how it will react to the environment

- Carbonate content of <3 per cent – generally, the lower, the better.
- Proven satisfactory history of performance in UK environment.
- Avoid slates that have iron-sulphur and carbonate minerals in combination.
- Avoid slates with the potential for oxidation.

The French Standard P32/302 Class A has long been regarded around the world as an unofficial ‘gold standard’. Ahmed El Helw, SSQ’s chairman, makes a point of sourcing the best Class A slates. ‘At SSQ we are totally committed to quality,’ he says. ‘We provide single-sourced natural slates possessing excellent geological profiles, with full independent geological test documentation.’

Richard says: ‘SSQ avoids any frustrating tile-match issues through long-term strategic partnerships with established quarries, and a strict quality-control system.’

He adds: ‘Traditionally, slate was quarried using blasting. However, we use the safer and more environmentally friendly diamond-saw extraction method.’ Skilled quarry workers cut large, measured blocks for SSQ, using a thin diamond-coated cable. Each slate is then hand split from the block to the required tile thickness.

Using these stringent production techniques, SSQ produces and exports almost 70,000 tonnes of natural slate from Spain and Argentina a year – enough to cover two million square metres of roof. A strong presence at each of the quarries ensures consistency of product – through a unique quality-assessment system, which sees each pallet of tiles inspected as it leaves the quarry.

SLATE ROOF PRODUCTS AND PROJECTS



1.



2.

Slates from different quarries differ in colour and quality, so it is important to make the right choice.

As architecture increasingly takes on the mantle of sustainability, with an emphasis on using natural materials to enhance the visual expression of a structure as well as performance, the use of slate is enjoying a renaissance both as a roofing material and for floors and other surfaces. Architects are specifying slate for more and more projects across the country. Two of the most frequently sought-after slates come from quarries operated in partnership with SSQ: the renowned Del Carmen quarry in Spain and the established Riverstone quarry in Argentina.

SSQ DEL CARMEN SLATE

Lying in the Cabrera region of north-western Spain, an area that has geomorphic conditions favourable to the formation of high-grade seams of true geological slate, the quarry of Carbajal de la Romana is one of the largest in Spain. The quarry produces the distinctive SSQ Del Carmen slate, a traditional riven slate with a distinctive, faintly rippled texture, a characteristic longitudinal grain and a blue-black hue that does not fade under constant strong sunlight. With extremely non-porous properties and a low coefficient of expansion, SSQ Del Carmen is particularly suited to roofing projects located in areas where there are extremes of temperature. It is almost totally inert, showing practically no reaction when exposed to polluted environments or acid rain.

SSQ RIVERSTONE SLATE

SSQ also imports another market-leading slate, SSQ Riverstone, quarried from an Argentine source where slate extraction has been taking place for hundreds of years. SSQ Riverstone roofing slate has a very low content of any of the usual problematic inclusions, such as pyrite and calcite, making it a stable roofing product that will not colour or suffer from pitting. It is sourced from La Represa quarry in the La Florida area of central Argentina.

With a grain slightly coarser than slate sourced in many other quarries, grey-green SSQ Riverstone slate roof tiles have a rougher surface texture that imparts a more rustic feel to a new or refurbished roof. Scottish heavy slates are available, alongside traditional English and Welsh slate thicknesses. Riverstone has a reputation among planning and conservation bodies across the UK, established through its aesthetic similarity to many local slates, its high quality and, equally important, its value for money. It has frequently been used on projects where the volume of slate required or the budget could not be met by local sources.

75-YEAR PERFORMANCE

These durable slates are underwritten by SSQ with a guarantee of 75 years. They meet BS 680 Part 2, American Standard C406, S1, and are both rated Class A under the stringent French Standard P32/302. Snowdonia National Park has approved the use of SSQ Del Carmen slate as an alternative to locally sourced Welsh slate, and both English Heritage and Historic Scotland accept the use of



3.

1. Del Carmen blue-black slate (top) and Riverstone slate

2. Christ College, Brecon, was refurbished with Riverstone grey-green slates

3. Rocaber Ultra Heavy slates helped preserve the character of housing at Wester Dalmeny Steading

4. At Wester Dalmeny slates were laid in diminishing courses



4.

SSQ Del Carmen and SSQ Riverstone slates in the refurbishment of listed buildings.

CHRIST COLLEGE, BRECON

SSQ Riverstone grey-green slates are being used extensively in the refurbishment of a roof with an area of 2,500m² at the historic Christ College boarding and day school in Brecon, south Wales. The school was founded by Henry VIII in 1541, and includes Grade II-listed Victorian buildings as well as a Grade I-listed 13th-century chapel. SSQ Riverstone tiles were specified because of their close resemblance to the original Cornish slate used to roof the buildings. The specification had to meet with the approval of both the Brecon Beacons National Park authority and Cadw: Welsh Historic Monuments. To date, 16,000 400 x 200 size slates and 5,000 500 x 250 size slates have been used on the refurbishment of an octagonal common room and the library stairwell. By the time the entire refurbishment is complete, 50,000 slates will have been used. According to the school bursar, the slate was true to the original, but it came at a significantly lower cost.

WESTER DALMENY HOUSING

A recently completed housing project at Wester Dalmeny Steading, Scotland, sees existing listed farm steadings restored and eight new houses added to the site, giving a total of 17 dwellings. Great care was taken by the architect Pollack Hammond Partnership and

developer Bell Grant to preserve the inherent architectural traditions of the surrounding conservation area. Architectural sensitivity heavily influenced the choice of roofing, with the local authority approving the use of 88,000 SSQ Rocaber Ultra Heavy slates. The roofs were fixed by Braisby Roofing in the traditional method, using diminishing courses to deliver a superior aesthetic finish and enhanced environmental performance.

Of prime importance to all parties involved was finding a material that would match the traditional slates that have been used in the region for centuries. For colour, texture and, importantly, thickness, SSQ Rocaber Ultra Heavy was a natural choice for selection.

'We were particularly pleased with the successful integration of the old and new buildings achieved on the site,' says architect Tom Pollack. 'We had to overcome problems such as the irregularity of the existing walls by fitting timber-frame structures within the shell of the old buildings. These supported the slate roofs, which look all the better for the extra effort put in by Braisby and SSQ to deliver the diminished coursing.'

HAFOD HOUSING RENEWAL SCHEME

An ongoing renewal scheme in Hafod, Swansea, involving the refurbishment of the outer envelope of approximately 1,100 housing properties, will use in excess of 55,000m² of roofing over a 10-year period up to 2011. The whole project, funded by the Welsh Assembly, is being designed, specified and managed



5.



6.

5. Del Carmen roofing slates helped restore the integrity of this housing scheme in Hafod, Swansea

6. Long & Kentish specified Riverstone slates for the award-winning National Maritime Museum in Falmouth

by the City and County of Swansea. A third of the scheme is located in the Vivianstown Conservation Area, once home to the Hafod Copperworks, established in 1810, which was at one time reputed to be the world's largest and most up-to-date copper-smelting enterprise. All the houses in the conservation area were built in the 1830s for the families of copper workers and are enclosed by Grade I-listed boundary walls made, uniquely, from copper slag, a waste by-product of copper smelting.

Over the years, many of the houses have undergone private refurbishments to repair the damage resulting from weathering and pollution. Much of this refurbishment has destroyed their original nature – chimneys and timber entrance canopies were removed, slate roofs replaced with concrete tiles and timber sash windows replaced with uPVC.

The refurbishment is aimed specifically at restoring the traditional uniformity of these humble dwellings by reinstating the chimney stacks and pots, recovering the roofs in traditional slate, providing new guttering and fascias, rendering in a uniform colour and reinstating the porticos to the original design. The choice of vernacular materials is critical to successfully meeting the required effect and quality standard. The selection of blue-black SSQ Del Carmen roofing slates was approved by Swansea council as matching the high standard of the traditional Welsh material.

A spokesperson for the Hafod Area Renewal Office says: 'The choice of SSQ Del Carmen was made easier after

confirmation that it was the only non-indigenous slate to be used in the Welsh National Parks, so we know its pedigree. We were also pleased with the level of technical, design and on-site support we received from SSQ.'

NATIONAL MARITIME MUSEUM, FALMOUTH

The National Maritime Museum in Falmouth, Cornwall, a RIBA Award-winning design by Long & Kentish Architects, brings together the collections of the Cornwall Maritime Museum with the national small-boat collection from the National Maritime Museum in Greenwich, south London, under an SSQ Riverstone slate roof.

Commissioned by the South West of England Regional Development Agency, this landmark regeneration project was inspired, in part, by the surrounding industrial sheds traditionally used to house boat builders.

Construction of the museum itself posed a number of challenges, including building part of the museum over the dock wall into the harbour, constructing a gallery below sea level and developing a design that could use the natural environment to assist in controlling the internal conditions of the gallery to reduce energy usage.

The use of vernacular materials, such as the English green oak cladding and a roof tiled with SSQ Riverstone slates, fixed in diminishing courses creates a striking, contemporary, yet authentic look to Falmouth harbour's waterfront.

SLATE FLOORING



1.

1. Polished Riverstone flooring
2. Slate floors resist abrasion
3. Slates can be cut to accommodate curves



2.



3.

DURABILITY TAKES THE FLOOR

With the increasing use of SSQ Riverstone slate as a flooring material, SSQ decided to launch into the flooring market. An in-depth IBIS report (1009-001) into the properties and performance of the slate as a flooring material was commissioned.

The report classified SSQ Riverstone as a 'phyllite' – a metamorphic rock closely related to slate but of coarser crystal grain size. It concluded that the slate is suitable for flooring and other applications. In most instances SSQ Riverstone outperformed its closest UK equivalents: the Cumbria-sourced slates that include Burlington and Westmoreland. Its benefits were found to include:

- Its natural riven surface enhances an inherent low slip potential under most wet surface conditions.
- The slate offers good resistance to abrasion.
- It offers good all-round resistance to weathering extremes, if used as an external flooring material, as it is unaffected by temperature and does not fade in the sunlight, while its low porosity does not allow concentrations of ice, salts or other materials to lead to the breakdown of the stone.

In most applications, SSQ Riverstone's hard constituent materials, high density and low porosity give it a good floor and stair-tread surface that resists dirt infiltration. One of the main benefits of a slate floor is its inherent resistance to scratching. With a natural surface that is riven, or smoothed to a patina, larger scratches will not show up, and will quickly be integrated into the overall appearance of the floor.

SSQ RIVERSTONE FLOORING: FORMATS AND FINISHES

While SSQ Riverstone is a natural grey-green colour, specifiers have found that the different surface treatments available can alter the appearance of the tiles when laid on site. The appearance of internal applications will also be influenced by the ambient lighting specified. The finishes available are:

- Natural Traditional Riven – a finish achieved by splitting the slates by hand.
- Patina Smooth Matt – a visually softer appearance than Traditional, but still retaining the natural riven finish.
- Honed – a finish that enhances the veining found in the naturally sourced slates, ensuring each tile is unique.
- Flamed – a finish achieved by first acetylene-burning the tile, then pressure-washing the surface to give it the appearance of a natural finish, but at the same time guaranteeing an even, parallel thickness over the length of the slab.

SSQ Riverstone floor slates in these finishes are available either in standard sizes or to order on a bespoke specification basis in these formats:

- flooring tiles and slabs (scants);
- cladding;
- sills, treads and risers;
- copings;
- skirtings;
- worktops;
- exterior patio/paving.



The village green

The traditions of this green and pleasant land are well met in Riverstone slate. Just as the sound of leather on willow melds naturally with the summer breeze, so too Riverstone slate graces buildings, old and new, with a familiar beauty. Naturally it's reassuring to know that some things will always be there.

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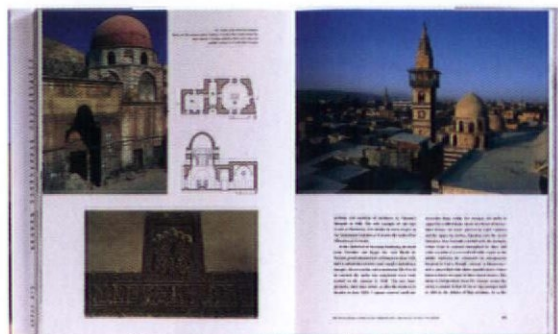
Rirkrit Tiravanija
At the Serpentine Gallery,
Kensington Gardens,
London, until 21 August

For this brief and extremely self-conscious retrospective Rirkrit Tiravanija, the current darling of international biennials, has installed two fully functioning replicas of his New York apartment, one the mirror image of the other, in the Serpentine Gallery, writes *Morgan Falconer*. The immediate impression is a pleasurable dizzying sensation of art and reality merging: in one of the kitchens, a woman was peering inside a pot on the stove, and it was hard to say whether what lay inside was sculpture or someone's dinner.

Tiravanija's work often carries the flavour of 1960s happenings, so it is no great surprise to find another interactive installation, a jigsaw, representing a historic artist's performance in Hyde Park. But, as ever, Tiravanija uses

these devices to sketch a world where time and space are shrinking. As well as exhibiting his well-stamped passport, he has installed a radio station which will make a daily broadcast (on Resonance FM) of a play about two characters travelling through time in search of 'The Artist', who may or not have caused a global catastrophe. To fit the mood, the central gallery is dotted with plants and hung with old calendars, suggesting a space neither interior nor exterior, neither past, present nor future.

There is layer upon layer of meaning in the show; even the idea itself, a reframing of two other recent retrospectives, is self-conscious. Unfortunately, the impact is a little buried under all those layers. *Morgan Falconer is a writer based in London*



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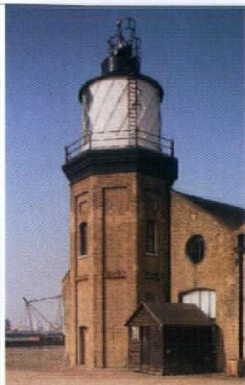
Damascus
By Gérard Degeorge
Flammarion,
2004. 320pp. £50

At the back of this book is a map of Damascus identifying its principal monuments: more than 180 of them, from eight periods of the city's development – Umayyad (661–750 AD) to Ottoman (1512–1924). One quickly notices too the plans that are included: clearly drawn, coloured, instantly legible, and often revealing deft adaptation to irregular sites in Damascus' labyrinthine centre.

In Waterstones this book will doubtless sit with other coffee-table candidates but it has much more substance than them. Gérard Degeorge gives a solid historical account of a city always at a cultural crossroads, a prey to invasion, and traces the impact that its geography had on its buildings – Chinese floral motifs on the ceramic tiles of the 15th-century tomb of Khalil al-Tawirzi for instance.

With so much ground to cover there's little scope for extended architectural analysis but the many illustrations (which are used with restraint) are informative – details of intricate decoration in plaster, mosaic, wood and stone; buildings explored inside and out and set in their urban context; and occasional old engravings.

The last chapter brings a catalogue of conservationist complaints. Though Damascus has been a UNESCO World Heritage Site since 1975, 'in spite of their best efforts the degradation of the old town and its monuments continues', says Degeorge. Given the current political situation in Syria, and Foreign Office advice to travellers, we are unlikely to be able to find out for ourselves for some while. This is a splendid substitute.



1.

BOOK

By Robert Harbison

London 5: East
By Bridget Cherry,
Charles O'Brien and
Nikolaus Pevsner. Yale
UP, 2005. 864pp. £29.95



2.

From a distance, this does not seem promising territory. It is the part of London which has changed most dramatically since Nikolaus Pevsner began the *Buildings of England* more than 50 years ago, and also the part with the fewest great buildings. Only one of the boroughs treated here was even in London at all when the first editions appeared; the rest were in bland Essex. So it is a subject still in motion and hard to pin down, but at the same time architecturally more featureless than most of the metropolis.

Bridget Cherry and Charles O'Brien, the authors of the revision, have not allowed themselves to view their subject in this negative light. They take the bedraggled Medieval churches of outer London suburbs, remarkable for being there at all rather than for truly

outstanding features, and pay them scrupulous attention. The focus shifts somewhat – it becomes a palimpsest of human intentions and ironies of circumstance that leads to no grand result, but it makes for compelling reading. The result is one of the most absorbing volumes in the series.

Perhaps the interest here is more human and less strictly architectural than in most of the other volumes. There are so many strangely particular institutions – the Soup Kitchen for the Jewish Poor, the People's Palace (providing a drawing room and library for those without them), societies helping the labouring classes to keep clean, churches conducting their services in other languages than English, art galleries with a purpose, housing projects which demonstrate a theory.

The People's Palace, the surviving parts of which are incorporated into Queen Mary College, was inspired by one of Walter Besant's novels. Contemporary polemics like *Bitter Cry of Outcast London* and *Child of the Jago* turn up in the suggestions for further reading, as if to say that you need to know what the inhabitants thought and felt to understand the buildings. Of course the novels were usually written by outsiders, sometimes even foreigners like Jack London, but the story of the East End is inseparable from a two-way assimilation which still continues. Its historical stages remain extremely poignant, and helpful too for understanding the changes of the present.

Readers need not fear that the *Buildings of England* has gone soft or sentimental. It is

just that in its present format there is time to explore the life of institutions more fully, to mention unrealized plans and the changing perceptions of users. The treatment of Tower Bridge is a telling case in point: the new entry acknowledges that it forms part of the mythology of London, not a view that there was time for in the first edition. But this more indefinite aspect is handled briskly, with economical quotation.

In Pevsner's *London 2* (everything except the City and Westminster), Tower Hamlets got 33 pages – now it has 330. So there is time to tell that the old church at West Ham was subjected to careful SPAB repairs and to point out the visible signs of them. I found myself following these church descriptions like a story,



3.

1. Trinity House Buoy Wharf, 1864-6
2. Nicholas Lacey's Container City 2, 2002
3. G.R. Unthank's Jubilee Crescent, 1935

wondering what new idea the next person who got his hands on the building would come up with, and how it would be adjusted, defaced, or improved as a consequence.

Certain themes persist through the volume: town halls are great repositories of public energy in places like Ilford and Walthamstow. Libraries are even thicker on the ground, if less grandiose. Housing turns up in many guises. Lansbury, Gidea Park and Becontree – each of these is a beacon or a caution at different times in its life; they constitute complex and unpredictable stories.

Robin Hood Gardens, the Smithsons' housing blocks near the Blackwall Tunnel entrance, receive the only markedly unfair treatment in the book. In Elizabeth Williamson's *Docklands* (AJ 12.02.98), a kind

of interim report on which the present volume builds, the scheme was given a plan and cutaway drawings which somewhat sweetened the criticism. In fact, my only unfulfilled wish for the series is that there could be more plans and an iconographic index, and also that the maps should show shapes more accurately and less diagrammatically than they do now. But finally it must be said that this sixth London volume, which completes the series, pays perhaps best tribute to the city of them all, finding whole new species of riches in the most unlikely places.

Robert Harbison is a professor at London Metropolitan University



CRITIC'S CHOICE

By Andrew Mead

The photographer Nigel Green, a contributor to AJ building studies, has also focused on Dungeness Power Station, post-war reconstruction in Calais, and the weeds that flourish in railway sidings or cracks in the tarmac, becoming singular presences (AJ 19.02.04). At the Permanent Gallery, Brighton (www.permanentgallery.com), until 24 July, he shows another side of his practice in an exhibition called *Fragments*.

It's an apt title. The photographs are tiny, often with irregular edges and simply mounted on white card – and things that are miniaturised often compel attention just for that. Though their architectural subjects are sometimes legible (Villa Savoye), more often they're quite cryptic, with the building presented elliptically in a detail or motif. And they are still more cryptic due to the chemical manipulation that Green has subjected them to (a kind of accelerated ageing), in which areas of each image flare or fade, becoming indistinct. They're like something discovered in an attic – and that sense of being evidence from long ago, of having barely survived, returns you to the fate of the buildings they record. This show is small but unusually absorbing.

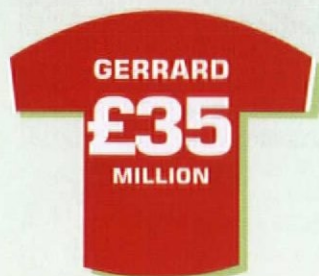
Green is clearly interested in something other than mainstream Modernism, or at least the usual depictions of it. An INTBAU conference in Stockholm from 12-14 September, *The Forgotten Modern*, explores Swedish Grace – the spare Scandinavian Classicism of the first decades of the 20th century. Speakers include Robert Adam, Andres Duany and Leon Krier (Details www.intbau.org).

Even after AHMM's adjustments, London's Barbican Art Gallery is a tricky place to stage exhibitions, but *Colour After Klein*, until 11 September, deals better than most with the split levels and awkward upper space. Judd, Beuys and James Turrell feature, along with a spectacular light work by Dan Flavin. But Yves Klein steals the show, not just with his signature blue (often cited as an influence by Richard McCormac), but with a wall of 10 monochromes, all different in colour and texture, not seen *en masse* here since Stanton Williams' beautiful installation at the Hayward in 1995. There's a catalogue from Black Dog Publishing (£26). For forthcoming events visit www.ajplus.co.uk/diary

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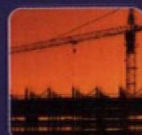
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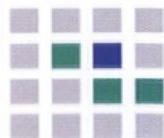


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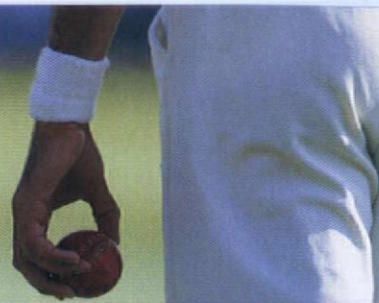
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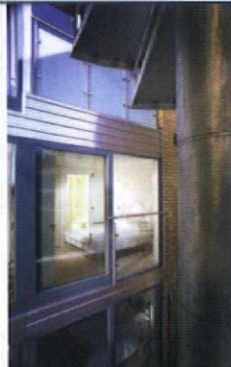
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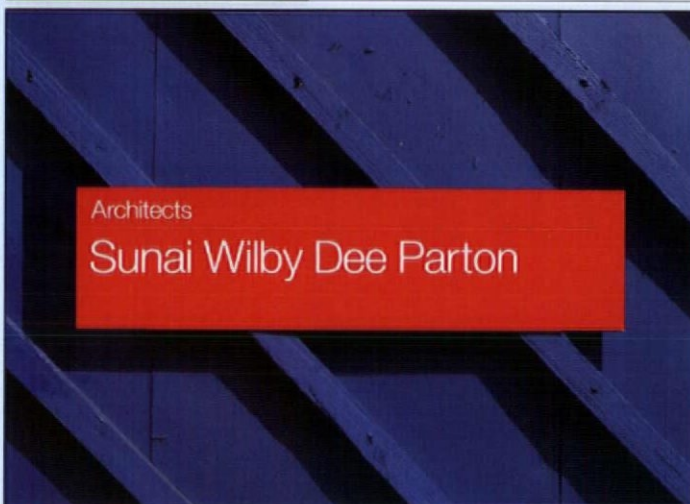
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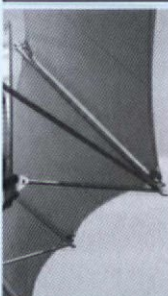
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Vac ref 0507-28

Permanent

This client is a flourishing Architectural Practice based in Warrington. Their workload covers Apartments, Educational Establishments, including student accommodation, Care Homes and a CareVillage. Values range up to £5million The variety and volume of the current projects has lead to a requirement to augment their current staff, for this reason they are seeking both an Architect and a Technician with at least 3 years post qualification and a Part 2 Assistant who they can develop. This is a great opportunity to join a vibrant, exciting Company with a reputation for winning interesting and High Quality Projects within their chosen sectors.

Macclesfield Vacancy

Technician

Vac ref 0507-27

Permanent

Due to overwhelming demand for a one stop shop for planning and architectural services my client is currently seeking an experienced architectural technologist or architect with a minimum of 3 years experience. The architectural staff are provided with in house town planning and regeneration support to assist in preparing a brief which is then taken through to completion by the architectural team. This department now requires an architectural technologist or architect to assist in the growing demand for this type of service. The successful applicant should have design flair, a good understanding of the building regulations and use of IT (mainly AutoCAD) with job administration experience an advantage. The successful applicant will have their own workload which will be predominantly within the residential sector working on some prestigious developments and commissions from large developers.

Sheffield Vacancy

2 Senior Designers

Vac ref 0507-46

Permanent

My client is a rapidly expanding firm of Interior Architects specialising in the Pub and Leisure markets, and focussing on high quality, prestige projects. They are now seeking 2 dynamic Interior Designers with 5 years experience, ideally with Project Management and Autocad experience. This is a great opportunity to join a thriving practice who are highly respected within their field due to the quality of the work they produce.



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Tender for Architectural Design and Related Services

New Crawley Library and Admin Offices

The County Council invites expressions of interest from suitably qualified and experienced architects to lead a multi-disciplinary design team for a new state of the art Library and Office facility in Crawley to serve the local community and provide flexible and fully functional office accommodation for WSCC Members and Officers.

It is hoped that the Library and offices can be fully integrated into a larger mixed use development of an adjoining site. The library and office facility must complement these adjoining new buildings and be sympathetic to the surroundings.

The indicative gross budget for the project is UKP11 million.

It should be noted that to date the client has been working with an architect who was appointed for this project via a RIBA Competition. Work has been carried out up to stage B+. Due to a change in circumstances, it is now necessary to re-advertise the project.

Service Providers will be expected to deliver services that demonstrate a best value approach.

Further details about this contract, comprising a Preliminary Briefing Paper are available from the RIBA Competitions Office, 6 Melbourne Street, Leeds LS2 7PS. Tel No. 0113 2341335. Fax No. 0113 2460744. Internet Address (URL): www.ribacompetitions Electronic Mail: riba.competitions@inst.riba.org

Early expressions of interest are encouraged and applications must be received no later than 12:00, 17th August 2005 along with the required supporting information.

M.P. KENDALL
County Secretary

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EXPRESSIONS OF INTEREST

Test Valley Borough Council

DESIGN AND CONTRACT SUPERVISION OF A PROPOSED CULTURAL VENUE IN ANDOVER, HAMPSHIRE.

Expressions of interest are invited from suitably experienced Construction Teams for the provision of a full service in the design and supervision of the refurbishment of the Andover Cricklade theatre block creating an exciting new venue called The Centre within the budget of £1.05m. The intention, subject to confirmation, is to commence work on site in early January 2006 with an anticipated 20 week contract period.

Expressions will be assessed on:

- Previous experience of this type of work
- Details of their partnering experience
- Demonstration of ability to control a tight budget
- Examples of innovation
- Examples of working to tight timescales
- Evidence of their competence in carrying out similar projects with Local Authorities
- References who may be approached
- Details of the staff resources they have to offer
- Evidence of financial strength

The project will incorporate a PPC2000 partnership with contractors and examples of previous ventures would be viewed with interest.

The successful team, will be expected to liaise with Council Officers in formulating the brief and detailed design.

Initially you should submit details of the team, evidence to support the above criteria and proposed organisation for carrying out the commission if successful and suggested fee scale.

For further information please contact Mr S Anderson, Property Surveyor on 01264 368712.

Your expression of interest should be received by NOON on Friday 29 July 2005 with a likely interview/presentation in early September.

Head of Technical Services,
Test Valley Borough Council,
Beech Hurst,
Weyhill Road,
Andover,
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www.testvalley.gov.uk



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Senior Lecturer and Programme Leader in Architecture Ref: C04/888/AJ

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Applicants must hold a first or second class honours degree, or equivalent, in architecture, equivalent to professional Part 1 and Part 2, and must have a significant record of achievement in HE teaching.

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Interview Date: 17 or 22 August 2005

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We wish to appoint designers for the Masterplanning of a 12 acre Science Park in Nottingham including site layout, scale, massing and choice of materials for the building and landscapes and to appoint architects for the design of an exemplar building to be developed as the first structure on the site. Both Masterplanning and Architectural practices are invited to bid for the opportunity which may be commissioned as two separate commissions or as one combined.

Timeframe

The closing date for submissions for the Expression of Interest is 12 noon on the 5th August 2005. Shortlisted candidates will be invited to prepare design submissions by 23rd Sept 2005. Interviews will be held the week commencing 26th Sept 2005.

Stage 1. Expression of Interest

Interested candidates need to demonstrate the following within their submission:

- Proven track record in masterplanning and sustainable building design.
- Contemporary exciting urban design flair
- Experience and knowledge of sustainable development.
- A knowledge and understanding of the design of Science Parks.

Stage 2. Design Competition

A shortlist of candidates will be invited to submit proposals for the masterplan and the exemplar building.

For Further Information: Contact - Sylvia Hargreaves on **0161 485 1257** or e-mail For the Attention of Sylvia Hargreaves: info@blueprint.gb.net Expressions of Interest to be returned to: Nick Ebbs / Sylvia Hargreaves **Blueprint, Hope Mill, 113 Pollard Street, Manchester M4 7JA**



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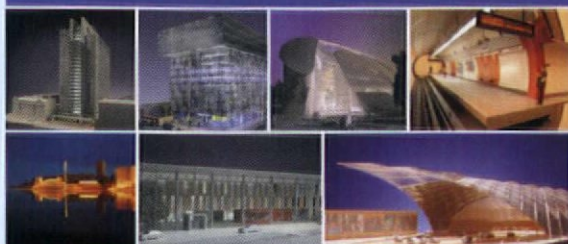
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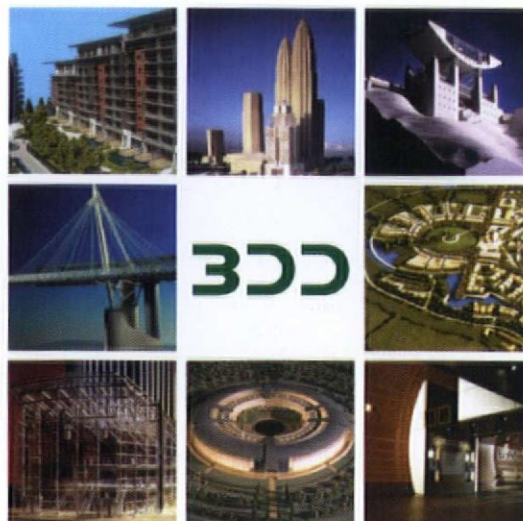
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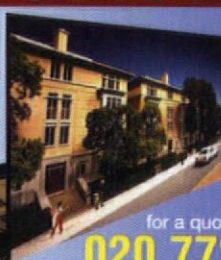
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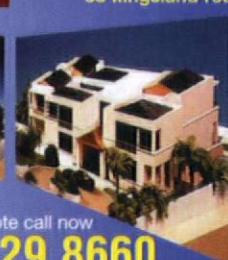
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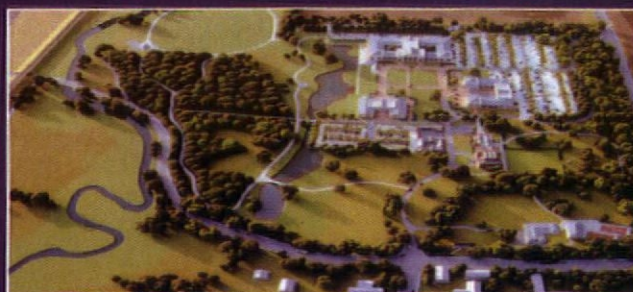
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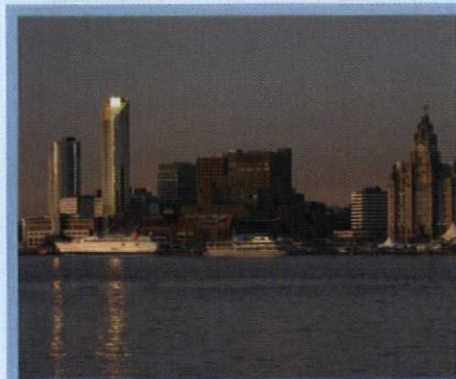
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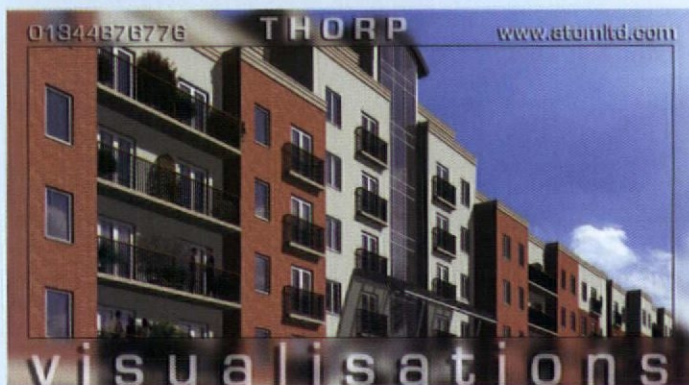
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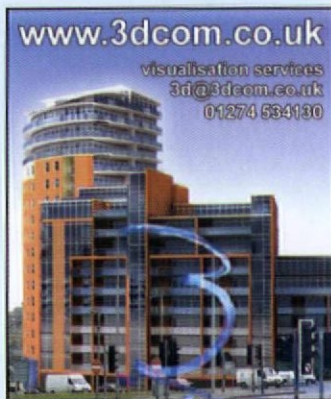
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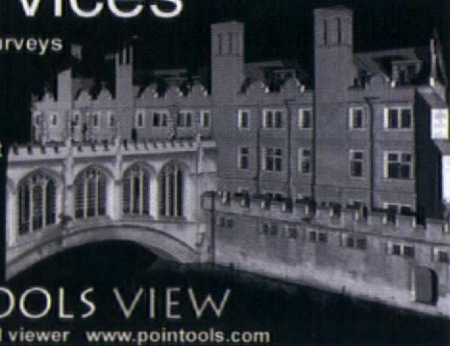
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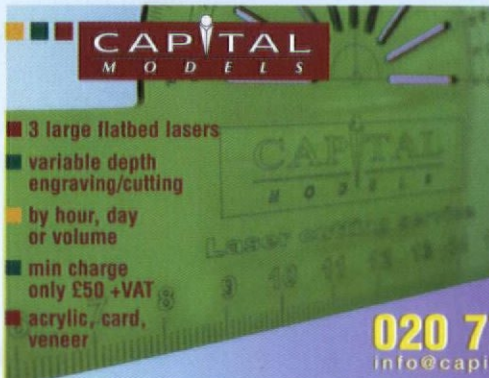
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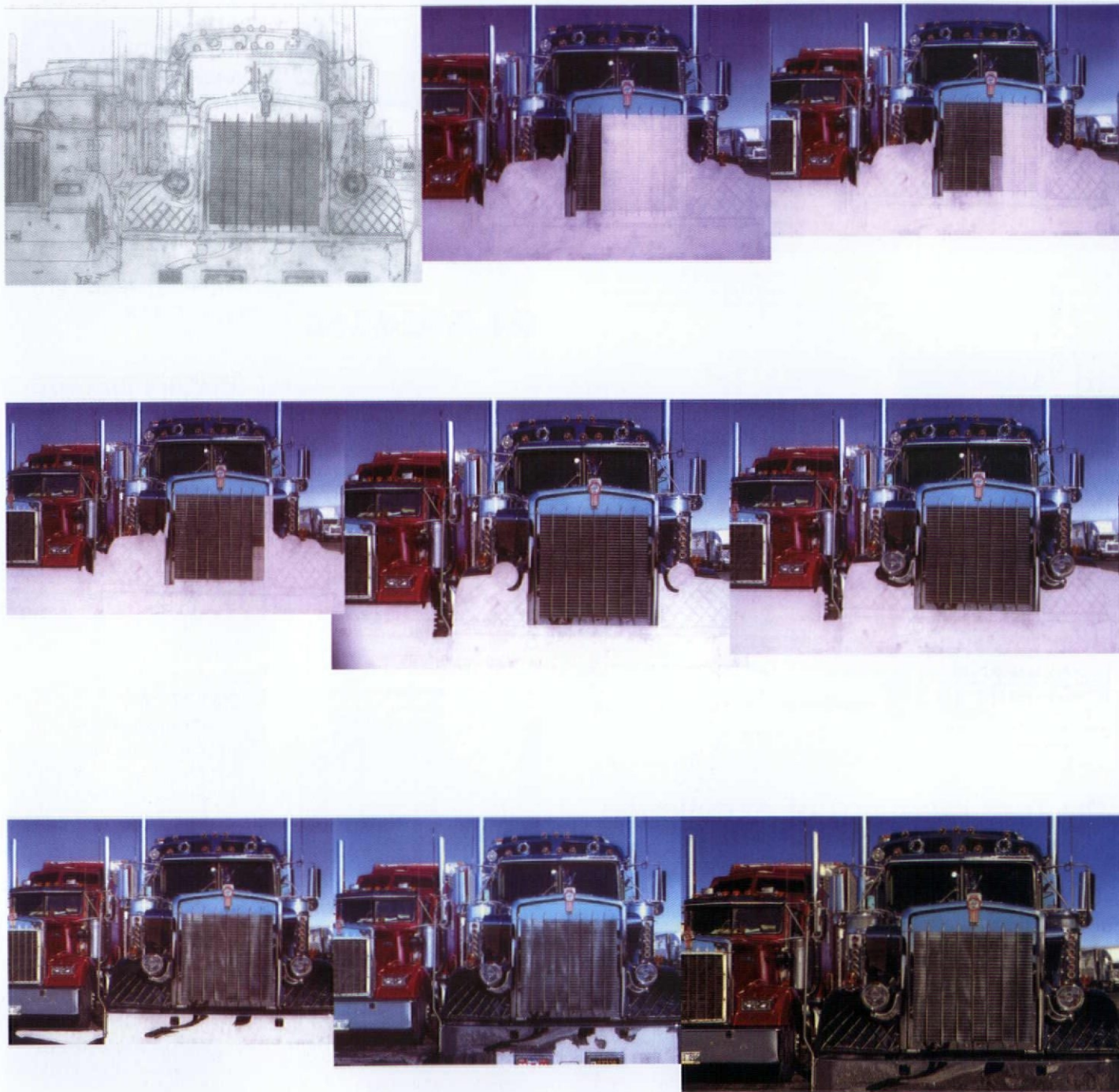
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Gartec has installed a disabled platform lift for the Homebase store in Acton, west London. The two-stop part-glazed lift features handrails, access ramp and panelling in 'Homebase' green. The lift is self-contained. No shaft or machine room was required and almost no building work needed for installation.

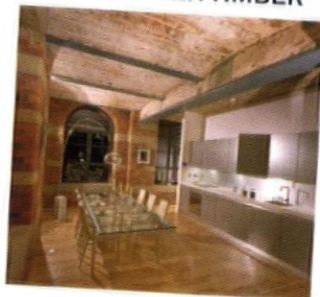
STOAKES



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Kalcurve, which is a variation of translucent Kalwall cladding and roofing system from Stoakes Systems, has been used by INC Design Associates to create this attraction over a Weatherspoon pub at Merry Hill Shopping Centre, Brierley Hill. At night, the facade is transformed into a glowing skin by fibre-optic lights.

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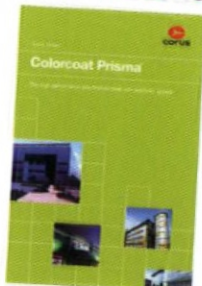
IGUZZINI ILLUMINAZIONE



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The concept of iGuzzini's showroom at the Business Design Centre in London conceives the premises as a place where the attention concentrates on light. The walls are lined with a selection of products from the range offered by iGuzzini; this selection varies over the course of the year.

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