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Daniel Libeskind's sketch for the extension to the Denver Art Museum is one of the items featured in his forthcoming exhibition at London's Barbican Gallery. The first exhibition devoted entirely to architecture to be held in the gallery, 'Space of Encounter: The Architecture of Daniel Libeskind', will run from 16 September 2004-23 January 2005. It is primarily the same exhibition as was held in Berlin last year (reviewed in AJ 25.9.03). The AJ has three pairs of dual invitations to give away for the private view (to be held on Tuesday 14 September, 6.30-9pm) and the after-show party at Fabric. To apply, send an email to jo.roberts@emap.com

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Photograph by Eric Staudenmaier

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A foretaste of the Venice Biennale pages 6-7 **E** Reports that we have been left with a £1 million deficit are untrue **JJ** The Prince's Foundation denies it is in trouble *p* page 8

ajnews

King's Cross future under threat

The backers of the massive King's Cross regeneration plan were left reeling this week after Brian Woodrow, the chairman of Camden's planning committee, launched a searing attack on the planning application.

Woodrow condemned the design of the project, drawn up by Allies and Morrison in collaboration with Demetri Porphyrios, and attacked the decision to submit the scheme as an outline planning application.

'We don't want to end up with something that resembles the Paddington Basin, with these massive 19-storey blocks overshadowing the Regent's Canal towpath,' he said.

'A lot of the bulk and style of the buildings proposed are not the sort of things we are interested in for this kind of site.'

If the scheme, which was drawn up for developer Argent St George, is given the green light it will include the mixed-use regeneration of a massive 27ha site north of King's Cross and St Pancras stations over a four-year period.

However, Woodrow insisted that he could only see problems ahead for the project because the application has been submitted in outline form alone.

'A large part of the southern area of this scheme falls within a conservation area and there is no way we should have to make a decision based on just an outline application,' he said.

'What we don't want is for it to come to us for a final decision in this current form because we would probably turn it down, and that would annoy the developer.



Planning committee chairman Brian Woodrow condemned the designs for the mixed-use scheme

'But what is true is that if they choose to stick to a scheme this size, then we will have to leave it for the secretary of state to decide,' Woodrow added.

But the scheme has won the support of Camden planners, and Argent chief executive Roger Madelin maintained that the project is continuing apace. 'Almost everyone we have spoken to in our extensive consultation period has been pleased with, and sympathetic to, the project that we have drawn up,' he said.

'It would just be nice to talk to Mr Woodrow face to face to explain to him what it is we are trying to achieve,' Madelin added. Ed Dorrell



Portugal's Alvaro Siza and Tony Fretton Architects have unveiled the first pictures of a joint housing development planned for Amsterdam's north harbour. The four residential buildings will house 200 apartments and form part of a massive €1 billion (£676 million) revamp of the former Shell Oil site. Siza is designing three of the buildings. The largest, an eight-storey 13,723m² block (*pictured*), will face Fretton's scheme to form a courtyard. F retton's seven-storey, stone-clad building covers 10,700m² and has two cores, each containing two staircases and two lifts. The 76 flats will be arranged round the perimeter of the building and all have their own external space. Masterplanned by urban designer Ton Schaap and Geurst & Schulze Architecten, the new development will rub shoulders with other residential schemes by Dutch architects Jo Coenen and Mecanoo Architecten.

FWe do not want a sea of fitted carpets and potted plants

The Victorian Society's Richard Holder explains why the St Pancras plans are not good enough (*) page 10

Find out about your chance to win prizes at 100% Design page 12



Scots shunned in timber row as Holyrood bosses turn to Europe

Not one beam of the timber used in the notorious £431 million Scottish Parliament building was sourced from Scotland, despite claims at the project's inception that it would all be Scottish oak, the AJ can reveal.

Project managers and contractors secretly decided early in the construction process to drop plans to use only local wood and instead looked abroad to France and eastern Europe for cheaper alternatives.

The move has infuriated both patriots and local timber merchants alike, who hoped the project, which is finally on the verge of completion this month, would act as a spark for the beleaguered local timber industry.

The news flies in the face of statements from Scottish politicians – including the late first minister Donald Dewar – at the scheme's start vowing to use as many Scottish materials as possible.

But the AJ has discovered that none of the Scottish timber sourced for the building was ever used, and it is understood that it remains in store in a warehouse.

It also emerged last week that very few of the other materials used in the project came from sources north of the border, and were instead imported at cheapest cost from countries as varied as China and South Africa.

'We received the commission to source all this oak, so we went out and gathered it from throughout the country,' said Archie McConnell of Dumfriesbased McConnell Wood Products.

'Originally the architects and the contractors gave us the go-ahead, but then it all went quiet. They failed to push the right buttons at the right time and the whole thing fell through. We were left with a load of wood and nothing to do with it.



Scottish oak was ditched early in the Holyrood project

'They then promised to use some of it for the flooring but that fell through as well. The oak they wound up using wasn't even from the UK, let alone Scotland. It's a real shame because an order for £3.5 million of oak could have been a real fillip for the industry and the economy as a whole,' McConnell added.

Veteran Holyrood watcher David Black agreed the origin of the materials had been hushed up.

'The authorities don't want people to know that, for example, the granite is mainly Chinese and the steel is all Japanese,' he said. 'It seems that the only thing that is Scottish about the building is that it resembles yesterday's leftover porridge.'

Ed Dorrell

Parliament architects to be found at fault

Architects RMJM and Enric Miralles' practice EMBT are expected to face major criticism later this month when Lord Fraser publishes his report into the massive cost and time overruns on the Scottish Parliament.

RMJM's Edinburgh office has confirmed that the Tory peer has sent its principal Brian Stewart a letter warning him he will be found to be at fault when the report finally goes public. A spokesman for the firm

admitted it had received the letter, but insisted Stewart would be using his legal right to reply.

The AJ also understands that both Miralles' Barcelona-based widow Benedetta Tagliabue (the sole boss of the firm) and the Scottish office's former chief architect Bill Armstrong have also received similar letters.

The letters represent the last phase in the inquiry's development. The warnings were sent at the end of last week to anyone found to be at fault for the Holyrood debacle in the report's final draft. All involved have the right to reply before the official publication later this month.

FRETTON AT HARVARD

Tony Fretton will teach the spring semester at the Harvard Graduate School of Design in Massachusetts, US. Sauerbruch Hutton and Caruso St John have also been invited to teach at the school this academic year.

A PLACE TO DIE FOR

A competition has been launched to unearth the greatest new graveyard designs. The Phoenix Award Scheme aims to make cemeteries more attractive to the public and is offering a £1,500 first prize to the winner. For more information, contact the Association of Burial Authorities on 020 7288 2522.

CONGO MASTERPIECE FOUND

A long-lost architectural masterpiece, designed by Jean Prouvé, has been rescued from the Congolese jungle and is set to embark on a world tour. The restored Maison Tropicale, an innovative prefabricated house built in 1951, was rediscovered in the war-torn city of Brazzaville by an American banker.

PISA TOWER STOPS LEANING

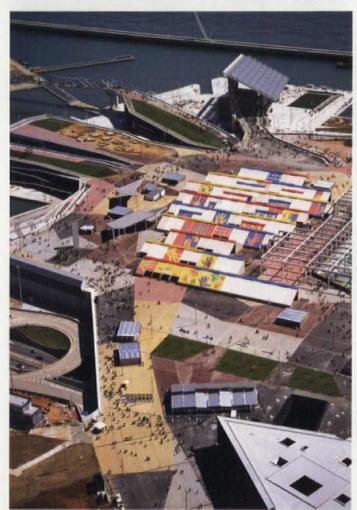
The increasing tilt of the world-famous Leaning Tower of Pisa has been halted. Turin University's Michele Jamiolkowski, the president of the tower's protection committee, told a World Geological Conference in Florence last week that, following a straightening of half a degree, the building is now stabilised for the first time in 800 years.

UGLY X-LIST UNDER FIRE

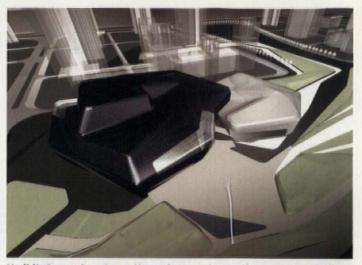
RIBA president George Ferguson's war on ugly construction has been branded 'a populist campaign against architecture' by the Twentieth Century Society. The watchdog has slammed Ferguson's crusade to have Britain's ugliest buildings placed on an X-list. Only last week Ferguson attacked Bristol's Tollgate House (AJ 26.8.04).



Part of the exhibition will be installed in the Corderie at the Arsenale



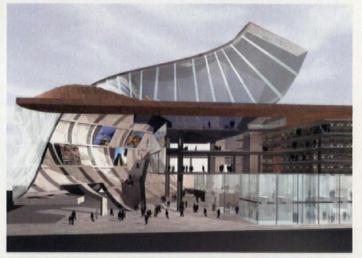
A 'hyper-project' in Barcelona by Martinéz Lapeña-Torres



Hadid's Guangzhou Opera House features in a section on concert halls



'Topography': EMBT's Market of Santa Caterina, Barcelona



'Surfaces': a library in Mexico City by Eric Owen Moss Architects

Lining up for the Venice Biennale

This year's Venice Architecture Biennale opens on Sunday 12 September and here is a taster of what to expect, *writes Andrew Mead*. Director Kurt Forster has chosen the grandiose title 'Metamorph' for the event, on the premise that 'architecture is going through a period of revolutionary shifts in thought that have already opened up unexpected new perspectives'.

As usual, the exhibition is split between two main sites: the former naval complex of the Arsenale and the Giardini della Biennale, where the national pavilions are located. In an Asymptote-designed installation in the Corderie, the vast old ropeworks of the Arsenale, there will be sections on 'topography' (projects in which building and site are fused), 'surfaces' (fashionably curved or folded and continuous), and 'hyper-projects'-large-scale schemes like museums and cultural centres that, says Forster, 'are carving out the sort of role once played by the public baths in ancient Rome'.

Additional displays will focus on the work of Peter Eisenman, Frank Gehry, Aldo Rossi and James Stirling: 'Four positions that suggest a condition of departure for the profound transformations



'Atmosphere': the Sfera Building, Kyoto, by Claesson Koivisto Rune



More 'atmosphere': TEN Arquitectos' Hotel Habita, Mexico City



A photograph of Mies van der Rohe's Villa Tugendhat by Kay Fingerle. Photography will have a high profile at this year's biennale

of architecture currently under way.' In what is presumably a nod towards Rossi's Teatro del Mondo, his floating theatre at the 1980 biennale, a supplementary exhibition, 'Cities on Water', will occupy a floating pavilion moored at the Arsenale and examine the role of waterfronts in urban regeneration.

Forster's exhibition also colonises the rambling and extensive Italian Pavilion in the Giardini. Here visitors will find installations by Eisenman, Massimo Scolari and Kengo Kuma, a section on concert halls, and an investigation of 'atmosphere' – buildings that 'open up a metabolic dimension in architecture' by their capacity for subtle changes in appearance, often through the use of new materials. One reason why Forster is giving an unusual prominence to photography, both in the Italian Pavilion and at the Arsenale, is because of its ability to capture such fleeting atmospheric effects. Whatever the overall title of the biennale, no doubt the two dozen or more national pavilions will go their own way. Denmark has enlisted Bruce Mau to design its show of 'Seven New Denmarks', the Netherlands presents 'Hybrid Landscapes: Designing for Sprawl', while the US offers 'Transcending Type' – new takes on high-rise housing, shopping centres and stadia.

The British Pavilion, curated by Peter Cook, features nine practices 'in deliberate and rhetorical contrast to each other'. With participants as different as Caruso St John and Ron Arad, there will certainly be some 'contrast', though it remains to be seen whether the juxtapositions are resonant. Cook also promises 'a surprise from Future Systems for those who think they've got them taped'.

The biennale continues until 7 November. For more details visit www.labiennale.org

Prince Charles hit by resignations

The Prince's Foundation for the Built Environment has been left rudderless again after the shock resignation of its latest chief executive, Matthew Line, and its head of fund raising, Simon Stanley.

The charity, which promotes the Prince of Wales' views on architecture, has parted company with Line less that two years after he was appointed in September 2002.

The foundation, which campaigns for a return to a more Classical approach to urbanism, rejects suggestions that Line and Stanley have quit over the appointment of Prince Charles' former valet, Michael Fawcett, as a fund-raising consultant.

A spokeswoman said: 'Michael Fawcett is a consultant for fundraising and that is all. Simon Stanley has left for family reasons, while Matthew Line is leaving because he feels the time is right to set up his own business venture. We have no information on what this will be.'

In an official statement, Line said the time had come for him to move on because the foundation was 'in good shape'.

'Our advisers are now highly sought after to provide education

and support in major building and regeneration projects throughout the UK,' he said. 'We have built strong collaborative relationships with the ODPM, regional development agencies, CABE and the RIBA. I am delighted with the progress made during my two years with the foundation.'

The foundation also vehemently rejects rumours that it is experiencing financial problems owing to a fall in donations. A spokeswoman said: 'Reports that we have been left with a £1 million deficit are untrue. We actually made a surplus last year.'

Prince Charles' woes were compounded last week by West Dorset's decision to reject his application to build 31 flats at his model village in Poundbury.

Local residents, led by Poundbury Residents Opposed to Density (PROD), were understood to be furious over the high-density scheme, which, they argued, jars with the low-density character of the village.

Clive Walker

Defiant Wilkinson answers Kings Dock critics

Wilkinson Eyre director Chris Wilkinson has vowed to complete his massive Kings Dock development in Liverpool on time and on budget, following further criticism of the project from Liverpool City Council.

The double-Stirling Prize winner has promised that the project – for an arena, conference centre and residential quarter – will not mirror the escalation in cost of Will Alsop's recently dumped 'Cloud', sited further along the famous waterfront.

Wilkinson told the AJ that there are enormous pressures to keep to the tight budget and timetable, but promised that 'we have brought in schemes like this before and we will do it again'.

'The city is just getting used to development on this kind of scale and is a little bit jittery about it,' he said. 'But we are comfortable with this and we are sure we can come up with the goods.'

Wilkinson spoke in the aftermath of the publication of a council report outlining a series of concerns over the project's future.

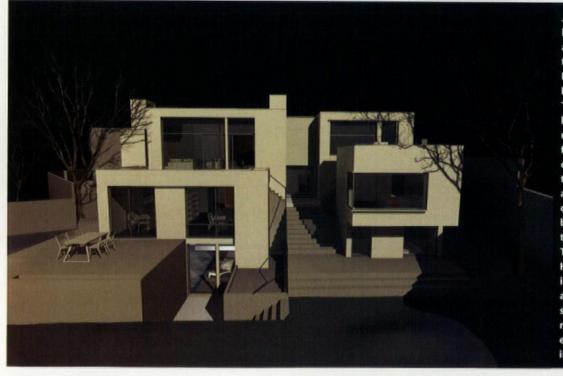
'There is a huge raft of issues that have not been fully addressed yet,' said Eddie Clein, chairman of the council's Regeneration Select Committee.



Wilkinson has vowed to complete the Liverpool development on time

'My concerns range from the overemphasis on housing to the lack of adequate parking. Parking is an enormous issue and has been totally underestimated.

'My overall view is that it is essential to deliver this project on time and within budget by 2008, but some components are still not right. We, as a select committee, have serious reservations,' Clein added.



James Gorst Architects hopes to submit a planning application for this five-bedroom house in Hampstead, north London, by the end of the year. The south-facing private home will have spectacular unobstructed views of the famous heath and will look out over one of its ponds. If the plans get the go-ahead, a 1950s property that is currently on the site will be bulldozed to make way for the 700m² Garden House. The new home, in the heart of Hampstead's Vale of Health, is to be clad in Portland stone and will boast an indoor swimming pool and grass roofs. Locally based structural engineer Ingealtoir is also involved with the project.

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St Pancras luxury hotel plans 'not good enough'

RHWL Architects and Richard Griffiths Architects' plans to transform the Neo-Gothic chambers of London's Grade I-listed St Pancras Station have run into controversy.

The Victorian Society has lodged a number of 'serious' objections to the proposals, for developer Manhattan Lofts Corporation, to transform George Gilbert Scott's 19th-century structure into a luxury Marriott hotel.

Although the building's facade will remain untouched, the interior will be reconfigured to provide 250 bedrooms, two restaurants, a ballroom and a health and leisure centre.

The upper floors of the building, formerly the Midland Grand Hotel, will be designed as loft-style apartments. The project is scheduled for completion in 2007.

Top of the Victorian Society's concerns is a proposal to convert an existing taxi rank into the hotel's main reception. The pressure group also criticises the architecture of a new west wing as 'insufficiently varied'.

Richard Holder, the Victorian Society's senior architectural adviser, said there are areas of serious concern. 'The taxi rank was always intended as an open space,' he said. 'We want the original hard character retained. We do not want a sea of fitted carpets and potted plants.

'Designs for the proposed west wing are not good enough. What is shown is a straight repetition of the existing Gothic structure. We want something that reflects the variety used by Scott when designing the chambers.



Architects plan to reconfigure the Neo-Gothic station

'There is still room for improvement in the designs,' Holder added.

But RHWL principal director Geoff Mann expressed surprise at the Victorian Society's outburst, saying he has liaised with the conservation lobby.

'We are working closely with English Heritage and Camden council throughout the development.' he said. 'EH has held fortnightly meetings with us and it has guided us through every drawing. This is not a hands-off project.'

Clive Walker

Architects on aid mission to Sudan

A team of architects and designers has been flown out to Sudan to help tackle the humanitarian disaster facing hundreds of thousands of refugees driven from their homes by civil war.

Organised by the New Yorkbased charity Architecture for Humanity, the group will spend two weeks working on the assessment and strategic planning of existing refugee camps along the western border of the war-torn country.

The civilian death toll in Sudan's Darfur area has risen to almost 100,000, and the size of the camps has more than doubled in the last month.

The refugees are now facing hunger, disease and a lack of clean water, and seasonal rain has also hampered access for humanitarian aid organisations.

The team of architects will consult with relief agencies in a bid to relieve some of the immediate and long-term problems in the area.

Founded in 1999 by Cameron Sinclair, who trained as an architect in London, Architecture for Humanity has already helped design a mobile health clinic to combat HIV/AIDS in sub-Saharan Africa, as well as transitional housing for Kosovo's returning refugees.

CABE warns of maintenance skills crisis for public parks

Maintenance of public green spaces is in crisis because of an acute shortage of skilled park professionals, CABE has claimed in a new report published this week.

Research conducted by CABE Space, the Parks Agency and English Heritage, among others, indicates that park and green-space professionals are 'literally a dying breed'.

Most skilled workers within the parks sector are approaching retirement, says the *People Need Parks* report. The failure to recruit young staff is attributed to poor career prospects and low pay.

The problem is exacerbated by the perception that park-keeping is 'mundane, physical, menial and boring', the report continues. Although green spaces define the quality of urban and rural communities, planning and management is increasingly handicapped by poor staff recruitment and retention, Edward Hobson, CABE Space deputy director, told the AJ.

'Maintenance must be prioritised alongside important skills like architecture, engineering and town planning,' he said. 'Factors such as compulsory tendering, where green-space maintenance is farmed out to private contractors, has led to professional park-keeping skills going by the by.'

CABE Space, together with a range of partners, has pledged to publish a strategy addressing the problem later this year.



Nathan Chilvers, a first-year diploma student at the University of Brighton, designed this 'transitionary housing' for London's Clapham Junction as part of his work in the urban landscapes unit. It attempts 'to spread something of the adjacent Winstanley Estate's scale, rhythm and use into a newly constructed streetscape that floats above the railway level', juxtaposing a variety of time scales and uses. Chilvers' tutors were Julia Dwyer and Sue Robertson.

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



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WIN A PRIZE AT 100% DESIGN

Now the summer's almost over, we can turn our attention to the first highlight of the autumn: the 100% Design show. This year's show, held at Earls Court 2 from 23-26 September, will be a 10th birthday celebration. Innovations include a mini exhibition called 100% Materials, centred on a library of 'tomorrow's materials'.

Look out for your invitation in next week's issue (9 September) to the AJ party at 100% Design on Thursday 23 September, which will give you the chance to win one of the prizes shown on this page. There will also be details of the AJ lecture, to be given by architectural photographer Tim Soar. A preview of the most exciting products at the show will appear in *AJ Focus*, published with the 16 September issue of AJ.

The pre-registration deadline is 16 September

Go to www.100percentdesign.co.uk for more details



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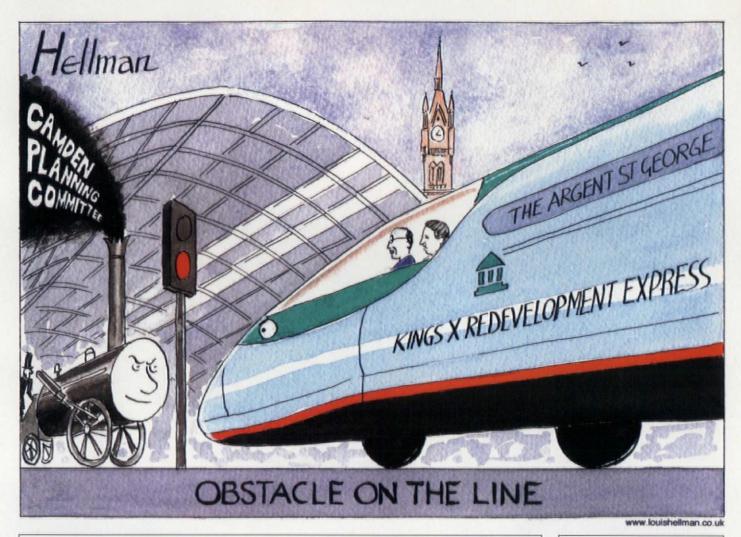
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who said what

'The tall building is a gigantic instrument of market economics, but it still aspires to the sublime'

Ada Louise Huxtable. Wall Street Journal, 27.8.04

'Surface are young, ambitious and speak like they've swallowed a French philosopher's dictionary. This was to be no ordinary lift and loo. This was to become the Ambiguous Object, a conceptual study in symbolism'

Tom Dyckhoff on Surface Architects' new disabled WC and lift at London's Queen Mary College. *The Times*, 31.8.04

'One experienced political journalist took a look at the small lobbies and corridors leading to the chamber and remarked: "Even the Labour MSPs are going to have to talk to us now. They won't have anywhere to hide"

Hamish Macdonnell on the new Scottish Parliament. *Scotsman*, 26.8.04

'It's a case of beam us up, our work on your planet is done. There's not a house in Britain left untouched by the Changing Rooms attitude'

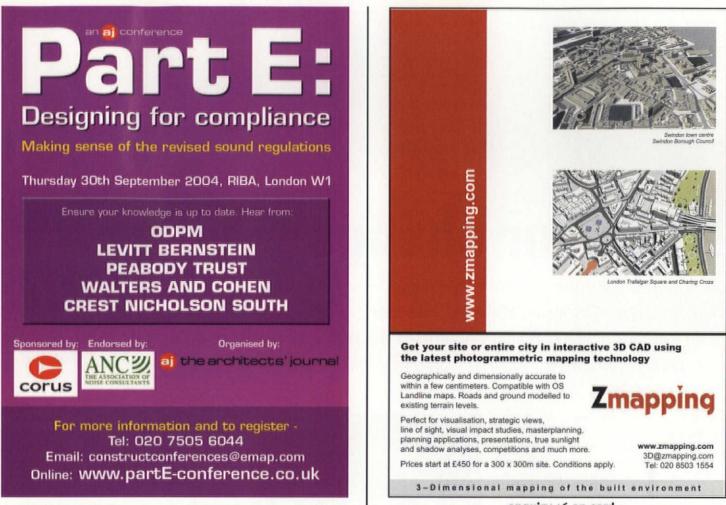
Lawrence Llewelyn-Bowen, presenter of the now-axed TV makeover show. *Independent*, 28.8.04

vital statistics

 Storm insurance claims have risen by almost 500 per cent in parts of England following the wettest August on record. Loss adjuster GAB Robins has handled five times as many claims as in August 2003. Handy homeowners will have spent an average of £1,270 on DIY projects this summer, according to research by the **Alliance and Leicester. Scots** will have shelled out the most, spending £1,385, with nearly a third buying new curtains, while women were shown to have

 spent more than men.
 Parents spend more than £70 billion sending their children to state schools. A survey by Halifax Financial Services found that it costs, on average, £7,715 to fund youngsters through school, including nearly £5,200 on school meals alone.

• We do love to buy beside the seaside. Property prices in three-quarters of coastal resorts grew faster than in surrounding inland areas over the last three years, with the value of homes in the South West alone soaring by an average of 62 per cent.



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Room for change?

This year's European Hotel Design Conference will explore the topic of 'Designing for Change'. **Patrick Reardon**, of Reardon Smith Architects, who will moderate the first session of the conference, argues that nothing has really changed in hotel design since the 1950s

There has been no escaping it. The press, books, conferences and websites are all proclaiming a decade of massive change in hotels and the major contribution of 'design' to this change. We are told that hotels are now design-led, and that the term 'boutique' is currently out of fashion since the global hotel brands, needing in excess of 100 bedrooms apiece to make economic sense, have decided to enter the arena. In the 1990s, hotels were Minimalist; now they are definitely Post-Minimalist. Suddenly, it seems, the young and the beautiful want to be seen in them and the leading fashion designers of the world, not to mention the great interior designers, all want to design them. What is more, we have 'hotels of the future' - on the moon, underwater and soon, we are told, coming to a location very near us.

Who is kidding whom? There are fundamentally two types of hotel. There are those that were developed for people already travelling – 2,000 years ago they were on the silk routes; 150 years ago on the railways; 100 years ago on ocean liners and, most recently, at airports. Then there are hotels that have been created specifically for people to travel to – resort hotels, the early and great European examples of which emerged the best part of two centuries ago. It is interesting to consider that a number of these destination hotels were developed around a spa – the hotel industry's latest 'discovery' and now a 'must have' in most designers' schedules.

When it opened in 1899, London's Great Central Hotel, now The Landmark, advertised 'magnificent public rooms, elegant private suites, bedrooms with baths attached, renowned cuisine, light, air, health and comfort with a tariff more moderate than any other hotel of the same class in London'. Move on 60 years to the time of rapid expansion in international travel and we have a period of



Plus ça change: Reardon Smith is upgrading London's Cumberland Hotel, near Marble Arch...

worldwide growth in globally homogenised hotels, which were often described as 'home from home'. This phrase was patently nonsense. However, what it did reflect was that travellers, particularly in remoter parts of the world, were concerned to have food that would not make them sick, as well as certain icons of domesticity, such as clean sheets, hot water and security. They most certainly did not want to walk along dark and potentially hazardous corridors in the middle of the night just to go to the toilet. Not so very different, then, from the requirements of travellers on the Great Central Railway of the previous century, nor from - I would argue - the fundamental requirements of hotel guests today: value for money, cleanliness, security and some personal recognition of their presence.

The room remains the same

So now we have hotels with increasingly lookalike contemporary interiors spiced up with a dash of local design reference. But what they are is what they have been for a very long time: a collection of rooms that can each be made a private space by way of a card or a key – a concept introduced in 1829 by Tremont House in Boston, US – with en suite bathrooms, the last true revolution in hotel design, which was virtually universal by the late 1950s. Some have signature-chef restaurants, reviving memories of the time when the great hotels were the place to eat; some are social meccas where guests promenade every bit as much as they once did in Berlin's Kaiserhof and at the Grand Hotel National in Lucerne, Switzerland. The fact that today's guest feels at liberty to parade in ripped jeans is neither here nor there. Hotels have always been places in which to push the envelope – ladies smoking, women unchaperoned, illicit sex, pornography on the sly – it really has all been done before.

Quite rightly, it is these guest requirements that shape our hotel industry. Hotels do not shape guests and I applaud Ken McCulloch, founder of the Malmaison, Columbus and Dakota hotel groups, who, when commenting about boutique hotels, said recently: 'Design for design's sake really isn't worth doing. Any place that takes itself so seriously and forgets what it's there for is ridiculous. Whether someone's sitting on a very comfortable chair or sitting on something that looks like a mushroom is up to them, they still need looking after.'

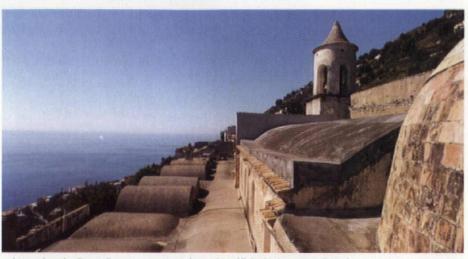
There is absolutely nothing wrong with fashion and styling – it can be great fun and very exciting. However, to those missionaries of design who will insist that they are changing hotels: you are wrong. All we, as architects and designers, are doing is continually refining and refreshing a well-established model so that our clients can earn a reasonable income from an unchanging set of human needs, and so guests can enjoy a comfortable environment. Let's be honest, modifying a few shapes and introducing new fabrics is nothing more than whimsy. Yes, we have an array of new guestroom technology these days but leading hotels have always been the testing ground for new technology – yesterday it was electric light and elevators, today it is plasma screens and ISDN lines. It is hard to describe adequately the tedium of the many presentations faced over the years from designers laying claim to a concept for the 'hotel of the future' when, in fact, all they are talking about is fashion and technology. Fundamentally, their hotel schemes continue to comprise bedrooms with attached bathrooms and, usually, places to meet and areas of entertainment.

Architects and designers have one simple duty of care: to the client. This means focusing on their return on investment by maximising the asset and helping to increase revenue generation by providing what the guest actually wants. This, in turn, means understanding the contribution good design can make, while remembering that several of our most enduring and profitable hotel brands have no 'design' at all. And why do they do well? Because they know how to meet certain sets of enduring human requirements efficiently.

Hopefully, there will always be space in our interestingly diverse industry for budget hotels through to grand establishments - as there has been for centuries - but perhaps the biggest threat today to such an inclusive future comes from the inflationary claims made about the impact of design. It is no coincidence that many design-led hotels go through rapid and enforced changes of ownership as they become the product for which no one really wants to be responsible. As Frank Croston, joint managing director of Hamilton Hotel Partners, so succinctly put it: 'Too much hotel design represents the triumph of style over function. Why is it that lawyers manage to exercise a duty of care and explain to clients the implications of a particular decision whereas designers, who like to think of themselves as professional, apparently do not?'

It is because too many of us mistake fashion for design. It is only the seasons that have moved round; the climate has not changed and never will.

The European Hotel Design Conference, 'Designing for Change', will take place at the London Marriott Hotel, Grosvenor Square, on Monday 25 October. It will be followed, in the evening, by the European Hotel Design Awards reception and dinner. Further information on both events can be obtained from: www. hoteldesignevent.com



... is turning the Santa Rosa monastery above Amalfi, Italy, into a spa hotel...



... has built a contextual extension to the Marriott Hanbury Manor in Ware, Hertfordshire...



... and has designed the generic Bedfont Lakes Hotel at Heathrow

letters

editorial

Delights beyond our borders can lift our dampened spirits

It would be nice to pretend that we were reacting to the disappointments of this summer's weather by importing some Californian sunshine on to our pages (*Building Study, pages 24-31*). But anybody familiar with publishing schedules will realise that we took the decision to publish the Sale House in Los Angeles long before we knew that this would be one of the wettest Augusts on record. At least some of the pleasure webtoed readers will gain from looking at this building must be put down to serendipity.

The keen-eyed may think that this building is 'not terribly AJ'. Although we do venture overseas, particularly to look at major restoration projects (most recently the Robie House in Chicago, AJ 8.7.04) and in supplements such as Concrete Quarterly (see this issue), most of the buildings we discuss in detail are in this country. There are good reasons for this, since one of the strengths of the AJ is as a working tool, and information on costs and working details does not translate easily. But we do not want to become parochial. This country has some of the most talented architects in the world, working both here and abroad. They provide us with plenty to publish, but their talents did not develop without them taking an interest in work beyond our borders. Since they look overseas, so will we from time to time.

The Sale House, like Morphosis' 2-4-6-8 studio that it adjoins and to which it responds, is definitely a product of its place and climate, and the architects who designed it, Sharon Johnston and Mark Lee, are clearly grounded in their environment. Again like the Morphosis studio, the Sale House contains a wealth of ideas generated by a practice early in its career. Moreover, both buildings have the same enlightened client. Works like this are exciting, and can inspire new ideas that owe no obvious debt to their origin. We intend to bring you more of that kind of excitement, by featuring the occasional overseas building purely for the delight that it can bring to the reader. Come rain or shine.

Ruth Slavid

Ferguson's eyesore war is an intervention too far

The proposal to identify and destroy buildings because they are perceived by some to be vile is disturbing (AJ 26.8.04). If a building has reached the end of its useful life and no appropriate reworking of the building is possible, then, so be it, take it down and develop it with a use more appropriate to the needs of today. Any archaeological dig in any city will reveal layers of previous buildings that have either made way for others or have been adapted as the city grew and flexed in response to change.

Growth and change are driven naturally by opportunity for benefit and society's acceptance of change, not by the form of intervention that RIBA president George Ferguson proposes. The good and the not so good, the beautiful and the ugly, exist side by side and should continue to do so in a tolerant society. *Kevin Steer, chairman, Stride Treglown*

Many agree that PPS 7 is clause for concern

Both your Editorial and Astragal (AJ 12.8.04) claim that traditionalists are shooting themselves in the foot by taking an unnecessarily anti-traditional interpretation of the new 'isolated house in the country' clause in PPS 7.

But this is not just the interpretation of paranoid traditionalists. To quote a few newspaper articles: 'How bold of John Prescott to declare a ban on new Neo-Classical mansions' (*Observer*); 'Forget Classical columns' (*Guardian*); 'New country houses will continue to be allowed provided they are... not traditional' (*Daily Telegraph*); 'Its emphasis is on innovative, ground-breaking design rather than the construction of traditional country houses in Classical style' (*The Times*); 'Council officials will be banned from allowing reproduction Palladian manor houses' (*Daily Mail*) – there are many more.

I have already met with two local authority officers who interpret the word 'contemporary' in the clause as meaning Modernist. You need go no further than the opening statement in planning minister Keith Hill's press release: 'Changing the face of new country house architecture from a pastiche of historic styles to innovative cutting-edge design is essential'. I think this is pretty clear.

Hill was warned of the likely interpretation of these words in a letter from the Traditional Architecture Group in mid-July. He must have chosen to use these words in the knowledge of this interpretation. I don't think that it is the traditionalists who should keep quiet; it is the minister who should clear up the confusion he has created and tell us once and for all: is the government seeking to favour one architectural ideology over another and discourage traditional architecture in this new policy?

Robert Adam, Robert Adam Architects, Winchester

Trading traditionalism for Modernist pastiche



PPG 7: spot the reference

Keith Hill wishes to encourage 'innovative', 'ground-breaking' design through the new 'country house clause' (AJ 12.8.04). In addition, according to *RIBA Practice Bulletin* No. 263 (5.8.04), 'what does come through in the minister's statement... is his intention that' the clause should not serve 'anything that gives off even a whiff of historical pastiche'. The clause is undoubtedly worded to exclude traditional buildings, being against 'historical pastiche'. But why should it not also be against Modernist pastiche?

Looking at the five schemes you illustrate in your article, I see Alison and Peter Smithson's 1950s style, Brutalist 1960s style, and Le Corbusier's 1930s style. On what basis can these buildings be called 'innovative' or 'ground-breaking'? Why should Modernist pastiche be favoured over historical pastiche?

The reality is that both Modernists and traditionalists borrow from the past. The difference is that whereas traditionalists see a virtue in this and use models that have a strong resonance in the culture at large, Modernist seek to deny any precedents and use models that only have value within the narrow world of the architectural profession. *Peter Kellow, Plymouth*

The influence of Andrew Jackson should live on

AJ readers will recall that three years ago an AJ poll voted Andrew Jackson the most influential tutor in Britain. Jackson taught at Edinburgh College of Art from the mid-1950s through to the '80s and an entire generation of architects benefited from his guidance. Many went on to spread their wings and his teachings across the world. Sadly, Jackson died a few days after learning of the accolade awarded by the AJ.

The school, along with the Edinburgh Architectural Association, wishes to set up a memorial award in his name. The school does not have a database of ex-students going back far enough to cover even a majority of his pupils. We reckon there are between 900 and 1,000 of Andrew's former pupils in practice around the world and



Is Alsop's OCAD building simply preparing us for the skyline of the future?

we hope that many of them will be pleased to contribute towards setting up this award.

I would like to ask as many of his former students as possible to give to the fund by sending their contribution to Douglas Read, c/o School of Architecture, Edinburgh College of Art/ Heriot-Watt University, Lauriston Place, Edinburgh.

Cheques can be made to 'Andrew Jackson Award'. Douglas Read, Edinburgh

Alsop's preparing us for a *Blade Runner* future

The bad criticism of Alsop's design for the Ontario College of Art & Design (AJ 1.7.04) is failing to grasp the importance of this project as well as its consequences for future urban infills. This building doesn't belong to 21st-century architecture but is indicating the shape of things to come in the 22nd century.

In Ridley Scott's film Blade Runner, one is shown a decaying city, where the sky is always darkened (see picture above). Floors have been added to existing buildings, with new services fixed to the outside of the building like creepers. The set designer had imagined how buildings in this future noir might look like. As our cities get more and more congested, future developments will inevitably be upwards – on stilts – or downwards – underground. The extension of the Jubilee Line in London with its Piranesi-like spaces shows that living, travelling, playing and working underground are already taking place.

Alsop's dream-like design is showing how this will be done above ground. One can already imagine futuristic cars and scooters (like in Luc Besson's *The Fifth Element*) hovering around the school, and more is to follow.

It is the merit of Alsop Architects to have demonstrated that this inevitable development is not so bad and doesn't have to lead to an underworld with congested streets and replicants eating steaming bowls of rice in a place which is constantly dark, cold and wet. *Rik Leus, via email*

Rik Leus, via emaii

Kindersley fuels more cracking cruck debate

I do not want to inflame the situation but feel, being as John Napier has tried to be precise ('What's the crack with the cruck?', AJ 29.7.04), that further words need to be written on this matter.

If Mr Napier had read the words of the article (Building Study, AJ 15.7.04) in their entirety then he would have found a more detailed description in the text. To paraphrase directly from the discussed article, the parabolic arch form was created to mimic the function of the traditional cruck frame without the need to source large, naturally curved sections or to use fabricated, homogenised, glulam sections.

The article states that it is a parabolic arch that is mimicking the cruck frame, which in structural and functional terms it clearly does. If, today, 12 large curved trees were commercially available, these would have been considered.

To finally comment on the suggested description of the frame as a fabricated portal frame, this is not correct. As previously stated in the article, the frame is a parabolic arch. Portal frames have thickening at the junctions, which are haunched zones to carry the bend forces around the corners.

This structure can be described as a parabolic arch and uses compression as the primary structural mechanism to support the applied load. Portal frames use their bending strength to carry the loads.

The Kindersley Centre structure at Sheepgrove Organic Farm is a modern interpretation of a traditional cruck building form. I do not know whether this response is being helpful or inflammatory but trust that it adds to debate, which could be considered as the cornerstone of a balanced society.

Mark Lovell, Mark Lovell Design Engineers, Devizes, Wiltshire

Please address letters to the editor at 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. simon allford

Storm warnings for Arup as it flies in the face of obliquity

An article by John Kay, author of The Truth About Markets, in the Financial Times offered us insight into the concept of obliquity. The premise is that you should ignore how the crow flies; you are more likely to arrive at your destination by following an indirect route. His argument is backed up by marvellous illustrations. Major General Wolfe, the Japanese and Hitler achieved their goals by pursuing indirect routes. Wolfe took Quebec by surprise as no one believed he could attack the undefended cliffs; similarly the Japanese seized Singapore by cycling through the jungle, rendering the sea defences pointless; the Germans broke through the Maginot Line by going around it. Kay also points out that, paradoxically, the Panama Canal's exit into the Pacific is 48km east of the entry from the Atlantic, and that forest fires are best extinguished by being allowed to burn.

His analysis of the business models of ICI and Boeing is most striking. The two great corporate behemoths were fantastically successful and profitable when they were dedicated to excellence and delivered a broad range of world-class products. Since they narrowed their focus to profit centres and shareholder returns, they have actually suffered a decline in both. There must be lessons here for our profession: skilled at spending our clients' money but struggling to accumulate wealth for ourselves. Obliquity suggests we should resist the trend to focus solely on the provision of a narrow specialised client service, instead returning to the traditional pursuit of broad excellence: profits being the inevitable, yet indirect, outcome of our endeavours. We should learn from the legal profession, which diligently serves the ethics of the law ahead of its clients and simultaneously flourishes, charging what our profession would consider fantasy fees. Frank Lloyd Wright certainly succeeded on this basis. As Johnson remarked on the conclusion of the Johnson Wax project: 'At first I thought Mr Wright was working for me and then that we were collaborating; I soon realised, however, that I was working for Mr Wright.'

Obliquity also explains why the Design Council, an institutionalised government quango, has ended up treating design as a bolt-on facility, fundamentally misunderstanding its inherent role in the consideration of problem and opportunity. That is why Charles Eames found it 'creepy', and why its efforts remain an embarrassment. Obliquity suggests that the contemporary focus on the measurement of a building's cheapness and lowest possible cost bids, ignoring value, is unlikely to achieve even those modest twin targets.

Perhaps there is a warning in all this for the world-class engineering firm of Arup. For more than 50 years, Arup has flourished by focusing on the delivery of excellence. Despite acting as a team player and supporter of the collective process, the plaudits have flowed and it now has a remarkable worldwide reputation. The vast array of talent within this firm pursues this ideal by adopting the highest standards, working with all-comers to make constructions better and more available. The late, great engineer Peter Rice told me, when as a student I visited him to discuss a paper I was writing, that he worked at Arup because he knew that, within the organisation, someone would know more about any given subject than anyone else, and that he could find them and work with them to make things ever better.

Contrast all that with the recent press pronouncements of Arup's Cecil Balmond that focus on image over enquiry, ego over collaboration, and suggest that not only is he a maker of architectural stars but that he is also one himself. If the theory of obliquity is correct, a 50-year reputation is already under threat.

'The Design Council treats design as a bolt-on facility, misunderstanding its inherent role in the consideration of problem and opportunity'

people

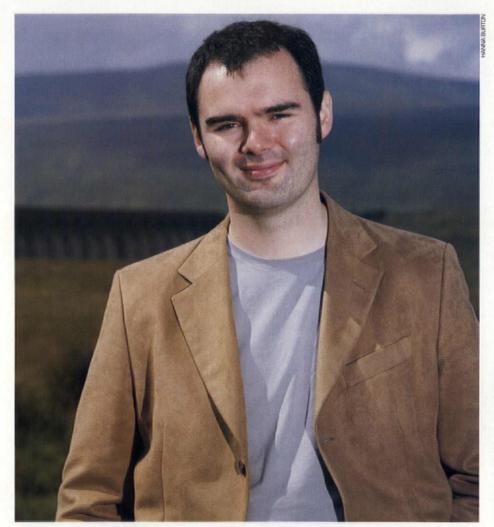
Faced with the constant battle of getting new work accepted, Mason Gillibrand's Richard Wooldridge sets an example to rural practices by fighting the good fight

'Structural gymnastics' is how Richard Wooldridge, an architect with Mason Gillibrand, describes the small but complex canopy at the White Scar Caves visitor centre in the Yorkshire Dales (Working Details, pages 32-35). Working against wind uplift and friable limestone on a difficult, exposed site, Wooldridge also had to ensure the new structure was all but invisible from the surrounding countryside. 'It was a unique project requiring a unique solution,' he says. 'We've been fortunate to work with Buro Happold, with access to its wind and rock specialists and top-quality engineers. It was also a fantastic opportunity to build a relationship with it for the future, which is crucial for small, country practices where work is dependent on repeat clients and recommendation.'

The cave canopy also illustrates the main challenge facing rural architects: how to design good, modern structures that have minimal impact on the landscape. While the canopy may not typify Mason Gillibrand's work – its workload is about 40 per cent rural private houses – it may be the project that puts the practice on a bigger map. Wooldridge, who joined Mason Gillibrand in 2001, stayed in the North after leaving Edinburgh College of Art in 1998, when most of his contemporaries were going to London. 'They may be working in the big offices but they have far less responsibilty and space to develop,'he suggests.

The practice is organised along democratic lines where everyone is allowed to play to their strengths, adds Wooldridge. 'It means that some people stick to country house interiors, some to barn conversions. But every Friday afternoon we open a bottle of red wine and brainstorm one another's projects – including the partners'. No one holds back.' The practice has also developed an innovative quantity surveying system, adapting what would be an unwieldy system for a small practice doing a succession of small jobs by costing with trusted local builders as they go along.

Mason Gillibrand was founded by Edward Mason and Nick Gillibrand in 1992 and now has 13 staff (and growing) at its offices, a converted mill in the tranquil village of Caton, outside Lancaster in Lancashire. 'You don't expect to find young, progressive practices in rural areas but Lancaster has a thriving scene. There are some fantastic designers here – it's just that they



Country matters

don't shout about it.' Partly to spread the word, and partly to support local architects, Wooldridge has set about shaking up the local RIBA branch. With just 120 members, 40 of whom are retired, the Lancaster and Westmoreland Society of Architects (LAWSA) is the smallest RIBA branch in the country and evidently needed reinvigorating. Wooldridge and a colleague currently rotate the presidency and vice-presidency. 'I take the view that it's about encouraging architects in the area to grow and develop their ideas, just as much as flying the flag for the RIBA.'

Ideas for Schools, a competition scheme Wooldridge is currently running that is gathering its own momentum, sends an architect into local secondary schools for eight weeks to work with children on imaginary building projects in their local environment. 'It's not meant to turn them all into architects, although some may well end up as clients. It gives them an entry into architecture, even at a conceptual level, and gets them thinking about their environment in a different way. They've produced some really sophisticated ideas, and you can see them starting to appreciate their environment much more.' Different schools adopt different approaches, he says, to fit the project into the national curriculum, slotting it into art, CDT, graphics and even geography lessons. 'There are other benefits too - working with teachers, and also when parents get involved.'

This year's exhibition – the fourth – ran concurrently with Architecture Week and a tour is likely in the new Arts Council mobile exhibition 'truck'. Improved funding from the Arts Council England (North West) means brochures can be produced for next year and Wooldridge is also writing a teachers' guide, which the council aims to adopt as a regional model. 'We've hit on something really big and I think we can get it even better.' The aim is now to draw in more architects from practices further afield. LAWSA also ran a successful CPD fair with 25 manufacturers' stalls and Wooldridge hopes to run this again next year too.

These initiatives also underpin the practice ethos of breathing new life into existing, often underused, buildings. The exhibition was housed in the Ashton Memorial, the Lancaster landmark clearly visible from the M6. Another scheme to redevelop the Storey Institute, a late Victorian building in Lancaster city centre and another local landmark, is on the books. Built as a mechanics' institute and extended, with typical Victorian gusto, to form a centre for the advancement of the arts and sciences, it was gifted to the city of Lancaster but is now rather forlorn and more than half empty. With its superb gallery spaces - once described as the best in northern England - stained-glass windows and secret garden, it has considerable potential as an artistic and social hub. 'We're planning to drag this building, sensitively, into the 21st century.'

Wooldridge describes his own design philosopy as a quest to bring in more light and space. In rural areas this is often born of necessity because of the seemingly insurmountable planning regulations. Perhaps a paradigm is the barn conversion – the bread and butter of so many rural practices – where the thick outside shell with few openings belies the fabulous space and light so often found within. 'You become expert at fine-tuning everything until the planners are happy.' But it has helped him evolve creatively as a rural architect, he believes, though he takes on less housing than his colleagues, preferring the more idiosyncratic projects.

Back at the White Scar show cave, this synergy is evident. 'I love working in the spaces where architecture meets engineering.' He may be surrounded by grass, but he isn't likely to let it grow for long.

Deborah Mulhearn

Q&A

Why architectural replicas are really only fakes

One of the most fascinating things about technology is its apparent irreversibility. The pharaohs had geometry, mechanical engineering and project management down to such a fine art that they could keep a workforce slogging away at a pyramid for 50 years or more using the same materials and methods. We have a problem adhering to any masterplan with a programme as long as five years. As a result, we cannot contemplate building an

accurate replica of an Egyptian pyramid. On the other hand, the general idea of turning the clock back and doing things the old fashioned way is a project that appeals to a lot of people.

Propose rebuilding Old Saint Paul's for instance, or Whitehall Palace or Nonsuch and the cry will go up: 'When can we start?' Alas, the real question should be: 'What will we end up with if we do?' For invariably - as several stainless steel-bolted rainscreenclad copies of Palladio's Villa Rotonda attest - by the time modern methods, fire regulations and security systems have succeeded in twisting the arms of even the most dedicated replicators, only a soft-focus lens from a quarter of a mile away will make the result look convincing. The problem with replication is not so much a matter of appearance as of method.

To take an easier example than a pyramid or a Palladio, at the end

22 the architects' journal

of the Second World War some 150,000 prefabricated houses were built for local authorities in England and Wales. They were not exactly a rarity then, and a few of them survive in use to this day. But to build a new one to its original specification today would be all but impossible. Even the simplest one, the ARCON, had a hot-rolled steel angle frame, welded tubular steel roof trusses, a prefabricated 'Denham' plumbing unit in copper, steel, brass and cast iron, pull switches everywhere and roofs and walls clad

'The pharaohs could keep a workforce slogging away at a pyramid for 50 years. We have a problem adhering to any masterplan with a programme as long as five'

in asbestos with only a miserly 15mm of insulation. The sole space heater was a small 'slow combustion' solid-fuel stove that heated the water too.

So primitive does this dwelling sound from this description that we might be excused for thinking, from the comfort of the rotating 'Captain's chair' in our Mercedes E Class, that anybody could knock one up in a weekend. But they couldn't. A replica ARCON house, authentic in every detail,

asbestos cladding, ungalvanised lead-painted window frames and all, would be nearly as impossible to manufacture as a 40-year contract pyramid.

Oddly enough the problems of authenticity do not diminish very much even if you leap nearer to the present and think in terms of producing a replica Home Counties bungalow from the 1960s. The first shock you would encounter would be finding out, as Robert Adam explained in his brilliant paper Tin Gods and Contemporary Architecture, that more than 30 materials basic to the appearance of such a building had already been replaced by synthetic substitutes by the end of the 1980s. Painted cast iron rainwater goods had given way to self-coloured plastic, softwood single-glazed windows to double-glazed uPVC, bitumens to polymers, linoleum to vinyl, floorboards to chipboard, joints in roofing timbers to nail plates,

plaster to Artex, distemper to emulsion, and so on. The only solution to this crisis of irreversibility lies in investing the term 'replica' with a degree of flexibility. And this, of course, is what we do. In the

art world our inability to really replicate leads to the manufacture of fakes – which are new things made to appear old. In the world of architectural conservation it leads to compromise in the shape of old buildings restored until they look new – under halogen floodlights, of course.

Conrad Smith

Reardon Smith Architects

When and where were you born?

December 1960, Lindfield, Sussex. What is your favourite building and why?

The Royal Festival Hall – it epitomises the optimism of the post-war years.

What is your favourite restaurant?

The Regency, Brighton. What vehicle(s) do you own?



Audi TT Convertible. What is your favourite film? Ken Russell's *The Boyfriend*. What is your favourite book? *The Architecture of Sir Edwin Lutyens* volumes 1, 2 & 3. What is your favourite 'design classic'? Braun Phonosuper SK4 radiogram of 1955, nicknamed Snow White's

Coffin. What is the worst building you've ever seen and why? The Co-op building in Haywards Heath – it epitomises the failures of post-war architecture.

Who or what is your biggest architectural influence and why? Arne Jacobsen – clarity of design. Who is the most talented architect you've worked with? Oscar Tusquets.

If you hadn't been an architect, what would you have been? A deckchair attendant.

What would your advice be to architectural students? Enjoy it.

What would your motto be? 'Life is just a bowl of cherries.'



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INNER STRENGTH

Johnston Marklee's cool addition to a studio by Morphosis conceals a world of colour within

By Michael Webb. Photographs by Eric Staudenmeier



In adding to a historic monument, architects seek to avoid the twin traps of mimicry and upstaging the original. Sharon Johnston and Mark Lee of Los Angeles firm Johnston Marklee & Associates have mastered that challenge in designing the Sale House, a cubist project faced in grey stucco to play off the 2-4-6-8 studio that Morphosis designed 25 years ago in the beachfront community of Venice, California.

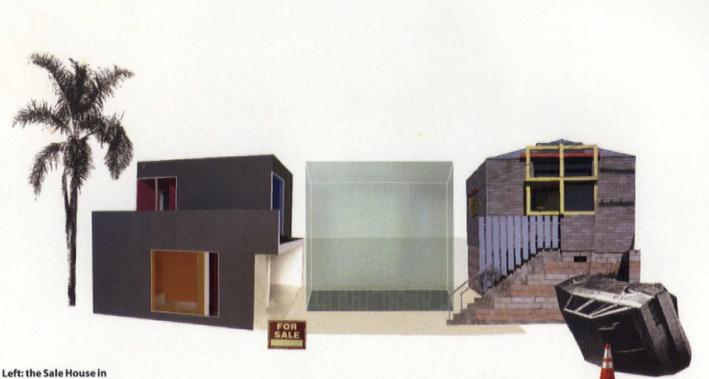
That one room over a garage brought the architects, Thom Mayne and Michael Rotondi, international fame, and it still has the power to provoke. Working with a bare-bones budget, the pair enriched a simple cube with felt shingles, Mondrianesque accents of primary colour, and projecting yellow window frames that progress from 2 foot square on the inner face to an 8 foot square portico above the entry.

Josh Sale, the same enlightened client who gave Morphosis its first significant commission, turned to another fledgling partnership to replace the original clapboard bungalow, which had been destroyed by fire. He and his wife, Peggy Curran, had moved to Colorado and wanted to rent out their former property, but gave their new architects a free hand to create a work of art, as enthusiastically as when they lived there.

It was an opportunity that Johnston and Lee were well prepared to exploit. They met at the Harvard Graduate School of Design, married, and moved to LA, where they established their office in 1998. As teachers at UCLA (University of California, Los Angeles), and as practitioners who won a Progressive Architecture Design Award for the Hill House in West LA, they quickly made their mark. They have designed several other innovative houses, and drew acclaim for 'Nano', an audacious exhibition installation at the LA County Museum of Art. They have also worked for the Lannan Foundation and the community of Marfa, Texas, to develop innovative architectural environments.

To make the architects' task even harder, the house had to take its place on a narrow walkway that fronts a row of clapboard cottages with picket-fenced gardens and service alleys to the rear. It is a picture-pretty version of another era, and a surreal contrast to gritty Lincoln Boulevard, a block away, but the architects knew this idyll would not last much longer. Land prices have soared on property within walking distance of the beach, the bungalows are nearing the end of their life, and many will soon be replaced by the residential equivalent of SUVs (sport utility vehicles). Johnston Marklee wanted to create a house in scale with its neighbours and a studio that would also serve as a model for the next generation of builders.

The Sale House develops a concept that Morphosis first explored, of treating the studio as a repetitive element in a quadrilateral of identical blocks. Johnston Marklee displaced the cube as a master bedroom at the front of the house, opening on to a roof deck that leads to the studio, and as the negative volume of a central courtyard. Glass-walled living spaces are wrapped around three sides of this void, which complements the mass above.



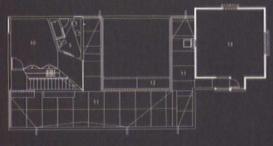
KEY

entrance living room bedroom/study

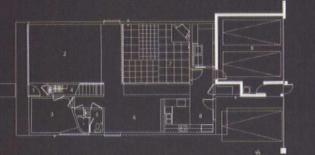
kitche

8 kitchen 9 existing garage 10 master bedroom 11 roof deck 12 skylight 13 existing studio

Left: the Sale House in its context of clapboard cottages. Above: concept drawing of the scheme, with Morphosis studio at the right



first floor plan



ground floor plan 2 September 2004 The studio is a doll's-house variation on the pitched-roof bungalows to either side, and the new facade is an abstraction of that asymmetrical collage of window and wall. In contrast to Morphosis' use of colour and relief, the house facade is monochromatic and exaggeratedly flat: a sheer grey plane interrupted by glass sliders that frame the living room and open the interior to the garden and to the courtyard beyond. A square window lights the bedroom above. Within the house, the themes of openness and neutrality are carried through the living areas with their white walls, polished concrete floors, and expansive glazing, but the ground-floor office, the master bedroom and the stairs that link them are inflected by angled walls and brilliant hues. Bright pink, turquoise and yellow-orange volumes are juxtaposed in a mutation of the primary colours that are sparingly used on the exterior of the studio,

achieving a dazzling sense of surprise as you move from the public to the private realm. Lee cites the precedent of Adolf Loos' villas, which often conceal boldly grained woods and marbles and shifting forms behind their discreet facades.



Opposite: stair to the first floor. This page: living spaces are wrapped around the central courtyard ML.





This page and opposite: the inner world of colour is revealed at twilight - a mutation of the colours on the studio The client asked for durable, low-maintenance materials, and the architects chose to create a deceptively simple house that is as vibrant within as the studio is on the outside. The two make a perfect pair, in the harmony of their proportions and the radical contrast of their language. The success of this 160m² house augers well for the soon-to-be-completed Hill House, on a sloping site not far from the icon that the Eameses built for themselves, high above the ocean, a half-century ago. *Michael Webb is a Los Angeles-based architecture critic, whose most recent book is* Brave New Houses: Adventures in Southern California Living, published by Thames & Hudson

CREDITS

ARCHITECT

Johnston Marklee & Associates, Los Angeles: Mark Lee and Sharon Johnston (principals), Mark Rea Baker and Lars Holt (project architects), Jeff Adams, Diego Arraigada, David Benjamin, Michelle Cintron, Daveed Kapoor, Anne Rosenberg, Anton Schneider (project

CONTRACTOR Alonzo Construction, Los Angeles STRUCTURAL ENGINEER William Koh and Associates



Sheltered accommodation

Mason Gillibrand Architects had to battle the elements at White Scar Caves in the Yorkshire Dales to design a canopy that protects visitors and provides a unifying link

By Susan Dawson. Photographs by Daniel Hopkinson

In 1923, guided by the light of four candles stuck in the brim of his bowler hat, Christopher Long scrambled into a hole in the side of Ingleborough, one of Yorkshire's Three Peaks, and came across a maze of underground caves and passages. Formed over thousands of years by the erosive action of an underground stream on the soluble limestone rock, they run for nearly a mile into the mountain's heart, narrowing into claustrophobia-inducing tunnels and opening into vast caverns of stalactites. Today there is no need for candles: White Scar Caves, as the complex is now known, is paved with footways and lit by a generator. The guided tour is one of the main tourist attractions in the Yorkshire Dales and visitors now number more than 60,000 a year.

Over the years, disparate buildings - ticket office, manager's house, a café and

WCs – have sprung up at the side of the cave entrance to accommodate visitors. The owner asked local practice Mason Gillibrand Architects to come up with ideas which would unify the buildings and also give visitors some protection against the harsh weather – they were often soaked while waiting for the next tour. (The caves are open all year except occasionally in winter when torrential rains flood the system and pour out of the entrance).

The logical solution was a canopy that would link the buildings and give sheltered waiting space. But the design was also led by the site and its climate – this was not the place for lightweight steel and glass. 'If you live in the south, it's hard to imagine what conditions are like up here in winter,' explains project architect Richard Wooldridge.

'The site is well over 300m above sea level

and on a clear day you can see the Irish Sea and experience the full force of south-westerly gales. In winter, blizzards often block the cave entrance with over a metre of snow. It's just another world.'

The new canopy is elemental and solid; a timber deck with a green turf roof which blends with the hillside above, so that it seems to flow over the assorted buildings. Seen from the road and car park the canopy metaphorically 'extends' the mouth of the cave, radiating out from the rock to act both as an invitation and a shelter. Similarly, from a distance, particularly from the hillside on the other side of the valley where visitors walk up the famous 'Waterfalls Walk' from Ingleton, the canopy appears simply as an opening in the hillside.

To reach the cave, visitors park their cars and climb a new limestone staircase to the edge of the canopy. To one side is the café, which has been extended; to the other side is a new resource centre, an extension to the cave manager's house. To the back of the canopy, set hard against the rocky mountainside, is the single-storey ticket office which has been rebuilt and clad with limestone to help support it.

The canopy had to resist wind uplift but, because it sits in a slight hollow in the mountain-side, flanked by existing buildings, the

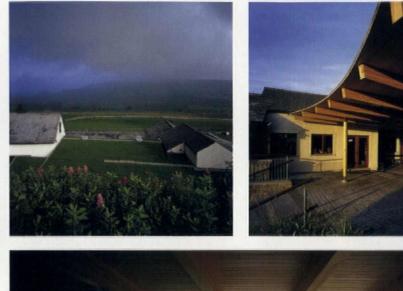


need to accommodate snow-load was even more critical. The timber deck is covered with a two-layer turf roof system with 45 tonnes of soil and grass – heavy enough to resist wind uplift – supported by glulam beams. Eight 450 x 135mm tapered beams rest at the rear on the ticket office and fan out imperceptibly towards the main entrance opening. A further four beams, set at the side and further back, shelter the entrance to the cave itself.

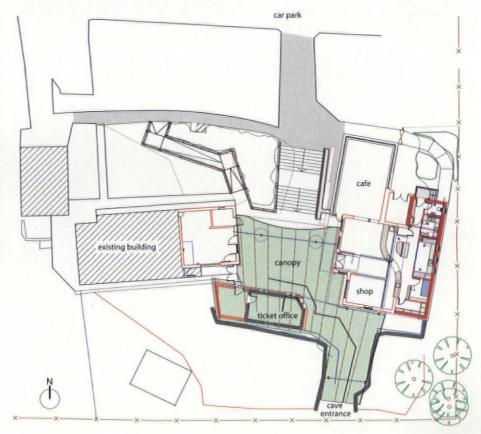
The canopy is a shelter; once inside it you look back and realise that it also acts as a frame to what must be some of the most magnificent scenery in England.

CREDITS

ARCHITECT Mason Gillibrand Architects PROJECT ARCHITECT **Richard Wooldridge** STRUCTURAL ENGINEER Buro Happold: James Rowe, Simon Wainwright, Colin **Riches** QUANTITY SURVEYOR (for initial cost estimate) Barry Philipson MAIN CONTRACTOR Denis O'Connor SUBCONTRACTORS AND SUPPLIERS Timber canopy, beams and columns Timber Engineering Connections; roofing system Erisco Bauder; specialist joinery Moor Park; specialist metalwork Storth Machinery; mechanical and electrical







site plan

Phil Rogerson

Note: two-layer turf roof system, drainage, irrigation

layers and waterproof membrane omitted for clarity

A turf-roofed canopy supported by tapered glulam beams and columns

The canopy consists of a 145 x 45mm tongued-and-grooved timber deck with a two-layer turf roof system supported by eight 450 x 135mm tapered glulam beams.

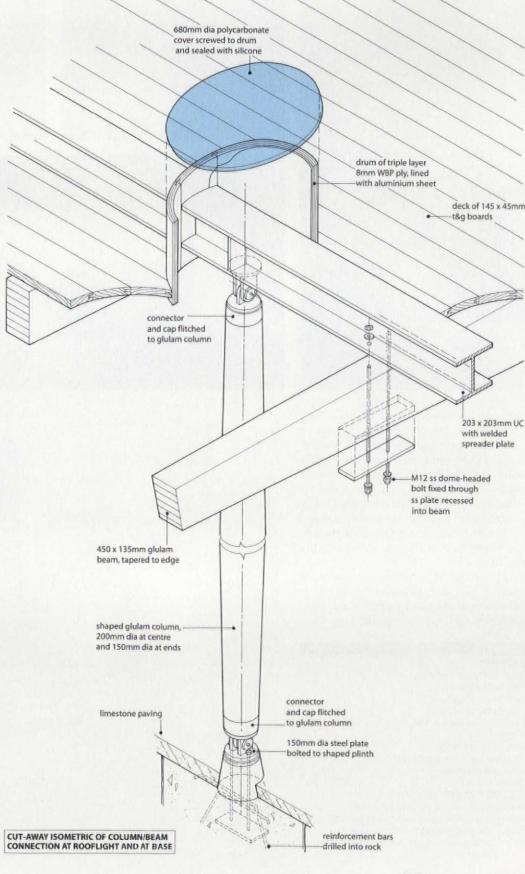
To minimise the number of columns required and to present a clean, uncluttered soffit, the glulam beams are suspended from 203 x 203mm UB beams which run above the deck. The beams are drilled through to receive pairs of M12 dome-headed bolts which run through them and are fixed to recessed 280 x 40mm stainless steel plates in the glulam soffits.

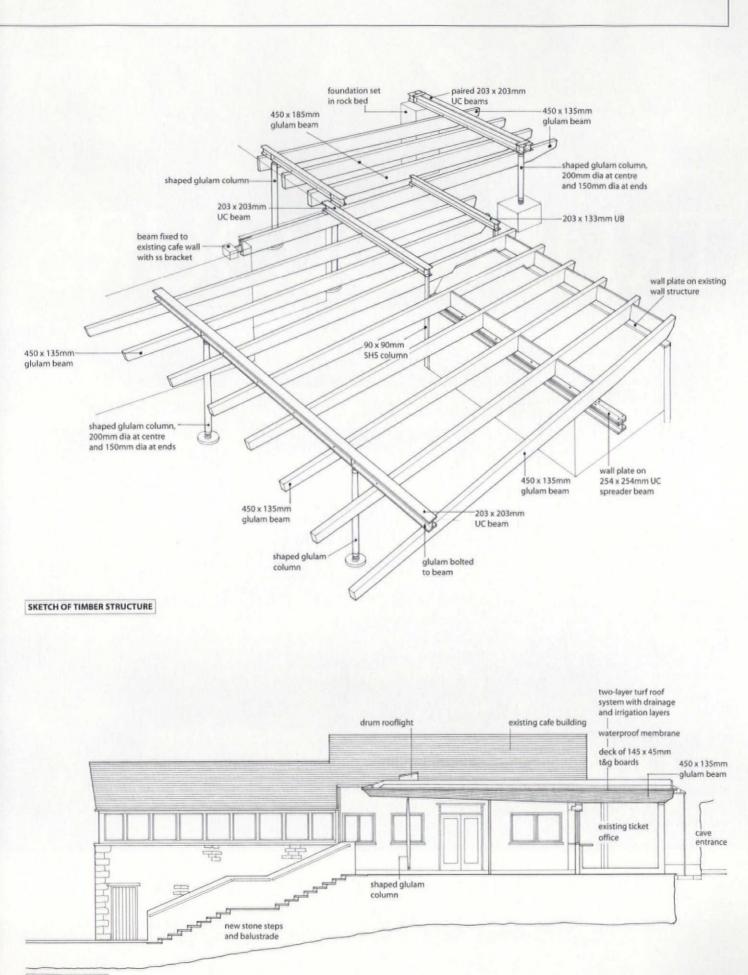
At the front of the canopy the steel beams are supported by two tapered glulam columns with pinned and forked connectors; a drum rooflight is set at their connection with the steel beam above, making the structural logic visible.

At the rear, five beams rest on a wall plate, and a 254 x 254mm UC spreader beam – to ensure lateral stability – is bolted to the top of the ticket office wall. The three adjacent beams are suspended from a 203 x 203mm UC which is supported at one side by a SHS column concealed in the ticket office wall (now clad with limestone), and at the other side by a tapered column hard against the cafe wall.

To accommodate the anticipated severe snow load on the canopy above the entrance passage to the caves, glulam beam sizes have been increased to 185 x 450mm and the UB beam supports are doubled. At one side the double beams rest on a small glulam column; on the other side they rest on a 450mm high concrete base secured to a rock ledge by a pair of 1.5m deep rock anchors.

Susan Dawson





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Delivery failures

A recent client survey found that, although architects are appreciated for their design skills, clients are also looking for a much broader relationship

BY PAUL GRISERI

In a survey of 55 (mainly public-sector) organisations, clients were asked about four areas of an architect's engagement: the services obtained from their architects; the selection of the architect; the strengths and weaknesses of architectural practices; and their general level of satisfaction with the architect's delivery. In order to get an overall picture, respondents – individuals with responsibility for commissioning or working on a day-to-day basis with architects – were asked not to identify architectural practices by name.

Those surveyed had commissioned architects for a variety of project types and sizes, many spending more than £1 million per annum on both new-build and refurbishment projects, while several had embarked on multimillion-pound schemes in the past five years.

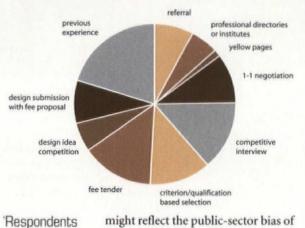
Not surprisingly the main services obtained from architects included design proposals, liaison with statutory bodies, production information, and design leadership. But while 82 per cent had their architect carry out contract administration, and 67 per cent appointed the architect to be the lead consultant, in only half of cases was the architect also the project manager, and in only a quarter was the architect expected to provide cost control. Strategic briefing, too, was only mentioned by a third of respondents.

Interestingly, 68 per cent had used alternative providers of architectural services in recent years, the main alternatives being M&E engineers and surveyors.

Selecting architects

As the charts show, previous experience is the single most important factor in the selection of an architect – even with the public sector, which operates under strong regulatory constraints on tendering for capital projects. It was surprising that advice from professional institutes was not used to a greater extent, though this





ts might reflect the public-sector bias of the sample.

apparently

look for sound

management

communication

skills as much

as design

excellence'

and

No fewer than 60 per cent of respondents had dismissed an architect in recent years. The most common causes were:

- poor cost control;
- not listening to clients;
- not following the brief;
 - 'too much design'; and
 - poor project management.

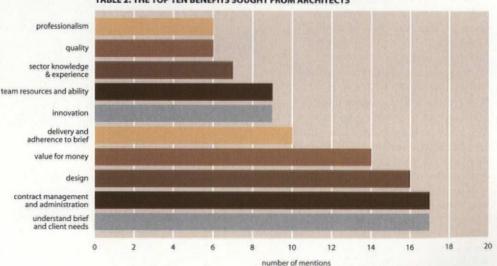
Even though only 25 per cent had earlier stated that they had expected an architect to control costs, many were happy to cite costs as a cause for concern. Clients tend to look for cost control as part of project management but they expect plans and designs to be cost-conscious. It is this that is problematic here and later on: designs are produced that are appealing on paper but commit the client to cost overruns in terms of construction and also of maintenance over the long term.

Respondents were asked to provide three key benefits they were looking for, and three areas of risk. Later they were asked for three leading benefits and problems that they actually encountered.

Table 2 shows that respondents apparently look for sound management and communication skills as much as design excellence. Table 3, however, shows that the benefits they felt they had actually obtained were more restricted - communication and responsiveness were emphasised, as were a strategic understanding of the clients' business, reliability and good design, but contract administration and project management aspects were absent - the process-management category had more to do with flexibility and adopting a problemsolving approach. The relatively wide range of expected benefits has not been realised.

Inadequate staffing stood along-

TABLE 2: THE TOP TEN BENEFITS SOUGHT FROM ARCHITECTS



side poor cost management, drifting off the brief, not listening to client requirements, and poor contract management as key sources of concern.

The level of satisfaction is reasonably good news for architects, but project completion and post-completion were less so. Critical elements such as project management, cost control and delivery on time are not rated highly. It also seems that clients like flexibility but they don't feel that architects are flexible enough. A similar result was obtained for partnering, suggesting that the profession still has some way to go in this area too.

In a quarter of cases, architects were seen not to be clear about client needs, and their designs did not meet client specifications. Similarly, clients want design teams with good communication skills, but more than a third of the time they do not get them.

Of course, communication, as they say, is a two-way process. Interviewees all recognised their potential contribution to the success or failure of communications, and their own responsibilities with regard to clarifying specifications, cost design and the delivery implications of late changes to plans.

Finishing off

Post-completion was the least satisfactory area, according to the respondents. Whilst there was an appreciation of the need for design quality, it was clear from interviews that there were lingering doubts about the suitability of the completed project.

Eighty-two per cent would have liked to have had a post-completion assessment or evaluation of the final project, while only 17 per cent said that they actually got it.

Some of the key results coming out of the above are:

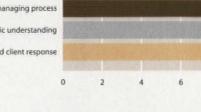
• clients will on occasion look to other sources to provide design services, thus potentially bypassing the architectural profession;

• clients appear to have higher expectations of the services of architects than they actually receive;

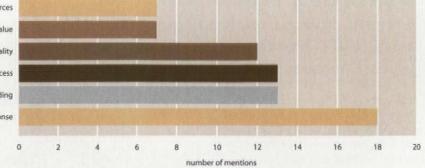
• project management, cost control and contract administration are not seen as strengths of architects, despite their obvious relevance to clients;

communication and response are





'Clients like flexibility but they don't feel that architects are flexible enough'



crucial, yet a third of the time clients are not satisfied with these aspects; and

TABLE 3: ACTUAL BENEFITS OBTAINED FROM ARCHITECTS

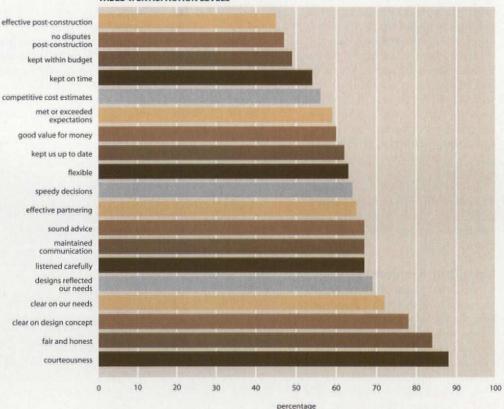
· clients want more attention paid to post-completion evaluation and support.

Underlying these results is a clash of two different conceptions of what architects bring to the construction process. Perhaps the clearest example of this is the issue of strategic briefing. Many within this profession may see that as the responsibility of the corporate client, but it is clear that these clients at least are looking for architects to play some role in this respect. Many clients will perceive the role of the architect as helping them to solve their service problems, not simply to produce a good design for a building.

It is clear from the questionnaire, and still more from interviews, that clients are looking for an extended, sustained relationship that helps them plan their business activities and reassures them about their ability to deliver services over a long-term perspective. The architectural firms that keep this in mind are on to a good thing. The ones who don't will find their business slipping away. Paul Griseri provides management

training and development for architects. For copies of the report, contact pgriseri.associates@virgin.net





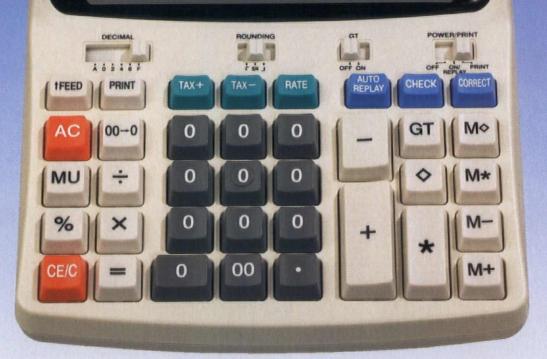
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Follow the reader

An eclectic round-up of books and guides for architects to read at leisure or snap up for use around the office

BY AUSTIN WILLIAMS

Freehand Sketching: An Introduction By Paul Laseau. Norton, 2004. £13.99. 112pp

This is a lovely little book that is probably as much of a holiday companion or a stocking filler as it is an office library staple. It doubles as a beginner's guide as well as a refining tool for more expert draughtspersons, showing hundreds of examples of genuine sketches. (I could do without the drawings of pens and notepads but if these are appreciated in the still-life manner in which they are intended, they are forgivable.)

There is something of an old-school introduction, which reminds us that 'freehand sketching provides an important tool for investigating and understanding existing and potential solutions to problems of our physical environment', and this book sets out to encourage us to become more considered in our appreciation of threedimensional space and form. It reiterates the truism that sketching trains us to see. 'Successful artistic creativity depends upon extensive visual exposure leading to acute visual perception and imagination.'

We are then given a 'masterclass' through basic techniques: outlining contours and negative spaces; building up layers of a drawing, hatching and tone; appreciating layout, composition and volume; and finally, rendering and detail.

This is a very handy guide that aims to increase the reader/user's 'personal satisfaction'. Well worth the money.







Working Without Walls: An Insight into the Transforming Government Workplace By Tim Allen, Adryan Bell, Richard

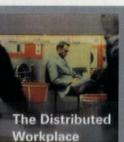
Graham, Bridget Hardy and Felicity Swaffer. HMSO, 2004. 80pp. Available from DEGW. Contact Tim Allen on 020 7239 7777

Government is becoming more transparent, we are told, and there is a shift away from 'drab and dreary

post-war tower blocks with their long dark corridors and rows of cellular offices.' Nowadays, 'the work environment is no longer viewed as a passive overhead but as a powerful and integral aspect of government business'. Government workplaces are trying to develop 'a more open, collaborative and customerfocused culture.'

Buildings need to respond to 'a more diverse, agile and demanding workforce'. We need to 'break down many of the established hierarchies and silos that inhibit flexibility across teams'. A 'step change' in 'quality outcomes' using 'interactive staff workshops' is required, where 'champions – conduits for local communication' can be nurtured. Remember to 'take a holistic approach' but don't 'start on a programme until you have a clear end vision'.

A very interesting case study book, marred by naff-speak.



Distributed Workplace: Sustainable Work Environments

By Andrew Harrison, Paul Wheeler and Carolyn Whitehead. Spon Press, 2004. £45. 180pp

Some of the usual suspects from the Working Without Walls book reappear as contributory researchers in this book, evidenced by the term 'funky office' in the glossary of terms.

To lay my cards on the table, I have to say that I have a fundamental disagreement with this book's premise. On page one it says that

'definitions of sustainability all agree on one key point: that however we use our world and its resources, we should preserve the ability of future generations to do the same'. But by this very definition, sustainability rules out using our world and its resources *however* we so wish, because we are constrained by the notion that future generations might not thank us for it.

No matter. For anyone wishing to get a useful grounding in the ideas of the future workplace – governed by what I might call the reactionary culture of sustainability – this is not a bad place to start.

Although there is little new here, it is eminently readable. A lot of information has been trawled from other sources, but it's fair to say that the information bears repeating. From a section on 'The Intelligent City' to an appendix on 'Corporate Social Responsibility', this is sustainability making its transition from eco-parody into the hi-tech world of the so-called knowledge economy.



Measured and Drawn: Techniques and Practice for the Metric Survey of Historic Buildings By David Andrews, Bill Blake, Tom Cromwell, Richard Lea and Sarah Lunnon. English Heritage, December 2003. 62pp. £15

The rather turgid contents page and external appearance of this somewhat short publication belie some novel graphics and information on the inside. It is packed with information aimed at a fairly narrow professional audience.

It identifies the methods, conventions and controls in preparing and carrying out a metric survey on heritage structures, but is a professional guide to people entering this marketplace rather than being of general interest – interesting though it is.

For instance, it notes that even though photographs are the most cost-effective way of mapping a building, for measurement purposes a single photograph is unreliable because of distortion. Therefore using stereo-photographs made by two metric cameras that are designed for little or no imaging deformation is the approved technique – a similar technique to three-dimensional photography.

This is a fascinating book to dip into, but the pleasure is somewhat perverse.

A-frame

By Chad Randl. Princeton Architectural Press, 2004. £15.99. 207pp

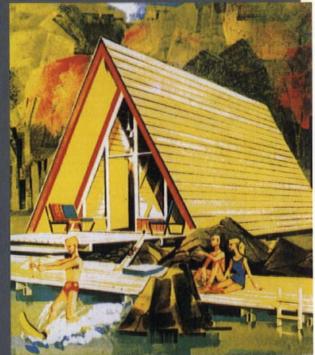
With the retro styling of a 1950s *Janet and John* book, this looks and feels like a personal nostalgia-fest for the author. This design style detracts slightly from the substance of the text, which is not a bad historical sweep across the history of this particular building form, from Japan to North America; from English cruck-frame to Eeyore's house at Pooh Corner.

The A-frame's appeal, Randl says, lay in the 'speed and ease with which it could be constructed'. Generally, it has always been seen as a cheap option of necessity (see the A-frame structures of native American Indians). The post-war deal allowed a certain level of leisure pursuit (see The Squatter by Conrad Meinecke in 1945), and as America, in particular, became even more affluent, so more disposable income was spent on or for vacations (see The Ranger, Douglas Fir Plywood Association of 1962).

Following chapters go into considerably more detail. Although the book retains the 'appeal' of a '50s-style catalogue, it sobers up about one-third in, and the use of

advertising images like the Cooperative Farm Building A-frame cabin, or Swift Homes ('you can save even more by using Swift's 11-Point Service Program to finish the house yourself') provides fascinating insights into the way things were.

I disagree with Randl's take that 'from the 1950s to the 1970s, the A-frame and other second homes represented an escape from the everyday life of careers and conformity' since, in general, postwar America was not necessarily 'escaping' anything – the disposable income and sense of freedom that arose from the end of the war meant that vacationing became



part of the American Dream, not an escape from it. With this minor quibble aside (and the fact that the author doesn't really admit that shallow A-frames have a fair bit of unutilisable space in the pointy bits), this book is an interesting dip into a cultural-historical phenomenon.

Guide to the Structural Eurocodes for Students of Structural Design BSI, July 2004, £60

A new guide is launched by British Standards (BSI) to introduce all students of civil engineering, structural engineering and structural design to the principles of the 10 Eurocodes that will start to replace most European national codes from 2007. The new codes are being implemented across the European Union, to replace the existing structural design codes eventually.

The codes are mandatory for European public works and are set to become the benchmark standard for the private sector, throughout Europe and the world. They provide common design principles and rules for everyday use for the design of structures and component products, and a common series of methods for calculating the structural strength of elements used in construction.

Information includes the basis of structural design, separate sections on the design of wood, aluminium, concrete, steel and composite structures, geotechnical design and design for earthquake resistance. For more information contact 020 8996 9001 or sales@bsi-global.com

The Architect's Contract: Guide to RIBA Forms of Appointment

This 2004 revised second edition has been published by RIBA Enterprises and, at £20, is essential for architects' offices. The revisions relate primarily to the 2004 version of the Standard Form of Agreement for the Appointment of an Architect, which is confusingly still referred to as SFA/99.

Construction industry stresses

Cardiff School of Architecture has investigated the possibilities for speedy housing construction... by building a table

BY AUSTIN WILLIAMS







The word glulam, for glued laminated timber, has entered the architects' lexicon. Unlike, say, PFB for parallel flange beam, it is understood instinctively by its abbreviation only. First used in Basel in 1893, glulam technology was advanced in the interwar period with the development of waterproof synthetic resin glues in the American aircraft industry. During the past 50 years or so, glulam has become a mainstream material for architects wishing to marry structural support with the elegance of timber.

However, new research at the Welsh School of Architecture into low-tech timber laminates could see the cost of such laminates come down by simplifying production for limited applications. The researchers suggest using local labour in areas where glue laminating is not readily available. The 'stress-lam' system is a dry timber construction process that uses small sections and lengths of locally grown timber, such as Douglas fir, Sitka spruce and larch, in prefabricated panels to construct building components, such as walls, floors and roofs replicated as a 'table'. The simThe simple lamellae table, consisting of panels formed from interlocking fingers, tests the ability to prefabricate the 'stress-lam' system for the construction of walls, floors and roofs plicity comes from creating structural stability by generating friction between small lengths of timber, using bolts, cables or even rope.

The test table is made of 50 x 100mm sections of sycamore lamellae in panels 2.4m and 1.5m long to create interlocking fingers. Bolts pierce adjacent panels through the full width of the table, using M12 stainless steel studs, bearing plates and 19mm nuts at 600mm centres. The table top was constructed in five unglued pieces to test the ability to prefabricate the system in situ. Lengths can be carried into position, slotted together and held in place.

Each lamella on the table top has been tongued and grooved to help resist some of the torsional movement, but predominantly this just helps register the lamellae with one other so as to provide a relatively smooth surface. The rotational movement around the connections has been counteracted primarilyby the stress and friction generated between the lamellae, therefore effectively making the table top act as one large slab of timber 100mm deep.

CREDITS DESIGN RESEARCH UNIT, WELSH SCHOOL OF ARCHITECTURE Steve Coombs and Dr Wayne Forster Contact: CoombsS@cf.ac.uk NICHOLSON JONES PARTNERSHIP Richard Dean CARPENTER Dainis Dauksta

SPECIFICATION

TABLE SIZE 4,300 x 1,000 x 720mm LAMELLAE Six different lamella sizes of 50 x 100mm sycamore WEIGHT 660kg BOLTS M12 A4 stainless steel studding (throughbolt), 80 x 80 x 10mm recessed stainless steel bearing plates, M12 19mm stainless steel nuts and washers and M12 19mm stainless steel domed blind nuts on the outside edge of the table PROTECTION

OSMO Polyx-oil

RIBA

Royal Institute of British Architects

Stirling Prize Dinner

In association with a) the architects' journal

SIV SCHUCO FORMICA PENDOCK

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Civil litigation, no footnotes and the outcome is anyone's guess

'Who can blame

companies for

having a go today,

is up for grabs?'

now that everything

Blessed (or cursed) with the ability to see the funny side of most things, I have recently had cause to chuckle over, of all things, the Civil Procedure Rules (CPR).

You may remember that the CPR was introduced as a result of Lord Woolf's initiative to simplify civil procedure; to do away with the historical build-up of judicial pronouncement on the existing rules; and generally put the two volumes of the *White Book*, in which all this was recorded, in the bin.

Instead, civil litigation was to be subject to the overriding objective that required the courts to ensure that the parties were 'on an equal footing' and to deal with cases in ways that were 'proportionate' with regard to the amount of money at stake, the importance of the case, the

complexity of the issues and the financial position of the parties.

All this was, of course, very fine and dandy but what did it mean in terms of the practical, dayto-day nuts and bolts of litigation? In the old days one would turn to the *White Book* and quiz the footnotes to find out how any particular provision applied to any

particular case. When the CPR was introduced in 1999 there were no footnotes and it was anybody's guess.

It says something for the Pandorian nature of some of the concepts underlying the CPR that, in the five years since their inception, the few brief paragraphs of the overriding objective, for example, have now spawned no fewer than 16 pages of closely printed footnotes, recording innumerable parties' attempts to find out what it all means in the context of their particular case.

And this is where the scope for humour comes in because, while some of their attempts would have been considered audacious or risible under the old regime, who can blame them for having a go today, now that every thing is up for grabs, as it were?

The case of *Maltez v Lewis* (1999), for example, was a copyright dispute in which the claimant had instructed a junior barrister with only seven years' experience, and priced accordingly. The defendant, for its part, instructed an experienced and expensive QC. Hitherto parties were free to instruct whomsoever they wished, irrespective of the cost consequences.

Post-CPR, however, the claimant felt able to object to leading counsel's involvement on the grounds that it was contrary to the overriding objective and the intention that the parties should be on an equal footing.

The thrust of its objection could be seen to be: 'I object to the opposition because it is better than mine,' and the trial judge was obliged to explore all the intricacies of legal representation before deciding that the CPR provided no basis upon which the court could prevent a party from instructing the legal representative of their choice.

More recently, the case of Mattel Inc v RSW

(5.7.04) records a simicheeky attempt larly by a defendant to deny successful claimant their costs. Mattel manufactured, among other things, doll's houses bearing its registered trademark. It discovered that counterfeit versions of these toys were being sold and instructed its usual London solicitors to investigate. It issued pro-

ceedings and obtained a search order against RSW, which was distributing the counterfeits from Manchester.

As so often happens in such cases, the parties reached a compromise and RSW agreed to pay Mattel's costs. It objected to footing the whole bill, however, on the basis that it was 'disproportionate' and reflected the rates charged by Mattel's expensive London solicitors. The judge agreed that the case was 'a Manchester case' and that Manchester, rather than London, rates should apply.

Happily for Mattel, the Court of Appeal held that the judge had been wrong in his approach and had not taken into account that it was entitled to use the solicitors who usually acted for it on infringement matters, who were familiar with its products and able to act speedily, as was necessary in such cases.

This, of course, reflects the established position, but you have to admire RSW for having a go.

Kim Franklin

A square deal followed by a little phish

It is not all that often that you come across an architectural website that makes you feel cheerful and confident. But such is the site of architects Clare Gerrard and Mark Hewitt, who trade under the tricksy banner of d-squared - tricksy because the all-lower-case practice name (the 'd' at the end is red and attached to a small superscript '2' sitting on top of a diamond on the company logo) is at www.d2-design. co.uk, where the confusingly nonsuperscript '2' and hyphen render the address reasonably forgettable. I know the logo looks really cool, and I also know that using all lower case means you don't have to worry about the graphics problems of dealing with capitals. But hey, solving that kind of problem is why they invented graphic design.

The basic page layout is sparse, simple and easily grasped, with a strip of five changing, square thumbnail images across the top, the contents down the left and the text in a neat block in the middle of the page. The transition from one thumbnail to another is curiously wobbly and it is only when you view the projects with their large-scale images that you realise it uses an image loadingup technique that involves starting with a heavily pixelated image, the size of whose pixels rapidly diminishes until they reach a readable resolution – hence the shimmering effect.

The text is in clear English, rather than Archispeak, and from the beginning you know it does sustainable and urban architecture, product design, video and installation art, and – here is the convincing bit – 'the practice creates work with social integrity, refreshing clarity, sensuality and playfulness'. I think it meant 'sensuousness', but who knows. Whatever, can you imagine Norm, Richard or Nick ever suggesting that they can do playful architecture?

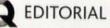
More next week about phishers mark two, but for now there are two rules: never ever give your bank your details over the Internet – it isn't your bank; and if a financial scheme looks too good to be true, it is.

Q3: SEP 04



CONCRETE QUARTERLY:209

The Concrete Centre



ROUND-UP



The recent advertising campaign from the steel industry comparing costs between steel and concrete solutions is

misleading and needs to be examined very closely. Firstly, the figures quoted are out of date and do not reflect the recent price increases in steel. They are, in fact, based on data from the fourth quarter of 2003. Although Corus admits this, this detail is tucked away in the small print, far behind the attention-seeking headlines. During 2004, Corus has announced significant steel price increases and everyone suspects there are more to come.

The rise in the cost of steel has also increased the cost of steel reinforcement – that is not in dispute. What is in contention is the attention-grabbing headlines taking precedence over proper cost assessment at current prices if professionals are truly to be given assistance with cost comparisons. To this end, The Concrete Centre has commissioned the same professional practices used by the steel sector to work on an up-to-date study and to report the results objectively.

Secondly, the steel industry has used its own experts to work on the steel designs and then compared them with alternative concrete designs, produced by consultants to a different level of refinement. This is an uneven playing field. The Concrete Centre's study will be based on the same level of unbiased design criteria and refinement for both steel and concrete.

Thirdly, the whole thrust of the steel industry's advertising campaign is limited to first cost. Although this is important, it is not the full story as concrete offers many extra benefits at no extra cost: inherent fire-resistance, in-built robustness, high thermal mass and less sensitivity to vibration.

If the professional team is to be given real assistance in choosing the best value solution to suit each particular project, it must have access to meaningful cost data and assessment. It is these, rather than cheap headlines, that the concrete industry hopes to provide.

Ian Cox, chief executive, The Concrete Centre



Get away to Stilts-on-Sea

Holiday homes by architect Richard Reid & Associates are being built on the water's edge – and a few over the water – on a privately owned nature reserve near Somerford Keynes, Gloucestershire. Foundations in the water or soft surrounding ground use piles of precast concrete or steel cased in concrete to support the Roger Bullivant precast foundation system, which uses inverted T-beams and Thermoslab floors. A temporary piling platform ensures the sensitive lake is not contaminated by construction materials.

Let there be light LiTraCon (light-transmitting concrete) is the idea of Hungarian architect Áron Losonczi. The trick is done with embedded parallel fibres of glass or plastic.

While the picture shows concrete blocks, the current maximum panel size is 3 x 1m, with the expectation of creating storey-height panels by the end of the year, when products should be available on a custom manufacture, rather than mass-production, basis. Other design options include using LiTraCon for under-lit paving, although the material is not yet licensed for general load-bearing use.

The company is also developing an interior design division, starting with lamps; desks may follow. Keep track at www.litracon.com



Cover image shows a sketch by Santiago Calatrava of the Turning Torso building in Malmö, Sweden, as featured in the building study on pp 4-7

Student competition looks to the future

Future uses of concrete are suggested by an international student concrete innovation competition, with joint winners both from London's Royal College of Art. II Hoon Roh's winner (*below*) is an extensible, skeletal spaceframe, to be cast from inflatable moulds. Linking elements both allow load transfer between frames and maintain service routes.

The other winner, 'Open Source' from Christopher Glaister, Tomas Rosen and Afshin Mehin, is a computer-enabled concrete surface for a public square in which the public can control colour changes in the concrete that demark use zones such as sports pitches, market stall layouts or performance spaces.

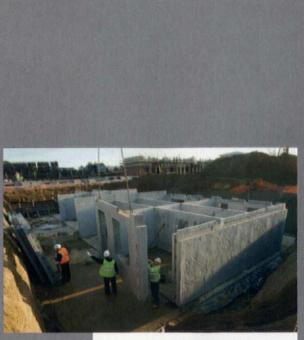
The competition, run by The Concrete Centre, the British Cement Association and European cement and concrete organisation Cembureau, will be biennial, with the next round launched in June 2005.





History of the here and now

Out this autumn will be *Concrete Architecture*, a book by historian Catherine Croft showing recent buildings internationally that demonstrate inventive, refined or beautiful uses of concrete, or all of these together. The proof copy, from Laurence King Publishing, begins with a brief history of the use of concrete for building and its acceptability, or otherwise, at different points in time – often familiar territory for architects. Most of the book is a series of four- to six-page case studies of buildings from the past 10 years (the majority from the past five) collected into sections called 'Home', 'Work', 'Play' and 'Landscape', and many of the buildings will be less familiar to readers. Illustrated is UN Studio's Mobius House of 1998 in the Netherlands (*above*), Intelligently laid out, enjoyable and informative, the images are strong and for most buildings there are drawings too. One to look out for.

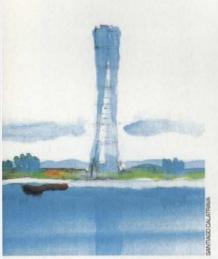


Brownfield basements

The house basement, so common on the continent, is rarely newly built in the UK. Increasingly, though, excavation is needed on brownfield sites and this can greatly improve the economic case for building basements, particularly as part of the densification that often goes with urban building.

Another drawback for housing developers has been the difficulty of getting watertight guarantees of watertightness. That too is being addressed, particularly by companies providing a complete basement/ substructure service of design, construction and guarantee.

A sign of these shifts is the recent completion of what is said to be the largest new housing basement project in the UK, from basement service provider ThermoneX, using a system of lightweight precast concrete elements. As well as providing the substructure, they can incorporate patios and light wells. This particular project provides a base for 35 dwellings at Cambridge for Martin Grant Homes, including garages and cycle stores. BUILDING STUDY



Turning Torso twists new life into cubism

A recent Santiago Calatrava sculpture inspired the 190m-high Turning Torso, a residential and office tower based on nine offset concrete cubes, which offers stunning views across Malmö harbour in Sweden By Helen Elias. Photographs by HSB Malmö

When it opens next summer, a unique twisted tower, which already dominates the western harbour of Malmö, is going to be the tallest building in Sweden and one of the tallest residential buildings in Europe. This Swedish city has never seen anything like it. When completed, the 190m freestanding structure will dominate the skyline in a forceful architectural statement that is challenging to construct and equally challenging on the eye. Local opinion was mixed, with reception for the startling, soaring form slightly uneasy at first, but rapidly changing as the building progressed to one of astonished delight. Apartments are now rapidly preletting in this new residential and office development named Turning Torso, designed by Santiago Calatrava.

Calatrava is internationally recognised for his designs of astonishing, exciting landmark buildings that take inspiration both from the natural form and the movements of humans and animals. Turning Torso continues the Calatrava oeuvre, taking a translation and exploration of flowing natural, moving form and presenting the interpretation in a solid, highly engineered, massive structure.

The 54-storey Turning Torso (including the intermediate floors between cubes) is based on a sculpture that explored the human body in motion - a man's torso twisted as far as it can naturally be pushed while staying directly upright. Think of the position you would take up to launch a frisbee while standing straight - aiming your missile horizontally, arms at shoulder height and swung round to ensure projectile delivery with as much power as possible - and you will be about there in terms of adopting Calatrava's sculptural form. Sculpture and the dynamics of architecture are combined with the power of engineering to build Turning Torso, a startling white-clad construction that twists through 90° as it rises from ground level to the top floor, 190m above sea level.

Do the twist

Johnny Örbäck, at the time managing director of Swedish residential cooperative HSB Malmö, first saw Calatrava's sculpture as an image, submitted with the architect's entry for the Öresund Bridge competition in June 1999. The sculpture, at this time called Twisting Torso, was formed from cubes twisting through 90° from top to bottom, echoing the form of a body. Örbäck met with Calatrava in Zurich to convince him to design a building based on this concept. The result, Turning

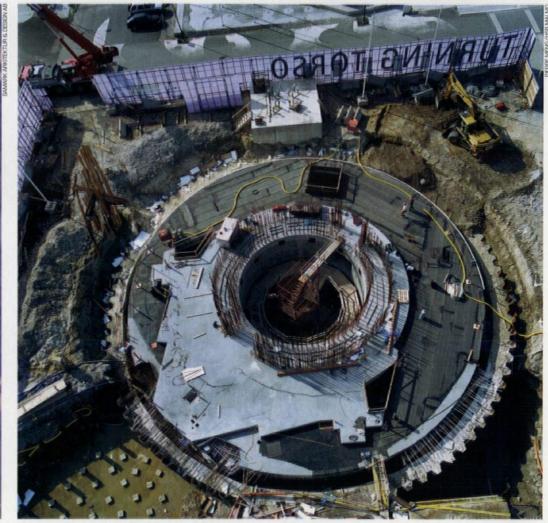
Torso, is a high-rise structure of nine cubes twisting towards the water and the surrounding area.

Each individual cube contains five storeys. Some 152 luxury residential apartments will be spread over 15,000m², located in cubes three through to nine, with the lower two cubes given over to 4,200m² of commercial office space. Other facilities include guest rooms that can be booked by tower residents, two saunas, a large jacuzzi and a gym on the 43rd floor, and small function rooms available for resident use on the 43rd and 49th floors. A larger function room will be available on the seventh floor. Tower residents are also going to be able to make use of a climate-controlled wine cellar and a concierge service that will liken living in the apartments to living in a high-quality hotel.

The twisting structure has been coming out of the ground at a rapid rate since foundations were first cast in March 2002. The tower rests on piles driven deep into a solid foundation of limestone bedrock found at 15m below ground level – essential in order to avoid unacceptable bending or swaying at the exposed coastal location. Extensive wind tunnel tests were carried out by the University of Western Ontario in Toronto to determine the stability of the







building and its ability to resist bending and excessive swaying, and to evaluate wind stresses on the facade in order to optimise construction. The results led to the design of the tower incorporating reinforced tensioned 'masts' with an internal diameter of 6m. The wall thickness of the central core, formed from in situ concrete, is 2.5m at the base, tapering to a delicate 0.4m at the highest level.

Each floor will consist of an almost square area round the central core, with a triangular section reinforced by an external steel support as the building twists its way through 90° from bottom to top. The floor slabs remain the same size at each level, with each slab taking 330m³ of concrete; over 20,000m³ of concrete will be needed to create the entire building's central core and sequence of floor plates. Each floor plate is further supported from below by steel columns. The concrete core is heavily laced with over 4,000 tonnes of steel reinforcement, calculated to withstand forces of around 180-200kg/m³, with pressures on the core rising in key points up to 300kg/m³.

The facade's complex appearance was similarly the subject of thorough studies to find recurrence patterns. All 1,800 windows in the tower are flat and rhomboid, designed to follow the natural curved shape of the building as it twists its way towards the sky. Six different families of windows are used, depending upon where they are situated. The most visual difference can be seen by comparing windows in the 'square' section of a cube with those used in the 'triangular' section.

In the frame

Swedish firm NCC Construction AB won the build contract, proposing a construction method using Peri formwork and scaffolding systems. Engineers designed a unique cost-effective framework concept for the tower that can handle floor-to-ceiling heights of up to 4m, which means that all floor heights – which range from 3.18m in standard areas to up to 3.89m in some places – can be completed without the need for time-consuming formwork adjustments.

An automatic climbing system (ACS) scaffolding installation has allowed concreting of the core ring wall at any one level to proceed at the same time as the tightening of the internal elevator walls on the floor below. The ACS itself weighs over 110 tonnes and needs to be anchored at 12 fixing points. Circular formwork for the core is moved hydraulically from floor to floor, with concrete pumped up and poured through a placing boom that has been installed using its own selfclimbing scaffold system. The two self-climbing scaffolds, which are



Right: pouring the concrete core. Above: inside the core mould. Below: a sense of the scale of construction. Near left: constructing the ground floor. Far left: model of the nine twisting concrete boxes and braced triangular fin





interlocked so that they climbed together as the building rose out of the ground, are controlled by a special monitoring unit that prevents them from colliding.

Formwork elements are suspended from the ACS on a distribution frame, via a crane crab, with slabs and walls at each level being cast in two pours of concrete. Adapting to the changing wall thickness is carried out through filler elements on the external formwork. Each pour follows a schedule of predetermined concrete cycles, with the construction crew taking nine days to complete the pour of a standard floor. One concrete cycle sees the casting of one slab, one core wall, one corridor slab and the walls for elevators and stairs. Site manager Jörgen Holm calculates that current rates of construction are averaging 61 days per cube, meaning that construction of the core and floor plates will reach the top level on schedule by the end of September, weather conditions permitting.

All the concrete is mixed 30 km from Turning Torso, arriving on site ready to be pumped immediately into place. The special large-aggregate mix, which includes a high volume of chunky locally ground rounded stone, is critical to the success of the fasttrack core build, being carefully adjusted as the building rises to ensure it is fluid enough to be pumped at ever higher pressures. Curing is fast, with formwork removed for reuse on the next level after between one and two days, depending on weather influences.

Cladding in an aluminium and glass system follows fast behind the rising structure. Cube five was due to be totally clad by the end of July, with fit-out already beginning on the lower, weather-proofed levels.

The building will include five lifts – one an emergency fire lift. One of the lifts has been designed to have a sectional construction that has followed the tower skyward so that it can be used to transport the building teams. Three high-speed lifts installed in the core of the building will service the apartments. The commercial office spaces will have their own two lifts, as well as a separate entrance. Fire safety extends to a sprinkler system installed in every room, with a double water supply and an emergency electricity supply.

Possibly the first residential high-rise tower meant to be seen as a free-standing sculptural element within the cityscape, Turning Torso has already attracted considerable interest for both its challenging form and equally complex construction processes. What the buildingcum-enormous-piece-of-art will be like to live in remains to be seen – the first residents move in during summer next year.



Solihull hybrid sheds light on office design

Foggo Associates' new custom office develops the environmental agenda established with the Gateway Two design at Basingstoke, and displays an innovative use of hybrid concrete framing

By Susan Dawson. Photographs by Peter MacKinven/VIEW

The low-energy office building is a type with which Foggo Associates has long been associated. Peter Foggo, while at Arup Associates, was responsible for the design of Gateway Two, Basingstoke (AJ 14.11.84), one of the first office buildings in the UK where a central top-lit atrium was used to provide daylight and ventilation to surrounding office spaces. Many of the concepts established at Gateway Two were developed further in two office buildings at Leeds City Office Park (AJ 12.10.95), with British Gas Properties as client. As part of a sophisticated ventilation strategy, these buildings used the fabric energy storage potential of an exposed concrete structure. Recently the same client, now known as SecondSite Property Holdings, asked the same team to design a new speculative office building in Solihull, Warwickshire, now occupied by National Grid Transco.

The new building develops these principles as an elegant, glazed pavilion standing on a landscaped corner site, flanked by fine mature trees and close to Solihull town centre. Using the natural slope of the site, the three storeys of office space 'float' above the ground plane, concealing a semi-basement car park.

The open-plan office space is arranged on three 60 x 37.5m



Precast elements provide fabric thermal storage. The multi-service blades include lighting and chilled beams

floors. The main entrance leads to a $15 \times 7.5 m$ glass-walled atrium at the heart of the building – the circulation and social hub of the office – where team meetings or informal discussions can take place. Like the earlier prototypes, the atrium acts as a ventilation chimney and its glazed roof brings daylight into office spaces. Access to upper floors is by means of two lifts, which rise on the glazed north wall of the atrium. Services – fire-escape stairs, WCs and service risers – are contained in two cores at the north and south ends of each floor, giving users the choice of keeping the space as a single unit or subdividing it. The precast columns are at 7.5m centres so that the office space to each side of the atrium has a row of central columns and a row of perimeter columns set 500mm back from the glazing.

Concrete was the natural choice of material. It fulfills the design criteria for a visible expression of the structure; behind the delicate glazed facades, the pre-



cast column and beam structure is clearly visible and needed no further treatment, such as cladding for fire protection. In addition, by exposing the painted soffits of the concrete floor slabs in the offices, the temperature and ventilation strategy can exploit the potential of the concrete mass for fabric energy storage.

Integration of services into the ceiling was achieved using a multi-service panel between the downstand beams of the slabs. Each ceiling trough contains a delicate purpose-designed metal gull-wing panel housing lighting, chilled-beam cooling elements and all other high-level services.

The three-storey building has a hybrid (in situ and precast) concrete structure (see p12-13 for an update on this technology): a frame of in situ concrete primary beams stitched to precast columns and to specially designed double T-section floor slabs, with end plates to each trough. The insitu concrete stitch provides full structural continuity between the vertical and horizontal structural elements, thus providing a stiff sway-framework. The combination of elements allows the whole frame to act as a composite structure without relying on expensive mechanical fixings. This method of construction produces a rigid frame that's stable without the need for shear walls or bracing.



Column line 500mm back from the facade but legible from outside

Foundations, basement and the ground-floor slab were all constructed of cast in situ concrete; this allowed site work to start immediately while allowing time for the making of moulds and casting of precast concrete units off-site.

Columns were precast in steel moulds, with special indents formed from hardwood timber elements. Each mould was filled in the upright position, allowing the column reinforcement at the top to be placed with great accuracy. It projected above the slab into ducts in the column above, which were then fully grouted.

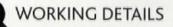
Design of the double T-section floor slabs was particularly challenging. The standard unit had to be cast with up to 14 holes for chilled-beam services and cable routes. Great attention was directed to coordinating these service penetrations so that a standard array of service openings could be cast into the units. To achieve the delicate details required – all precast arrises have 10mm chamfers – these units were cast in timber moulds.

Each mould was mounted on specially made vibration pads, which allowed the mix to be vibrated externally, so ensuring a consistent quality throughout the casting programme. To avoid damage during de-moulding, each unit was individually jacked at the ends and the suction seal was carefully broken before the unit was lifted from the mould.

With this new building in Solihull, Foggo Associates has refined its tradition of elegant and low-energy office buildings and demonstrated the value of hybrid concrete construction.

CREDITS

ARCHITECT, ENGINEER AND COST CONSULTANT Foggo Associates CONSTRUCTION MANAGER Bovis Lend Lease PRECASTER SCC (Structural Concrete Contractors)



A hybrid concrete structure

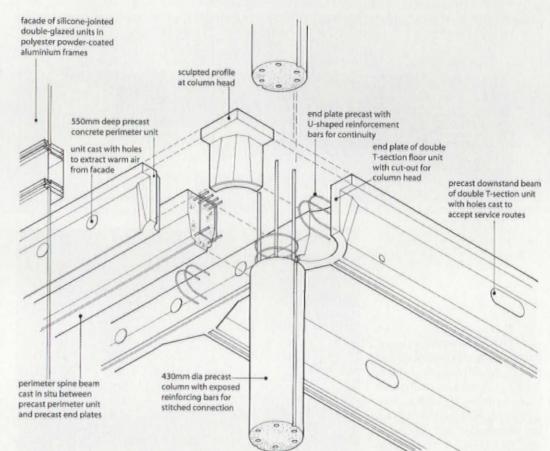
The hybrid concrete structure consists of 430mm diameter precast columns and precast floor units stitched to in situ concrete spine beams. Each floor unit takes the form of an inverted double T-section with end plates to each trough. At each column connection the end plates are cast with a curved 'cut-out' to follow part of the column profile.

Once the precast columns were fixed on site, the double T-section floor units were connected to them, positioned so that the curved edge profiles trimmed the outer edge of the columns. The spine beam was then cast between two rows of end plates, stitching lower and upper columns and adjacent units together. Between the longitudinal joints, loop connectors were cast into the units and a continuous in situ stitch joined the units together. The floor units are self-finished and no screed or topping was required.

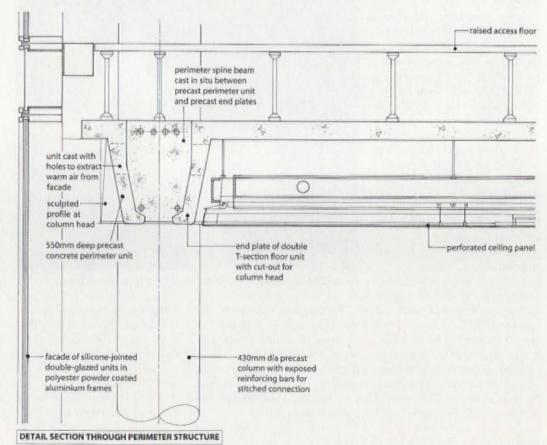
At the perimeter the same principle was used with a slightly different detail. The spine edge beam was cast between the final row of end plates (which ran up to the inner side of each perimeter column) on one side and a special precast perimeter unit on the other side, which creates a tapered edge to the ceiling soffit. The perimeter unit has a row of precast holes which allow warm buoyant air rising up the facade to be effectively captured and cooled by the passive chilled-beam elements above the ceiling panels. Similar precast holes connect each trough and provide return air paths to the central atrium.

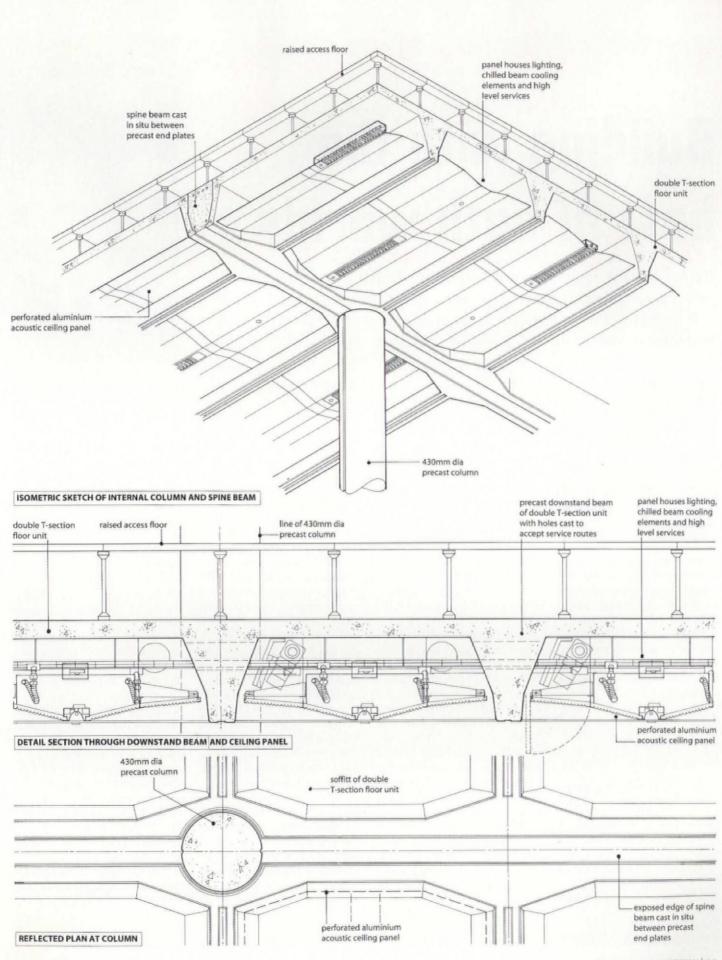
The perimeter units were cast with a sculpted feature where they meet the column heads. They were also used at the atrium and core perimeters, cast in the same moulds with minor adaptations.

Susan Dawson



EXPLODED ISOMETRIC SKETCH OF COLUMN AND BEAMS AT PERIMETER







Building with the best of both worlds

The benefits of combining precast and in situ construction are widely appreciated but take-up has been slow, partly due to the lack of comprehensive guidance. A major new report fills that gap **By Charles Goodchild**



Above: Hopkins' Inland Revenue building in Nottingham used precast beams and other elements for fabric thermal storage and to improve buildability. Top right: for Chapman Taylor's Whitefriars retail development at Canterbury, falsework for in situ beams remains while hollow-core precast units are placed

hold a hybrid construction seminar on 29 September at 5.30pm at the Society of Chemical Industry, 14-15 Belgrave Square, London. Attendance is free. For further details and registration tel 01276 606809; email seminars@concretecentre.com Hybrid concrete construction (HCC) can be described as a 'dream ticket'. It marries the advantages of both precast and in situ concrete construction, often with significant benefits. For example, the adoption of a hybrid concrete frame instead of a composite steel frame on a shell-and-core office project in central London resulted in construction savings of 29 per cent and a 33 per cent increase in net lettable floor area.

Despite its evident benefits and successful widespread use abroad, the lack of design guidance and the break with tradition that sees the early involvement of the specialist contractor has meant that UK design teams have been cautious in examining the potential of HCC. The availability of Best Practice Guidance for Hybrid Concrete Construction¹ is set to change this. The new publication provides both the necessary practical information and insight into the contractual innovation required.

The time is right for hybrid construction. Reports such as Accelerating Change and the Egan report, Rethinking Construction, have focused attention on the need for the UK construction industry to move on from its inherent conservatism to modernise and increase efficiency.

Why hybrid concrete construction?

• Cost savings - cost is often the most influential factor in the choice of frame. Although the structure represents only 8-20 per cent of a building's construction cost, its choice can have dramatic effects on the cost of other elements. It also affects the net-to-gross floor area ratios and can even determine if air conditioning is necessary or not.

In situ concrete construction is commonly viewed as the most economic framing option while precast promotes speed and high quality. Combining the two as a hybrid frame results in even greater construction speed, quality and overall economy. Traditional formwork typically accounts for up to 40 per cent of an in-situ frame's costs. These costs can be reduced significantly by increasing the use of precast concrete, which itself has no onsite formwork requirement.

Hybrids can also help reduce energy requirements by providing fabric energy storage, using the thermal mass of concrete to good effect in naturally ventilated, low-energy buildings.

For whole-life costs the maxim 1:5:200 (design:construction:whole-life costs) is increasingly recognised. This changes the emphasis from first



cost to whole-life cost, where hybrids can excel.

• Faster construction - hybrids increase the use of prefabrication. Precasting is not constrained by site progress or site conditions and can continue either independently or in parallel with on-site operations. Some HCC techniques can remove the need for follow-on trades such as ceiling fixing and finishes. These allow for an even faster programme.

HCC encourages speed of construction by promoting increased buildability, which should be a fundamental design objective. To achieve this may take more design effort and require contractual flexibility, but it results in faster construction.

• Safer construction - hybrid concrete reduces the potential for accidents by providing successive working platforms on a generally less cluttered site. Safety aspects of leading edge work are similar to, and should be guided by, recommendations for precast flooring. Precast spandrel beams can provide immediate edge protection.

The strong emphasis on total team involvement and the focus on buildability mean that safety is integral to all stages of design and construction, and from all contributors to that process.





Above: at Paternoster Square precast vaulted ceiling units on in situ beams and columns demonstrate speed of construction and achieve restricted construction depth

differences. Inherent benefits, such as occupier comfort and increased efficiency, lead to potentially massive cost benefits in comparison with other structural approaches. Considering whole-life costs or overall business costs presents a compelling argument for using HCC.

The viability of the method will increasingly be driven by the need to manufacture off site. The on-site construction phase of HCC is fast and efficient – the reward for the effort in working up highly coordinated designs.

The use of HCC is forecast to grow – particularly because best practice for the method is based on principles that align closely with those of *Rethinking Construction* and its derivatives, and because, in terms of the bottom line, HCC can achieve cost savings of about 30 per cent compared with composite steel construction, and some very satisfied clients.

Charles Goodchild is from The Concrete Centre's structures department

Further reading

1. Best Practice Guidance for Hybrid Concrete Construction is available for £35 plus P&P from The Concrete Bookshop, Telephone 01276 608778 or visit www.concretebookshop.com

• A concrete advantage – concrete produces robust, adaptable buildings that are inherently fire-resistant, vibration-free and quiet, resulting in eminently lettable buildings and structures.

Exposure of the hybrid concrete frame can be used to exploit concrete's inherent thermal properties in naturally ventilated, low-energy buildings. The finish and shape of the exposed units can also assist with the even distribution of light and reduction of noise.

Long spans can be achieved easily using large units or by pre-stressing or post-tensioning. Modern, very high-strength concrete can effectively 'weld' precast units together by making a six-bar-diameter length lap equivalent to a full tension lap.

HCC has much to offer. For its full potential of economy, safety, speed, buildability and performance to be realised, it should be considered at the beginning of the design process. The new best-practice guidance shows how that full potential can be achieved.

Best practice from hybrid concrete construction

To enable the full realisation of HCC's potential, a number of key best-practice factors need to be addressed:

• Early involvement of specialist contractors – with HCC, the appointment of specialists happens at a much earlier stage than is traditionally the case. Specialist expertise and experience can be fully utilised at the time when structural options are being considered. Design decisions are then owned commonly, which benefits the whole project.

Early appointment of specialist contractors flies in the face of the traditional tendering process, though it is the very nub of the partnering and teamwork approach advocated by the Accelerating Change and Rethinking Construction reports.

• Lead frame contractors – with hybrid construction it is recommended that a 'lead frame contractor' be appointed to take overall responsibility for the structure. The lead frame contractor is a function recognised in construction management methods of procurement.

• Work stages – with HCC, the procurement process can be broken down into a series of work stages. These stages range from feasibility through to conceptual design, procurement, construction and finally operation and maintenance.

• Workshops – throughout the course of the project, inclusive and participative workshops are

encouraged. These promote better communication, best value, and prevent unforeseen problems arising as far as possible. In addition, the workshops lead towards a clear feedback loop for continuous improvement and project-to-project learning.

• Measuring performance – the use of value-based methods requires that a series of appropriate performance indicators are selected and used in order to measure performance. For good practice it is recommended that the following form the basis of hybrid performance indicators:

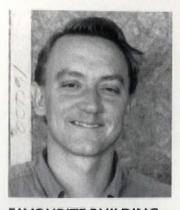
- speed;

- cost;

- spans/lettable area;
- flexibility in use;
- fire;
- service integration;
- buildability;
- environmental;
- finish;
- quality;
 - site conditions;
 - structure;
 - market conditions.

It should be noted that as an indicator, 'safety' is considered to be a 'given' – a necessity that must always be addressed.

HCC is about providing best value. It is not, necessarily, about first costs. Gains from improved buildability on site soon overtake any material cost

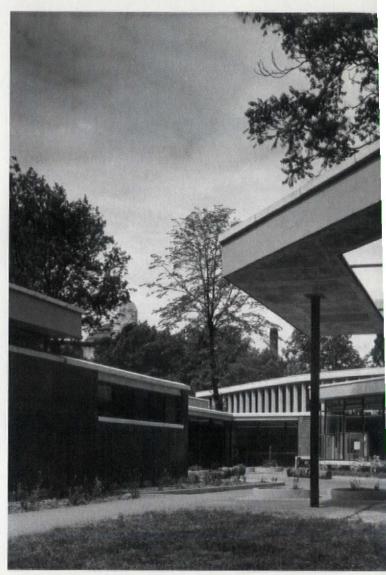


FAVOURITE BUILDING PETER ST JOHN TALKS TO CRISTINA ESPOSITO ABOUT LASDUN'S HALLFIELD SCHOOL

Peter St John of Caruso St John Architects lists the things he loves about the cosy cluster of buildings that is Denys Lasdun's Hallfield School: Lasdun's creation of a 'highly articulated enveloping environment'; a converging sense of intimacy and scale; the 'fantastic arrangement of parts' and spatial planning'so carefully contrived'; and a sophisticated use of concrete, less dramatic than Lasdun signature pieces like the National Theatre, but no less well thought out. 'I like the combination of precast elements and the rough, in situ-cast concrete shell,' he says, identifying the smooth, stone-like consistency of the precast cladding, fascias and window reveals as having a wonderful texture that is 'beautiful to touch'.

St John has had to learn Hallfield, inside and out. About 2000, Caruso St John was approached





by the school to design additional classroom blocks, and secured the project by competitive interview. St John recalls how, inspired by the schools governors' passion for the ensuing changes, it did not take long for him to develop a similar affection for the 'little model village'. But ask him about the experience to date, and his usually affable expression turns a little pained. Although excited by the challenge of designing 10 new classrooms for the 1954 building - a protective enclave as sophisticated internally as it is externally - St John admits he was baffled by the 'protracted and difficult planning process'. From the objections voiced by the Twentieth Century Society to the challenge of designing with materials sympathetic to the original 1950s style on an inflexible budget, St John is relieved that the long and tiring gestation period is over. Completion is expected in spring 2005.

One might expect that Lasdun's Modern interpretation – one that has made him an

icon of concrete construction - might fill any contemporary architect attempting renovations with dread. St John explains that the practice alleviated concerns about designing in harmony with the 1950s style, without creating 'some sad pastiche', by never intending to do anything even close. 'The client liked what we did with the new art gallery [Walsall] and thought Caruso St John would make a sympathetic architecture - people like you to take care with their buildings and ours are not formally exuberant.' Instead of concrete (which would not have been possible to 'do properly' on such tight budgets anyway), the two new blocks of 10 classrooms will use white brick with a very hard, almost ceramic, surface externally to relate tonally to the surrounding buildings. The design originally proposed the use of black brick, similar to the ones used for the load-bearing cavity walls of the infants' section and between the mullions on the north side of the building, before they were



painted white in the 1970s – an act that St John believes renders the design 'much less strong'.

AlthoughStJohnsaysheenjoys using concrete for its 'expressive brutality', he is uncomfortable with the categorising of materials generally. He explains that, for him, materials aren't a conscious choice that dictate a building, but rather that 'architecture begins as a spatial idea, then becomes a material idea'. Where concrete is used, St John admits that it is hard to find people who understand the subtleties of the material. 'We had to practically dig people out of retirement to help with our Walsall building,' he jokes. The practice is also experimenting with exposed concrete interiors in residential projects, including a private house in Paddington where the client required 'a little gentle persuasion'. For St John, the delicate sculptural expression of the concrete at Hallfield School is only one element of what Modern architecture can achieve: a working, breathing social building.

LETTER FROM WARSAW

A new office building in central Warsaw, Liberty Corner, recently won the Polish Institution of Structural Engineers' most prestigious award – Building of the Year – and is a prime example of the design considerations now facing Polish architects, writes Piotr Tarczynski.

Located centrally, near Warsaw's new Stock Exchange, Liberty Corner stands in the section of the city that was almost completely destroyed during the 1944 uprising against the Germans. During the late 1940s this district had been rebuilt in the thenmandatory 'social-realism' style, examples of which are still plentiful in the city. Buildings of this era typically featured grandiose, monumental facades intended to emphasise the success of the new order, and were built as thick masonry structures. They have left a legacy of structures that are very solid, unduly heavy and difficult to upgrade because of their low flexibility and the high cost of making the necessary modifications.

In 2000 a consortium was formed between the owner (Polish Press Agency) and the German Von Der Heyden Group to develop an A-class office building on the site. 'A-class' offices must conform to the highest standards on the market in terms of

efficiency, energy usage, comfort levels and the internal environment. The design team included PRC Architects, Buro Happold as the structural engineer, main contractor Hochtief International and BBR, which was responsible for the post-tensioning. The project manager was GI Probuild - Poznan.

From the project's inception it quickly became obvious that the existing building would have to be demolished,

and that its replacement would have to be a few metres higher and deeper than both its predecessor and historical neighbours in order to accommodate two levels of underground parking. A complicated process of negotiations with Warsaw's heritage officers started, which took eight months to arrive at an acceptable solution for all. The answer was a facade design that is undeniably contemporary but which retains a balance with the traditional style predominant in the area.

Liberty Corner is undeniably contemporary but

retains a balance with the traditions of the area

Demolition started in autumn 2001, clearing the site to the level of the existing basement. As the new building had to be about 5m deeper than its neighbours, a number of options were analysed, the chosen solution being to found the new building on a raft, which in turn was supported by CFA piles. Jet grouting was used to underpin sections of the foundations of adjacent buildings and a detailed construction method was prepared to eliminate risks to them from the construction of the basement. The underpinning and its additional temporary horizontal support had to be carried out more or less in parallel, in a sequence of closely related steps. This operation was continuously monitored to gauge the impact on the existing buildings.

In Poland the market for modern commercial buildings is predominantly occupied by reinforced concrete contractors who use in-situ technology. Precast technology, although available, isn't very popular because the Polish market is cost driven and this is a more expensive option than in situ construction. Cost takes precedence over other factors such as elegance, ease of maintenance and environmental friendliness. Similarly, in the past 10 years steel and composite construction have given way to in situ technology.

From the cost point of view this was a natural choice for the Liberty Corner design. In response to the client's request that the building should be

very flexible, an option without internal columns was studied, in which floor slabs spanning 12-16m were supported from one side by the central core and on the other on the perimeter frame, which forms the structure of the facade. Following discussions with the client and architect. Buro Happold proposed that the reinforced concrete slabs were designed as post-tensioned.

Post-tensioned slabs provided a cost-effective augmentation of the popular in-situ technology and helped to keep the depth of the slabs within reasonable limits, so that the total height of the building was below that requested by the heritage officer while obviating the need for internal columns.

The structural design was based on current Polish Standards, which are very similar to Eurocodes. Polish material codes, especially those relating to concrete, are almost identical to their European counterparts.

Piotr Tarczynski is a structural engineer with Buro Happold in Warsaw working on the Liberty Corner building

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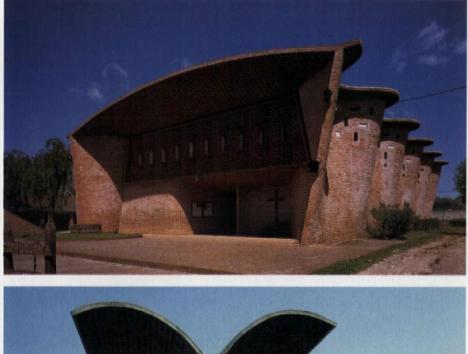


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Structural magic

RICHARD WESTON

Eladio Dieste: Innovation in Structural Art

Edited by Stanford Anderson. Princeton Architectural Press, 2004. 264pp. £42

Eladio Dieste's name may not be familiar but the undulating walls and vaults of the Church of Christ the Worker, which he completed in Atlántida, Uruguay, in 1960, probably are. For the most part, Dieste built utilitarian structures – sheds, canopies and slender, perforated water towers – using almost exclusively reinforced and post-tensioned brickwork. And he was, as this splendidly presented account of his major works makes clear, a builder of genius in whom an intuitive understanding of structure combined with a feeling for form.

The Atlántida church is a structural tour de force in which every curve and inclination is attuned to the flow of forces within its wafer-thin envelope. Even the staircase and perforated balustrades are made of brick, yet there is nothing strained in this material devotion. Brick, as Dieste pointed out, was not only local but offered manifold advantages over concrete, including a better strength-to-weight ratio, superior weathering, and enhanced thermal and acoustic performance. It was also widely available and understood by craftsmen, and the resulting structures were consequently 'ridiculously cheap' as well as beautiful.

Dieste, as Edward Allen explains in one of

Top: Church of Christ the Worker. Below: the 'Sea Gull'

several short, illuminating essays, was heir to the tradition of Catalan brick-vaulting based on overlapping laminations of thin, fired-clay tiles. Its potential was radically enlarged in the late 19th century by Rafael Guastavino's application of the graphical means of statical analysis, to which Dieste was later introduced as a student in Montevideo.

Sensing the economy and beauty that can result from aligning the elements of a structure along the lines of force, Dieste refined four basic structural types: pure compression vaults, spanning up to 54m; cylindrical barrel shells which act in compression across their curves, and as beams longitudinally, resisting bending through shape (the gravity-defying 'Sea Gull', originally designed for a petrol station and supported by a single column, is an almost outrageous development of this type); ruled surfaces, of which the sinuous walls of the Atlántida church are a prime example; and folded plate structures, which Dieste employed in the design of his other great religious building, the replacement nave for the Church of Saint Peter in Durazno, completed in 1971.

The basilican plan of the Durazno church appears dull to the point of banality, and the section hardly seems more promising. And then you note in both the almost complete absence of apparent structure and the miraculous thinness of the envelope. The fabric consists, in fact, of three folded plates: two unequal Zs for the walls, and a pitched roof for the nave – a mere 80mm thick, it combines brick tiles and reinforced concrete and spans over 30m. Roof and walls are joined by small, recessed posts, allowing a band of light to slide in between them and reveal the structural magic.

Diaste's passion for brick contributed, as Stanford Anderson notes, to his neglect by those histories of modern architecture that hailed the achievements of such engineers as Eiffel and Maillart, Torroja and Candela, who devoted themselves to overtly 'modern' materials. Equally, it now makes his works timely: not only does their 'materiality' rival Lewerentz's late churches, but they are also eminently 'sustainable'. But above all, as the art of building inexorably gives way to the more contingent business of assembling, they offer an exhilarating reminder of what can be achieved when things are made, as this philosopher-engineer liked to put it, 'in accord with the profound order of the world'.

Richard Weston is Professor of Architecture at Cardiff University



Complex history

JON SCOTT BLANTHORN

Barbican: Penthouse Over The City

By David Heathcote. Wiley, 2004. £29.99

London has struggled with large-scale building concepts since the Second World War, but no development suffered more from politics and subsequent public vitriol than the Barbican. This cultural and residential complex became emblematic of satisfying an architectural ideal, rather than the needs of inhabitants and users.

Yet recently, design and planning enthusiasts have begun re-evaluating the Barbican's original intentions as a promise of hope and urban reform in a bygone era. Following this renewed interest comes the first text to explore the centre in detail – its sources, its construction and the complaints it generated.

David Heathcote mentions that public opinion is based on what people are taught, rather than on personal discovery, so his role as a writer is to convince already jaded readers.

He plots carefully the history of the Barbican and its relationship to post-war development in other European cities. Architect Chamberlin, Powell and Bon (CPB) had a monumental task before it. Decimated by the Blitz, the City of London was desperate to house displaced citizens. The team's vision was to use progressive engineering and planning ideas that were focused on the future while maintaining traditional living essentials. The intention was to create a place that expressed 1950s internationalism and affluence through an appreciation of good design.

Plans were always Modernist, with many Corbusian references from the Unité d'Habitation to the Villa Savoye, incorporating schools, music centres, shops, gardens, walkways, waterways and bridges. This was a suburb within the city, separating people from nearby traffic and industry. But what followed was the bane of most modern architecture: indecision, changing council demands and fluctuating finances.

The 'council estate for the well-off' would be the victim of countless steering-committee meetings, resulting in a constantly altered complex. The Corporation of London enforced various regulations on form and style, while debates on what should be done with vacant space on such a large plot of land resulted in a reduction of density and an increase in open areas – changing plans considerably.

Yet while the site plans were adjusted, CPB's dedication to Corbusian elements, such as double-height living spaces and solid block balconies, was a constant both internally and externally. Balanced by courtyard waterways, the result was a carefully considered Brutalism: the central garden/waterway creating an aerial view which seems to fuse Venetian Baroque with a Modernist film set.

Complaints about the uncompromising use of concrete, inaccessibility, dark recesses, and interiors with features impossible to replace were raised almost immediately upon completion. Heathcote treats the praises and denouncements with equal seriousness, writing with an occasional caustic nod towards critical views which missed the point, and making good use of the facts he has amassed.

Assisted by Sue Barr's photographs and extensive archival documents, Heathcote recreates the Barbican through a thorough analysis of models, plans and the existing site. The quantity of information is vast, and at times mind-boggling, but although the details on bureaucratic process and change seem relentless, they prove necessary and relevant.

The Barbican became a victim of post-war governmental constraint and pragmatism, which militated against innovative design. Ultimately, the book reminds us of the countless, less thoughtful schemes which have since become uninhabitable. Not so the Barbican. Heathcote has written a fascinating study on a subject he clearly adores, allowing us to appreciate the Barbican's inspirations and designs. Jon Scott Blanthorn is an architectural writer based in Toronto and London

A half-told tale

SUTHERLAND LYALL

Richard Neutra's Miller House

By Stephen Leet. Princeton Architectural Press, 2003. 200 pp. £26



This is a likeable little study of one of Richard Neutra's inter-war desert houses. Likeable and little because it reads rather like a student's dissertation, in the way its neat chapters set the scene about the client, the newly widowed St Louis socialite and teacher of posture training, Grace Lewis Miller; about the Mensendiek system of exercises; about the location, Palm Springs; about Neutra and his ante-Miller House domestic work; about the connection between health, hygiene and Modernist architecture, and then the clientarchitect correspondence to which author Stephen Leet has been given access.

But like many such extended university essays carefully eschewing any hint of unacademic popularism, these elements in the story are presented with little colour – despite the photos of women in less than their smalls and a couple of *Health and Efficiency*-style German blokes (the Mensendiek system involved exercising in the nude and was popular with the Nazis).

These mildly risqué visuals clarify the intricacies of the Mensendiek system a little, but their strict relevance to the design of the house is difficult to fathom. Maybe they are over-compensations for the author's curious disengagement from the personalities of the protagonists: Neutra, Miller and, later, the young photographer Julius Shulman.

Other players are left out altogether

– like Grace Miller's two lads. And H Grant Wood. He first appears in the text of the introduction: 'She drove west on Route 66 to California, accompanied by her close friend H Grant Wood and her two young sons, tucked in the rumble seat of her new Ford coupe.' Is the author not hoping we might read between the lines, because this trip into the unknown occurs just two months after the death of her husband (whose name we never learn)?

Since Wood appears from time to time later in the narrative, but seemingly as a Palm Springs newspaper person, you really want to know a bit more about him. Was he that kind of close friend? And this being the time it was with regard to the place of women in the home, you wonder if he might not have had some input in agreeing the final plan and hiring Neutra. But you learn in the acknowledgements that the two Miller lads, long grown-up, were particularly helpful in providing detail for the author. Historians of the recent past, unless their courage is steady, can all too easily fall hostage to the perceived sensitivities of their still-breathing sources.

The other missing person is Peter Pfister. There he is, billed as 'collaborator' in an image from a May 1937 Architectural Record. Yet not a word appears about him in the text. And missing too, astonishingly, despite many pages of footnotes and a bibliography, is an index.

Of timber frame, the Miller House was not very well built. In one of Shulman's photographs you can see bumps in the rendering of what was intended to be a flat, pristine white wall. The contractor went bankrupt not long after it started leaking following a terrific desert rainstorm, and eventually, when Miller had lived in it for only four winters, it rapidly fell into disrepair, as the exclusive resort turned into one of the biggest military bases in wartime California. Yet it is still there – not on the edge of the desert any more but deep in the Palm Springs suburbs.

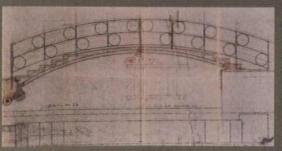
Sutherland Lyall is a freelance journalist

 Carlo Scarpa: The Craft of Architecture
 Now available here in a

 Hatje Cantz, 2003. 124pp. £25.
 an exhibition at the MA

 Distributor Art Books International
 had acquired for its per

 Venetian cabinetmake
 Venetian cabinetmake



Now available here in an English-German edition, this book was published to accompany an exhibition at the MAK Vienna last year of Scarpa's drawings – 224 of which the MAK had acquired for its permanent collection from a longtime collaborator of Scarpa's, the Venetian cabinetmaker Giovanni Anfodillo & Sons.

While a major project like the Castelvecchio is represented only in an oblique way (a sketch of visitors' benches), others fare better – the Brion Tomb, in particular – and the drawings are certainly characteristic: the precise line beside the doodle, the conflation of different scales on the same sheet, the coloured crayon emphases, the evidence of continual additions and adjustments.Juxtaposed with tiny photographs of the built items in situ, they are well reproduced on good quality, thickish paper, though the 26 x 21 cm format is a little too small for detail to always register.

'Professor Scarpa was a very nice man though he could also be very imperious because he was always behind with his projects,' says cabinetmaker Saverio Anfodillo. Pictured is a sketch for the bridge over the canal to the Palazzo Querini Stampalia.

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London

BUKKA Friday 10 September, 18.30. Launch of an urbansim research and education trust. At the October Gallery, Old Gloucester St, WC2 (info@bukka.org).

Space of Encounter: The Architecture of Daniel Libeskind 16 September-23 January 2005. An exhibition at the Barbican Art Gallery, Silk St, EC2. Details www.barbican.org.uk True Colours: Exploring the Potential of

Colour in the Built Environment Friday 17 September. An AJ

conference at the RIBA, 66 Portland Place, W1. Speakers include John Outram and Spencer de Grey. Details 020 7505 6044. Website www.ajtruecolours.co.uk

London Open House 18-19 September. The annual opening of many London properties. Details www. londonopenhouse.org Fratelli Alinari: The Changing Face of Italy 1855-1935 Until 19 September. A photographic exhibition at the

Estorick Collection, 39a Canonbury Sq, N1. Details 020 7704 9522. The Order of Nature: New Science, New

Urbanism, New Architecture? Tuesday 21 September. A conference at the Prince's Foundation (020 7613 8548). 100% Design 23-26 September. Including an AJ seminar with Tim Soar on 23 Sept. At Earls Court 2 (www.100percentdesign.co.uk). Saving Wotton: The Remarkable Story of a Soane Country House Until 25 September. An exhibition at the Soane Museum, 13 Lincoln's Inn Fields. WC2. Details 020 7440 4246.

Public Sector Construction

Opportunities *Wednesday 29 September.* A conference at the London Marriott Regents Park, NW3. Details 020 7505 6044.

Part E: Designing for Compliance Thursday 30 September. An AJ conference at the RIBA, 66 Portland Place, W1. Details 020 7505 6044 (www.partE-conference.co.uk).

East

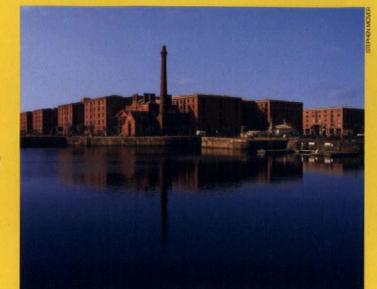
Cockaigne Housing Group, Hatfield

Saturday 11 September, 14.00-17.00. Designed by Phippen Randall Parkes and open to the public at 69 The Ryde. Details 01707 266335. The Pier Arts Collection/Douglas Allsop

Until 12 September. Two exhibitions at Kettle's Yard, Castle St, Cambridge. Details 01223 352124.

East Midlands

ArchiCAD University 9-11 September. A conference for ArchiCAD users at the University of Nottingham. Details www.archicad-university.com



OPENING TIME

This year's Heritage Open Days, coordinated by the Civic Trust and funded by English Heritage, are 10-13 September. There is free admission to a range of properties across the country, including some that are not usually open to the public. Pictured above is Liverpool's Albert Dock, where warehouse tours are on offer. Other Liverpool properties that can be visited include the County Session House and St George's Hall (www.heritageopendays.org.uk).

Modern Spaces - Historic Places 20-

22 October. An EHTF conference at Lincoln. Details Samantha Shore 0117 9750459.

North

Archigram Until 31 October. An exhibition curated by the Design Museum. At Baltic, Gateshead. Details 0191 478 1810.

North West CUBE Retrospective 1998-2004 Until 26 September. An exhibition at CUBE, 113 Portland St, Manchester. Details 0161 237 5525.

South

RIBA CPD Event: Building Regulations Update Wednesday 8 September, 13.30. At the Forest Centre, Marston Vale Country Park, Beds. Details 01223 566285.

Elizabeth Magill: Recent Paintings Until 12 September. Landscape-based work at Milton Keynes Gallery, 900 Midsummer Boulevard, Milton Keynes. Details 01908 676 900.

South East

RIBA CPD Event: Wine & Design – New Architecture in Brighton Thursday 9 September, 15.00. Details 01892 515878.

RIBA CPD Event: Woodland Enterprise Centre, Flimwell – Sustainable Construction Thursday 23 September, 15.00. Details 01892 515878.

Wessex

John Wood and the Creation of Georgian Bath 7 September-6 February 2005. An exhibition at the Building of Bath Museum, Countess of Huntingdon's Chapel, Bath. Details 01225 333 895. Paul Winstanley/Graham Murrell 12 September-14 November. Two exhibitions at the New Art Centre, Roche Court, East Winterslow, Salisbury. Details 01980 862244. Westonbirt Festival of the Garden 2004 Throughout the summer. A series of special gardens at the National Arboretum, Tetbury. Details www. festivalofthegarden.com

West Midlands Ikon Gallery 40th Anniversary Exhibition

Until 12 September. At the Ikon Gallery, Brindleyplace, Birmingham. Details 0121 248 0708. Becoming a Planning Supervisor 14-16 September. A Construction Study Centre course at Birmingham. Details 0121 434 3337.

Yorkshire

Aspects of Architecture 22 September-22 January. A photographic exhibition at the Graves Art Gallery, Sheffield. Details www. sheffieldgalleries.org.uk Lime Week 4-7 October. A conservation studies course at the University of York. Details www.york. ac.uk/dpts/arch/ Wolfgang Winter + Berthold Hörbelt *Until 31 October.* 'Crate houses' etc at the Yorkshire Sculpture Park, Bretton Hall, nr Wakefield. Details 01924 832631.

Scotland

Rediscovering Mackintosh Until 11 September. At the Hunterian Art Gallery, Glasgow (0141 330 5431). City as Loft Until 12 September. An exhibition at The Lighthouse, 11 Mitchell Lane, Glasgow. Details 0141 221 6362.

BLOCK: Architecture Festival Glasgow 18-25 September. Organised by The Lighthouse (www.blockarc.co.uk). Field Trip Until 24 September. An exhibition at the RFACFS, 148 Canongate, Edinburgh. Details 0131 556 6699.

Langlands & Bell at Mount Stuart Until 26 September, An installation in William Burges' chapel, Details www. mountstuartart.com

Wales

Plecnik: Architecture Making a Capital 16 September-19 October. An exhibition at the Welsh School of Architecture, Cardiff. Details 029 2087 6097.

RSAW Small Practice Surgery Series: SFA and Client Guide Monday 27 September, 16.00. At the Welsh School of Architecture, Cardiff. Details 029 2087 4753.

Delivering Regeneration in Wales Thursday 30 September. A conference and exhibition at County Hall, Atlantic Wharf, Cardiff. Details Cherry Cronley 029 2063 0561.

RSAW Small Practice Surgery Series: Planning Applications – Achieving Success Thursday 30 September, 16.00. At St David's Visitor Centre, Pembroke. Details 029 2087 4753.

International

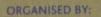
Design etc, Open Borders 4 September-28 November. Eighty projects from young designers at Tri Postal, Lille. Details www.lille2004.com Shrinking Cities 4 September-7 November. An international exhibition at the KW Institute for Contemporary Art, Berlin. Details www.shrinkingcities.com

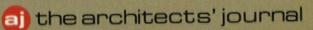
Docomomo 8th International Conference 26-29 September. Taking place in New York (www. docomomo2004.org).

Lausanne Jardins 2004 Until 17 October. Various temporary gardens in and around Lausanne. Details www.lausannejardins.ch

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

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18th November 2004

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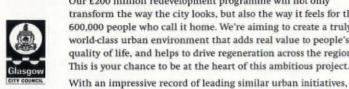
- Dr Caroline Davey Project Director, Design Against Crime Design & Innovation Research Unit
- Andrew Wootton Design Director, Design Against Crime Design & Innovation Research Unit
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Our Manchester studio seeks the following architects to work on a variety of new residential, education and masterplanning projects.	ARCHITECTURAL You spend more time at work than you do at
PROJECT ARCHITECTS with city apartment residential experience. Exceptional visual and design skills essential.	home. Make sure it's a place you really want to be. Call 01908 672 906
 with city apartment residential experience. Exceptional visual and design skills essential. PTII / ARCHITECTURAL ASSISTANTS with at least 3-4 years of experience within a design based practice. PTI YEAR OUT STUDENTS Energetic, motivated Part 1 students with outstanding design ability. Microstation proficiency and knowledge of Quark, Photoshop and Illustrator essential. Candidates with 3D microstation visualisation skills would be welcome. Please send CV, plus covering letter and colour examples of work to: Tony Skipper John McAslan +Partners St John's House 2-10 Queen Street 	Architect Central London £to35K This is an exciting opportunity to join a well-respected practice with a number of projects in the live work and play sector. Working on a mixed-use project from planning stages onwards, you will be responsible for team leadership, client liaison, and taking the project through to completion. Fluent Microstation skills are essential. Excellent career prospects. Technical Architect Central London £to 35K Large multi-disciplinary practice has recently won some major projects and requires a technically biased architect. You must have extensive experience dealing with NBS specifications, working drawings and detailed packages. Fluent AutoCAD or ArchiCAD skills are essential. Opportunities exist to work on cutting edge projects. Project Architect SE London £to 35K Medium sized design focused practice has recently won a major project in SE London. The ideal candidate will be RIBA part III qualified with no more than 2 years post qualification experience and fluent CAD skills (any system). Excellent career
Manchester M2 5JB www. mcaslan.co.uk ENTHUSIASTIC PART III ARCHITECT Small architectural practice with expanding workload. Mostly residential new build and refurbishment - an interest in residential essential. Previous relevant experience would be useful. Must have good CAD skills and a desire to run jobs from conception to completion in cooperation with principal architect. Immediate start. Remuneration commensurate with experience. Please contact Roger Adams on 020 8398 7411. ADM Architecture, 57 Fleece Road, Long Ditton, Surrey KT6 5JR.	We have ongoing requirements for a range of staff, from Project Architects to Cad Technologists. To discuss your options in the strictest confidence, please contact: Sally Winchester or Leigh Maltby on 01908 672 906 or email swinchester@quayarchitecture.co.uk Imaltby@quayarchitecture.co.uk Choose the agency that is different. Call now for a discussion with someone who really understands your aspirations. Www.quayarchitecture.co.uk
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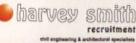
Find out more about one of the most exciting jobs in regeneration, by phoning our 24 hour response lines on 020 7931 6324 now, quoting reference number 7086, or visit our consultants website at www.veredus.co.uk to download an application pack.

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Liz James, Veredus Executive Resourcing, 14th Floor, Bank House, 8 Cherry Street, Birmingham B2 5AL. Email: liz.james@veredus.co.uk

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people & practices

Since the return of Joyce Owens to the US earlier this year, Azman Owens Architects has been incorporated as Azman Associates. Caryl Stephen and Lisa Warner have become associates in the

Thomas Eggar has announced that Patricia Nathan-Amissah has joined the firm's Construction and **Engineering Unit.**

Gray Baynes & Shew has appointed Liz Root and James MacKenzie to its staff.

Richard Partington

Architects has moved to First Floor, Fergusson House, 124-128 City Road, London EC1V

After four years as a director of ttsp, and following the success of the joint venture enterprise of ttsp Fookes, Brian Fookes has decided to retire from full-time practice. ttsp has appointed Andy Mackenzie and Jason Hoy as designers and Joelle Roncelin-Line as architectural

Interior design and fit-out company Claremont Group Interiors has made three new appointments to its interiors team. Waheed Hussain joins as an estimator and James McDonnell and Kevin Hannigan as project managers. In addition, Tim Nabosi has joined Claremont as a web developer.

Send details of changes Journal, 151 Rosebery Avenue, London EC1R 4GB, or email anna.robertson@emap.com

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a) recruitment





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ase send your CV to London: Teresa Borsuk, Diespeker Wharl, 38 Graham Street, London N1 8JX Liverpool: Roo Humpherson, Merchants Court, Derby Square, Liverpool L2 1TS

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Coughlan De Keyser Associates Architects - Cork, Ireland Architects and Architectural technicians to work on a variety of projects autoCAD skills are essential. Small friendly practice, fantastic quality of life south coast, Ireland. Interviews in London C.V. to: CDA, 29 Washington St. Cork, Ireland

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S&P Architects require an experienced architectural technician to work in their Dublin office on exciting sports, leisure and residential projects, both in Ireland and overseas. Candidates should have good construction experience and be able to work in a team environment.

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for a small busy practice, with projects up to £3m. We need a non-smoking, tea-making, preferably self-employed Technician or post Part I Day Release student, with Vectorworks

& min. one year office experience. Flexible 4-5 days per week. Enthusiasm, ngness to learn & own transport essential

CV and references to P&R ASSOCIATES by post or email: 79 Calder Avenue, Brookmans Park, Hatfield, Herts AL9 7AJ. www.pr-architects.co.uk email:enquires@pr-architects.co.uk

ARCHITECT

Zaha Hadid Architects require an experienced Architect for their Russian projects. The person must have 6 years + experience (some within the Russian Federation), be fluent in Russian and willing to travel on behalf of the Practice.

Please send CVs with salary expectations to Pauline Morgan Pauline.Morgan@zaha-hadid.com

architect/technician

required to join friendly CAD + design Visualisation studio based in Notting Hill. AutoCAD skills essential. P/T basis considered.

Send CV to June Gallagher: junea@sacadservices.co.uk or phone 020 7575 3160

> SG CAD Studio 022 Westbourne Studios 242 Acklam Road London W10 5JJ



ARCHITECTS, BUILDING SURVEYORS AND VALUERS

PART II GRADUATE

We have a vacancy for a Part II Graduate with AutoCAD experience, to work in our London office on varied workload of residential and commercial projects. Please send CV with covering letter and samples of work FAO Nick Gardner.

> STEVENS SCANLAN 56 BUCKINGHAM GATE LONDON SW1E 6AH

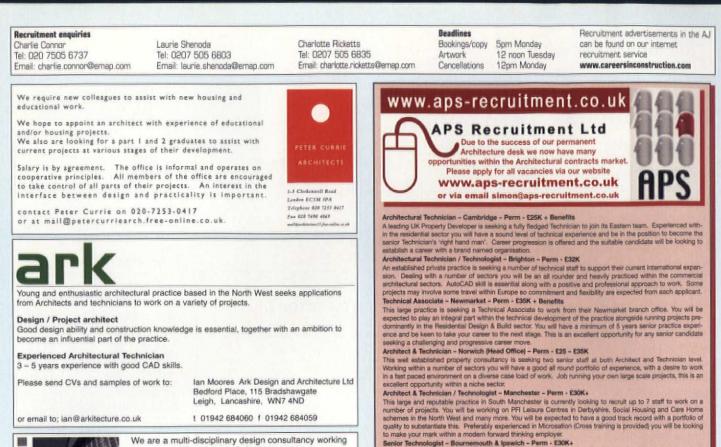
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Interior Designer, London.

Top-end residential/hotel interior design practice require job-running designer.

6+ years relevant experience, concept to completion all-rounder with great detailing, on-site project management & fluent AutoCAD skills.

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to make your mark within a modern forward thinking employer. Senior Technologist – Bournemouth & Ipswich – Perm - £30K+ A Large Construction company urgently requires 2 Technologists. You will be AutoCAD Literate with a good knowledge of UK Building and construction regulations. You will have a BIAT recognised qualification and be a very technically orientated professional wanting to work on large a technically challenging projects. This is a very good opportunity to progress your career to a senior level. Architectural Technician – Northampton – Perm / Contract - £30K This expanding private practice is seeking an Architectural Technician to compliment their current team. You will be fully AutoCAD literate with good technical and detailing akilis. The practice specialises in the industrial and commercial sectors of architecture so experience and a passion to work in these sectors would be a borus.

ctors would also be considered!

Contractors would also be considered: Architectural CAD Technician – Nottingham – Contract - £20ph+ My client has an urgent requirement for a CAD Technician to work in the Estate Office within the Development Team alongside the CAD Manager and Space Manager for a period of 3+ months. The work involves drawing DDA Access Plans for buildings on a key university campus and some work updating their space management GIS system, using AutoCAD 2005 and AutoDesk Map 2005. Experience of using AutoDesk Map would be an advantage but not essential. You will have an architectural background which is ideally suited to this type of work.

Immediate Jobs

Architectural Technician - Hampshire - To £18/hr

Located a short drive from Southampton, this mid-sized Practice is in urgent need of an experienced Architectural Technician to work on a variety of projects, including a number of schools. Strong technical ability, full knowledge of UK Regulations and proficiency in AutoCAD is essential. Temp to Perm. Ref AR5

t 01942 684060 f 01942 684059

We are a multi-disciplinary design consultancy working with a variety of clients to create

imaginative solutions and realise successful

projects. We are looking for experienced architects, technologists, Part II and Part I graduates to develop their careers in the Preston office.

within this innovative practice

Send your C.V. to Halsall Lloyd Partnership, 3 West Road, Fulwood,

Preston, PR2 8NR preston@hlpdesign.com

Architect - Kent - To £40k pa

or email to; ian@arkitecture.co.uk

Our client is urgently seeking an experienced Project Architect to work on a wide range of projects including Social Housing, Residential and Commercial. The ideal candidate will have a minimum of 10 years post Part III experience and should be highly proficient on AutoCAD. Ref AR7

Urban Designer - Hampshire - To £35k pa

This successful Residential practice has an immediate need for an Urban Designer with excellent design ability. Successful candidates will have strong AutoCAD skills and a minimum of 5 years experience. Ref AR7

Architect - Central London - To £38k pa

Award Winning Architectural Practice seeks recently qualified and experienced Architects to work on a varied portfolio. Ideally Microstation skills are required, however our client will offer cross training from other CAD systems. Job Running, Technical and Design Architects needed. Ref AR31



Technical Architect - Central London / Middlesex - To £35k pa

Our client has an urgent need for two Technical Architects. One position will be site based at Heathrow and the other will be based in Central London. The ideal candidate will have 5 years technical experience and full knowledge of UK Building Regulations. AutoCAD skills are essential for both positions. Ref AR3

Architectural Technician - Hampshire - To £18/hr

This small Architectural Practice urgently requires an Architectural Technician to work on a new build Office project. The ideal candidate will have a minimum of 7 years experience, knowledge of UK Building Regulations and proficiency on AutoCAD. Ref AR2

Architectural Technician - London - To £22/hr

Our client is a medium sized Practice with an immediate need for a Microstation proficient Architectural Technician. The role will involve preparing tender information and producing detailed working drawings on various Commercial developments. 3 months contract. Ref AR2

Architect / Senior Technician - Milton Keynes - To £24/hr

Located in Milton Keynes, this dynamic Architects office has an expanding portfolio of Education projects. Successful candidates will be Part 2/3 qualified, with a minimum of 2-3 years UK experience in a similar role. Experience of working on Schools, contract running and proficiency on AutoCAD is essential.Long term contract. Ref AR6421

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competitions & awards

Details are available from the **RIBA** Competitions Office, 6 Melbourne Street, Leeds LS2 7PS, tel 0113 234 1335, web: www.ribacompetitions. com, email: riba.competitions @inst.riba.org

EXTENSION TO TATE ST IVES

Expressions of interest are invited from architects in connection with an extension to the Tate St Ives in Cornwall. After more than 10 years of successful operation, the building needs both modification and extension to meet the Tate's current and future operational requirements. A new building is to be built, located on the hillside above the gallery. The estimated project value is £6 million. Deadline for receipt of practice profiles is 8 September.

ATLANTIC COLLEGE HOUSING

A two-stage open design competition for four new housing blocks for students studying at Atlantic College, Wales. The college is set in beautiful countryside in the Vale of Glamorgan and at the heart of daily college life is the stunning 12th-century St Donat's Castle. The brief is now available with stage-one submissions due by 21 September.

POLISH THEATRE OVERHAUL

An international design competition to overhaul an Elizabethan theatre in the historic heart of Gdansk Poland The Theatrum Gedanense Foundation is looking to build a new auditorium within a 17thcentury building - a former fencing school. Used by touring theatre troupes from England, the building has a long tradition of hosting Shakespearean plays and once had an open courtyard at its centre, similar to The Globe in London. The theatre should be adapted for performances in which spectators stand round the stage in the courtyard. Applications to be received by 15 November. For more information visit: www. teatr-szekspir.gda.pl



For further information contact Patrick McKeogh on 020 7250 0530 or patrick@pipers.co.uk.



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PART III ARCHITECT - HISTORIC BUILDING UNIT

Our expanding London office requires an experienced architect to join our Historic Building Unit to work on projects ranging from post-war social housing through to major transport infrastructure projects. The ideal candidate will have a demonstrable interest in architectural history, have strong presentation and report writing skills and have experience of both traditional and contemporary

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Erica Cotton John McAslan + Partners 49 Princes Place London W11 4QA Email: mailbox@mcaslan.co.uk LIMBRICK Edinburgh

SENIOR ARCHITECT

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Contact Neil Macrae by e-mail : edinburgh@limbrick.com or tel: 0131 557 6177 www.limbrick.com



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Excellent design skills and a proven record of project administration essential.

Salary negotiable

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Part I architectural student with CAD skills, Vectorworks or similar

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for

Email:



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Laurie Shenoda Tel: 0207 505 6803 Email: laurie.shenoda@emap.com

Charlotte Ricketts Tel: 0207 505 6835 Email: charlotte ricketts@eman.com

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Design Architect

Pay: £45K Package

This well known property developer based in Surrey is currently recruiting for a Design Architect to work within the Design & Planning section of their residential department. Candidates must be ARB registered with a minimum of 3 years post qualification experience, have good design flair and are commercially aware. Additionally, must have thorough knowledge of AutoCAD. Based: Surrey Ref: DEB5198

Architects & Technicians

Pay: Based on qualifications and experience This medium sized architectural practice is currently recruiting for various staff to work within their residential design/build department. This is an excellent opportunity to work with a young and dynamic practice and to be given responsibility at all levels of projects. Applicants must be AutoCAD proficient and well versed in the UK Building Regulations. On offer will be an excellent salary, 25 days holiday and private healthcare. **Based: Middlesex Ref: DEB5122**

Microstation Staff

Pay: Based on experience

∉ ¢ECD Architects

This well known international practice currently require a number of new staff ranging from Architectural Technicians to Project Architects to work on projects throughout London and the South East. Applicants must be conversant in the Descent Part of Descent and Descent Parts and Descent an use of Microstation. Based: London Ref: DEB5222

Various opportunities are available in London and the South East. Please contact David Bean for more information.

www.calco.co.uk Tel 020 8655 1600 careers@calco.co.uk Fax 020 8655 1588 Lawrence House - 9 Woodside Green - London - SE25 5EY TECHNICA

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ECD Architects are looking for a Marketing Manager to support the senior management team in generating new business. The job includes; press relations, market intelligence, preparation of bid documents and presentations, and client liaison. The ideal candidate will have an architectural background combined with strong graphics and communication skills.

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2 September 2004

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We currently occupy office accommodation split between several city centre sites. You'll lead the Accommodation Planning Group, responsible for developing a long-term strategy to re-shape the office portfolio and make better use of the space occupied. This will involve working with Human Resources and IT disciplines to explore more modern and flexible ways of working within and beyond the traditional office environment.

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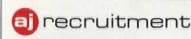
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Deadlines

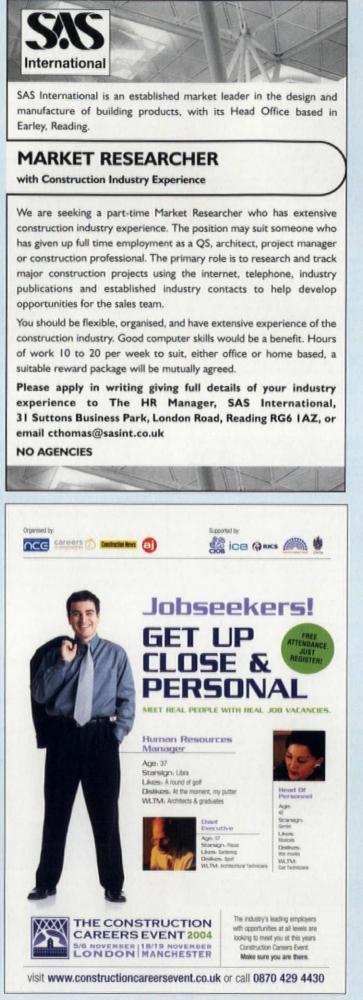
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ATP are a long established design lead progressive practice and to continue our growth in the education and residential sectors we require

Team Leader Architect – min. 3 years post qualification experience

Architectural Technician – good experience of construction detailing

CAD Technician - AutoCAD literate

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Please forward your C.V. to keithw@atggroup.co.uk Or post to: Keith Warwick ATP Group Partnership Brook House Coventry Road liford Essex IG1 4QR We are an equal opportunities employer Laurie Shenoda Tel: 0207 505 6803 Email: laurie.shenoda@emap.com Charlotte Ricketts Tel: 0207 505 6835 Email: charlotte.ricketts@emap.com Deadlines Bookings/copy 5pm Monday Artwork 12 noon Tuesday Cancellations 12pm Monday Recruitment advertisements in the AJ can be found on our internet recruitment service www.careersinconstruction.com

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CVs will be accepted with a completed application form.

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Please contact Daniel Forshaw on 01962 733017 or e-mail your CV to daniel.forshaw@architects.clara.net

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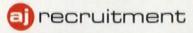
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Architect's Practice seeks RIBA post Part 1 or equivalent assistant, with minimum 2 years practical experience. Must be AutoCad proficient, fluent in English and have good communication skills.

The successful applicant will be technically competent, and able to manage small projects unsupervised. Experience of low technology/indigenous construction desirable.

Must be able to travel at short notice. Apply only in writing with CV to the above address.





For Advertising Enquiries Please Contact: Charlie

Connor

on 020 7505 6737 Email:

charlie.connor



Tel: 020 7248 7400 Fax: 020 7248 7600

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PERMANENT VACANCIES

2 x Part II Architectural Assistant, London - to £30,000 2 x Part II Architectural Assistant, Lohaon - to source This large multi-national commercial design firm seeks applications from intelligent, design oriented Part II Assistants to work on exciting multi million urban, mixed use and commercial projects. You should have at least 2 years post PII experience producing good quality working drawing packages and detailing ability. Exposure to commercial schemes advantageous. AutoCAD skills essential. Ref: 10215

2 x Project Architect, London - to £38,000 Do you have first class design skills with strong job running capabilities? This high calibre international design office with a reputation for good design is seeking architects with proven management skills to work on large commercial projects. The successful candidate will have the capability to take quality design through to detailing. You will have at least 3 years post Pill experience with extensive knowledge of AutoCAD working drawings. *Ref.* 10216

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Architectural Technician, London to £39,000 This large, highly successful, international practice seeks skilled, quick thinking technicians with a sound understanding of construction and Building Regulations. The role includes compiling tender packages and advising on superstructure details for large international projects. Experience of residential projects preferred but not essential, as is on site experience. *Ref.* 10214

Part III Architects, London - to £30,000 Do you have a flair for design? Can you apply this from concept to detailing? This large reputable firm seeks applications from design led individuals who are willing to work as part of a team to ensure forward thinking projects. Experience of large scale projects essential, residential experience preferred. *Ref.* 10213

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TENDERS



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Expressions of Interest for Multi-Disciplinary Architectural Design Consultancy

The Council, acting in partnership with and on behalf of The University of Hull, has placed an OJEU advert for architectural and related design services to assist in a Heritage Lottery Fund application for the project.

The Centre will replace two existing archive buildings in a comprehensive new archive facility including a repository and spaces for public access and support staff. Excellent and sustainable design quality is a high priority.

The selection and appointment process will involve a restricted design competition in a two-stage process. After receipt of expressions of interest first stage submissions will include information on practice resources together with an outline design concept and methodology. Short listed second stage consultants will be invited to produce initial design proposals with approximate costings. At this second stage consultants will be required to liaise closely with the joint clients in developing imaginative initial design that meets the needs of strict technical criteria and innovative public access. There may be a fixed payment for this second stage work. The final appointment will be for the detailed design and costing of the project for Stage 1 HLF application.

Please refer to the OJEU advert for further information and instructions - expressions of interest must be received in writing by noon on the 4th October 2004. Contact for other queries: Bob Rogers, Construction Procurement Unit, telephone 01482 612492.















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Architect - Bath

We have a vacancy for a Part II Graduate and a Part III Architect with up to five years experience in Bath. If you have excellent design skills and CAD experience, preferably using Microstation, then we would like to hear from you.

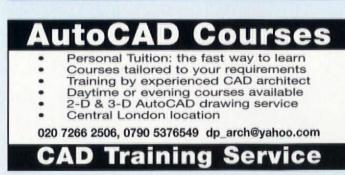
Please apply in writing, with CV and examples of recent work, to:

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AIRFLOW DEVELOPMENTS



AJ ENQUIRY NO: 301

Airflow is introducing the iCON range of toilet, bathroom, utility and kitchen ventilation fans. Incorporating a unique iris shutter mechanism, and creating a new generation in modern fan design, iCON helps to reduce the ingress of noise from outside. It also prevents back draughts and ensures that switching on and off is almost silent.

GRACE CONSTRUCTION PRODUCTS

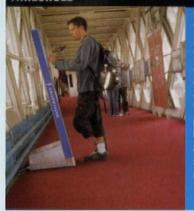
VICTOR



A large, well used concrete floor was experiencing serious cracking and a significant convex bowing at the junction with the walls. Grace Construction Products suggested the use of Low Shrink Concrete which would reduce the number of construction joints. Eclipse Floor Shrinking Reducing Admixture and Adva 150 Superplasticiser would provide the quality of concrete.

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THRESHOLD



a) classified

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Some 500sq metres of Threshold's T32, can be seen at the Tower Bridge Exhibition. T32 is available as broadloom and mats, made in a 60% wool 40% nylon blend from a choice of five different products. Threshold's products have well proven qualities of all round high performance and an added factor of an integral scraper, which deters dirt and moisture.

AJ ENQUIRY NO: 304

www.victoronline.co.uk has been revamped. Recent additions include the Carvery unit, the Impressions range of modular servery counters and the recently lauched Patisserie unit. The site contains the company's Hot Cupboard and Toppers brochures and the company's operation and maintenance manuals allowing users to download copies when required,

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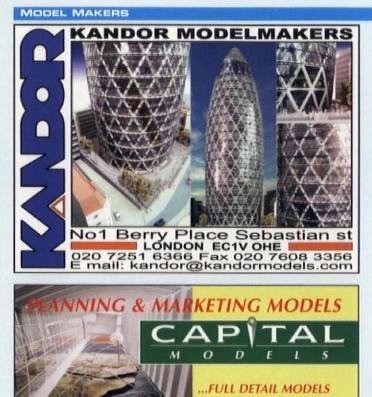






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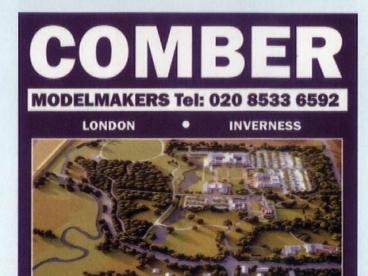


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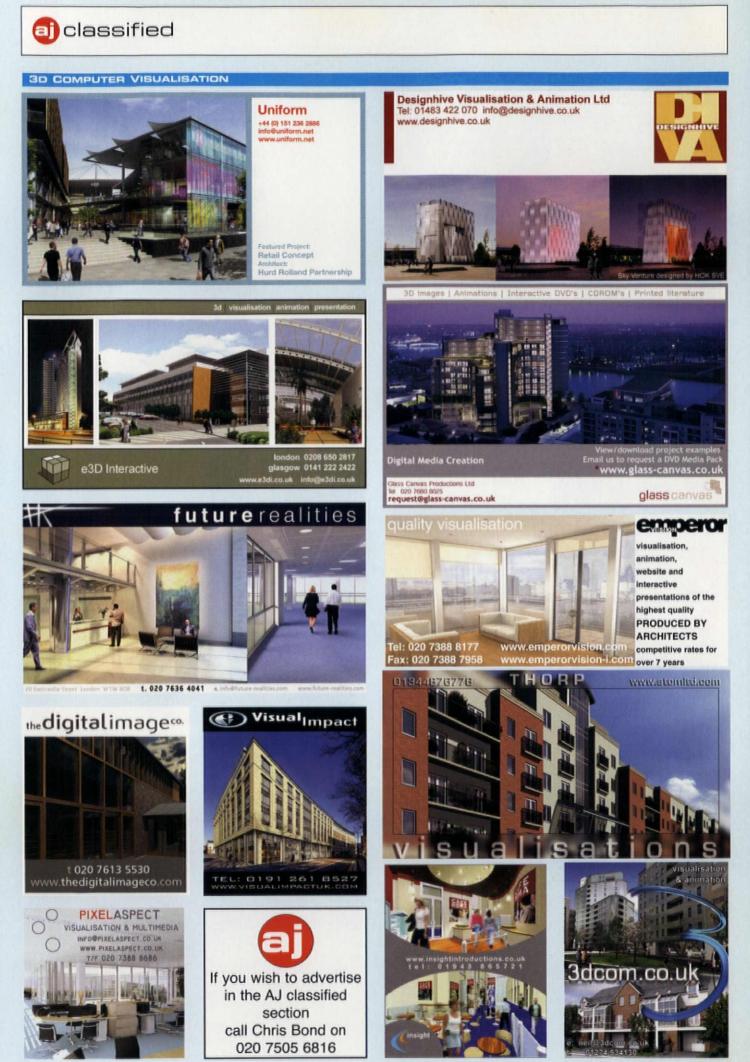
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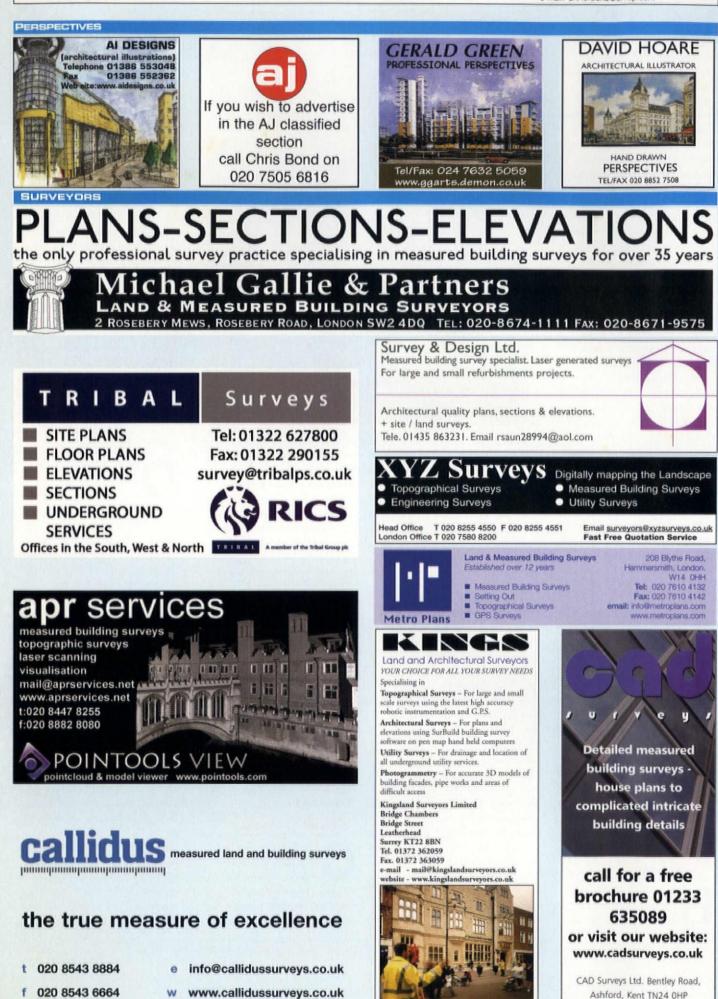
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2 September 2004

Capital cheer

ith Cherie Blair on board as new amabassador for the London Olympic bid, where have things got to on the design front? Answer: quite a long way. The competition-winning masterplan team of EDAW, Allies and Morrison and Foreign Office Architects has been hard at work preparing for the next stage of the selection marathon, spurred on by the criticisms in the initial appraisal by the International Olympic Committee. Since these largely concerned public transport issues, there isn't much the designers can do, other than to play up the extraordinarily good links that, in reality, characterise this part of London - or will do once the Channel Tunnel Rail Link line from Stratford into St Pancras is completed, which will be four years before the 2012 Games. The regeneration strategy for the entire Lower Lea Valley is coming along nicely, and the 'legacy' aspect of the London bid will be extremely strong. So how about some celebrations of our bid? What about a big animation show of the plans to date in a major London public space? Like the revitalised Trafalgar Square, which must be one of the best initiatives mayor Ken Livingstone has achieved in the capital.

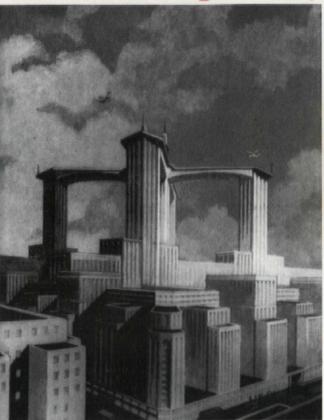
Hospital case

he furore over designs for the Royal London Hospital, with Livingstone and CABE lined up in opposition, makes uncomfortable reading for HOK, which has been forced into producing less than its best, partly as a result of a poor brief and an inadequate site. But PFI client Skanska has not been at its best either; for example, it used designs by Will Alsop as 'design collateral' in the bid to win the megacontract, which must be £1 billion when you include the linked St Bart's project, and promptly dropped him having won the gig.

Global hero

e may be embroiled in controversy over the Ground Zero building,

the ones that got away



Astragal's 'The Ones That Got Away' competition features schemes that, for better or worse, stayed on the drawing board. Can you identify this project and its architect? Post your entry, to arrive by first thing Monday morning, to AJ Astragal, 151 Rosebery Avenue, London EC1R 4GB, or fax 020 7505 6701. The first correct entry out of the hat wins a bottle of champagne. Last issue's winner (AJ 26.8.04) was Jim Loftus of Nightingale Associates. The never-built scheme was Rem Koolhaas/OMA's proposal for the Bibliothèque Nationale de France, Paris.

but that has not stopped the upward rise of Danny Libeskind as all-round American star. His latest role, as the result of a State Department appointment, will be as cultural ambassador for architecture. The job arises as a result of something called the 'CultureConnect' initiative, which is intended to foster understanding among young people around the world. The first Danny mission was to Tunisia, where among other things he 'spent time talking to boy and girl scouts' and found time to drop in on Padua, where a 9/11 memorial is being created to his design, incorporating a piece of the World Trade Center. And he still can't get Lottery funding for the V&A Spiral...

Party animals

he Barbican certainly knows how to throw a party. None of those limp canapés and warm white wine at 6.30pm, thank you very much. No, at the opening of its **Libeskind** exhibition on Tuesday 14 September (that man is everywhere), a sedate viewing will be followed by a full-blown party at oversubscribed superclub **Fabric**, which doesn't even start 'til 9pm. Wild.

Water feature

nce Terry Farrell had won commissions to design aquaria, first in Hull and then in London, it was only a matter of time before former partner Nicholas Grimshaw followed suit, as he has done with proposals for a mega-scheme that will exceed the Eden project. The career of the two architects has been an extraordinary story of locational and typological coincidence, starting with the TV-am building and the Camden Sainsbury's, and more recently extending to airports round the world – which always makes Astragal wonder what they might have achieved had they stayed together...

More tea?

abitues of the Sir John Soane Museum have a treat in store from 16 September: a splendid exhibition entitled 'Tea and coffee towers: Alessi at the Soane'. Co-organised by the Museo Alessi and curated by Alessandro Mendini, the show features what the title says, with designs by 20 international architects including our very own Will Alsop, David Chipperfield, Future Systems, and Zaha Hadid. Beverages have never tasted so... well... designerly.

Saddle sore

akota Indians say that when you discover you are riding a dead horse, the best strategy is to dismount. Britain's 'all must win prizes' mentality sees things very differently. We would reclassify the horse as 'living impaired' and rewrite its performance specification. Discuss in relation to the **Princess Diana** memorial.

Infectious hum

isitors to Chicago who take one of the popular architectural boat tours may not realise the risks they are running, as revealed by a current legal case. The state of Illinois is suing rock outfit the Dave Matthews Band for \$70,000 (£39,000) in damages. It alleges that the band's tour bus dumped 360kg of human waste through the grating of a bridge, just as 100 boat passengers were passing underneath. As last week's Guardian says: 'The results were messy, deeply unpleasant and, by some accounts, possibly infectious.' The band denies that its driver was involved.





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PHILIP WATTS DESIGN

Philip Watts Design now manufactures more than 60 different porthole kits for doors, ranging from signage panels to high-specification fire-rated stainless steel. All its kits come with glazing and are remarkably simple to install. Illustrated are two of its porthole/pull handle integrated kits; both can be fire rated to 60 minutes and are



AJ ENQUIRY NO: 201

AJ ENQUIRY NO: 203

available in either satin or bright polish. For further details, visit the new online catalogue at www.philipwattsdesign.com

KINGSPAN OFF-SITE

Kingspan Off-Site has launched a series of guides aimed at helping design and management teams develop their building programmes off-site. The brochures - targeting the healthcare, single-living and key-worker accommodation, and education sectors - provide exemplar designs for each



specific category as well as details of the structural framing and finishing options available to each sector.

GALVANIZERS ASSOCIATION

A studio designed by David **Chipperfield Architects for the** artist Antony Gormley was the winner at the 12th annual Hot Dip Galvanizing Awards, held recently in London. Four 'highly commended' awards were given to a diverse group of projects, ranging from lan Ritchie Architects' landmark Theatre Royal Plymouth building to a more modest courtyard extension in Dublin by **David McDowell Architects.**

SCREEN SOLUTIONS

GAME, Europe's leading specialist retailer of computer software and video games, has specified Screen Solutions' Connection screens,



via CBS of Ascot, for its new purpose-built head office. The screens enable individual workstations within a continuous run in an openplan space, which has been designed and planned by Business Design Solutions. GAME's original three sites have been reduced to one office building and an enormous distribution centre, located in Basingstoke, Hampshire, accommodating 250 staff.

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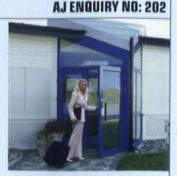
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added to the FrontShield entrance door range from AccentHansen. FrontShield 56 is a non-insulated, non-thermal-break door system, and FrontShield 66 is an insulated thermal-break version. Both models can be used for inward and outward opening doors with side and top vision panels,

Two new options have been

HANSENGROUP



and for fixed window sections. For detailed technical literature on security and fire doors or guidance on a specific project, telephone AccentHansen on 0161 284 4100 or email sales@accenthansen.co.uk

ARMITAGE VENESTA

For refreshing style, performance and versatility, check out the leisure wash and changing room range by Armitage Venesta - the UK's leading washroom provider. The range brings added design opportunity and welcome extra choice to industry specifiers and



consultants. Visit stand 1806 of LIW 2004 at the NEC on 21-23 September to see the range first hand. For further details telephone 01474 353 333 or visit www.armitage-venesta.co.uk

FORTICRETE

Miller Homes Yorkshire satisfied local planning requirements and identified suitable materials for the external envelope of 45 new homes by specifying a



combination of walling stone and roof tiles from Forticrete. By using a single source for the products, the homebuilder was able to meet budgetary constraints but still create the traditional appeal it sought for the homes at Highfield Meadows, Yeadon.

MH SURVEYS

Photo-rectification software to produce accurate building elevations or streetscenes is available from MH Surveys. The software will adjust and scale the photo and export to CAD via DXF (drawing exchange format), at a



price of only £260. For a free demo CD, telephone 01905 763361 or visit our website at www.mhsurveys.co.uk

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The more wood we use¹, the more our forests grow, because in Europe we are committed to planting more trees than we harvest – every year our forests grow by an area the size of Cyprus². Which is good news in the fight against Global Warming, as the more our forests grow, the more carbon dioxide is sucked out of the atmosphere, the more oxygen is produced and the more wood is available for you to use. Using wood in place of less environmentally-friendly materials³ ensures the carbon sink effect of the forests is put to good use, rather than being lost through natural death and decay. So, if you want to help our forests to grow: use more wood. For more information call 0800 279 0016 or visit us at www.woodforgood.com



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¹Use sustainably produced wood. Over 90% of all wood consumed in Europe is sourced from European forests, which are in surplus production (IIED, Using Wood to Mitigate Climate Change, 2004). ²MCPFE/UNECE-FAO State of Europe's Forests 2003. ³For every cubic metre of wood used instead of other building materials, 0.8 tonne c.² CO₂ is saved from the atmosphere (European Commission Enterprise DG, 2003). For additional reassurance look for independently certified timber.

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