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Deputy prime minister John Prescott opened the AJ's UK Architecture stand at MIPIM last Tuesday (8 March), together with new CBE chief executive Richard Simmons. Meanwhile, two days later on the same stand, the Corus Construction Centre's consultant architect Matthew Teague (right) launched The Corus Award for Best Use of Steel in the Built Environment, which will form part of the AJ Corus 40 Under 40 competition. For further MIPIM coverage, see News and Astragal (page 66).



PHOTOGRAPH BY YVES COATS/SALOLI

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Kaleidoscope Project, Kingston upon Thames
Photograph by Nicholas Kane



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Richard Hwyl Evans
Architecture & Design is
creating a landmark for
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“The council's case will flake off quicker than the paint will flake off the pool”

Construction minister Nigel Griffiths rejects claims that he abused his ministerial position when he waded in on the Bath Spa debacle » page 8

aj news

Crossrail could 'sink' Barbican

Some of London's most important buildings, including the Barbican, could collapse if Crossrail presses ahead with plans to use a controversial tunnelling system.

Experts have warned that the New Austrian Tunnelling Method (NATM) would threaten the structural stability of the capital's iconic towers.

The proposed technique has already been linked to high-profile disasters such as the 1994 Heathrow Express cave-in and the Barcelona Metro collapse less than two months ago.

Sources in the Corporation of London are particularly concerned about the use of NATM, in which tunnel walls are lined with sprayed concrete, in the construction of the proposed Barbican crossover.

Running beneath the Grade II-listed complex, this 150m-long section of the cross-city rail link could end up being as big as the 'Swiss Re building on its side'.

According to a detailed report by Alan Baxter & Associates, the



The Barbican's iconic towers could be at risk from tunnelling for Crossrail

potential impact on one of the Barbican's key buildings, Defoe House, 'is particularly significant'.

The survey claims that unless 'appropriate protective measures' are introduced, the damage caused by possible land movements during the construction of the tunnels, stations and shafts could be 'severe to very severe'.

Barbican residents have written to the Corporation of London urging its planning and transportation committee to carry out a 'condition survey' of the complex before work begins, amid fears that the tunnelling could affect the 'structural integrity of the estate'.

Meanwhile, among the other

320 listed buildings that may be at risk from land settlement, are some on Charterhouse Street, Cowcross Street and those at the eastern end of Smithfield Market.

The proposed excavations for the Lindsey Street ticket hall could also have an impact on the neighbouring Grade II*-listed market buildings.

Joe Weiss, the Corporation's strategic transportation director, stressed there were a number of serious challenges ahead for the Crossrail scheme.

He said: 'Its construction, particularly under sensitive sites, including the Barbican, will require robust and proven technology to satisfy the Corporation and its residents.'

'There are no problems, just issues, all of which can be resolved. We are extremely keen to work with Crossrail and with their expertise we can come to an early resolution,' he added.

Crossrail was unavailable for comment as the AJ went to press.

Richard Waite

Industry will land exhibition centre

London is set to gain a new Architecture Centre, it emerged at MIPIM last week.

Modelling and marketing firm Pipers is working with The Building Centre in London to convert the centre's ground floor into an exhibition space.

The project will allow Wordsearch boss Peter Murray, who will be its curator, to organise temporary exhibitions while updating a permanent show committed to the capital's architecture.

There are also plans to hold a competition for the space, with Bloc Architects, A-EM Studio and 6a Architects expected to be nominated.

Azman beats 50 practices to design RIBA's private members' bar at Portland Place

Azman Architects has won the competition to design a new private members' café/bar at the RIBA headquarters at Portland Place, it was announced this week.

The shortlist – which was picked from more than 50 expressions of interest – also included acq Architects, Blauel Architects and Universal Design Studio.

In addition to its use as a café and bar, it is anticipated that the space, which has already been dubbed the 'Ribar', will be used to promote architecture to all visitors of the building.

During the day, the bar, which will be housed in a space currently taken by the bookshop, will be open to all Portland Place visitors, but in the evening it will be reserved for RIBA members, their guests and all those that visit events at the institute.

Commenting on the winning design, judge Simon Allford said: 'Each of the four shortlisted schemes had a spirit that made it very difficult to choose. I like the simplicity and clarity of Azman's design proposal.'

RIBA president George Ferguson added: 'It was a tough decision, but I particularly enjoyed the winning architect's thinking behind the project, the thoughtfulness behind the transformation between daytime café and evening bar use, and the transparency and flexibility of the proposal.'

'I have high hopes of Azman developing its sketch proposal into a scheme of real quality, that is thoroughly contemporary but respects our great building,' he continued.

The contest was sponsored by Somfy Dynamic Facade Solutions and was organised by RIBA Competitions Office.

“We want to be a major European player, which means we have to be bigger in the UK”
Nicholas Thompson, chief executive of newly formed Aukett Fitzroy Robinson, thinks on a grand scale » page 10

Austin Williams argues that continual changes to the building regulations are making life impossible for architects » pages 16-17



Battersea Power Station rescue bid ‘threatened’ by retail study

The finances behind the Battersea Power Station redevelopment plans ‘don’t stack up’, the architect charged with assessing the project has claimed.

London-based Benoy was employed by developer Parkview to look at the detailed designs – drawn up largely by Grimshaw and Arup Associates – for the retail element of the scheme, and reported the current proposals will fail.

If the scheme does take off, it will involve an overhaul of the site, together with the provision of retail, leisure, tourist and hotel facilities.

But up to a third of the financing for the whole project is dependent on the success of the shopping element.

Benoy assessed whether major retailers could be attracted to take space in the redeveloped power station. The practice claims that its report is the main reason major construction is yet to start on site, despite full planning permission being granted in January.

Carl Francis, associate director at the firm, told the AJ that his work did not provide good news for Parkview.

‘Our commercial study showed that the proposals planned for the site simply do not stack up,’ Francis said. ‘This really isn’t good news for the company, as it’s the bulk of the project.’

‘The commercial viability of the scheme is

not up to scratch. The developer is planning on getting in a lot of high-end shops. But this hasn’t been planned for. There simply are not the facilities these kind of stores need in the proposals that we assessed.’

‘We understand that Parkview is delaying until the summer while it contemplates what we had to say,’ he added.

But Parkview hit back at Benoy’s comments, claiming that Francis’ remarks were motivated by ‘bad blood’ because it is no longer working on the project.

‘We are already starting some of the enabling work and we expect to be on site by late summer, and we are in negotiations with Bovis Lend Lease about building it,’ senior development manager Steve Kennard said.

‘We are also working with two other top-class retail architects to make sure that this all works. We are working with the likes of FPD Savills and I can guarantee there is a lot of interest.’

‘This is clearly about bitterness,’ Kennard added. ‘There is no doubt we will get this off the ground.’

The Grimshaw and Arup proposals for the site won full planning permission only after deputy prime minister John Prescott decided against calling in the scheme.

Ed Dorrell

YEANG IN ESSEX PROJECT

Llewelyn Davies has teamed with architect Ken Yeang to work on the new Essex Design Initiative. The practice is also working with Yeang on ‘green schemes’, to be unveiled at the end of the year. +

POUNDBURY AND PREJUDICE

Reverend Philip Lambert, rector of Dorchester, last week claimed residents of Poundbury, the Prince of Wales’s model for traditionalist urbanism, face prejudice because of where they live. +

MAKE’S VORTEX HEADS EAST

The Vortex, the 72-storey twisting tower designed by Make, could be heading for the Far East. The AJ understands Make has also been asked to design a 1 km-high version of the tower.

LEGIONNAIRE’S NOT GUILTY

A judge ordered the jury at Preston Crown Court to find Barrow Borough Council – accused of manslaughter after Britain’s worst outbreak of legionnaires’ disease – not guilty. Council architect Gillian Beckingham faces seven manslaughter charges. +

ALSOP’S GRACE PLANS

Plans to find a new site for Alsop and Partners’ dumped Fourth Grace proposal could succeed. It emerged at MIPIM that Alsop is considering building it in Toronto.

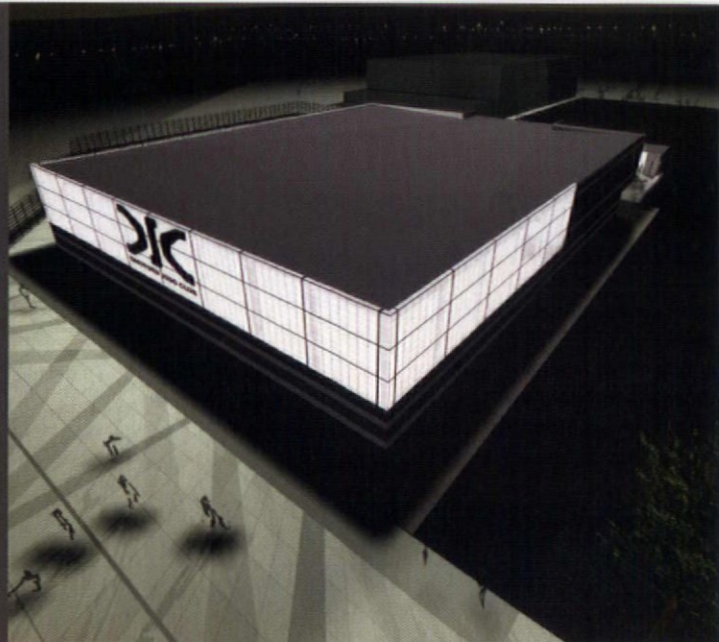
DETACHED DREAM

New CABE research shows more than half the population wants to live in detached houses, compared with 22 per cent who prefer bungalows, 14 per cent semi-detached houses and 7 per cent terraced houses. +

LAWRENCE PRIZE REVEALED

This year’s Stephen Lawrence Prize for the best building under £500,000 will be £15,000. It the third most valuable prize, after the Stirling Prize and RIAS Best Building in Scotland award.

Make has won its first detailed planning approval for this new judo hall for Dartford Judo Club in Kent. The £3.5 million scheme is being commissioned by Dartford Borough Council to replace the club’s existing premises – an ex-military drill hall that is to be demolished. The building is approached through a landscaped garden that leads into the double-height lobby. This lobby is the heart of the building, around which are the main circulation and a bar/social area for parents and visitors. The project is being run as a two-stage design and build contract, and is scheduled for completion by the end of 2005.





Hywel Evans sets sail for ExCeL

Richard Hywel Evans Architecture & Design has submitted this design for the entrance to the ExCeL site in London's Royal Docks to Newham Borough Council for detailed planning permission.

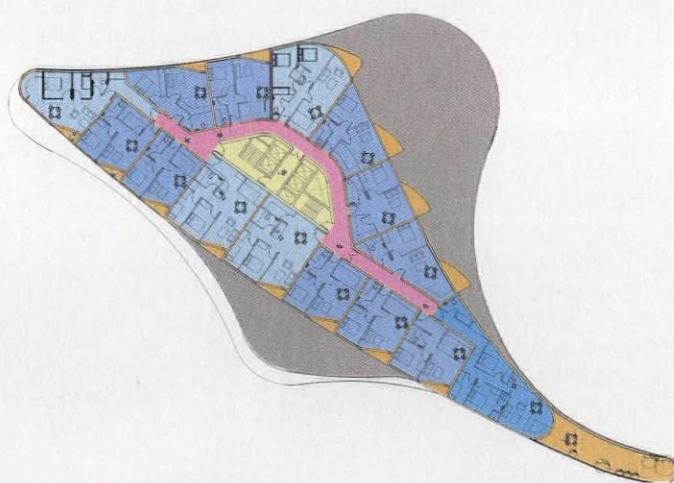
In a relatively featureless part of London, where the ExCeL development itself is too low to be seen from any distance, this scheme is designed to act as a landmark and a magnet to the area, as well as providing a high standard of residential accommodation.

The design of the 24-storey tower was honed in a wind tunnel to offer the minimum of resistance, therefore making the structure less massive. This process has resulted in the sail-like shape that provides such a distinct contrast to the more orthogonal buildings surrounding it.

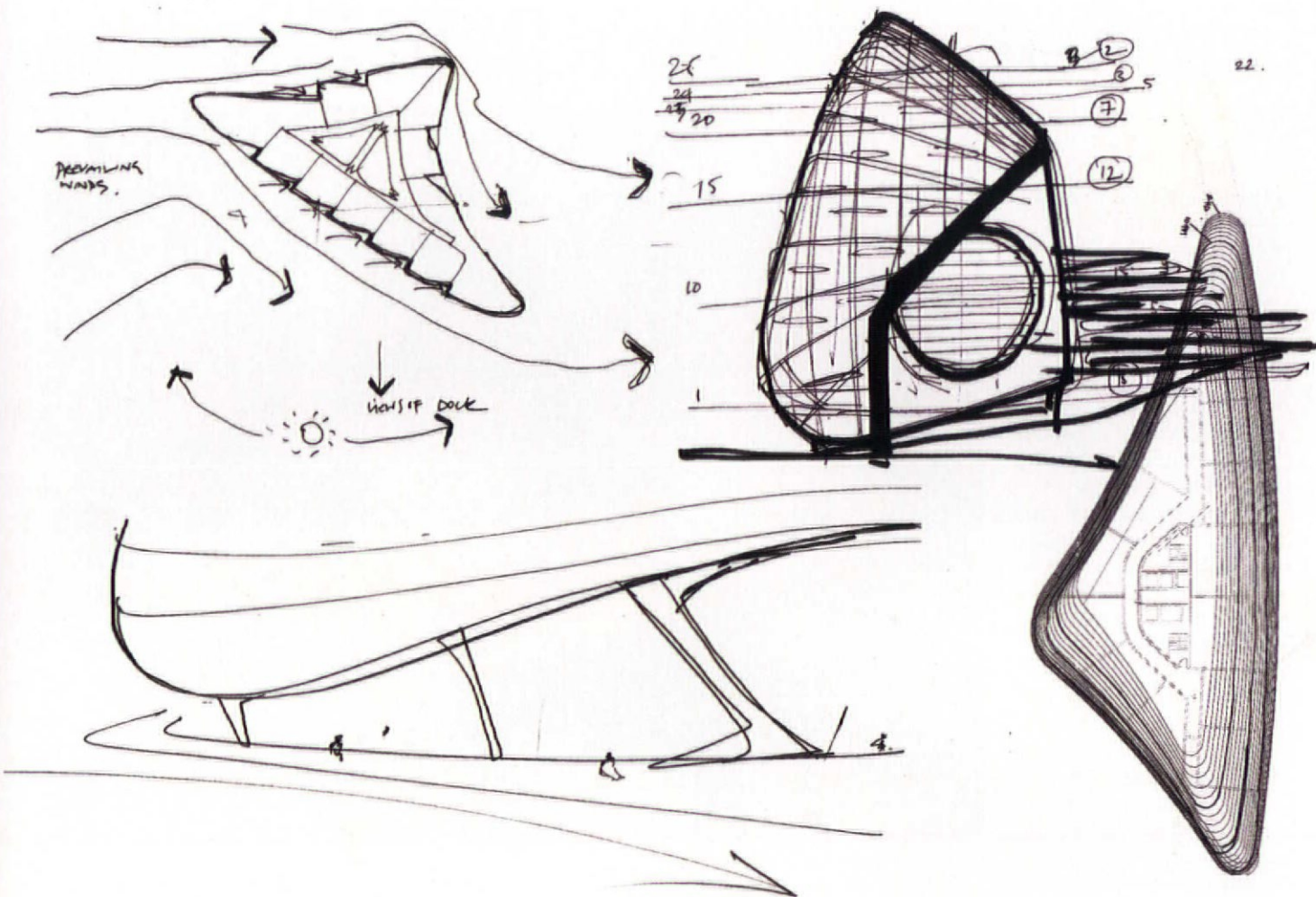
The tower will provide a total of 301 apartments, with a nightclub, restaurant and a casino in the ground-floor plinth. The architect is proposing that the ground floor should be a polished black-curved-punctured monolith, contrasting with the sleek tapered silvered skin of glass, aluminium and steel above it.

The building steps in profile from the ground up to its mid-upper storeys with a curved 'tail' of open terraced garden balconies and dramatic planted modern structures providing views of and from the dock basin and water frontage.

Ruth Slavid



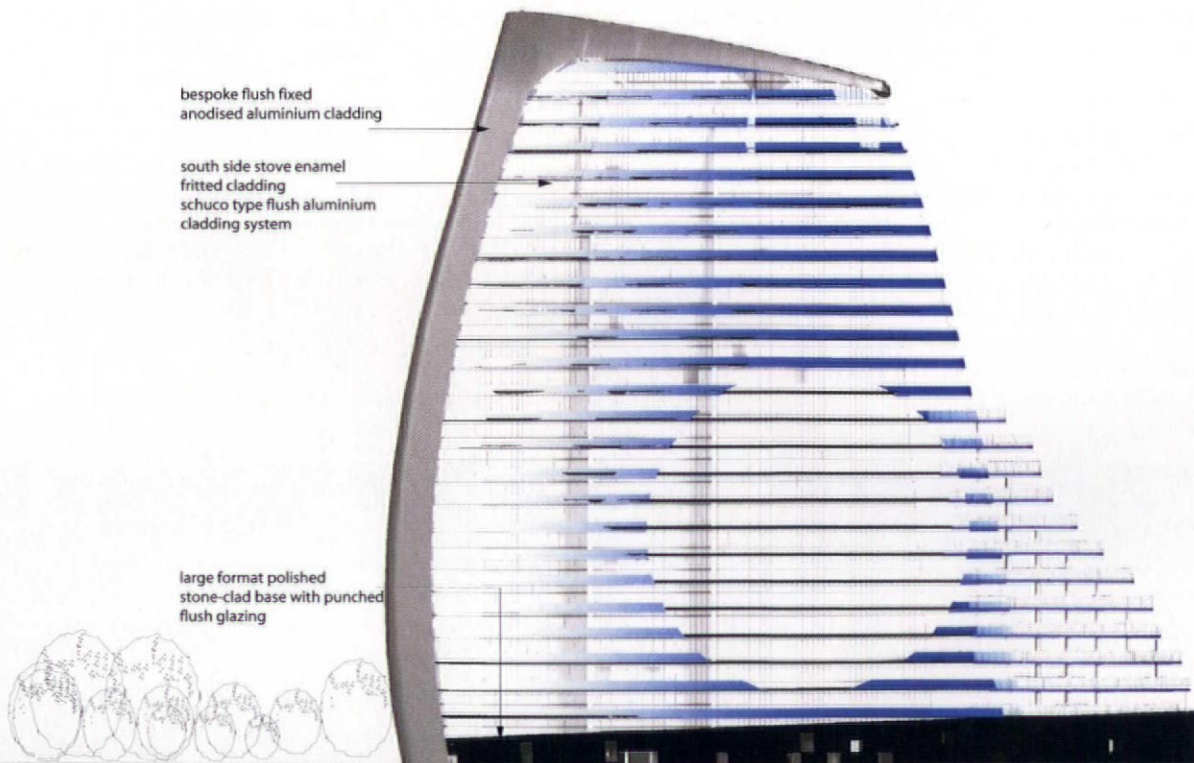
Apartments surrounding the relatively small core will all have balconies and excellent views



bespoke flush fixed
anodised aluminium cladding

south side stove enamel
fritted cladding
schuco type flush aluminium
cladding system

large format polished
stone-clad base with punched
flush glazing



south-west elevation

17 March 2005

Exposed: minister's Bath Spa row

The Bath Spa debacle has taken a further turn for the worse, with the exposure of confidential angry exchanges between central and local government.

Local councillors accused construction minister Nigel Griffiths of abusing his ministerial position in his treatment of the affair.

Politicians at Bath & North East Somerset Council have claimed Griffiths misled the press and public during his visit to Bath in February.

The spa project has been beset by problems, including leaking floors and peeling paint – problems that have led to a legal dispute between the council, the architect Grimshaw and the contractor Mowlem.

The councillors claim they were led to believe that Griffiths was acting in a ministerial capacity when he branded them 'the most incompetent in Britain' during his tour of the troubled facility.

When Conservative councillor Malcolm Hanney used the Freedom of Information Act to get to the bottom of the affair last month, officials at the Department of Trade and Industry (DTI) distanced themselves from Griffiths by saying he was acting in 'a non-departmental capacity'.

In a letter to DTI chief Patricia Hewitt this week, Hanney wrote: 'Griffiths has now confirmed that his visit to Bath was not a ministerial visit but a private visit at the invitation of Mowlem, which he combined with a political visit to a nearby constituency.'

'This is not how he has previously presented this visit to the press or public.'



In his letter, Hanney also drew attention to Griffiths' comments in a parliamentary adjournment debate last week.

He wrote: 'He proceeded to state Mowlem's position as regards the pool paint issue, without seeking any views or comments from Grimshaw and/or the council.'

'I am at a loss why the minister would be seeking to intervene in a matter where there is prospective litigation.'

But, in response, Griffiths told the AJ: 'The council's case will flake off quicker than the paint will flake off the pool.'

'I was invited both by local MP Dan Norris to meet small businesses and by Mowlem to look at the spa, and decided

it would not be a good idea to spend more taxpayers' money by arriving with an entourage of civil servants.'

It is understood that the minister has received a further invitation to visit the spa next week, which at the time of going to press was dependent on council approval.

Griffiths also branded the council's actions 'a smokescreen', adding: 'We have an international building with a well-known architect, and the council seems to fall into the category of an incompetent client, as the spa is three years late and three times over budget.'

Heated correspondence has emerged in the wake of the visit

between local and central government, with Griffiths branding the project 'a fiasco' and the council's comments 'delusional'.

In response, council leader Paul Crossley accused the minister of being 'badly misinformed and poorly briefed'.

According to the council, as of the end of February, the total scheme costs were projected to be £35 million, of which the council has paid £17 million.

Discussions continue regarding who was to blame for ordering the paint in the spa. A council spokesperson said: 'We are continuing to work towards a solution with Mowlem in light of its recent offer.'

Rob Sharp

THE WAR OF WORDS

9 FEBRUARY 2005 (AFTER THE VISIT)

From John Everitt, chief executive of Bath & North East Somerset Council, to construction minister Nigel Griffiths:
'For a government minister to make what appears to be unsubstantiated claims that will clearly impact on potential litigation is a concerning situation and one that demands an explanation.'

9 FEBRUARY 2005

From construction minister Nigel Griffiths to chief executive of Bath & North East Somerset Council John Everitt:
'I have been following your council's official comments to the media during the course of the Bath Spa fiasco, and they strike me as delusional.'

10 FEBRUARY 2005

From Bath MP Don Foster to construction minister Nigel Griffiths:
'Your "bull in a china shop" approach may well have caused irreparable damage and set back the project still further.'

11 FEBRUARY 2005

From construction minister Nigel Griffiths to Bath MP Don Foster:
'You ask for an apology. I make none, since the apology the citizens of Bath and North East Somerset want is from you for your failure to intervene and ensure your council, as the client, act decisively to stop costs soaring and get this facility open.'

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This scheme for a proposed £6.5 million extension of the Wolverhampton Art Gallery by Niall Phillips Architects has been submitted for planning permission. The project, which is funded by the Heritage Lottery Fund and Advantage West Midlands, is designed to house the museum's nationally significant Pop Art collection. The practice has been working with former Turner Prize nominee Simon Patterson to create a spectacular work of art that could be incorporated into the facade and louvres of the new extension. The artwork consists of an elevational screen of 390 electronically operated laminated glass louvres, set over a terracotta facade, which will be printed with sequential images of phases of the moon.

New giant hints at more mergers

New architectural giant Aukett Fitzroy Robinson is hungry for further mergers, it has emerged.

The company was catapulted into the top 10 of the UK's largest practices last week, after the long-awaited tie-up between the Aukett Group and Fitzroy Robinson was finally made official.

However, the directors of the new practice – which will have a combined fee income of £17 million – have hinted they are already eyeing up other targets.

Speaking at MIPIM, the international property fair in Cannes, the company's newly appointed chairman, Jose Luis Ripoll, claimed more market moves could be in the pipeline.

'This is the first merger,' said the former Aukett chief. 'The market will take note of this.'

Fitzroy Robinson's Nicholas Thompson, who becomes the company's new chief executive, agreed.

'Because it has all gone so well, instead of saying we have to have a long integration period, we may find it's not too long before we move on,' he said.

'We want to be a major European player, which means we have to be bigger in the UK.'

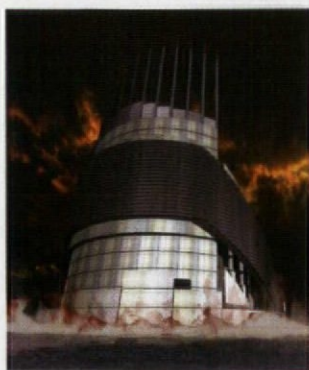
The new leadership at Aukett Fitzroy Robinson has also quashed rumours that the deal, effectively a reverse takeover, would lead to widespread redundancies.

Thompson said: 'We don't want to lose the skills we've got, and we're trying to build up our other sectors. There will be some form of rationalisation, but we're looking to grow, not to shrink.'

The merger is the second major corporate deal for Fitzroy Robinson in less than a year, following hot on the heels of its recent takeover of Moscow-based Mikhail Mandrigin Associates.

Richard Waite

STUDENT SHOWCASE



Andrew James designed the Battersea Genetic Ark as part of his diploma work at Liverpool John Moores University. Intended to form 'the Genetic Pole' of an eco-park masterplan scheme centred around Battersea Power Station, the aim is to marry together the need for short-term education and long-term preservation to safeguard the natural world around us, and ultimately our own species.

The centre will contain at its foundation a 'tomb' of frozen genetic samples containing all the genetic material to re-mix planet earth after mass destruction.

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



Council admits to secret talks to resolve Croydon Gateway dispute

The three dominant parties in the ongoing row over the contentious Croydon Gateway site are in secret negotiations to resolve their problems, the AJ has learned.

Croydon council and developers Arrowcroft and Stanhope – which have employed Michael Aukett and Foster and Partners respectively to draw up competing schemes – have met several times to try to bring the dispute to an end.

The three sides are determined that the row should be over within the next month to six weeks.

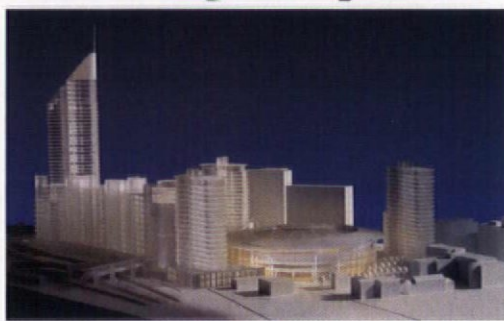
It is understood that several possible solutions are on the table, including the two opposing developers working together on a combined scheme.

It also emerged last week that Stanhope and Fosters have dropped their long-standing opposition to having an arena on the site, proposing a 6,000-seat venue instead of Arrowcroft and Aukett's 12,000 seats.

Speaking at the MIPIM property fair last week, Croydon council's planning chairman Adrian Dennis, who is a long-term supporter of the Arrowcroft plans, said that the secret talks had been under way for some time.

'We have been having confidential conversations about finding a solution to our differences,' he said. 'The three different groups have been attempting to find some kind of middle ground.'

'We will undoubtedly continue with these discussions. We are more than willing to talk things through, with the aim of coming to a solution that we can all agree on.'



The plan for an arena on site has been contentious

However, Dennis said he did not hold out much hope for a successful outcome. 'It is not realistic to go into negotiations of this kind believing that they will not work,' he said. 'The trouble is that Stanhope and Foster have never produced anything we like and we believe we can simply push the Arrowcroft scheme through by the use of Compulsory Purchase Orders.'

A source at Stanhope – which is taking a second scheme to appeal after its first was rejected at inquiry last year – told the AJ he was annoyed that the negotiations have become public, but insisted that they would still continue. 'These are important meetings,' he said. 'We hope there might be a way for them to reach a conclusion.'

'The next four to six months are key,' the source added. 'We need to make sudden progress, otherwise this dispute could go on for a few more years.'

Ed Dorrell

CABE hits out at hospital designs

CABE has damned modern hospital design, saying today's poor architecture will condemn future generations to abysmal health facilities.

In its annual design review report, it slams NHS Trusts for putting too much emphasis on short-term clinical goals.

In *Design Reviewed 2*, published this week, design review adviser Lucy Carmichael writes: 'From our experience, efficient healthcare delivery is the most pressing concern for NHS Trusts and their preferred bidders.'

'The creation of a healing environment and good urban design almost inevitably takes second place.'

The report adds that the majority of hospitals seen by CABE's design review panel are not informed adequately by a study of the cities in which they will be built.

The design watchdog – which came under fire from a House of Commons select committee report last week for its 'curious' attitude – says that the best schemes it has reviewed consider hospital buildings as 'pieces of a wider city'.

It warned of the danger of basing hospital layouts too closely on a detailed set of clinical requirements, while lacking an overall organisation.

'In this case the building will be difficult and expensive to change,' the report says.

Design Reviewed 2 will be launched officially at Farrell and Partners' new Home Office building this evening (Thursday 17 March).

● See Editorial, page 18.

Jowell furious over claims she plans to scrap EH

Tessa Jowell has lashed out at claims she wants to 'dismantle' English Heritage and hand over its historic properties to the National Trust.

In a letter to EH's chairman Neil Cossons, the secretary of state for the Department for Culture, Media and Sport says she is 'astounded and infuriated'

by rumours that appeared in the press on Sunday (13 March).

The letter says: 'I have no plans to close the organisation, nor have there been any bitter rows between us. Nor do I plan to hand control of your historic sites to the National Trust or anyone else.'

Stories about the possible overhaul of EH have been around

for some time. But Jowell, who ruled out a structural change last year, claims she has no plans to revisit her previous decision.

She also said she believed the heritage world could better represent heritage if it spoke with one voice, but added, 'this is different from calling for your organisation's abolition'.

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Clarity of thought

The Architectural Review's annual conference was called Transparency in Architecture. Following this, **Rob Gregory** considers the complexity of transparent elements and the importance of detail and interaction with adjacent materials

Glass is phenomenal, and ambiguous. Early Modernists regarded it as the super material. Glass was the means by which to reunite man with nature, as designers ignored practical needs in search of the perfect domestic goldfish bowl. Today they continue to struggle, battling to understand its environmental credentials, resolving inherent contradictions to justify morally the use of a material that, while bringing daylight to interiors, concurrently exposes them to thermal, optical and practical complexities.

Attempting to explore these complex issues, this year's *Architectural Review* annual conference (held at the RIBA on 5 March) sought to look deeper into transparency. The subject, it would seem, continues to frustrate.

Michael Wiggington, chair of architecture and design at Plymouth University and author of *Glass in Architecture*, began by discussing the history of glass. From Roman to recent times, he traced the material's evolution – small openings, large openings, glass houses, curtain walling – concluding with a curious and perhaps unintentional contradiction. Having presented glass as the 'universal container' – transparent, rigid, impermeable – his final slide illustrated the ideal physical envelope: human skin – translucent, flexible, permeable. With this he had demonstrated succinctly the inherent shortcomings of glass. Glass may be the 'universal container', but it will never be a 'universal skin'. It cannot flex, stretch or, most significantly, breathe.

Most innovations in glass have focused on how it is fixed, held or restrained. Its ability to moderate the internal environment always

relies on secondary components: blinds, actuators, gaskets, leaky frames, slot ventilators; the list goes on. As demonstrated clearly by the three contributing engineers – Tim MacFarlane, Tony Hunt and Stephen Engelsmann – the pursuit of transparency has always relied on how glass is engineered. From column-and-frame solutions to filigreed glasshouse structures, curtain walling to cable nets, the nature of the structure has more of an impact on transparency than the nature of glass itself. Even when glass is exploited structurally, it is the mastic, glue and bolts that become the focus of attention.

So, when questioning the nature of transparency as an architectural phenomenon, what more is there to be said? Is the history of architecture defined by the history of making holes in walls – leaded, framed, frameless, bolted or suspended? How many variations of the spider bracket must we endure?

Fetish of detail

In the presentations, Eva Jiricna's work was consistently delightful; however, transparency did not appear to have been her key concern. And Helmut Jahn's work, as impressive as it was in terms of scale and ambition, was neither sensorily nor conceptually rich. The fetish of detail often distracts, and in pursuit of a transparency that does not rely on exposure to acres of glass, it is worth remembering that, in opposition to the more expressive work of many, few have produced more delightful and modestly framed apertures than Barragán, Utzon or Sverre Fehn.

James Carpenter and Luke Lowings were

perhaps the only contributors to tackle fully the nature of transparent materials. Fundamental to their approach was the notion that glass – or in fact any translucent or transparent architectural elements – should never be considered as void or residual to more massive opaque materials. Glass, foil, plastics and mirrors can be as substantial visually as brick, steel and stone. Therefore, the way that surfaces relate to each other and the spaces they contain should be composed carefully.

We should, based on site-specific data, continue to evaluate the qualities of glass. How deep or how reflective should a surface appear? What is the boundary and how should it be projected? How can glass encapsulate visual information, hold reflections or project shadows? And how can glass translate the viewer's perception of a space? By experimenting with gradients of opacity, colour, artificial lighting and specific angles of incidence, potentially formless transitional spaces such as atria and stair cores can adopt specific characteristics.

As a consultant designer brought in to refine and extend the original architectural concepts, Carpenter/Lowings Architecture & Design has worked with many leading design teams and demonstrated more than anyone else that creative specialism is as significant as technical expertise when considering transparency.

Transparency is about our perception of positive stimuli, not about invisibility. The word 'dematerialisation' should be banned. Glass is not void.

Rob Gregory is an architect and assistant editor of the Architectural Review



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who said what

'Necessary evils have been good to London. The Great Fire torched all those fiddly Tudor houses, the Luftwaffe wiped away the filthy slums, and now the Olympics threatens to burn a path up the Lea Valley and unleash a frenzy of new building'

Lloyd Evans. *Spectator*, 12.3.05

'Architecture has this other element. It's not just something that enhances life, it serves life. And buildings can run out of usefulness.'

Architectural historian James O'Gorman. *Christian Science Monitor*, 9.3.05

'A fabulist visionary of extravagant gifts who belongs at a table with Terry Gilliam and Willy Wonka'

Justin Davidson on Will Alsop. *www.nynewsday.com*, 10.3.05

'These days, the Chinese like to joke their national bird is the crane'

The Chinese building boom flies on. *The Economist*, 10.3.05

vital statistics

- Fifty-six journalists worldwide were killed in 2004 because of their jobs – the deadliest 12 months for reporters in a decade, the Committee to Protect Journalists reported. Thirty-six of these reporters were murdered, it said.
- New construction orders in the year to January 2005 rose by 9 per cent compared with orders in the previous 12-month period; and orders in the three months to January 2005 rose by 9 per cent, compared with the same three months a year earlier, the Department of Trade and Industry has said.
- London's Royal Free Hospital has the best stroke rate in the country, according to a report by the Royal College of Physicians. The mortality rate among stroke patients treated there is 16 per cent, compared with 24 per cent nationally.
- Taxpayers are losing almost £4 billion a year from tobacco and alcohol smuggling, MPs have claimed. They branded the smuggling of hand-rolling tobacco 'out of control'.

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SIMON PEMBERTON/HEART

BREAKING THE RULES OF THUMB

There was a time when most architects understood the Building Regulations. Today they are clouded by confusion. But how can anyone be expected to keep up when the Approved Documents are constantly changing, asks **Austin Williams?**

A decade ago, if you had asked an architectural assistant, a technician or even an architectural practice partner to name the U-value for an external wall, I bet most would have got it right (after clarifying whether it was for a domestic or non-domestic property). And if you'd asked for the U-value of a roof, the percentage of correct answers would have been even higher. These things were second nature. They were rules of thumb that everyone who had the slightest understanding of technical design principles would have known, and if they didn't, they would certainly have known where to find them: Part L, a couple of pages in, and there was a straightforward schematic of a house with check-off U-values. Simple.

Fast-forward to today and ask these same people, ask anyone what the answer is, and you'll discover that there is far less certainty. So, even though the current Approved Document Part L has attracted significantly more media attention than I can ever remember being given to its predecessors, and is seldom out of the trade and business press, in general we are less aware of its content.

As a matter of fact, the current Approved Document actually contains a similar U-value diagram to the one that went before, but nowadays an architect cannot rely on this data alone. A building now has to be viewed in totality, using computerised calculation spreadsheets and comparative elemental or

whole-building analysis, etc. Knowing a figure like $0.35\text{W/m}^2\text{C}$ is no longer enough. Today it has to be compared with an out-turn SAP rating, read in conjunction with Robust Standard Details (sic), assessed in terms of air tightness, checked off against natural ventilation leakage, amended to suit site orientation and tweaked by the assumptions of the amount of carbon emissions that may or may not be coming from a bloody boiler. Much of this is beyond the wit of mere man and so, God help us, M&E engineers with geeky computer programs are multiplying like rabbits. Since architects have always felt usurped and insufficiently appreciated, this doesn't explain the shift in recent times. So what's happened?

Spreadsheet architecture

Today, many architects actually see opening the Part L volumes (for now there are two) as a source of unfathomable dread rather than enlightenment. While it was only the more nerdy architect who revelled in the regulatory excesses of Approved Documents, everyone got by using the rule of thumb.

The generalised rules could be gleaned from the pages of Approved Documents quite easily and remained in one's mind because they had time to enter the public consciousness. Rules of thumb stood the test of time. They provided a starting point for a scheme and clues as to its parameters. It was, and surely still is, the only way to begin to flesh out a design concept. Rules of thumb pave the way to a better understanding of the practical realities of insulation standards, glazing sizes, elements of structural stability, wheelchair turning circles, means of escape and so on.

But, rather than providing some assurance that your initial sketches wouldn't be far out, as they did in the past, today all of these rules of thumb are in a state of flux, with amendments pending or recently published to Approved Documents L, E, A, M and B respectively and more to follow. This is not just the usual schema for regulatory change; it is a state of permanent revolution.

From now on, it is predicted that Approved Documents will be constantly under rolling review. This simply means that nothing will be certain, that designs will have to incorporate a predictive capacity, and architects will have to monitor and upgrade constantly. Welcome to a world where government Approved Documents, intended to provide definitive guidance, are in fact feeding a climate of uncertainty, confusion and desperation.

Given that we live in an era of precaution, the necessary predictive element will tend to err on the side of caution and safety – 'safety' in the meanest, most boring sense of the word. Can you imagine housebuilders altering their designs radically – as is the *cri de cœur* of architectural aesthetes everywhere – when they are primarily concerned with getting the right answer at the bottom of a spreadsheet calculation? Thus, the whole idea of rules of thumb – of knowing the essentials of practical construction principles – is now effectively static... or void.

We have now reached an era of spreadsheet architecture, where inordinate amounts of time are taken up with transparency rather than getting on with the job in hand; justifying

the numbers rather than concentrating on the design. A wrong number requires the architect to either fiddle the figures, safe in the knowledge that the building inspector will be none the wiser, or to employ an engineer and hope that the client will stand the costs.

Time and tide

In the past, Building Regulations were created and modified for a clear purpose of improving the previous legislation. Definitive strictures were laid down after years of practical enquiry, explaining the pros and cons of current regulatory practice and proposing a tightening or, in some cases, a relaxation of the rules, as appropriate. Today, there are two significant differences. Firstly, building regulations have become politicised and, secondly, regulations are tested out in practice. Both of these have destabilised the trust needed for the regulations to be successful.

In political terms, building regulations nowadays seem to be aimed at fulfilling a 'higher ideal' rather than simply improving comfort and convenience – the prior drivers for change. Energy policy today is dominated by a political discourse on saving the planet rather than saving on the gas bills; acoustic insulation is promoted as a bulwark against (and hence overstates the fear of) noisy neighbours; accessibility issues are caught up in the frenzy of competing disabilities (disabled ambulant steps versus wheelchair-bound ramps, for example); and means of escape are shackled by the insurance lobby, a fear of litigation and the ever-evasive risk-assessment culture (a culture, by the way, that has little correlation with risk reduction). All of which pressures architects into looking for the lowest common denominator rather than the best tools for the job.

Just like buses

Building Regulations were first drafted in their modern form in 1965. Thereafter, the document underwent significant alteration and upgrading until it was published in its current guise under the Building Act 1984, some 19 years later. The Approved Documents, indicators of how to comply with the Act, were brought out at the same time and were only altered in 1992, a period of eight years' reflection. Since then, there have been piecemeal changes to individual documents, but, crucially, all changes came about after careful consideration, testing and revision. Today, regulations are hurriedly debated and foisted

on an unsuspecting public to iron out the problems. It's not that field-testing is such a bad thing, were it not for the fact that these are legislative documents. Regardless of whether or not the information contained in them is duff, they have to be believed until the next round of corrections and addendums.

Like buses, you wait 10 years for an amendment and then they all come along at once. Currently, the list of proposed changes over the next 18 months includes Consultation – Part L (conservation of fuel and power) in early/mid 2005, and New Part L (conservation of fuel and power) in mid/late 2005, notwithstanding the fact that the current guidance was published in July 2004, that 'complementary' Robust Details came out in 2002 and needs to be upgraded, and that there is a consultation busily trying to harmonise (read: amend) Part L in line with Part E. Theoretically, Approved Documents are to change every two years.

But, so what? These are only guidance booklets. Are architects unable to grasp such straightforward data? Have we simply reached the point of so-called 'information overload' that we were all warned about by Hal Berghel back in 1997? Well, I would like to argue that there are two objective causes to the current lack of clarity in architects' understanding of the regulations. The pitiful explanation that the world has become such a complex place that architects are unable to stay in control of the exciting array of products and contracts, is not one of them.

Architects are as bright or stupid as ever they were. However, it is true that, as a result of the way regulatory information is disseminated today, architects have, paradoxically, become more distant from the construction process and more detached from the object under enquiry than ever they were.

The fact that regulations are in a constant state of upgrade leaves architects unaware of the regulations pertaining to their project. Regulations are frequently no more than advice (see Part P for a clear and ridiculous example), regulators regularly abrogate their responsibility for it and, more importantly, all too often the transitory nature of the regulation makes for a curiously unauthoritative statement on what is needed. It's about time that the Building Regulations settled into a less frenetic pace of change, stopped pandering to remote political concerns (about which they know little), and began producing guidance documents that have integrity, accuracy and, that old-fashioned concept, longevity.



Can we afford to have our hospital buildings in a poor state of health?

Perhaps Lucy Carmichael did not choose her words as wisely as she might have done, when she wrote: 'Efficient healthcare delivery is the most pressing concern for NHS trusts and their preferred bidders. The creation of a healing environment and good urban design almost inevitably take second place.' One's first reaction is 'well, of course'. Imagine the uproar if the opposite applied, with doctors explaining that they weren't doing much to heal patients, but still their hospitals were really, really nice places in which to be sick – and die.

But this is an unreal dichotomy, and Carmichael, writing in CABE's *Design Reviewed 2*, is saying something important. You can't set one thing against another in this crude fashion – otherwise we would perpetually be asking: 'put aside money for the arts or offer disability benefit?', 'tackle Third World debt or mend the roads?', and 'stop drunken driving or put money into education?', and rapidly all sorts of issues that people rightly care about would disappear from our agenda.

Good hospital design is a concern for us all. Recently, on our pages, architect Chris Dyson picked St Mary's Hospital, Paddington, as the worst building he had ever seen, prompting a response from one of the original architects. He said that the hospital worked well, was delivered on time and on budget, and was designed from the inside out – so what if it didn't look pretty?

He had a point, of course, but then another of CABE's criticisms of contemporary hospital design is that it is too short-sighted about long-term functioning. Yet again, though, we must avoid a false dichotomy – this time between function and appearance. The smaller health buildings featured on our buildings pages this week (pages 24-37) show that good design is certainly achievable at a relatively small scale. And, of course, it must be on the scale of large hospitals as well. Playing a major role in our cities, they must be good neighbours and must not depress the people who walk past them, work in them or stay in them. Other countries have some great hospitals, as we have done in the past. The question is not whether we can afford good design for our hospitals, but whether we can afford not to have it.

Ruth Slavid

ARB's overstepping of role is what disturbs

David Rothmire misses the point in crowing that he was checked out on the ARB register (AJ 10.3.05).

No one would object to the ARB if it restricted its operations to the minimalist role as envisaged in a public consultation paper issued by the Department for Environment, Food and Rural Affairs on 19 July 1994, which said: 'The main objective of the reforms is to create a small, focused and effective registration body which represents the interests of both the profession and the general public. Its purpose would be to: set criteria for admission to the register; prevent misuse of the title architect; discipline unprofessional conduct; and set fee levels.'

In November you published a letter signed by three RIBA past presidents (AJ 11.11.05), in which they complained that the ARB had revised its rules to inhibit the democratically elected minority component of the board: the architects.

These include the following:

- Resolutions of the board may be passed without there being a meeting of the board.
- Once authorised, the chief executive may act on behalf of the board without any further reference or report back.
- Any or all of the elected members may be removed from office by the appointed members voting en bloc.
- The registrar, who is also the board's chief executive, may alter candidates' election statements while at the same time continuing as the electoral returning officer.
- Candidates for election who fail to provide an undertaking that they will not make any public comment that would call any past or present decision of the board into question will auto-

matically be disqualified from standing.

Commenting on these rule changes, the RIBA said that there was a lack of checks and balances, and of any appeal process. Its advice was not heeded.

The changes have the effect of further concentrating the decision-making power into the hands of the registrar and the chairman. If Rothmire is concerned for the future of the profession, these are facts that should disturb him also.

Kate Macintosh,
Finch Macintosh Architects

Board abolition is not the be all and end all

David Rothmire's letter (AJ 24.2.05) alleged that Ian Salisbury did not represent 'the vast majority of serious architects'. Rothmire does not give any basis for this supposition and dismisses those with similar views as 'Salisbury's apologists' (AJ 10.3.05).

The profession decides who represents them in the ARB board elections. The result is the most relevant measure of the strength of support for a particular view. I welcome the broadening of the debate to include non-architects, but support for the ARB from those who are not subject to its rule or finance its activities can only have limited value.

In referring to Salisbury's election statement, which was only sent to those on the register, readers could have understood that Rothmire was claiming to represent the silent majority within the profession. Am I wrong to highlight that the strongest public supporters of the ARB are not on the register? If disclosing this is 'laughable' and 'damaging to the profession', Rothmire might have done so himself and saved me from betraying my 'beleaguered' and 'marginalised' position.

Having responded to his request that architects declare their support for Salisbury's campaign to restrain the activities of the ARB, I would request that if there are any architects who share Rothmire's views, they do so on these letters pages.

In doing so, we should not be distracted from the substance of the debate by assertions that the issue is the abolition of the ARB and the Architects Act. This outcome may be the regrettable conclusion of the failure of the ARB to work within the act, but it is not the objective of those who question its extraneous activities.

Mark Benzie, London EC1

Powell and Moya spark a regionalism revival

In 1963 I left New Zealand to look for architecture beyond Modernism, and which could reflect a culture and a place, New Zealand being too young to leave a sufficient past.

On the way to Europe I stopped in New Delhi. Chandigarh, just finished, seemed only abstract sculpture beside the sublime majesty of Lutyens' Viceroy's Palace.

Next Italy, released from Fascism, exulting in the recovered past, symbolised for me by the vertical Medieval understanding of the Torre Velasca in Milan.

On to Wolfsburg and Aalto, the Finnish landscape recreated as a sculptural monument, purest Aalto. What else could it be? There was no context anywhere about.

And then England, where three buildings stood out above all else: Brasenose College and Blue Boar Quad at Oxford, and Cripps Court at Queen's College Cambridge, all by Powell and Moya. New architecture of the most formal real sculpture, shaped to the scale and roofs in Brasenose, the flowing folding volumes of Cripps Court, and finally the ambiguity of Blue



A public art success – would you credit it?

I refer to Barrie Evans' article on Bennetts Associates' Brighton Jubilee Library (AJ 3.3.05) and particularly to the photograph on page 25, which highlights an impressive art installation forming a focal point behind part of the glazed facade.

The client and architect must be congratulated on dedicating part of the budget towards art in architecture, but I suggest that the artist responsible deserves some recognition in the credits, if not a short description of the piece in the text.

Janet Drabble, LDN Architects

This piece, a magnified page of dictionary definitions of 'library', was by Georgia Russell and is called Uncover/Discover. Other artists who worked on the project were Kate Malone and Caroline Barton – Ed

Boar Quad, creating its own courtyard behind a high wall.

Here was absolute authenticity, shapes containing the deepest functional understanding of the Medieval context, and details which ran seamlessly from the monastic past to the present.

Of course, I was also deeply impressed by Stirling and Gowan's Leicester Engineering Building and Lasdun's Royal College of Physicians, both stylish learned works but lacking

continuity, and short of some very English qualities, such as picturesqueness, and a contextual thoroughness that the three Powell and Moya buildings expressed just as completely as Lincoln Cathedral on its hill.

These buildings seemed to epitomise the neglected philosophy of Colin St John Wilson's *The Other Tradition of Modern Architecture*, and answered Aalto's words, that the functional tradition did not go deep enough. And

regionalism in these buildings was not buried in the obscure arguments of academics, who search outside the discipline of architecture to express themselves, and mostly don't build. In those three Powell and Moya buildings was regionalism with the fullest understanding of the struggle and making of buildings within their own local history and traditions.

I, for one, would look forward with the greatest anticipation to a real book on Powell and Moya. Possibly this book could be the pivotal moment for a rediscovery of regionalism in the most complete sense.

Peter Beaven, no address given

M2r's country house is nothing but hot air

I am not an architect. I was accepted, with a certain alacrity I might add, by Liverpool Poly to study such many years ago, but fate decreed otherwise.

Now a regular reader of the AJ, I am fascinated by 'Q&A' and its brief insight into an architect's psyche.

Having seen the recent M2r Architecture design 'modernising country life' (AJ 10.3.05), I fail to see how something that looks surprisingly like the hot-air blower in my greenhouse was 'inspired by the surrounding countryside'.

Could it be that such a Lud-dite Lancastrian would never have made it in the profession, or is Sevenoaks countryside so different from the rural Lancashire of my formative years? Just in case anyone might be wondering – timber engineering.

John Park, Farnborough, Hants

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.



London may be cramped, but it is overflowing with ideas

A few weeks ago London was buzzing with branding: '2012: Back the Bid', a huge advertising campaign, excitement and contrasting reflections. Many of the latter were offered at the Future of London festival. The organiser and chairman, the AJ's Austin Williams, said the question 'What is London?' is the 'Millennial quinquennial question'.

My reflections raised uncomfortable thoughts. London is three unplanned cities (Westminster, Southwark and the City) that have swallowed up towns and villages. It has a labyrinthine leadership structure – the Greater London Authority, the London Development Agency, boroughs, Transport for London, English Partnerships, and other forms of visible and invisible partnership covering everything from river to rail. It has poor infrastructure and traffic lights phased to increase congestion and tax revenue. London is fantastically expensive, which makes travel a joy because absence makes you richer. It expands, yet is strangled by a green belt. It sucks up intellectual resources, yet exploits an underclass of lowly paid workers. It is a city divided: we gate them in or out depending on our politics and prejudice. Denuded of industry, it relies on that great South Sea Bubble of an idea, knowledge culture, and is misled by a vast 'quangocracy'.

How has this come to be? I return to the denial of Wren's Great Plan by the merchants restaking their property in the embers of the Great Fire. There was no grand plan, indeed there was no plan at all. London got party walls, building acts and a romantic vision. A net cast over constraining commercial development, pierced only by dome and spires: mythical London with religion triumphing over commerce, portrayed in contemporary engravings from an unavailable view in the sky. And that is it.

London is a city of limited visions and few

great boulevards, but many laws on light and walls, privacy and overlooking, sound and dirt. Visions that cut across London are denied by parochial politics: the last great legislation comprised the Acts of demolition, allowing trains to come to town. We cannot stack up a layered city, even if attractive, because funding models cannot cope.

Some people so love the chaos that is the capital that they conserve it and acclaim it as 'townscape'. The remarkable thing is not that we build well or badly, but that we build at all. London is a city of constraint, not design, where each project is taxed to fund each random, yet particular, improvement. So building in floodplains bereft of infrastructure becomes a tax-avoidance 'idea'.

As London is such an ill-considered city, why is it that, of all the cities bidding for the urban panacea of the 2012 Olympics, we need such heavy advertising and promotion to encourage us to back the bid? Surely we should jump at the chance. The answer is that London, because of all of the above, is very big, often bad, but has its own beauty. The 'worse' it gets, the more people pour in to live and carve out an identity, as they have done for 2,000 years. Paris, Rome, Berlin and Madrid are, by comparison, little more than suburban zoos – fixed, designed and complete. Only squalid New York competes. London is whatever the individual makes of or takes from it. London has the intellectual capacity of its ever-shifting populace.

To understand London I recommend only one book, Sasek's 1959 children's classic, *This is London*, a tale of an anarchic working city, of use and misuse. Much has changed, but it is recognisably, uniquely London. In need of visions and intelligence, but never self-interest and exclusion: a city of ideas triumphing over constraint. The more they legislate, the more we overcome. London: always in need of infrastructure, never short of ideas.

'London is a city of limited visions and few great boulevards, but many laws on light and walls, privacy and overlooking, sound and dirt'

Francesca Weal of Francis Weal & Partners was photographed by Tim Soar at 11.51am on 23 July 2004 in Welwyn, Hertfordshire

Francesca Weal writes: 'I am sitting in the former boiler room – now the entrance hall. Through an old external window opening, which we unblocked, you can see a new oak portal framing a light and airy reading room (replacing the old WC), and beyond that a new door opening into the main room. Both new and old walls are lime-plastered and finished with soft distemper. I love to use light and long perspectives to change the perception of existing buildings and maximise enjoyment of new ones. The office itself has 2.4m-high, south-facing Regency French windows. It contains a double-elephant plan chest, formerly from Owen Williams' office, the architectural library, workstations, printers and the copier. With the other practice office in Romsey, email and CAD are wonderful enabling technologies.'





Historical alchemy offers a route to solving tomorrow's problems

As a student of history I have always been fascinated by my own period – by the events that took place around the year of my birth, 1938. This was a dramatic year, whose political matrix remains the subject of heated debate among historians to this day. In Europe it takes in the reunification of Germany and Austria and Neville Chamberlain's 'Peace in our time' deal with Hitler over the break-up of Czechoslovakia. These consequences of the Treaty of Versailles either came to a head in 1938 or, like the 'Winter War' between the Russians and the Finns, or the start of the Second World War itself in 1939, were clearly foreshadowed by the general European mobilisation in the previous year.

But there is another way of looking at the contribution of one year to a longer historical progress. Thus, against the oft-repeated tale of the Munich agreement, wrought by hapless and corrupt politicians as well as obsolete and deluded military men, there is a ready substitute for the lamentable democratic tendency to fight the last war over, instead of searching for the key to winning the next one.

How was it that a defeated country like Germany, completely lacking in petroleum, with its iron-ore reserves confiscated by the Treaty of Versailles, with no nickel, no tungsten, zinc, lead or copper, and, perhaps most surprising of all, no government planning framework, could undertake the huge task of remedying this state of unpreparedness?

The answer lay in part with the militaristic nature of the Nazi regime. But, even more fundamentally, it depended on the scientific and technological infrastructure bequeathed to the Nazis by the imperial regime they ousted in 1933. Led by its peerless chemical industry from the latter part of the 19th century, German scientific research led the world. First the chemist Karl von Linde succeeded in liquefying air and turning it into a raw material. Then Fritz Haber synthesised ammonia from nitrogen, a

discovery that solved the shortage of nitrates for fertiliser and explosives to such an extent that by 1938 German factories were making six times as much fertiliser from the air as had been imported from the cliffs of Chile in 1914. Air liquefaction was later developed as a source of rare gases – argon, neon and xenon – which revolutionised the lighting industry. Alchemical achievements like these were readily translated into their military equivalents and then fed into the industries most directly concerned.

But while her science and technology alone made Germany the most technologically advanced country in the world by 1938, they played a no less important role in converting the country into the most energy-efficient as well. This process of radically mobilising the entire population took place under the aegis of an organisation called *Verwertung des Wertlosen* ('Finding Uses for the Useless'). This outfit rode on the back of a handbook of the same title, with an introduction by Herman Goering. A translation into English was published in London in 1944 under the title *Science and Salvage*. This book thus becomes, in all probability, the first serious attempt in modern times to codify and organise the available data on recycling and waste processing.

Over time it has become increasingly obvious that much can be learned from a study of the performance of the losing side in the Second World War if we wish to understand one pattern of breakdown – where an energy-starved but technologically sophisticated nation went down with its blast furnaces glowing and its production lines moving to the very end. There are also organisational lessons in the extent to which the Germans achieved great economies and material substitutions, bizarre contrasts between the futuristic and the ancient, as when cart horses towed jet fighters to runways and autobahn filling stations sold wooden logs instead of petrol.

'It has become increasingly obvious that much can be learned from the losing side in the Second World War'

Steven Pidwill

Shepherd Epstein Hunter

Where and when were you born?

Where east London used to meet Essex, the year after the Queen was crowned.

What is your favourite building and why?

Maybe the Mackintosh School of Art in Glasgow, if I must.

What is your favourite restaurant/meal?

Almost anything made by my partner, Rachel – restaurants have difficulty competing.

What vehicle do you own?

A VW Passat Estate, bought on the internet. It works well, but I wish the CD player worked better. Boring but true.

What is your favourite film?

I enjoyed *Nixon* by Oliver Stone.

What is your favourite book?

Recently, *Any Human Heart* by William Boyd – it shows how people have several lives in a normal span, not just one.

What is your favourite 'design classic'?

A classic screw wine-cork puller with pull-down wings.

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

The long stretch of London Metropolitan University's yellow stock brick nothingness that stretches from near Highbury roundabout for 200 yards.

Who or what is your biggest architectural influence and why?

Alvar Aalto, with a bit of Ralph Erskine and Reginald Cave, head of Oxford School of Architecture in the mid-1970s.

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

A whole stream of people who have passed through our practice over the last 20 years.

If you hadn't been an architect, what would you have been?

Probably either a social worker or an art teacher.

What would your advice be to architectural students?

Don't give up.

What would your motto be?

See above.



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REBUILDING LIVES

Both form and atmosphere are central to Grace Architects' Kaleidoscope Project building for rehabilitating drug users, located in Kingston upon Thames

By Barrie Evans. Photographs by Nicholas Kane



Section shows the difficulty of linking existing (left) and new (right) levels. Opposite top: the landing around the entrance hall. Opposite bottom: residential detox unit. Previous spread: rear view



east elevation

There are echoes of the idealism and optimism of the early Moderns in Grace Architects' treatment of the building for the Kaleidoscope Project, a Christian-run learning centre and detox unit for drug users, itself an idealistic and optimistic venture.

A new building, functionally it is an extension to Kaleidoscope's existing presence on the site: a residential block, currently accommodating asylum seekers, a large drop-in café and a church. Built in the 1980s in red brick, the Baptist church particularly is a quiet hidden treasure, a period piece of modest means creating atmospheric space.

The project is an act of faith, instigated in the belief that funds would be found. The top-floor residential detoxification unit of this three-storey building is yet to start running. But funding will come. On the lower floors are the reception, teaching and training rooms (with IT), a web production unit, recording studio, art studio, meeting rooms and a small exhibition/performance space. This is a responsive mix of facilities, geared to its clients, there to help them build their futures. Most clients live at home and come to the centre by day, often on long-term methadone programmes.

This is a remarkably integrated building, especially given both the heterogeneous functional mix, which will change with time, and the variety of architectural influences the architect has embraced. James Bryson of

its spare language of unadorned surface and volume for the exterior. (This Scot would have preferred stone rather than render, but the budget wouldn't stretch that far.) The interior is more complex. Here, Bryson draws on 'the great houses of the 18th century', with their 'grand and lofty spaces', giving a message about the self-worth of the clients in the generosity of the building.

Taking this spaciousness, but not the formality of those houses, the layout turns to 'the free style of the Arts and Crafts of the 19th and 20th century', responding locally to function, making something more approachable but with enough invention to feel a bit quirky, not too straight.

After a secure entrance you reach a two-storey hall, though the precious floorspace is appropriated for use rather than ceremonial. It is largely windowless at ground level onto the busy three-lane trunk road outside to the north, but there are windows to the east and west. These provide views parallel to the road. Light and spaciousness also come from the surrounding spaces, which have windows onto the hall as well as to the quiet garden to the south (awaiting landscaping), looking out to the backs of terraced housing beyond.

Colour articulates the spatial mix and cuts into the abstraction that would have come from all-white. The hall, with its first-floor hall 'landing', provides ready legibility to the

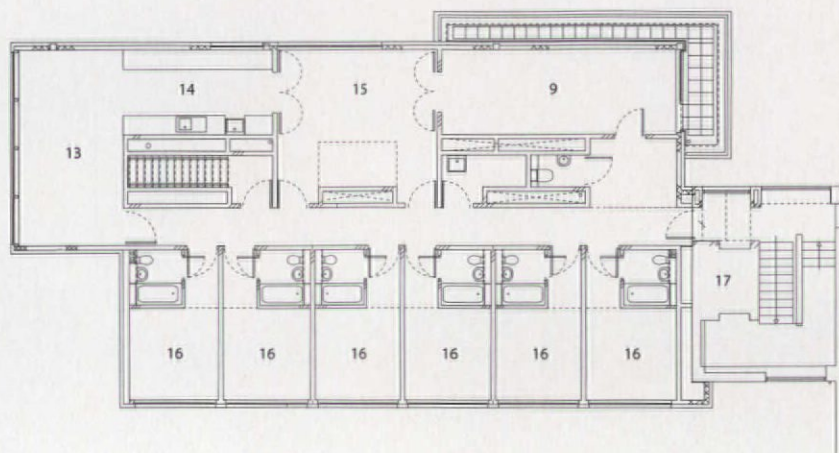
space also facilitates the custom-built natural ventilation system developed with Atelier Ten, which draws air from surrounding spaces into bulkhead ducts at the first-floor ceiling of the hall. The air is then pulled through with the aid of rooftop chimneys.

This ducting, rather than open chimneys in the ceiling, is a product of having the separated residential detox unit on the floor above. The unit is organised simply, with communal spaces to the north and individual rooms to the south. It is accessed via a separate lift and stair, a problem in itself for the architect. This project was begun once before, when a new stair tower was built on the end of the 1980s residential block, the tower's landings reflecting the shallow floor-to-floor heights that existed. The new building shares this tower. But with more expansive, varied floor heights in the new building, some ingenuity has been needed, as well as a double-sided lift to inter-connect levels in the two buildings.

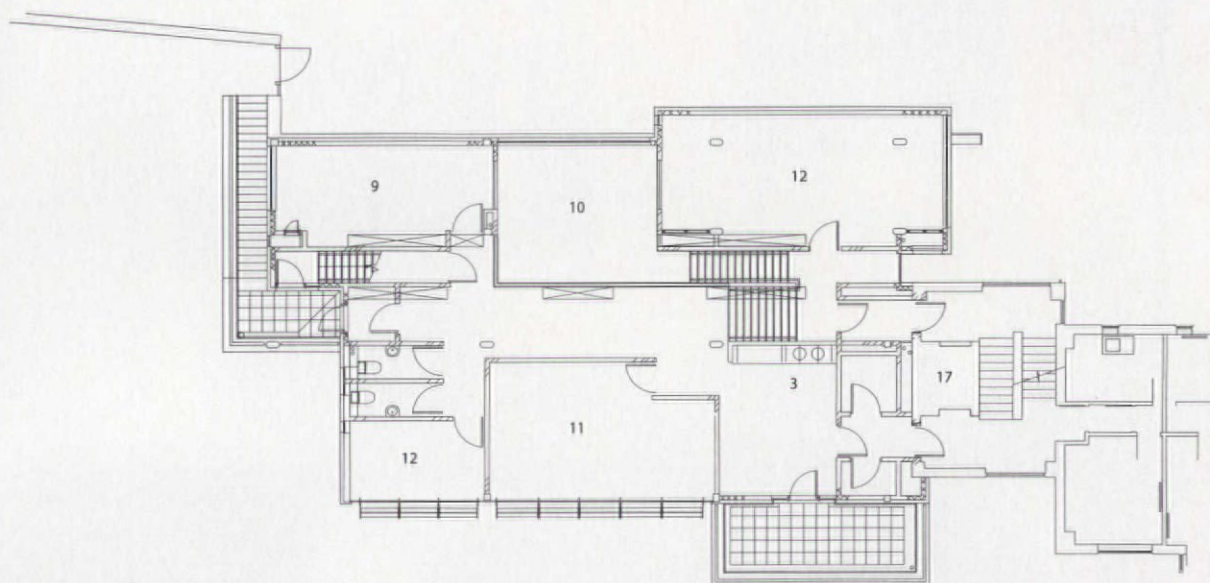
The buildings have lived through the liquidation of the first contractor, replaced by R Durnell & Sons, said to be the UK's oldest building firm, having been founded in 1591. Generally, it looks well and robustly made.

Leaning over the balustrade on the landing of the hall, you are struck by the building's interconnectedness – sometimes direct, sometimes more private. It is a clever making of space, in atmosphere as much as in form, at once



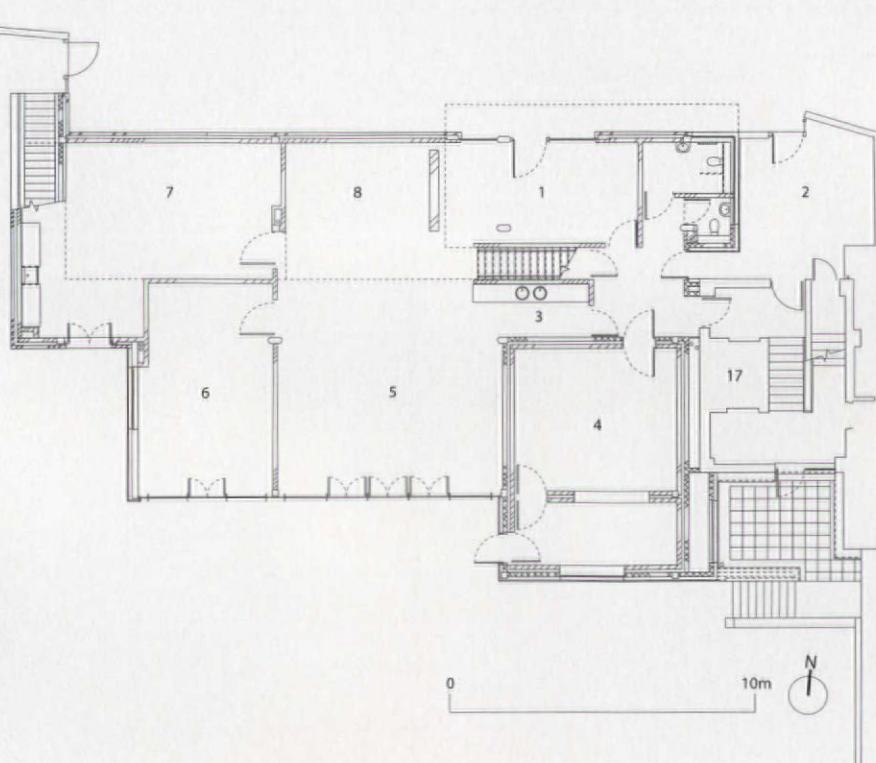


second-floor plan



first-floor plan

- KEY**
- 1 entrance
 - 2 yard
 - 3 tea making
 - 4 music
 - 5 IT training
 - 6 teaching
 - 7 fine art studio
 - 8 gallery
 - 9 staff
 - 10 void
 - 11 training
 - 12 meeting
 - 13 dining
 - 14 kitchen
 - 15 quiet
 - 16 bed
 - 17 lift



ground-floor plan



COST SUMMARY

Data based on final account for gross internal area, excluding contractor's claim, yet to be agreed

	Cost per m ² (£)	Percentage of total
GROUNDWORKS		
Substructure	106.34	5.52
Site clearance	16.01	0.83
Group element total	122.36	6.36
SUPERSTRUCTURE		
Frame, upper floors	119.15	6.19
Roof	114.48	5.95
Staircases	52.95	2.75
External walls	167.86	8.72
Windows, external doors	180.10	9.36
Internal walls and partitions	54.17	2.81
Internal doors	66.42	3.45
Group element total	755.14	39.23
INTERNAL FINISHES		
Wall finishes	81.04	4.21
Floor finishes	89.91	4.67
Ceiling finishes	28.38	1.47
Group element total	199.34	10.36
FITTINGS AND FURNITURE	21.92	1.14
SERVICES		
Sanitary fittings	23.52	1.22
Waste, water, gas, H&V	228.14	11.85
Electrical services	216.78	11.26
Special services	20.98	1.09
Drainage	25.79	1.34
External services	19.23	1.00

Builders' work in connection	39.11	2.03
Group element total	573.55	29.80
Preliminaries	252.46	13.12
TOTAL	1,924.76	100

Cost data provided by Appleyard and Trew

CREDITS

TENDER DATE	August 2002
START ON SITE	November 2002
CONTRACT DURATION	12 months
GROSS INTERNAL FLOOR AREA	715m ²
PROCUREMENT	JCT Standard Form with Quantities 1998
	First contractor (Codell) went into voluntary liquidation, January 2003
	Second tender for completion negotiated with R Durnell & Sons, starting on site April 2003
ANTICIPATED TOTAL COST	£1,376,204
CLIENT	Kaleidoscope Project and Kaleidoscope Housing Association
ARCHITECT	Grace Architects: James Bryson, Ben Smith, Toshiya Kogawa, Phil Hall-Patch, Donald Gisbey
QUANTITY SURVEYOR	Appleyard and Trew
STRUCTURAL ENGINEER	Atelier One

ENVIRONMENTAL ENGINEER

Atelier Ten

PLANNING SUPERVISOR

Walker Management

MAIN CONTRACTOR

R Durnell & Sons

SUBCONTRACTORS AND SUPPLIERS

External render Sto; windows and glazed doors Crittall Windows; rooflight Vitral UK; screeds Tilcon; roof membranes Radmat; DPC Visqueen Building Products; sanitaryware, sinks Ifo; floating hardwood floor Hewetson; floor tiles Daniel Platt; wall tiles Villeroy & Boch; linoleum Forbo-Nairn; paint ICI Dulux; ironmongery AiCS; external paving Marshalls

WEBLINKS

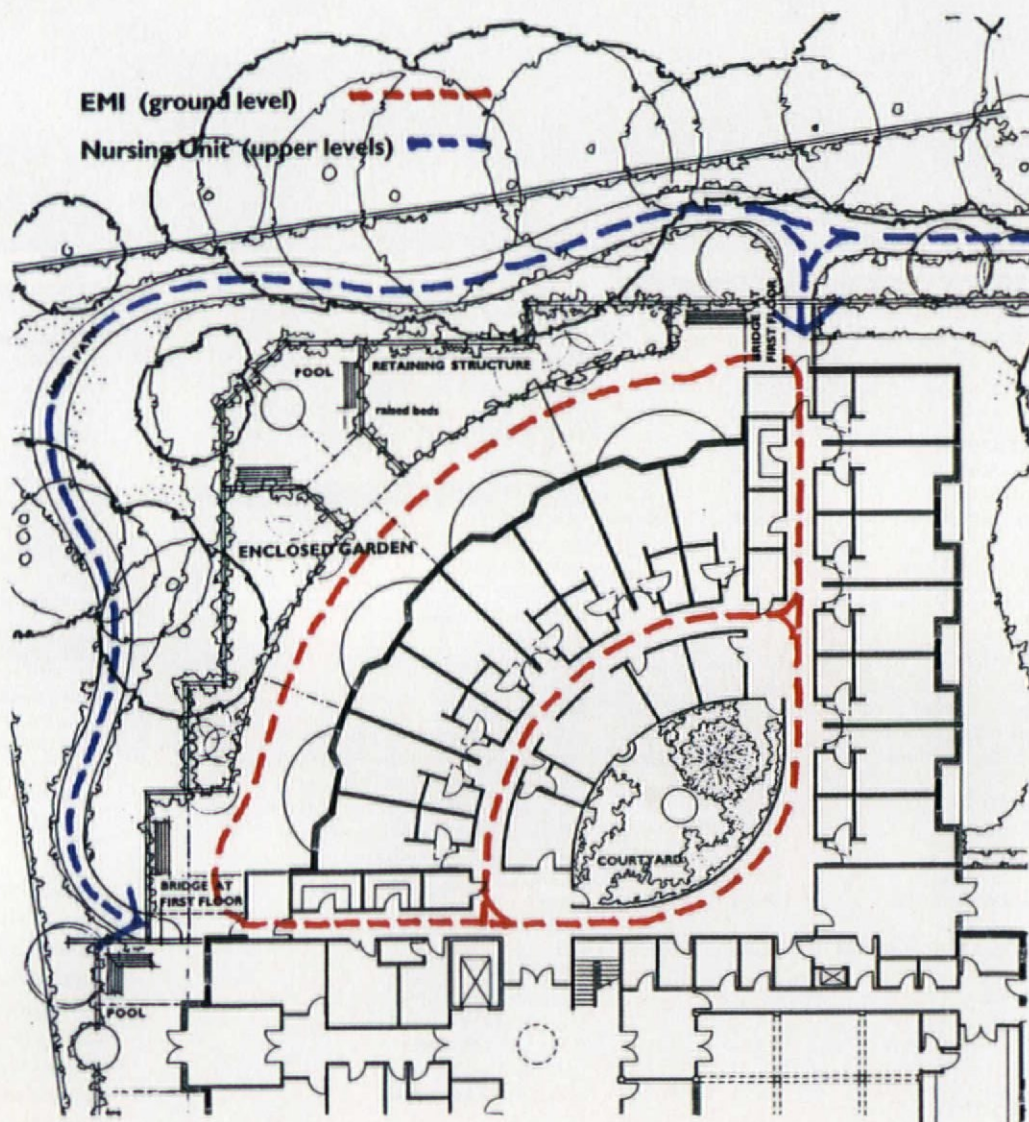
Kaleidoscope Project
www.kaleidoscopeproject.org.uk
 Atelier One
www.atelierone.com
 Atelier Ten
www.atellerten.com
 R Durnell & Sons
www.durnell.co.uk

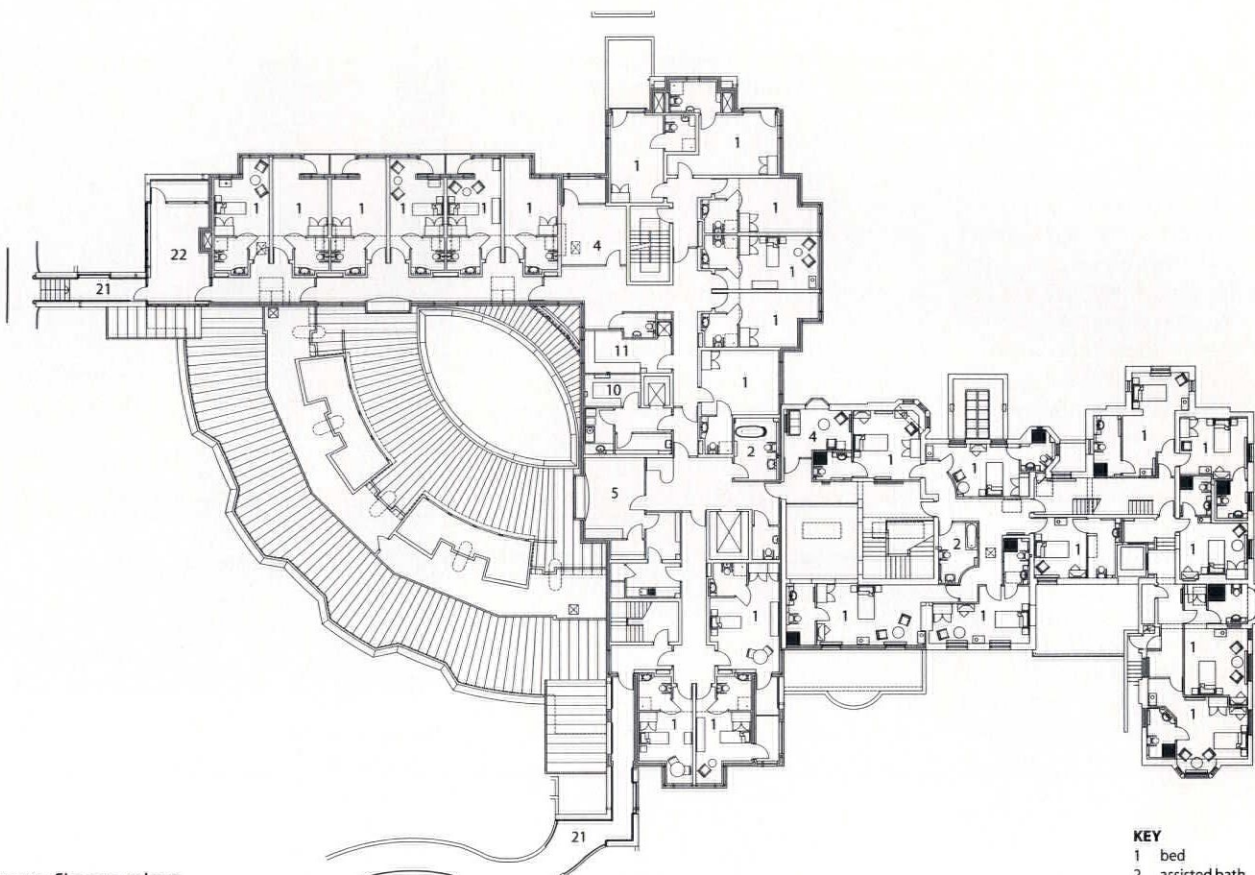
Above: the street front with the lowest square windows marking the tall ground floor. The top floor is a residential detox unit, entered separately via the eastern stair – see plan opposite

Closing the loop

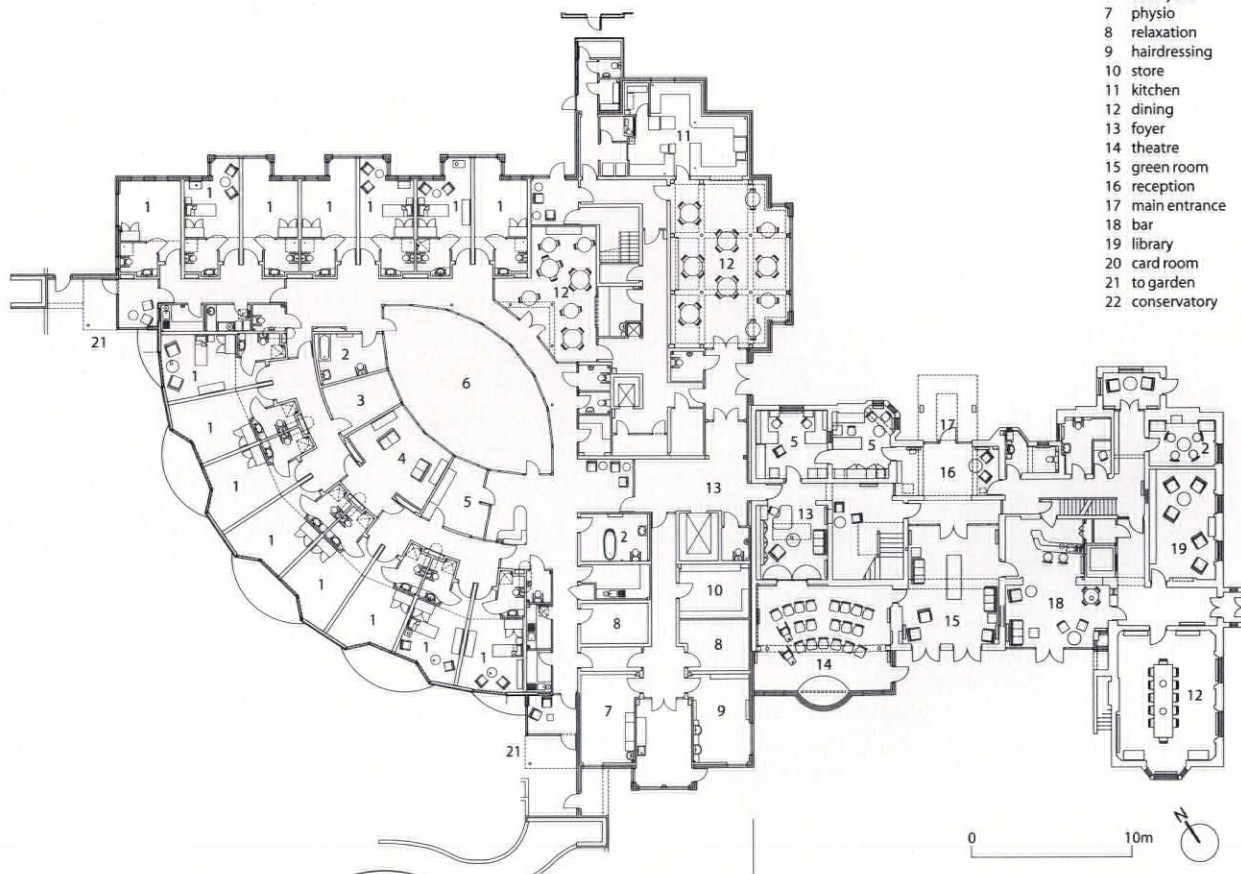
In its care home extension to a 1840s building for the Actors' Charitable Trust, Acanthus LW Architects needed to develop a compact form and find an appropriate architectural language

By Barrie Evans. Photographs by David Wrightson





first-floor plan



ground-floor plan

KEY

- 1 bed
- 2 assisted bath
- 3 interview
- 4 sitting
- 5 office
- 6 courtyard
- 7 physio
- 8 relaxation
- 9 hairdressing
- 10 store
- 11 kitchen
- 12 dining
- 13 foyer
- 14 theatre
- 15 green room
- 16 reception
- 17 main entrance
- 18 bar
- 19 library
- 20 card room
- 21 to garden
- 22 conservatory

new building existing building remodelled



After the demolition of a 1960s extension to the 1840s Denville Hall in Northwood, north-west London, Acanthus LW Architects has designed new accommodation for the Actors' Charitable Trust that is perhaps twice the size of the original. By using and adapting the landscape of its large garden (new landscaping also by the architect), the whole is broken down into a sequence of different prospects that respect the scale of the hall and do not overwhelm it. Indeed, much of the story of this project is about disposing space successfully. New accommodation was needed for a further 40 ageing thespians, 15 of them Alzheimer's sufferers.

Acanthus LW won the job in a 1999 competition, beating Penoyre & Prasad. A key issue was to choose between putting all the residents' accommodation on the ground floor and adopting a more compact two-storey or three-storey option. It favoured compactness, notably because a compact building would be less controversial with planners and more economical to run. It would also keep travel distances for residents and staff to a minimum and allow as much garden as possible to be retained, while leaving more site space for future expansion. The building is essentially two-storey, with a spine of staff accommodation in one extended roof area above.

One of the special needs of Elderly Mentally Infirm (EMI) carehomes is that people should be able to wander at will, without the risk of becoming lost or disoriented. The resolution of this has been to create a corridor loop around a small courtyard. Its curvature lessens the institutional feel and the closure of the loop aids supervision.

A further loop has also been created for the EMI accommodation, which is on the ground floor, taking in a new arc of garden immediately outside. At this point the sloping site has been steeply banked, creating a relatively private outdoor enclave. Beyond this, behind a semi-permeable screen on top of the bank (Alzheimer's sufferers often don't like being looked in on), is another arc of path, with the bank high enough for there to be level access to it from the other 25 rooms on the first floor, connecting them with the rest of the garden.

We can see variations on this approach to walking routes in the care environments of the mental health unit at Highcroft Hospital in Birmingham by Maap Architects (AJ 14.11.02) and the Bon Secours Care Village in Cork by BDP (AJ 10.7.03).

Also on the ground floor there is a new, stylish restaurant – none of the look of a community kitchen here. Within the hall itself, changes include a meeting room that has been converted into a flat-floored theatre for between 30 and 40 people for talks and performances, an extended bar and a

two-storey foyer created alongside the main stair. This sits not at the entrance but at the new centre of gravity of the total more-public spaces. This should not be taken to imply that no-one ever goes out. Many residents are significantly independent and there is a car park with 40 spaces.

There was also the question of finding an appropriate architectural language. Tom Kimbell of Acanthus LW suggests that achieving this is in some ways more difficult than, say, building new in steel and glass, even if the results will be less striking. Some of the architect's approach comes from reacting to the asymmetrical massing, materials and large-scale domesticity of the refurbished hall. In particular, this brick-built building had been cement-rendered in the last century – the render failing and trapping moisture. This render was removed, inevitably with some damage to the brickwork, so it had to be re-rendered, now with a lime-based mix to allow the walls to breathe. It looks as though this has been successful, though reaching moisture-stability takes time.

Render is used in the new work, cement-based for cost reasons (though at least the new substrate is appropriate). That said, the architect chose brick as the main walling, making it clear that the new work is a later addition rather than seeking seamless integration. The areas of new render work well on the longish runs of rooms, used to articulate the alternating bays and recessed balconies. Less successful is the render framing of the large new dining room adjacent to the front entrance, where this render lacks the apparent solidity of the old. Apart from the render and brick, the other main materials, which should also weather well, are roofing of slate and copper (also used for rainwater goods) and cedar boarding. There is, of course, more fenestration to the new element, improving daylight and contact with the surrounding gardens, to which the bedsits are oriented.

The passive stack ventilation system is also expressed domestically, as chimneys – copper along ridges, brick to the gables – which also house soil vent pipes.

The architect has worked to reduce the institutional feel, especially in that most difficult area of corridors. These are 1,500mm wide, with wall-wash uplights and clerestory lighting. The inevitable handrails are of Sapele with stainless-steel fittings crafted on by the carpenter.

Experience shows that care homes need some institutional scale to be viable. Within that, Acanthus LW has created a personal environment that works as a home, with quality and dignity. You might choose it for yourself, or rather your children might choose it for you. Which is why we have to be nice to them.



Above: new gable 'chimneys' are flues for passive ventilation system. **Opposite top and middle:** courtyard and corridor in the centre of the EMI unit on the ground floor. **Opposite bottom:** the new north-east wing with enclosed EMI rooms on the ground floor and balconied residential rooms above



CREDITS

TENDER DATE

November 2000

START ON SITE

February 2001

CONTRACT DURATION

37 months

GROSS INTERNAL AREA

Hall: 898m²

New building: 2,033m²

CONTRACT

JCT 98; Two-stage tender

TOTAL COST

£5.3 million

Includes moving all residents to the hall while the new building was constructed

CLIENT

The Actors' Charitable Trust

ARCHITECT

Acanthus LW Architects: Christopher Richards, Michael Porretta, Sam Wylie, George Kelpie, Emma Richards

QUANTITY SURVEYOR AND PROJECT MANAGER

Sawyer & Fisher

STRUCTURAL ENGINEER

Dewhurst Macfarlane

SERVICES ENGINEER

Chapman Bathurst Partnership

MAIN CONTRACTOR

Lacey Simmons

SUBCONTRACTORS

Mechanical H Humphries and Co; *electrical* Design Selectric; *kitchen installer* Berkeley Projects; *copper, lead to roof, rainwater pipes* T & P Lead Roofing; *roof tiling* Farnborough Roofing Co; *bricklayer* Heritage Brickwork; *carpentry* K Murtagh, EC Gransen and Co; *plastering* Deltaville Builders; *metalwork* Garman and Mount; *internal glazing and mirrors* Birchdale Glass; *rooflights* Skylight Solutions; *landscaping* Elite Landscapes

SUPPLIERS

Sanitary fittings Armitage Shanks, Pressalit; *ironmongery* Format James Gibbons; *internal doors* Soundcraft; *glazing* Velfac; *stonework* Thorverton Stone Co

WEBLINKS

The Actors' Charitable Trust

www.tactactors.org

Acanthus LW Architects

www.alwarchitects.co.uk

Sawyer & Fisher

www.sawyerandfisher.co.uk

Dewhurst Macfarlane

www.dewmac.com

Chapman Bathurst Partnership

www.chapmanbathurst.com

Lacey Simmons

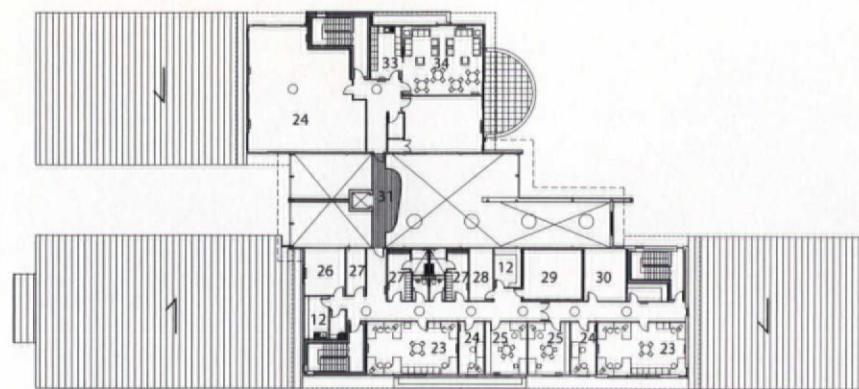
www.laceysimmons.co.uk



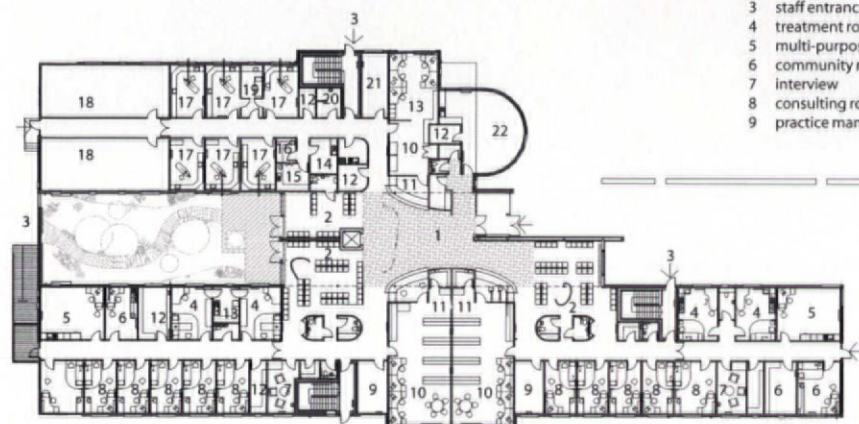
A suitable case for treatment

Campbell and Arnott's most recent medical centres, in Arbroath and Penicuik, show a practised hand while illustrating the trend towards bringing diverse medical services under one roof

By Barrie Evans. Photographs by Campbell and Arnott



first-floor Arbroath



ground-floor Arbroath

KEY

- 1 main entrance
- 2 waiting
- 3 staff entrance
- 4 treatment room
- 5 multi-purpose room
- 6 community nurse
- 7 interview
- 8 consulting room
- 9 practice manager

- 10 records office
- 11 reception
- 12 store
- 13 nurse station
- 14 x-ray
- 15 dirty utility
- 16 sterilisation
- 17 surgery
- 18 to be let
- 19 recovery
- 20 disposal
- 21 senior dental officer
- 22 health education
- 23 attached staff
- 24 office
- 25 tutorial
- 26 audit
- 27 changing
- 28 communications
- 29 plant
- 30 pharmacist
- 31 bridge
- 32 meeting
- 33 kitchen
- 34 staff room



Above: Arbroath, looking north toward the entrance past steps in plan and section. Left: ground-floor plan with GP practices to north and south, dental practice to east. Opposite: looking east in the entrance lobby

One of Campbell and Arnott's fortes is the design of medical centres, providing a snapshot of this moving target. One trend is the increasing variety of services that centres accommodate. Of the two we look at here, Penicuik primarily accommodates a doctors' practice and a mental-health team, while Arbroath houses two doctors' practices, one dental practice and a community health team. This diversity is further illustrated by the table (page 36), which indicates the prime accommodation mix of five of Campbell and Arnott's other medical centres.

Another trend Murray Fleming of Campbell and Arnott identifies is an increase in size. Not inexorably; small can be beautiful. But there is an appetite to try more extensive mixes of services. Another Campbell and Arnott centre in the pipeline, at Pitlochry, incorporates plans for a doctors' practice, a nine-bed ward serving the local hospital, a seven-bed dementia ward and care-home facilities – some 5,000m² in total (compared with 1,500m² at Penicuik and 2,400m² at Arbroath).

The limit on growing in size may not be the number of services that can be brought together beneficially so much as the maximum number of parties that can join in a briefing meeting and come to mutual

agreement before the health service changes direction again. Fleming continues to wonder at the length of time that these projects take, particularly in the brief-development phase.

Pitlochry, Penicuik and Arbroath are by the same PPP developer, Medical Centres (Scotland), which typically leases back centres to user clients for 25 years. While budgets and accommodation schedules are tight, there are signs in the quality of space and construction of the developer's commitment for the long term. Fleming is pleasantly surprised that the practice can create a significant amount of double-height entrance space within the budget, and that the developer is open to suggestions about where to focus the balance of spending; for example, spending more on the stone fin wall and roofscape at Arbroath.

There are, of course, similarities between these medical centres, born of the architect's common authorship and its experience of what works. Both Arbroath and Penicuik give primacy to the pedestrian approach, leading to a light, double-height entrance space. They both provide separate zones for each medical group, with their own waiting areas, and both concentrate patient services on the ground floor with in-house and community-care staff on a smaller floor above.

ARBROATH

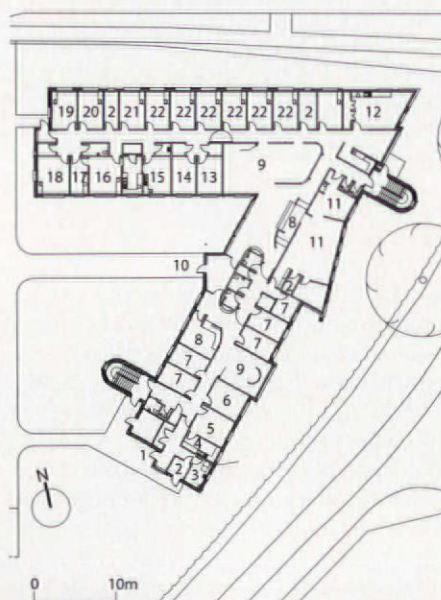
This former gasworks site in the town centre sets the Eastfield Medical Centre end-on to the road, with the building broadening to create a highly visible entrance sequence. Two GP practices occupy the west side, with a dental practice to move in to the east. By investing in the entrance volume and daylight penetration, the architect is not just seeking more drama in this tightly proscribed building, it is also deliberately using light, spaciousness and indoor-outdoor visual connection to help reduce stress among waiting patients. Coloured reception desks and WC enclosures, plus big graphic games played with signage, lighten the atmosphere and divert the eye from the clinical white.

Beyond these opening areas, the construction changes from exposed steel to hidden timber frame, and the strictures of the accommodation schedules kick in, with rooms double-banked along corridors. The architect has invested in corridor width and bright lighting, with glazed doors at corridor ends that reduce claustrophobia. On the upper, staff level, rooflights are set into the corridor ceiling. A bridge over the entrance provides a private route for staff between the east and west of the building.

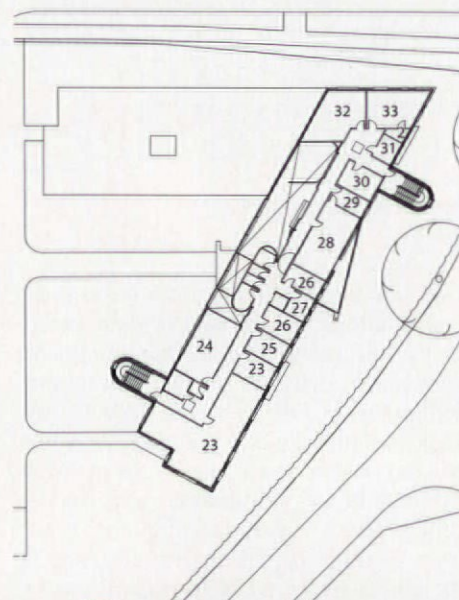


KEY

- 1 staff entrance
- 2 store
- 3 cleaners
- 4 community workroom
- 5 community consulting
- 6 mental health group room
- 7 interview room
- 8 reception
- 9 waiting area
- 10 patient entrance
- 11 administration
- 12 clinic
- 13 practice manager office
- 14 practice nurse office
- 15 treatment
- 16 minor operations
- 17 recovery
- 18 training/consulting room
- 19 medical consulting
- 20 midwife consulting
- 21 nurse consulting
- 22 GP consulting
- 23 mental health office
- 24 mental health meeting/training
- 25 consultant's office
- 26 staff changing
- 27 shower
- 28 staff room
- 29 kitchen
- 30 library
- 31 communications
- 32 office
- 33 meeting room



ground-floor Penicuik



first-floor Penicuik

MEDICAL CENTRE	PRIME ACCOMMODATION
Monifieth, Dundee	In the grounds of a hospital, with a medical practice, community staff, pharmacy and messing for ambulance crews
Craigmillar, Edinburgh	Doctors' surgery, chiropody, dental, health education and several multi-purpose community consulting rooms
Stow, Selkirkshire	Small rural centre, comprising four consulting/treatment rooms, two community rooms and a dispensary
Heriot-Watt, Edinburgh	Serving students and local residents, accommodating five GPs, a sick bay, a dental suite with treatment rooms and an occupational health suite
Tollcross, Edinburgh	Two GP practices, extensive community clinical areas, including community administration offices, and a nine-room physiotherapy department

Right: Penicuik's patient entrance to the two-storey lobby. Opposite left: use of height, light and colour reduces the institutional atmosphere. Opposite right: waiting area for GP patients



There is some spare space, more than anticipated, as the dental practice is smaller than the third GP practice initially planned for, but the developer remains confident it can let this to a variety of medical service organisations. Letting the intermittently used community health rooms to other community groups too is part of the original financial model.

PENICUIK

At Springfield Medical Centre, while one arm of the L-plan aligns with the suburban street, the layout still focuses on pedestrian access to the heart of the plan. Red render is used to light-hearted effect, against medical tradition – it is a colour health buildings traditionally avoid. The double-height reception – light and naturally ventilated – is organised to lead GP patients into a waiting area with views out. The nature of mental health treatment means patients are taken to a more private waiting area at the heart of that wing. At Penicuik too there is great attention to corridor detail.

In both these centres, Campbell and Arnott has built appropriately to the scale of medical services offered, using massing, materials and colour to limit the institutional feel.

The main reservation is about longer-term flexibility. The method of briefing appears to lead to buildings relatively tightly fitted to each of the major medical services accommodated. These two buildings would not have been completed like this, say, five years ago, yet there is an unpredictable 25 years to go on the PPP. You might argue that this a problem for the owner/developer. But, of course, in a world of PPP, we all share the risk.

CREDITS – ARBROATH

TENDER DATE
Negotiated tender
START ON SITE
June 2003
CONTRACT DURATION
14 months
GROSS INTERNAL AREA
2,400m²
FORM OF CONTRACT
Design & Build
TOTAL COST
£2.1 million
CLIENT/DEVELOPER
Medical Centres (Scotland)
USER CLIENTS
Abbey Health Centre (doctors)
Community Dental Service
Tayside Primary Care NHS Trust
ARCHITECT
Campbell and Arnott: Murray Fleming
QUANTITY SURVEYOR
Christie & Partners
STRUCTURAL ENGINEER
Waterman Rennick
SERVICES ENGINEER
Harley Haddow Partnership
PROJECT MONITOR
DI Burchell & Partners
MAIN CONTRACTOR
Stewart Milne Construction
SUBCONTRACTORS AND SUPPLIERS
Decorators AT Roberts; windows, doors Aberdeen Window & Door Systems; ply ceiling panels Amtech; suspended ceiling Cairn Contracts (Aberdeen); precast floor units Dalzell Precast; floor screeds Glenalmond Contracts; blinds, curtains Goldcrest Furnishings Contracts; internal doors Hall & Tawse Joinery; M&E Hutcheon Services; access scaffolding Independent Access Scaffolding; screens James Blake; units and worktops Joinery and Timber Creations; ironmongery Laidlaw; signs Loftus Signs; steel frame Mackintosh Structures; groundworks Martin Alan Construction; insulation Miller Pattison; soft landscaping JD Minto; power wall render Muirfield Contracts; mastic Ogilvie Sealants; lift Otis; flat roofs Raynor Roofing; hygienic fittings Scottish Healthcare Supplies; structural timber Stewart Milne Timber Systems; fire coating to steel Tayblast Fire Protection; stone Tradstock; floor coverings Veitchi (Scotland)

CREDITS – PENICUIK

TENDER DATE
June 2003
START ON SITE
July 2003
CONTRACT DURATION
64 weeks
GROSS INTERNAL AREA
1,527m²
FORM OF CONTRACT
Scottish Building Contract with Contractor's Design
CONSTRUCTION COST
£1.7 million
CLIENT/DEVELOPER
Medical Centres (Scotland)
USER CLIENTS
Eastfield Medical Centre
NHS Lothian – Loganlea Centre
ARCHITECT
Campbell and Arnott: Kay Gourlay, Murray Fleming
QUANTITY SURVEYOR
Williams and Inglis
STRUCTURAL ENGINEER
Wren and Bell
SERVICES ENGINEER
RSP Consulting Engineers
PROJECT MONITOR
DTZ Debenham Tie Leung
MAIN CONTRACTOR
Hart Builders (Edinburgh)
SUBCONTRACTORS AND SUPPLIERS
Aluminium-faced windows, external doors NorDan (UK); flooring Lothian Decorfloor; H&V Express Heating; ironmongery EHS Architectural; signage Lofthus; lighting Sturrock Power

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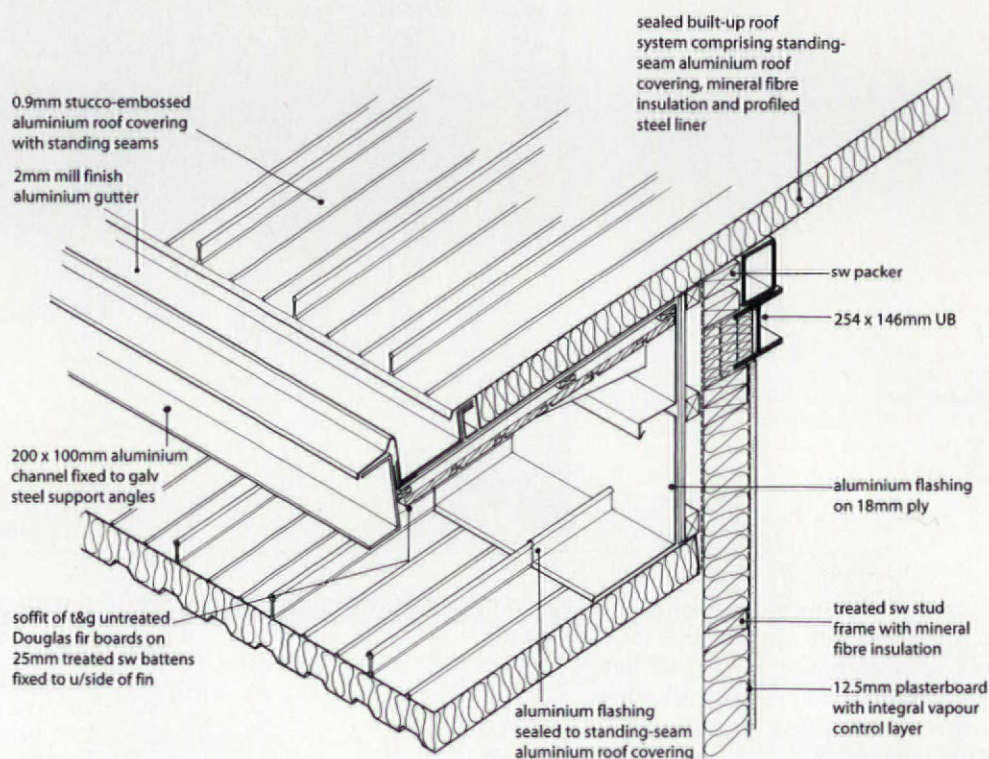
A roof with a series of extended eaves details

The main entrance/reception space of the medical centre at Arbroath is a double-height entrance atrium with a structure of exposed cylindrical steel columns and a braced steel roof with a sealed built-up roof system covered with standing-seam aluminium sheet. Clinical and administrative spaces are enclosed in a timber-frame structure clad either with render or t&g Douglas fir boards. The gang-nailed timber truss roofs, covered with the same built-up roof system, rise gently (at an 8° pitch) to just below the atrium clerestory.

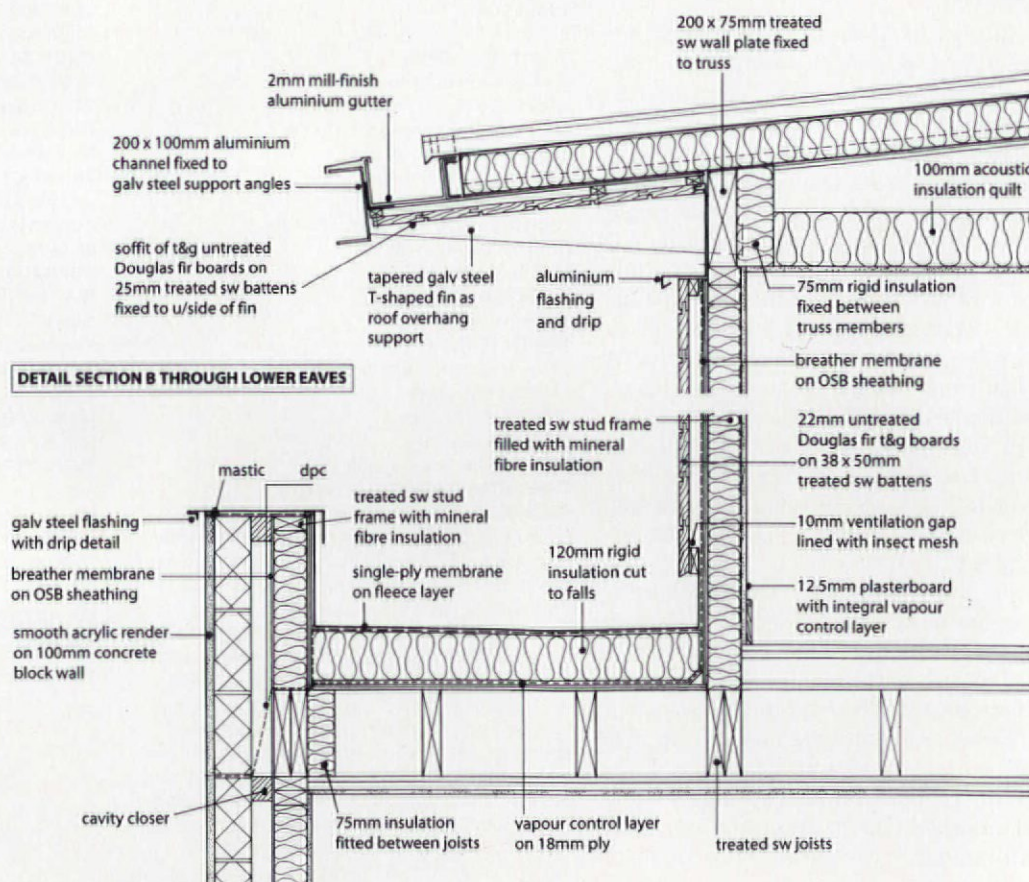
Apart from a parapet wall (see Detail A), which adjoins a first-floor roof terrace, the lower and upper roofs extend at the eaves to protect the walls below; the overhang and gutter are detailed to give a consistent edge on all sides of the building.

The sealed built-up roofing system – integral standing-seam aluminium roof covering, mineral-fibre insulation and inner profiled steel liner – extends at the eaves, supported on T-shaped tapering steel fins at 900mm centres that are bolted back to the main roof structure. The overhang terminates in a 200 x 100mm aluminium channel, which defines the roof edge. The gutter is set behind the channel and drains into swan-neck downpipes. The eaves soffit is clad with t&g untreated Douglas fir boards on battens fixed to the underside of the fin. An aluminium angle, with a flashing and projecting drip fixed to it, runs just below each overhang to direct rainwater away from the wall below. The angle provides a consistent detail that accommodates various conditions below it, such as a pitched roof (Detail C), timber cladding (Detail B) or an atrium window (Detail D).

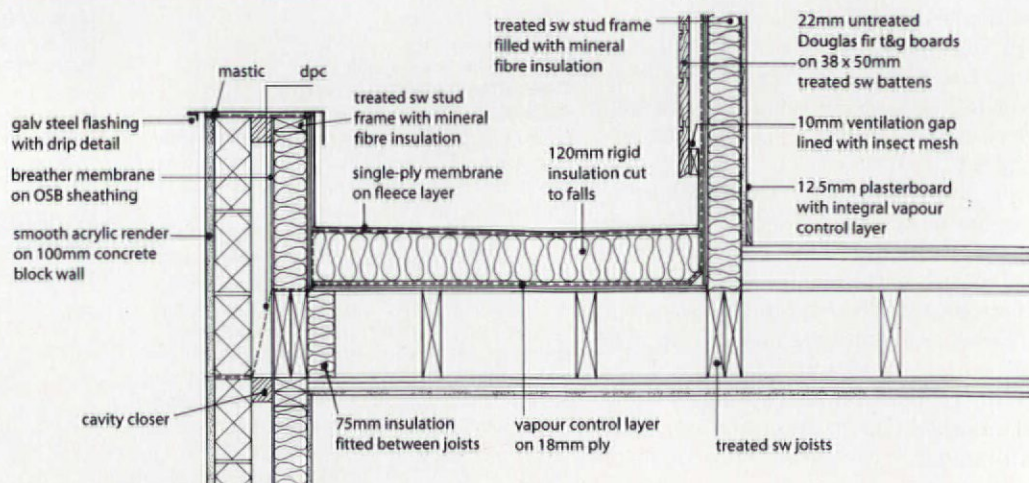
Susan Dawson



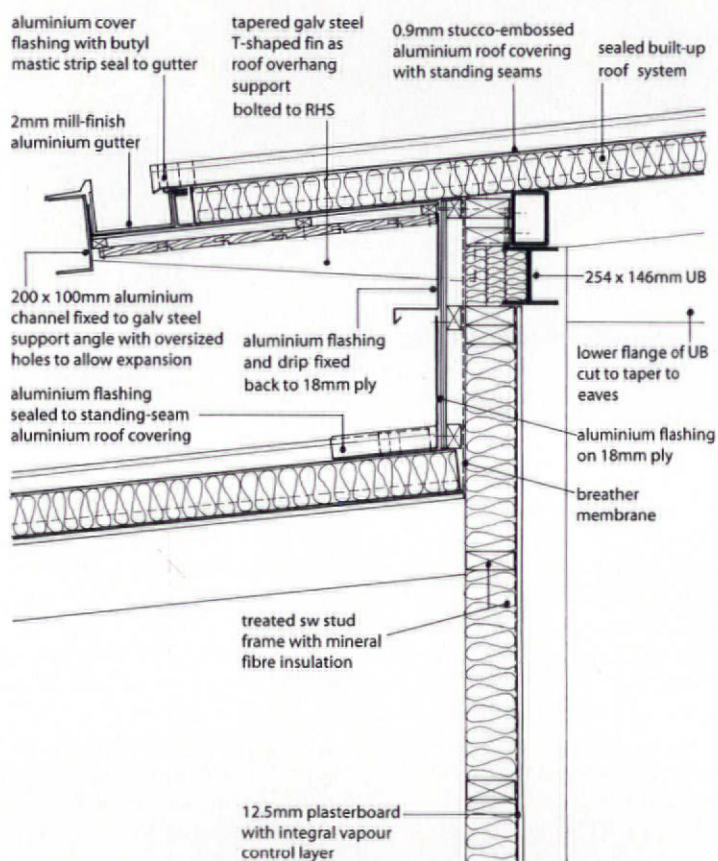
ISOMETRIC DETAIL AT EAVES



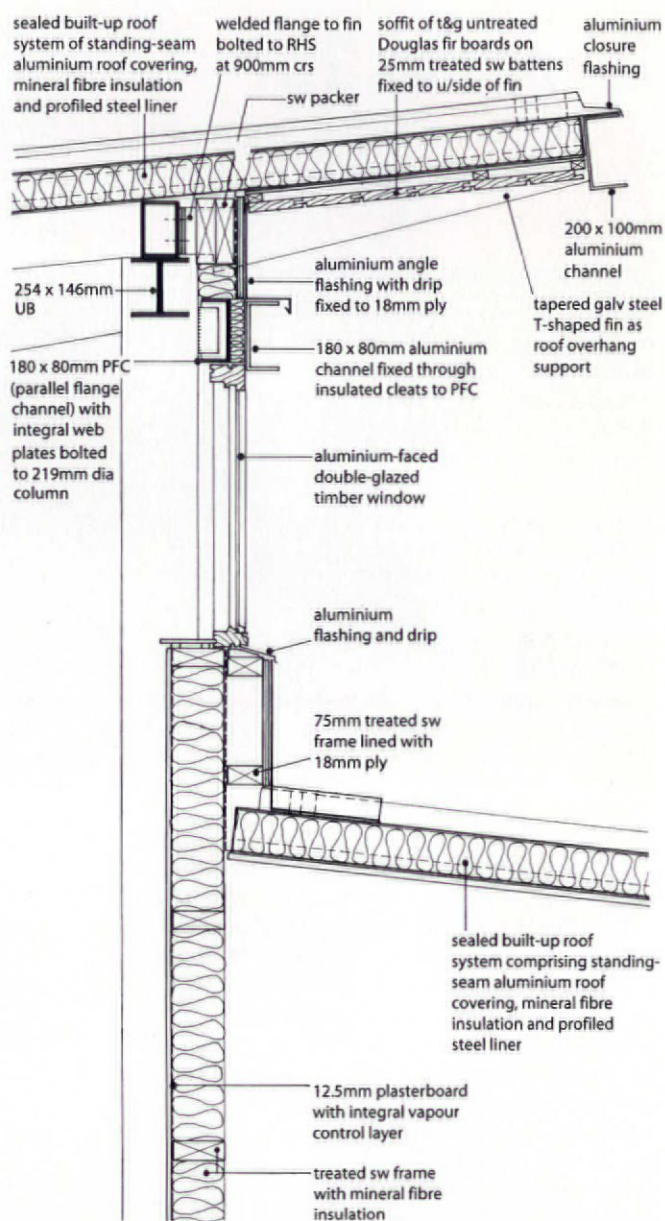
DETAIL SECTION B THROUGH LOWER EAVES



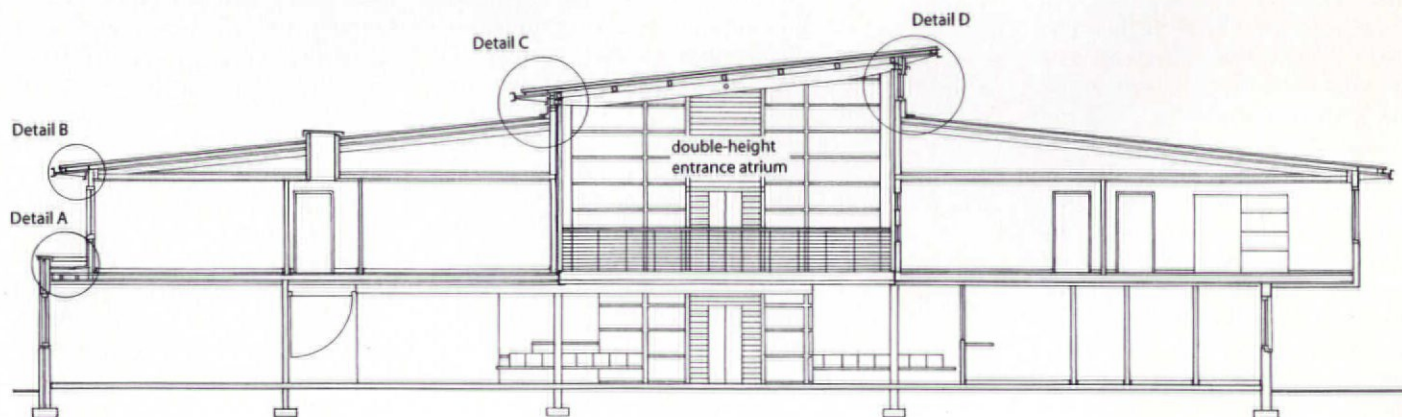
DETAIL SECTION A THROUGH PARAPET WALL



DETAIL SECTION C THROUGH EAVES AT ENTRANCE ATRIUM KEY



DETAIL SECTION D THROUGH EAVES AT ENTRANCE ATRIUM

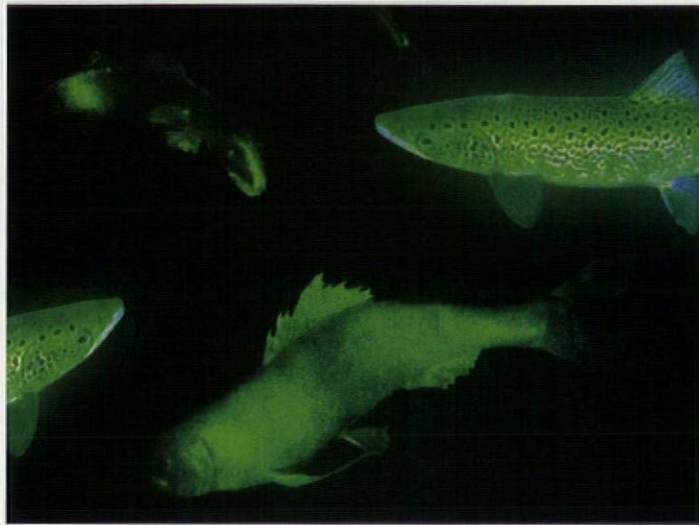


LONG SECTION

3D or not 3D?

Holography allows architects to take advantage of three-dimensional design without the need for a fly-through

BY MARTYN PERKS



In the first *Star Wars* film, when Princess Leia was projected from R2-D2's lens asking Obi-Wan Kenobi and Luke Skywalker for help, it was probably many people's first experience of a hologram. OK, so director George Lucas didn't actually create a real hologram on screen, but he stirred our imaginations about a technology that is finally emerging after a long journey since its invention, in Britain, just after World War II.

Recreating Princess Leia in your livingroom will continue to be a dream for some time to come. However, modern techniques in holography are improving rapidly. Developments are finding their way into many areas, including biology, the visual arts, architecture, product design, data storage, security and prevention of counterfeiting, and advertising and marketing.

You can find holography easily if you know where to look. Because fraudulent reproduction of holographic images is difficult, the technology has been used in credit cards and bank-note security for many years. Last December, Nokia decided to imprint holograms on all its phone batteries in an attempt to stop the burgeoning counterfeiting market.

When you queue to pay for your shopping, the chances are that the

Holograms don't work very well when printed out on glossy paper, I'm afraid

check-out till is using a holographic lens system to read the bar-codes on your shopping. Plane travel has benefited from holography for many years. Pilots training in simulators, or flying the real thing, use holographic lenses in cockpit 'heads-up displays'. They can view their instrument panels while looking out of the window. As you might expect, the same technology is being developed for cars to accompany the drive-by-wire futuristic systems already in manufacture.

In data storage, holography has the potential to bring about massive changes. Conventional data storage techniques have begun to reach their physical limits in terms of what can be stored and read back using traditional media such as CDs and DVDs. One US company – InPhase, based in Longmont, Colorado, founded in 2000 – claims it has produced the world's first holographic drive prototype. The capacity of its Tapestry™ holographic drive ranges from 200 gigabytes to a massive 1.6 terabytes of data on a single disk. That is the equivalent of more than 1,600 CDs on just one disk.

Checking gramma

Compared with today's advances, holography originated in a simpler

era. The term 'hologram' comes from 'holos' and 'gramma', meaning 'whole message'. The technique was invented in 1947 by Dennis Gabor, a British/Hungarian scientist who was perfecting image resolutions of electron microscopes. It didn't really become what we know today until the 1960s, with the invention of lasers. Until then, the light being used to create holograms was not pure enough.

In 1962, scientists Emmett Leith and Juris Upatnieks of the University of Michigan created the world's first 3D hologram of a toy train and a bird. Until then, holograms were of 2D objects and shapes. Leith and Upatnieks used a technique called 'off-axis', borrowed from their research into side-reading radar. Unlike modern holograms, however, their images needed the light from a laser to see them. In the same year, Russian scientist Dr Yuri Denisjuk managed to produce the first white-light reflection hologram without needing a laser reader.

From that point onwards, holography moved out of the laboratory and into the commercial world. In 1967, a small image of chess pieces on a chess board was mass-produced for the *World Book Encyclopedia Science Yearbook*. In the same year, holographers managed to capture an image of a

person. A year later, Polaroid Research developed white-light transmission holograms. This meant that, for the first time, the full-colour spectrum was available in a holographic image.

Creating a hologram is fairly simple once you have the right equipment. A 3D holographic image is created by splitting a laser beam in two – one beam is used as a constant light source and the second to capture distortion when it passes over an object. When the two beams are brought together, hitting a special emulsion film, a holographic image is produced.

It's behind you

Like photography, you can use holograms in two ways: as slides or as prints. Reflection holograms reflect light back at you. Transmission holograms work slightly differently: the light passes through them from behind, reaching your eyes.

Originally, holograms were reflective, using glass etched with photo-sensitive gels. As more durable techniques developed, so did the potential to mass produce them using cheaper polymers. This meant they could be backed with plastics – developed by Dupont and Polaroid. Today the technology has moved on even further. Using lasers as the light source, holographers can project them onto LCD screens that include holographic images. As a result, digital images can be transmitted using the internet, mobile or wireless technology. However, the ability to transmit moving holographic images remains illusive.

In architecture, interior and product design, holography has great untapped potential. A costly problem is how to demonstrate realistic models and simulations without spending large amounts of money constructing them. Holography is one solution. Using it, designers can demonstrate 3D concepts, prototypes and detailed CAD drawings in great detail, depth and dimensions.

Unlike a 2D photo or illustration, the main advantage of a hologram is that its 3D image changes when you move around it, revealing depth and detail in full colour. In 2001, the design team at Ford took a bold step and used holography to a new level in its product design process. Its design team produced a prototype of its

Using holography, designers can demonstrate 3D concepts, prototypes and detailed CAD drawings in great detail, depth and dimensions

latest Ford Thunderbird car without needing a real model. Instead, the teams could walk around a virtual 3D holographic model and inspect it in great detail.

That example was created by Texan holography pioneer, Zebra Imaging. Zebra's innovation was producing holograms straight from computer data and graphics files: taking the image and projecting it onto a large translucent LCD screen using lasers. As the three-coloured laser beams passed through the giant screen, impacting on a special film, the 3D image appeared.

In interior design, the potential for holograms to transform spaces is just as profound. Installing holographic projection systems in building spaces such as foyers will create new sensations and interactions.

Two US companies are doing similar things in the retail world. Vashon Partners and Provision Interactive recently sold a concept called Holovision to fast-food giant McDonald's. They have developed a system that projects 3D images up to 60cm in size, using kiosks for in-store point-of-sale marketing. Although the concept is in its infancy, McDonald's is trialling the kiosks in 700 burger bars in Australia and New Zealand. Each kiosk will sell prepaid wireless plans, ringtones and streaming video. In crowded shop interiors, the technology is certain to provide a 'wow' factor.

Provision is doing similar things with food chain TGI Friday, with trials in stores in Phoenix, Arizona. Here Provision is using the technology to project premium drinks brands on screens above the counters. In both examples the product literally comes out of the screen, appearing to float in front of the customer.

With many innovative ideas, the benefits are not always immediate and it takes a lot of time and effort to make them viable. Holography is the same. From its early years in the 1940s until today, no one could have imagined the extent of its influence. Let's hope the magic of holography continues – so long as industry and science, as well as product design and architecture – keep using their imagination.

Martyn Perks is an IT design consultant, writer and broadcaster. Contact: mail@martynperks.com



CASE STUDY: ROPPONGI HILLS

Inside one of the largest restaurants in the fashionable Roppongi Hills district in Tokyo, Japan, is probably one of the most innovative hologram installations ever commissioned.

Japanese company The Soho Hospitality Group asked New York interior architects and designers Rockwell Group to organise the installation of a piece of innovative high-tech art in a sushi section of the restaurant. Rockwell, in turn, asked London-based holographic expert Spatial Imaging to do the piece.

The Roppongi J restaurant is located on the fifth floor of the trendy West Walks complex. The restaurant has three dining areas. The holographic display sits in its international cuisine section.

The aim of using a hologram was to bring about something unique, reflecting the architectural space of the building in a contemporary, technological fashion.

The concept – appropriate for a sushi bar – resulted in a design using fish in conjunction with an interior waterfall feature. Each of the fish holograms hangs from a walkway across a main pool and the effect is of fish appearing to leap within the waterfall.

Such an installation is an innovative example of combining a holographic display, architecture and interior design. The display won the Best of the Year Award at the 2003 Holography Awards and the category award for Promotion/Illustration.

Visit Spatial Imaging's website at: www.holograms.co.uk



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Into the next dimension

At last some of the sophistication of 3D applications has rubbed off on 2D drafting, with the release of AutoCAD 2006

BY JOE CROSER

I told you so. I wrote my end-of-year predictions for CAD in December, just before flying off to attend the Las Vegas Autodesk University. There I discovered that AutoCAD 2006 was moving in precisely the direction I had predicted: a closing of the gap between two-dimensional drafting and three-dimensional parametric applications, with 2D applications getting smarter and incorporating many of the extended object attributes already present in 3D parametric systems.

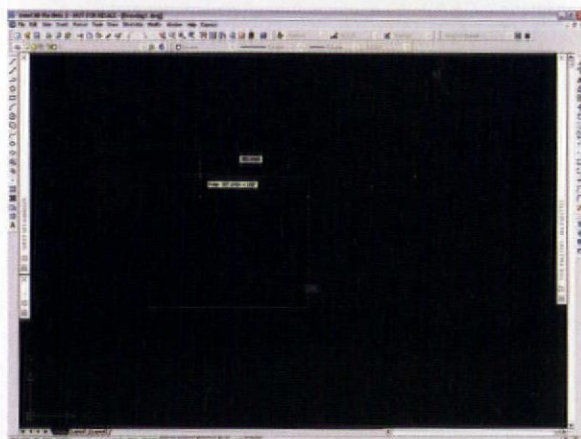
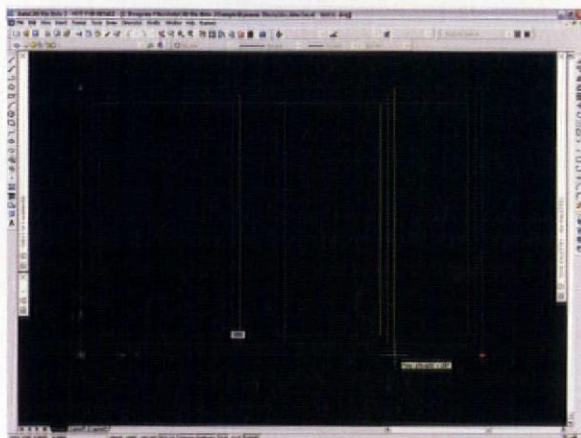
For a number of versions now Autodesk has concentrated on themed releases of AutoCAD in what it spins as 'democratised development'. In practice, this means it asks its user base what is wrong or missing in current versions and then adds in these errant or absent features, so long as the feature is not 'improved Acrobat creation', which was allegedly top of the users' list of wishes.

AutoCAD 2005 was about drawing management and plotting the introduction of plot set manager.

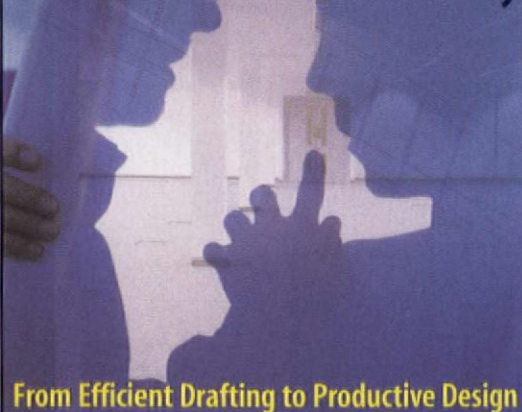
AutoCAD 2006's theme is spread across a number of key areas of development and implementation, namely:

- a slick 'heads-up interface';
- improved migration;
- dynamic blocks;
- hatching/editing; and
- an attribute extraction wizard.

**The plot quickens
– AutoCAD 2006
closes the gap
between two-
dimensional
drafting
and three-
dimensional
parametric
applications**



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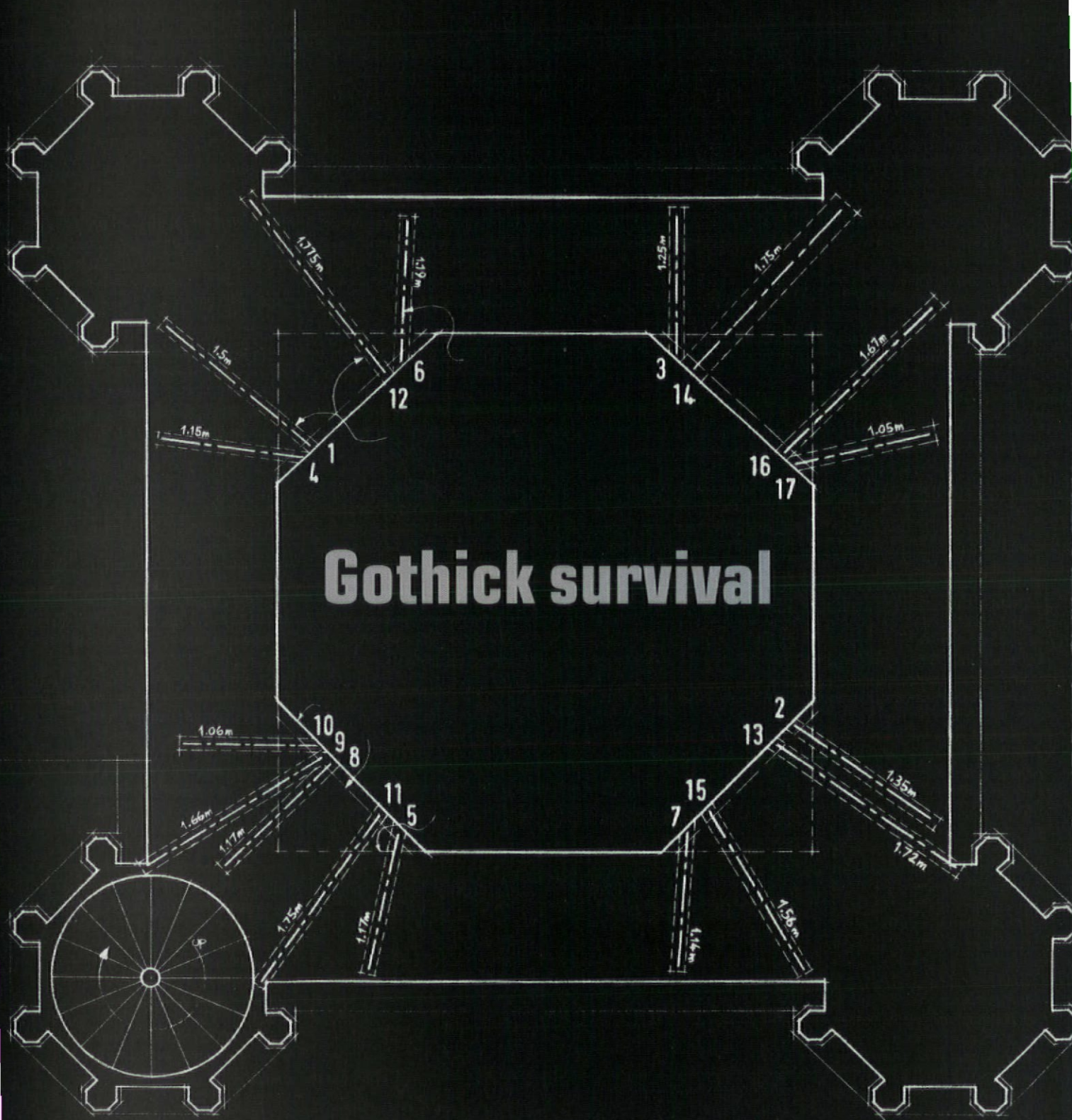
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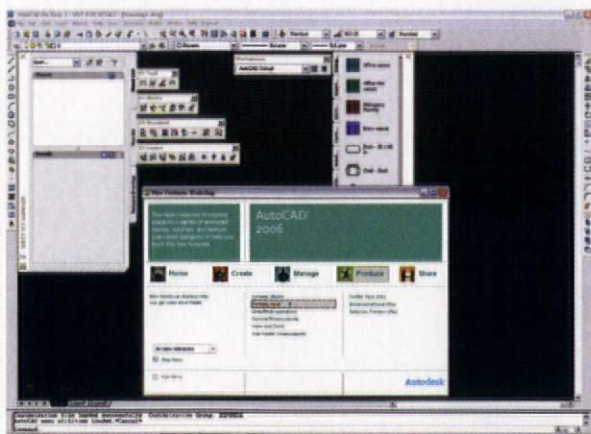
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Gothick survival

The restoration of a hidden Gothic treasure has only succeeded by a combination of dedication, hard work and risk-taking

BY MICHAEL WILLOUGHBY



Slick heads-up interface

First in the look-and-feel improvements department is the removal from the screen of the rather old-school command line interface. It is replaced by a fully interactive cursor-led drawing interface that provides all relevant dimensions and settings in a very Revit-like way. The new input interface for AutoCAD 2006 is as sweet as they come. It is a level of intuition up from, say, MicroStation's impressive Accudraw. Like a few AutoCAD features, it has been a long time coming, but at first glance it looks as if the programming team has got it just right with such considered additions as 'recent inputs', which is on the right-click menu, and the way objects change colour when you float the mouse cursor over the top – making object selection much easier.

Migration

Autodesk continually twists the arms of its users to upgrade, with the threat of changing file formats or with the worry of the user losing the ability to upgrade to future versions. So users often get angry when they are forced to migrate, and hence to migrate their customisations. However, in AutoCAD 2006, Autodesk appears to acknowledge some of the discomfort its users experience. It has introduced a new tool for customising the tool bars graphically, plus pull-down menus of the user interface. Not only does this tool make the process of customisation easier, it also manages the changes and safeguards them, so that when the user eventually upgrades to the next version of AutoCAD, all customisations will be taken forward to the new version.

Another great addition to 2006 is the New Features Workshop that

AutoCAD 2006 has a new tool for customising the tool bars graphically. Not only does this make the process of customisation easier, it also changes and safeguards them

contains a series of animated demonstrations, tutorials and feature overviews designed to help you learn the new features. You can view this the first time you launch AutoCAD 2006 or access it at any time from the Help menu. Not only can you learn about the newest 2006 functionality, but you can also filter topics, thus highlighting key differences between 2006 and the version from which you upgraded.

Dynamic blocks

The addition of dynamic blocks in AutoCAD 2006 really does close the gap between the 3D parametric modelling and 2D drafting. Dynamic blocks address the perennial problem of having to define blocks that fit every shape and size. It is an almost impossible task, resulting in an extensive block library that includes multiple variations of the same symbol. The new Block Definition Editor enables you to create new block definitions or update your existing blocks using typical AutoCAD drawing and editing functionality. In addition, the Block Definition Editor includes a Block Authoring Palette with tools that enable you to apply parameters and actions to your block geometry. Parameters are like dimensions that drive the block geometry, and actions are what change the geometry as you insert or edit a block.

For example, you could add a linear parameter to a door block to drive the width of a door. You can also restrict the linear parameter so the door width is constrained to pre-defined increments. You can also apply multiple parameters to a single block definition. When you do this, you can apply an Align parameter so that the door, when placed, automatically aligns to a wall line and a Flip parameter, enabling you to flip the door swing to the other side easily. Furthermore, if you want to change the width of an inserted door block, you must apply a Stretch Action to the door width parameter and a Scale Action to the door arc.

Like the removal of the command line and the addition of the heads-up design and input interface, the addition of the dynamic block tools follows a lead set by MicroStation, but Autodesk goes one step further. As 80 per cent of the AEC market is still entrenched in 2D working, Autodesk

has started at the right end of the market with its 2D parametric blocks, whereas Bentley started at the 3D end with 3D parametric cells; and may suffer a slow uptake as a result.

Hatching

Sometimes it is the simple things in development that make the biggest difference in practice. The new hatching tools provide a much-needed amendment to working with patterns.

Controlling the origin of hatching has always been a little arbitrary, but in AutoCAD 2006 the user now has the ability to define the origin of the hatch – the most impressive being the ability to specify that any hatching be set out from the centre of a space.

Improvements have also been made to the definition of hatch boundaries at the point of placement, meaning you don't have to view the entire object being hatched in order to make it work.

Attribute extraction wizard

Another one of the areas where AutoCAD 2006 moves closer in functional terms to the 3D parametric systems such as Revit is in the extraction of block attributes from drawings. For decades you will have spent many a dull hour counting doors or light fittings on your drawings and re-counting them whenever a slight modification is made.

I recall some years ago meeting the project manager of the Bellagio in Las Vegas, who told me that the hotel contained something like 40,000 doors and that it took six people three weeks just to count all the doors in the design. With AutoCAD 2006, you are but a few clicks away from counting all door block instances in a drawing and presenting the attribute results in a table within a DWG file. The resulting table is editable, so simple formulas can be added into a cell, thus enabling Excel-like functionality for adding up columns and performing other calculations within the AutoCAD environment, so saving those six people three weeks of their lives.

There are many other additions to AutoCAD 2006. Take a close look when it comes out in a couple of days. You won't be disappointed.

Joe Croser can be contacted at joe@croser.net

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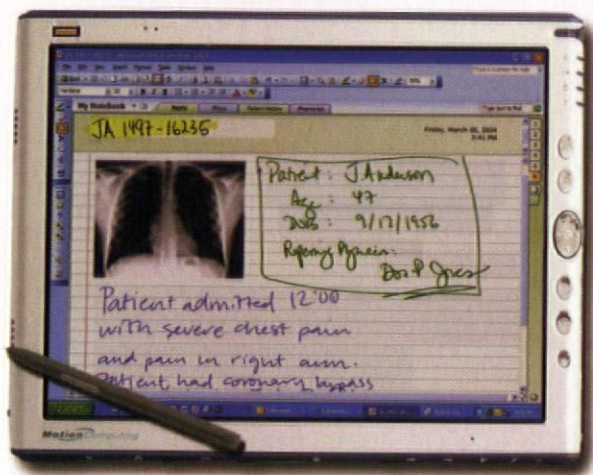
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Slimming the system

The language of technology sometimes defies translation, but the recently revived term 'thin client' turns out to be apt

BY SUTHERLAND LYALL



Thin client? The world of computing has taken over a whole raft of architectural terminology from 'software architect' (a higher form of software engineer) to 'systems architect' and now 'thin clients'. Actually, thin-client architecture is a pretty old idea that is used on mainframes and many UNIX systems. But it is now becoming popular again at the non-mainframe level. This time it is driven by the relatively high cost of re-equipping fat client networks and the possibility of using free non-Microsoft administration software.

Thin-client is a way of describing a computer network in which the desktop kit used by people (the client) is minimal (thin). Most important computery things are done on a central computer, the server. So your staff members have screens, a simple computer to handle the network and input devices, such as mice and pens and scanners and digital camera images, and the odd output device, such as the screen and a personal printer or plotter.

The heavy-duty applications such as AutoCAD or MicroStation and Microsoft Office sit on the server's hard disk (or in bigger companies, on the hard disks of a server farm), where

Thin-client is a way of describing a computer network in which the desktop kit used by people (the client) is minimal (thin)

all the number-crunching and shading and parametrics and dimensioning take place – in short, all the processing activity for the whole office. Servers therefore need to be pretty powerful and need dedicated thin-client software such as Citrix's MetaFrame.

There is no particular economy in application software such as the above word-processing and CAD programmes, because you have to pay licence fees for them per seat in the usual way. And if a server falls over, everybody sits on their hands until it is brought back into service: the cheap individual desktop boxes can't operate as stand-alone computers. On the other hand, in a more typical fat client network, where the desktop computers will have the primary everyday applications mounted on their hard drives, people still tend to have to sit on their hands when the servers fall over because all networks are quite interactive – even if it is only to the extent of running automatic back-ups and internet connections.

The savings in cost associated with thin-client networks come from not having to pay much for the desktop kit, which currently must be at its lowest price in the admittedly short history of computers. It is also to do with using Linux and, thus, almost-free server software – although a lot of network engineers still use Novell and especially Microsoft's XP Embedded. The saving in desktop-kit costs occur because you are buying terminals for staff, rather than personal computers, although it could be difficult for the casual visitor to an office to spot the difference.

The big advantage for network administrators is that they can carry out upgrades and maintenance on the server rather than on every architect's computer. And that, potentially, saves an enormous amount of time.

When thin-client networks are

wired up, security is said to be better because the serious stuff occurs securely inside the server. If someone wants to steal data they have to attack the server, which normally will be in a secure location. The most interesting facet of thin-client architecture is that it can be operated over wireless networks using both WiFi and 3G cellular networks. The possibility is now open for diskless – and therefore quite cheap – tablets, notebooks and handhelds to form part of the network. Maybe this means the end of security scares when people leave laptops in taxis.

But cheap is relative. The M1400 Centrino and Base, released in the US early this year by pioneering thin-client laptop manufacturer Motion, are actually around the price of ordinary tablets – but it is early days.

Wireless is slower than cable, so most CAD work will be run over wires, and, because of the processing-intensive nature of CAD, the server has to be up to the job of processing tasks simultaneously for everybody on the network. It is also true that the thin client is inherently slower than working on a dedicated computer, so some advocates believe thin client is unsuitable for design, engineering and architectural practices.

But this is to play the numbers game rather than finding out how things work in real life – and there are primary factors such as the capacity and power of the server or servers, the number of people using the internal network, the intensity of standard-use patterns and the like which have to be factored in against a diminution of administrator time and re-equipping costs. But perhaps the greatest human problem for thin-clients is that people are inclined to resist the company IT nerds who seem to be taking over that private fiefdom that is their current personal computer.



Adjudication has been referred to on many occasions in the past

Construction disputes can be referred to adjudication at any time, writes *Kim Franklin*. Thus, the 28-day decision man (or woman) can be called on at any time up to practical completion, at any time up to the issue of the final certificate and at any time thereafter. Those who thought adjudication was to be a quick fix for wrangles that brewed up during the course of a construction project were surprised to find that adjudications could be commenced long after the project was completed, paid for and occupied.

No one was more surprised, it turns out, than Sir Michael Latham, who first introduced the notion of adjudication for the resolution of construction disputes in his 1994 report into construction procedures, 'Constructing the Team'.

It transpired that he was not consulted when the Construction Act was drafted. The right to refer a construction dispute 'at any time' is now enshrined in the Act and,

what is more, there are no plans to change it. The government-led review of the workings of the Act may address many problems thrown up by nearly a decade of adjudications, but adjudicating post-completion disputes, including final-account claims and allegations of professional negligence, is not one of them. So, while nothing is certain on the choppy waters of the political process, particularly in the shadow of a general election, it seems highly likely that parties to construction contracts will retain the right to refer their disputes to adjudication at any time.

If there is no limit to when a dispute can be referred, is there a limit to the number of times the same or similar disputes can be referred? This point was considered recently in the case of *Emcor Drake & Scull v Costain Skanska Joint Venture* (judgment 29.10.04). The defendant consortium was the main contractor for the refurbishment of the Great Western Royal Hotel at Paddington in London. Emcor was engaged as the electrical sub-contractor.

The claimant said it was delayed in the execution of its works and submitted three claims for extensions of time in November 2001, April 2003 and February 2004. The later claims relied on events and material from the earlier claims. The November 2001 claim was referred to

adjudication. Emcor relied on delay caused to works to the hotel bedrooms as a result of problems with access. Emcor did not produce a critical-path analysis. Furthermore, it argued that, if it was denied access to the bedrooms, it followed that it was entitled to the extension claimed. The adjudicator found that Emcor had failed to discharge the burden of proving it was entitled to any extension of time.

Subsequently, Emcor referred the February 2004 claim to a different adjudicator. The second adjudicator approached the problems of the bedrooms in a different way and found that Emcor was entitled to an extension of time up to the date of practical completion and repayment of some £200,000 of liquidated damages.

Costain Skanska challenged the second decision in court on the following grounds:

- There could only be one extension of time under the contract, so there could only be one adjudication on the point.

● The first adjudicator had found that Emcor was not entitled to an extension of time. The second adjudicator was bound by that decision.

● Alternatively, the second adjudicator could only consider events

relevant to the later applications, but not the November 2001 application.

● Emcor relied on the same facts, material and documentation in both adjudications. It was an abuse of the process to require the defendants to respond to it twice.

The judge rejected each argument. He agreed a second adjudicator should respect the decision on a point found in an earlier adjudication. He found, however, that the first adjudicator had not decided that Emcor was not entitled to an extension of time. He had simply found that it had failed to prove that it was. Thus, the second adjudicator had jurisdiction to revisit all matters relied upon by Emcor and to grant an extension, and the decision was enforceable.

So it seems that a dispute can be referred to adjudication at any time, and then be referred time and time again thereafter.

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

A slice of humble pie please for this in-house cynic

Sometimes you think that architectural websites in general might be a lost cause and then along comes Loates Taylor Shannon and its site at www.lts-architects.co.uk.

I have to eat humble pie about recommending that architects should not construct their own websites, because this one was designed by in-house Part-2er Matthew Jones. Humble pie too because one of the worst architecture-related sites I have seen (not just my view) was apparently designed by a pro. I won't mention who because it is now a tad improved.

What is immediately stunning, apart from the cool design, about the Loates Taylor Shannon site is its speed. The home page image slams into place on its grey background and when you hit 'Projects', up zaps an abstract-ish elevation with a list of the practice's work on the left-hand side.

Click on, say, 'Free Trade Wharf' and up slides a general image of the project with seven tiny monochrome thumbnails across the bottom. Click on any of them and up flash readable 10cm-deep colour images.

And the site loads fast: in less than a second. The thumbnails are too small and too monochrome, but because everything is so instant, you can simply click at random and get a good idea of the project from the big images as you flash them on and off. And it is you doing it, not the site running a leisurely automatic carousel. On the right-hand side of the main image area is a brief description of the project, with the client's name. Should you want to know who the contractor and consultants were you click on 'Credits' at the bottom. More detail? Click on the little text icon and up comes a project sheet with a white background so it can be printed.

This is exactly how websites should be used: offering a summary of the facts with the detail text or images just a click away. The slab sans-serif type is non-adjustable, but there are nice little jokes on the 'About Us' page.

sutherlandlyall@btinternet.com

'Is there a limit to the number of times the same or similar disputes can be referred?'

London

International Arts and Crafts 17 March-24 July. A major exhibition at the V&A, Cromwell Rd, SW7. Details www.vam.ac.uk

Louise Marlborough: Gasholders 17-29 March. Photos at BrB, 48 Rosslyn Hill, NW3. Details 020 7435 0808.

Fieldtrip/Landforms 22 March-27 April. Two touring shows from The Lighthouse at the RIBA, 66 Portland Place, W1. Details 020 7580 5533.

Dan Cruickshank Thursday 24 March, 19.00. A SAVE lecture at the Royal Geographical Society, SW7. Tickets £12 from 020 7253 3500.

Sustainable Design/Energy Strategies Wednesday 30 March, 18.00. A CLAWSA talk at Max Fordham LLP. Details 020 7307 3681.

Thomas Heatherwick Tuesday 5 April, 18.30. A lecture at the RIBA, 66 Portland Place, W1. Details 020 7307 3699.

Naked Science: Building a Better Planet Wednesday 6 April, 18.30. At the Science Museum's Dana Centre. Details 020 7942 4040.

Building Wales Until 9 April. An exhibition at the RIBA, 66 Portland Place, W1. Details 020 7580 5533.

Thomas Banks: The First Modern British Sculptor Until 9 April. At Sir John Soane's Museum, 13 Lincoln's Inn Fields, WC2. Details 020 7440 4262.

Reflections/Destinations Until 17 April. A Wilkinson Eyre exhibition at the Wapping Project, Wapping Wall, E1. Details 020 7680 2080.

Amanda Levete Tuesday 19 April, 19.00. A lecture at the RCA, SW7. Tickets 020 7590 4567.

Value, Culture and Commerce Monday 16 May, 18.30. A forum at the Royal Academy, W1. Details 020 7300 5839.

Avant-Garde Graphics 1918-1934 Until 5 June. An exhibition at the Estorick Collection, 39a Canonbury Sq, N1. Details 020 7704 9522.

East

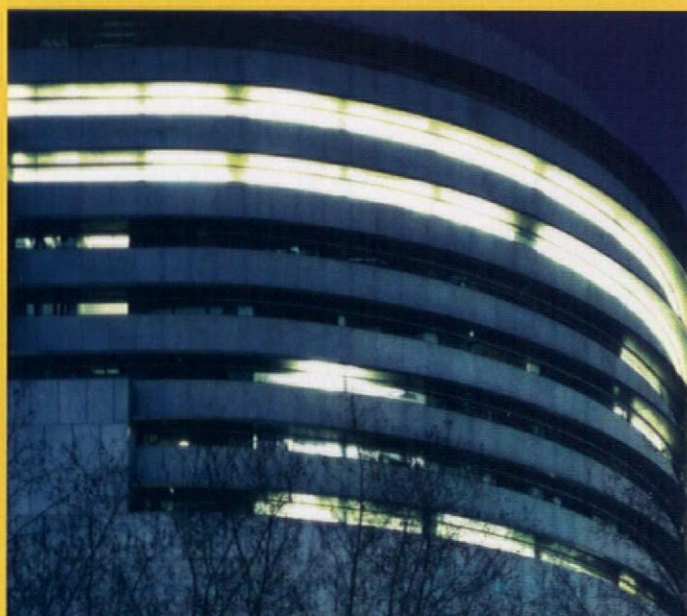
RIBA CPD Event: Green Specification Wednesday 13 April, 13.30. At New Hall, Huntingdon Rd, Cambridge. Details 01223 566285.

RIBA CPD Event: DDA Update Thursday 28 April, 13.15. At New Hall, Huntingdon Rd, Cambridge. Details 01223 566285.

The World, Abridged Until 1 May. A group exhibition at Kettle's Yard, Castle St, Cambridge. Details 01223 352124.

East Midlands

RIBA CPD Event: Dealing with Contractors' Claims Wednesday 23 March, 13.45. A seminar at the



FOOTPRINTS IN THE CITY

That's the title of a new exhibition at the Architecture Centre, Narrow Quay, Bristol, devoted to the work of Barcelona-based MBM Arquitectes. With a focus on 'rediscovering the values of the European city', it runs from 22 March to 15 May. Details 0117 922 1540 (www.architecturecentre.co.uk)

National Water Sports Centre, Holme Pierrepont, Nottingham. Details 01522 837480.

Michael Dan Archer Until 10 April. Stone and iron sculptures at the Lakeside Arts Centre, University Park, Nottingham. Details 0115 846 7185.

Rab Bennetts Thursday 21 April, 19.00. A lecture at the School of the Built Environment, Nottingham University. Details 07881 922537.

RIBA CPD Event: Party Wall Act Wednesday 27 April, 13.45. At the National Water Sports Centre, Holme Pierrepont, Nottingham. Details 01522 837480.

North West

SuperCity: Will Alsop's Vision for the Future of the North Until 10 April. At Urbis, Manchester. Details 01943 603311.

Resource Efficiency in Construction Friday 22 April. An ICE conference at The Lowry Centre, Salford. Details 020 7665 2312.

Richard Wentworth Until 24 April. A retrospective at Tate Liverpool, Albert Dock, Liverpool. Details www.tate.org.uk

Graham Stirk Wednesday 27 April, 19.30. A lecture at the Grosvenor Museum, Grosvenor St, Chester. Details Mark Kyffin 0161 833 2037.

100 Years - 100 Chairs Until 5 May. An exhibition from Vitra Design Museum at CUBE, 113 Portland St, Manchester. Details 0161 237 5525.

South

Boyd & Evans: Landmarks Until 3 April. Photographs at the MKG, 900 Midsummer Boulevard, Milton Keynes. Details 01908 676 900.

RIBA CPD Event: Disability Discrimination Act Tuesday 5 April, 14.00. At High Wycombe District Council Building, High Wycombe. Details 0118 969 8051.

The Heart of Building Acoustics 19-20 April. An Institute of Acoustics conference at the Oxford Hotel, Oxford. Details www.ioa.org.uk

South East

Traditional Timber-Frame Construction Thursday 21 April. A course at the Weald & Downland Open Air Museum, Singleton, Chichester. Details 01243 811464.

RIBA CPD Event: BREEAM and You Thursday 21 April, 16.00. A seminar at the Copthorne Hotel, Gatwick. Details 01892 515878.

Lucy Orta: New Work on Organic Architectural Forms Until 15 May. An exhibition at the University of Brighton Gallery, Grand Parade, Brighton. Details 01273 643010.

Wessex

New Sculpture from Ireland Until 3 April. An exhibition at the New Art Centre, Roche Court, East Winterslow, near Salisbury. Details 01980 862244.

The Tabernacles Until 10 April.

An exhibition at the Architecture Centre, Narrow Quay, Bristol. Details 0117 922 1540.

West Midlands

Giovanni Anselmo Until 28 March. An exhibition of the Arte Povera artist at the Ikon, Brindleyplace, Birmingham. Details 0121 248 0708.

RIBA CPD Event: Dealing with Contractors' Claims Thursday 31 March, 14.00. At the Paragon Hotel, Birmingham. Details 0121 233 2321.

DDA Access Audits & Strategies Thursday 14 April. A Construction Study Centre course in Birmingham. Details 0121 434 3337.

Retail-led Regeneration in Historic Towns Thursday 21 April. An English Historic Towns Forum conference in Birmingham. Details 0117 975 0459.

Yorkshire

RIBA CPD Event: Value Management Tuesday 22 March. A seminar at Wakefield Town Hall. Details 0113 245 6250.

Peter Fawcett Wednesday 20 April, 18.00. A lecture at Sheffield Hallam University (Pennine Lecture Theatre). Details 0114 225 2836.

Bill Woodrow + Richard Deacon Until 5 June. New sculptures at the Yorkshire Sculpture Park, West Bretton, Wakefield. Details 01924 832631.

Scotland

6,000 Miles 25 March-7 June. An exhibition taking the Scottish coastline as its starting point. At The Lighthouse, 11 Mitchell Lane, Glasgow. Details 0141 221 6362.

Wales

RSAW Small Practice Surgery Series - Marketing Professional Services Wednesday 23 March, 16.00. At the Welsh School of Architecture, Cardiff. Details 029 2087 4753.

Richard Murphy Thursday 31 March, 19.30. At the Galeri, Victoria Dock, Caernarfon. Details Peter Stonebridge 01745 815600.

International

Herzog & de Meuron Until 8 May. An exhibition at the Netherlands Architecture Institute, Rotterdam. Details www.nai.nl

Andrea Palladio and the Veneto Villa: From Petrarch to Carlo Scarpa Until 3 July. An exhibition at the Museo Palladio, Vicenza. Details www.cisapalladio.org

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



Winning on aggregate

STEVEN SPIER

Concrete Architecture

By Catherine Croft. Laurence King, 2005. 240pp. £35

The mixture of cement and aggregate is an ancient building material. Add a good dose of slave labour and it's possible to have the Romans' astounding civil engineering and, with it, cities on a scale not seen for centuries. Concrete in a modern sense has its roots in the development of a reliable and consistent cement in the mid-19th century, followed by reinforcement only a few decades later. The development of a specifically concrete architecture, however, which addresses what the logic or architectural consequences of concrete are, is a leitmotif of the 20th century, as the

well-written and nicely opinionated introduction to this book attests.

Catherine Croft claims that concrete is again fashionable, an assertion not worth contesting since the introduction and individual entries promise us 'a celebration of concrete'. Indeed, everyone will find something they like or admire. As in any book that is a collection of buildings by different architects – there are 44, mostly from the past five years and almost exclusively from Europe and the US – there is the expected, the surprising and the absent. (And the baffling, like the omission of work by engineers.)



Top: Gigon/Guyer's Oskar Reinhart Collection.
Above: UN Studio's Möbius House

Each example has either four or six pages, with an informative short description about the building and the architect. As well as the expected exteriors and interior photographs, there are legible plans and sections, for which, increasingly, we must be grateful. Disappointingly for a large-format book, many of the photographs are poorly reproduced.

The chosen buildings are divided into four categories of home, work, play and landscape. This is a shame because, as Croft points out, the history of 20th-century concrete can be written as a long struggle to match its virtues for structure and construction to its architectural possibilities. A book purporting to look at a particular material in architecture should be organised by how that material is used.

The wonders of reinforced concrete have been recognised serially, as can be seen neatly in the first half of the 20th century, and to a large extent are still what drive concrete architecture today. Its favourable cost-to-span ratio made it perfect for the new programme of parking garages and other utilitarian or military buildings (where the engineering was often left to lead the design). Its speed of erection and low labour cost helped it meet the huge demand for urban housing after the First World War, as did an evolving interest in its affinity for prefabrication. Then it lost its meaning as a sleek modern material in favour of reclaiming its primitive roots.

The idea that concrete is quintessentially Modern has lingered longer in the UK, with its ambivalence towards Modernism, than in other European countries, where it has never been out of fashion. These different understandings of concrete were a vigorous attempt to find the meaning of what was, in effect, a new material, one that seductively seemed to address a central problem of 20th-century architecture: namely, decoration.

The latest and truly new issue about concrete is the argument that it is not sustainable due to the source of much aggregate, the production process of cement, and the difficulty of getting its constituents back out. This judgement depends on one's definition of sustainability, and is an argument worth having, though one that the author ignores.

Concrete architecture is less interesting as a fashion statement because its use is still so complicated. More than a century after its wide introduction, its meanings and use still resist being set, and so a book of some outstanding contemporary concrete buildings can only further the development of its use and meanings.

Steven Spier is a professor at the University of Strathclyde



Travelling light

MARTIN PAWLEY

Jean Prouvé – Complete Works, Volume 3: 1944-1954

By Peter Sulzer. Birkhauser, 2005. 384 pp. £72

Somewhat like Buckminster Fuller in the United States, and perhaps Walter Segal in England, Jean Prouvé was a maverick figure who, while he may never have become an architect himself, gave clear guidance to the profession and enjoyed great influence over it, much of it surviving to this day.

Born into a wealthy family in 1901 in Nancy, northern France, he was apprenticed to the artistic metal worker Emile Robert, a noted exponent of Art Nouveau. Through his father's political connections, he was soon given important interior and furniture design commissions, which in turn led to contact with the French architectural avant-garde of the 1920s. As a consequence, his interests widened and he became more concerned with structural matters.

By 1930, he had developed a light folded-metal portal-frame system for housing, which led eventually to what are claimed to be the first true curtain-wall buildings in Europe – the clubhouse for a private airfield at Buc (1938), and the Maison du Peuple at Clichy (1937-39). Perhaps more interesting are the drawings, patents and photographs of the dozens of prefabricated dwellings and sheds that made up Prouvé's Maxeville factory complex, built on the site of an old cement works on the banks of the River Meurthe.

This third of the promised four volumes of Prouvé's *oeuvre complète* covers 1944-1954 – a period overshadowed not only by the political and social disorder that accompanied the liberation of France from four years of German military occupation, but also by the tremendous efforts that were being made under the aegis of the Marshall

Plan to house the millions of displaced people ranging across the whole continent.

Initially, both these factors worked in favour of Prouvé's development of light folded-metal housing systems, and led to a considerable expansion of his new Maxeville complex. There were projects for the housing of war victims, shown here for the first time. There was a fruitful collaboration with Le Corbusier and Pierre Jeanneret, and the successful use of a prefabricated system for the houses at Meudon (see picture). But somehow all this failed to produce any synergy and – in circumstances that are still unclear today – Prouvé ended up losing control of his factory altogether in 1953.

It was not until much later, when Prouvé became involved with larger projects again, such as the big portal-frame building for Electricité de France, and the housing with moveable room-partitions on the Côte d'Azur (which was a collaboration with Henri, his architect brother), that his sure touch returned. An account of this last phase of his life is awaiting publication in Sulzer's volume four (1955-84).

The first thing that strikes one about the present book is its size and weight – so heavy that both hands seem necessary to prevent it from falling apart when picking it up. But, of course, this fear of disintegration is misplaced, as is the impression of this book's massive length. For the volume is in English and French with a single run of images, the vast majority in monochrome; which is short-form for the world of Jean Prouvé, locked in his own period by its own technology – given life by Sulzer's heroic attempts to transcend its limitations.

Anne Hardy

At ArtSway, Station Road, Sway, Hampshire, until 17 April



One of Anne Hardy's constructed scenes: *Untitled III (office)*, 2004-05

In a well-known painting by Magritte, an apple is so huge that it fills a room, writes *Andrew Mead*. There's the same immediate oddness in one of Anne Hardy's large photographs at Tony Fretton's ArtSway gallery: what looks like an indoor forest, a sudden incursion of nature, is a lumber room packed with Christmas trees. But as a rule her images, all interiors, have a slower-burn effect. It's as their details accumulate, and they play off one another, that progressively they become more strange.

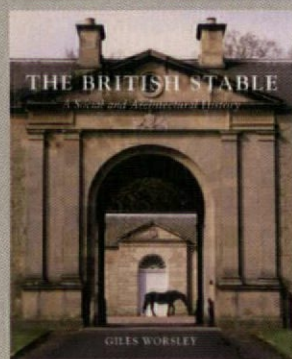
'I didn't set out to make the images overly sinister, and I imagine the world they are part of is just outside of where we're sat,' says Hardy. 'I think they seem menacing as they are a bit unplaceable; their identity is ambiguous. There is also the sense that these places are descending into chaos, for reasons we're unsure of. I want the work to suggest that the order and control we think we have may be an illusion of sorts.'

Hardy sets the scene and then photographs it; these shots are all staged. But they're not so removed from 'reality' that we reject them as artifice; they're plausible. They invite us to speculate and construct a narrative around them, but no one narrative is conclusive; they're not puzzles awaiting a correct solution.

A cross between Gaston Bachelard and David Lynch? Perhaps they're more like places that we know or inhabit than the pristine enclaves in most architecture magazines.

The British Stable

by Giles Worsley. Yale University Press, 2004. £45



Until now, at its demise, equestrian architecture has been ignored by historians, writes *Deborah Singmaster*. *The British Stable* majestically addresses this oversight. Giles Worsley has researched every aspect of it, from manger design to multi-storey stabling (an example survives behind Paddington Station).

When Queen Elizabeth acquired a coach, private coaches quickly became so fashionable they were seen as a threat to the art of riding and river transport. At first, coach horses had to be imported. They were expensive and valuable and their owners liked to show them off in suitably grand stables.

These might express new architectural fashions, or 'realise in miniature... thwarted architectural ambitions'; some outshone the houses they stood beside. At Peover Hall, Cheshire, the stable ceiling of 1654 is decorated with delicate domestic plaster work; carved heel posts at Dunham Massey Hall mimic Classical columns; at Chatsworth, James Paine's

stables rival those by Giulio Romano at the Palazzo del Te.

In the 1600s, stables and coach house often flanked the forecourt. A century later they were set apart in large quadrangles, leaving the house isolated in the landscape as at Houghton Hall, where Robert Walpole's guests expected to hunt six days a week in between banquets and politicking. In 1794, Richard Payne Knight advocated a reunion of house and stable to achieve a Picturesque massing.

In London and Edinburgh, mews solved the horse and coach problem, and dictated the classic Georgian layout exemplified by Grosvenor Square and the streets of Mayfair. Apart from the replacement of stalls with loose boxes and improved hygiene, stables changed little after early the 19th century. The Royal Mews at Buckingham Palace are as functional today as they were when Nash designed them.

Superb photographs by William Curtis Rolf are accompanied by plans, maps and drawings.

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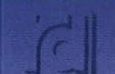


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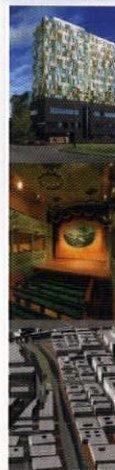
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people & practices

Gleeds, the international management and construction consultancy, has appointed **Atholl Simpson** as managing director to head up its expanding French operation.

Holloway Foo Associates has moved to 52-54 St Paul's Square, Birmingham B3 1QS.

Keppie Design has announced the promotion of **Graham McCorkindale** and **Peter Moran** to directors.

Elaine Toogood and **Caroline Byram** have been made directors of **LTS**.

Whitbybird's Cambridge office has moved to Jupiter House, Station Road, Cambridge CB1 2JD.

Rachel Shaw has become an associate at **architecture plb**.

Baggeridge Brick has appointed **Simon Hughes** as new product manager to oversee the development and promotion of the company's innovative clay cladding system, **Corium**.

Construction consultant **Cyril Sweett** has promoted **Dean Webster** to chief executive and **Derek Pitcher** to deputy chairman.

Cox Building Products has recruited **Richard Atkinson** as an estimator, **Alistair Swinn** as area sales manager for north London and the Home Counties, and **Mark Simpson** as business development manager covering the north and the Midlands.

WRTL Exterior Lighting has appointed **Jacqueline Foster** as a sales engineer.

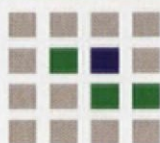
● Send details of changes and appointments to **Anna Robertson**, *The Architects' Journal*, 151 Rosebery Avenue, London EC1R 4GB, or email anna.robertson@emap.com



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Following the sad and untimely death of a senior partner, an established West Yorkshire practice with an expanding workload requires an experienced architect to join our team as a partner.

Contact **Neil Hardaker** in confidence enclosing your details to:

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

Nick Roberts
Tel: 0207 505 6737
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Designing & Building Architectural Careers

Newcastle Vacancy

Senior Technician**Vac ref 0503-87****Permanent**

A large reputable practice is seeking staff to join its North East office. The practice is offering 2 permanent positions at Senior Architectural Technician level with the ideal candidate having education and residential sector experience. The role will involve site work, client liaison and consultant liaison so a confident and professional approach is required. AutoCAD skills and a full UK driving licence are essential.

Lincolnshire Vacancy

Technician**Vac ref 0503-86****Permanent**

My client is a hugely successful generalist practice. Like a lot of people they are currently experiencing a massive demand for their services, unlike some they are confident that this is not a short term blip but represents a long term growth. For this reason they are currently seeking experienced Autocad literate Technicians with good Technical skills and a talent for Design to join their existing team. Although they are happy to consider applicants with experience gained in any sector, they are particularly keen to hear from people with a Commercial or Industrial background

Bristol Vacancies

Pt 2& 3 Qualified Architects and a Technician**Vac ref 0503-84****Permanent**

My client is a major player in the fields of Commercial and Residential Architecture, not only throughout the UK but also Europe and the Middle East. They are now seeking Candidates at all levels to join them. Your areas of expertise are less important than your enthusiasm and professionalism because the client is looking for staff that they can develop and offer a long term career path to. If you are a keen and conscientious person who is seeking an exciting opportunity within a dynamic, forward thinking Company.

Liverpool Vacancy

Architect and Senior Technician**Vac ref 0503-81****Permanent**

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

Greater Manchester Vacancies

Architect**Vac ref 0503-76****Permanent****Architectural Technician****Vac ref 0503-77****Permanent**

My client is a generalist practice with three offices in the North West employing 90 staff. They are now seeking an Architect and an Architectural Technician to join their operation in Bury working on a wide range of Office and Industrial projects with values up to £5m. In addition they have Educational work, Apartments and High Tech Factories. The majority of the work involves new build, but they also get involved in some conversions. All the projects involve the use of Autocad.

Wolverhampton Vacancy

Technician**Vac ref 0503-74****Permanent**

My client is a multi-site practice with an enviable reputation gained across a number of sectors, they are now seeking all levels of architectural staff, with excellent Autocad skills and the ability to run jobs. Ideally you will have a background in the Retail sector, but this is not essential as the client is happy to cross-train from other sectors. This is a good opportunity to join a leading UK based Architectural Practice.

Northampton Vacancy

Senior Technician**Vac ref 0503-73****Permanent**

My client, a small/medium sized practice, is seeking a Senior Architectural Technician with at least 5 years post qualification experience gained in any sector. Their workload is mainly Industrial and Commercial projects, but they also cover residential and interiors work. You will have the Autocad skills, coupled with the ability to run jobs and lead small teams. This is a great opportunity to join a thriving practice and carve your own niche.

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LONDON'S TUNNEL VISION

Cross River Partnership (CRP) and Spacia, the property arm of Network Rail, are launching an international ideas competition for a network of railway arches in central London. The 'Light at the End of the Tunnel' competition gives a choice of three sites – Waterloo, Vauxhall and London Bridge – and the brief is available now.

OXFORD'S BONN VOYAGE

Oxford City Council with its partner, the West End Steering Group, invites submissions from artists, urban designers, landscape architects, architects and town planners for the redesign of Bonn Square in the heart of Oxford city centre. Students of the same disciplines are also encouraged to take part. The competition will take the form of open ideas, with a submission deadline of 26 April.

KYRL'S QUAY SPACES

Cork City Council is holding an open, one-stage design ideas competition for waterfront sites and urban spaces on Kyril's Quay, Cork, as part of the Cork European Capital of Culture 2005 programme. Contact Jill Jacob on tel 00353 1 6691463, email jjacob@riai.ie or visit www.riai.ie. The closing date is 20 April.

IDEAL LIBRARY FOR CORK

The Royal Institute of the Architects of Ireland is administering a competition to design a 21st-century library for Cork. Invitations will be issued to architects and students in architectural schools across Europe who are not more than 35 years of age at the closing date for entries. Contact Jill Jacob on tel 00353 1 6691463, email jjacob@riai.ie, or visit www.riai.ie. Registration closes on 20 May.

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This well-established, award winning practice focussing on Urban Design is currently recruiting for an Associate Designate to work on various medium to large-scale masterplanning and regeneration projects throughout the UK. The ideal candidate will be a Registered Architect with a further qualification in Urban Design. Must have 7 years' experience, with a strong emphasis on design and must be capable of running projects, liaising with clients and managing junior staff. This is an excellent opportunity that will enable the right candidate to quickly progress to Associate. On offer is a market competitive salary, pension, profit-related bonus, 25-days holiday, etc... Based: Oxfordshire REF: DEB/5727

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Pay: Up to £33,500 + Package

An Architect is currently required to take jobs from client brief through to completion on site utilising consultants and contractors and in-house staff. The role is very much project management as well as design on small through to large projects. Candidates must have up-to-date experience in design using AutoCAD as well as having project management and personnel management skills. The successful candidate will have broad building experience as well as experience in contract management and up-to-date knowledge of relevant legislation. The work is varied and includes work on laboratories, offices, factory type units, listed buildings, etc... Based: Oxfordshire REF: DEB/5728

Architectural Technician

Pay: Based on Exp.

An Architectural Technician is required to work on the production of drawing packages for this practice based in SW London. Projects are predominantly residential. Applicants must have a minimum of 3 years' experience, have a firm understanding of the UK Building Regulations and be fully conversant in the use of AutoCAD. Based: London REF: DEB/5729

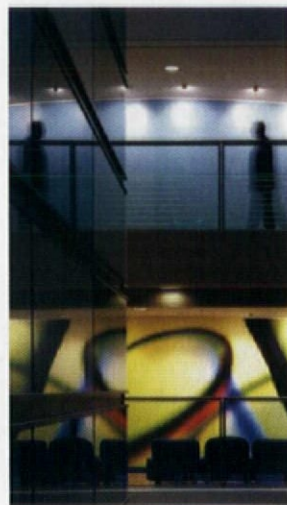
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Or e-mail info@rdjwld.com

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Award-winning young practice are seeking architects with three to five years post qualification experience to join us in working on a number of exciting new projects. Part III graduates and more recently qualified architects may also be considered depending on ability and experience.

CVs with A4 examples of work (no CDs)

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

Nick Roberts
Tel: 0207 505 6737
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Deadlines

Bookings/copy 5pm Monday
Artwork 12 noon Tuesday
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Interviews for this post will take place on 12 April 2005.

Information pack and application form from

the Director of Personnel & Performance, Salford City Council, Civic Centre, Chorley Road, Swinton M27 5BN or our Customer Contact Centre. Tel: 0161 909 6503 (24 hours). Minicom: 0161 909 6527 (special line for the hearing/speech impaired). Please quote reference number at all times.

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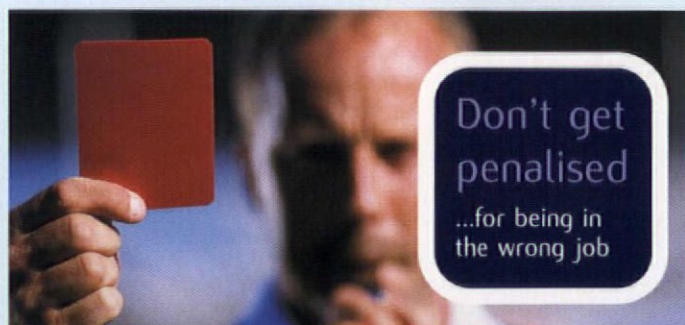
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A well-known prestigious architectural practice seeks a Qualified Architect to assist in solutions to mono and multi-discipline projects whilst demonstrating a reasonable level of technical competence. Undertaking client projects as part of a project team, the role is based in the company's modern offices in Central Birmingham and is within walking distance of New Street Station.

Sukhi Singh t. 0121 265 2555 e. ssingh@bbt.co.uk Ref: SSBHAMARCHA

Architect £Competitive — Nottingham

A Qualified Architect required who will be responsible for assisting in solutions to mono and multi-disciplined projects. Demonstrating a reasonable level of technical competence, you will undertake client projects as part of a project team. As a member of a small but rapidly expanding team, you will contribute to team performance, demonstrating initiative and helping to grow the business. This position is based in Nottingham and will involve travel in the Midlands area, predominately the Birmingham office.

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Technical Architect/Senior Architectural Technologist, London - to £35,000

This leading architectural practice, which specialises in one-off projects of the highest calibre, seeks applications from technically orientated professionals wishing to take a lead role on a forthcoming Residential project. To be successful, you will be RIBA/ARB/BIAT qualified, have a minimum of 5 years post qualification experience and have up-to-date building regulations knowledge. In addition, you will have sound organisational skills, a keen eye for detail, and be able to clearly demonstrate the ability to coordinate project on-site. Excellent AutoCAD skills are essential. **Ref: 10259**

Architects, London - to £34,000 + Benefits

This well-known design practice, seeks applications from architects wishing to join their teams working on a range of high profile Retail and Residential led mixed-use developments. You will have 3-5 years post part II design experience, coupled with a "can-do" attitude toward your work. Work will be at various stages of the design and delivery process, so good all-round skills are essential. Good detailing experience is advantageous. A sound level of AutoCAD literacy is essential. **Ref: 10221**

Senior Architectural Technicians, Herts - to £34,000 + Car

This large nationwide housebuilder currently seeks applications from highly proficient Architectural Technicians who have a proven track-record of producing high quality drawing packages for high-density Residential schemes. The successful applicant will have a sound level of construction knowledge, be self-driven, and have "team-work" orientated attitude towards their work. At times, the work can be extremely fast-paced and working to tight deadlines can be a common factor, so the ability to work under pressure is essential. Excellent AutoCAD skills are required for this post. **Ref: 10261**

Architectural Technicians, London - to £34,000

Our client is a highly successful architectural practice based in SE1 and they urgently require solid architectural technicians to work on a range of high quality residential developments for some of the UK's leading housing developers, being responsible for producing drawing packages and on-site coordination of various projects. Our client is steadily expanding their practice due to continued success and can offer applicants a challenging and rewarding career path. **Ref: 10219**

Design Architect & Project Architect, London - to £36,000

Our client, a medium sized Mayfair based practice, seeks applications from ambitious architects who would like to work on an exciting range of commercial projects. The practice has a requirement for two individuals; one working as a Design Architect, seeing projects from inception through to planning consent. The other role will be more delivery orientated and for this post applicants should have 3-5 years experience delivering £multi-million projects. For this post you will be responsible for taking projects from planning consent through to completion. Both positions require involvement in one or more projects, at any one time. Good design and CAD skills are essential for both of these posts. **Ref: 10257 & 10258**

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Ref: 10109

Senior Technician, London - to £22ph
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Ref: 10151

Mid-Weight Technician x 2, London - to £18ph
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Ref: 10153

Architectural Assistant, London - to £16ph
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Ref: 10110

Senior Technician, Hertfordshire - to £22ph
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Architectural Technician

Estates Department

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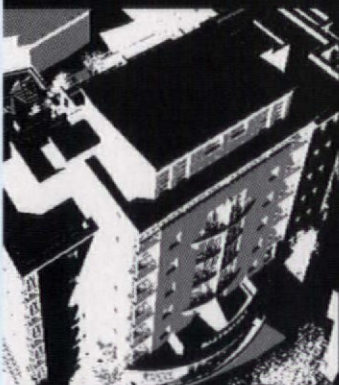
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e-mail: agp@agparchitects.com



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For an informal discussion please contact Richard Johnston, Design Manager on (0191) 424 7471.

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For more information contact

Nick Roberts on **020 7505 6737**, nick.roberts@emap.com or
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Architectural Technician

Salary up to £29,958 per annum Ref: T4230B

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Salary up to £29,958 per annum Ref: T4235B

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Send for our application pack by e-mail:

personnel.services@stevenage.gov.uk; or by phoning 01438 242079 (24 hour answerphone); or try go to www.stevenage.gov.uk Please quote the relevant reference number. Unfortunately we are unable to accept CVs.

Applications must be returned by 12 noon on 25th March 2005.

Interviews will be expected week commencing 4th April 2005.

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AJ ENQUIRY NO: 301



Colorcoat Celestia and Colorcoat HPS200 have been specified for the roofs and walls of the latest JJB Soccer Dome sporting facility in Blackburn. The metallic appearance of the Colorcoat Celestia adds a visual depth to the structure. These materials have also been included at the new Soccer Dome at Tyneside and at a third in Rotherham.

GOODING ALUMINIUM

AJ ENQUIRY NO: 302



Front of house billing has been awarded to Gooding Aluminium's high performance Series 500 alloy louvres in the Wales Millennium Centre. GA's 5* Fabrication Service produced numerous powder coated louvre panels that are installed throughout the interior spaces of this architecturally significant building. Visit www.goodingalum.com.

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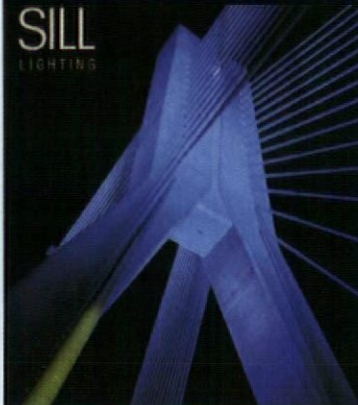
AJ ENQUIRY NO:303



A fifth edition of Hafele's quarterly Essentials catalogue for woodworkers, joiners, interior fitters, facilities management and maintenance workers, continues to grow and is now off the press. The inventory with more than 50,000 items is carried on the Complete Hafele website, although now nearly 100 pages it is printed on lightweight stock.

SILL LIGHTING

AJ ENQUIRY NO: 304



Sill Lighting has published a new architectural lighting reference brochure which allows specifiers to see the full detail of major lighting projects using large format images. Both exterior and interior lighting schemes are represented and sections cover airports, railway stations, sports & leisure, retail, car parks, offices, mirror systems and heritage.

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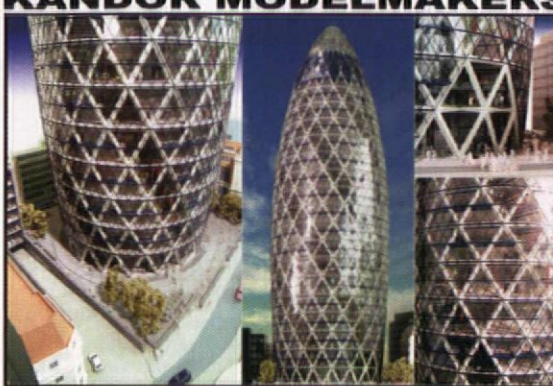
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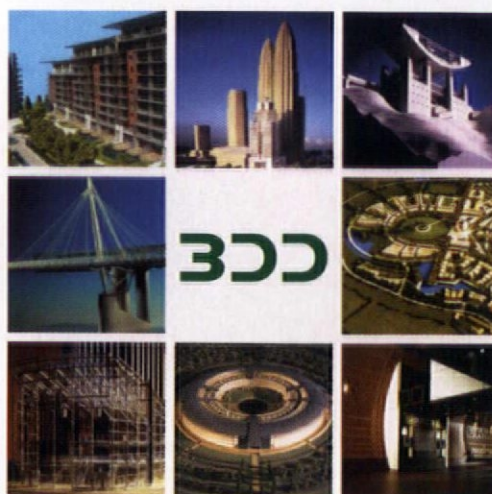


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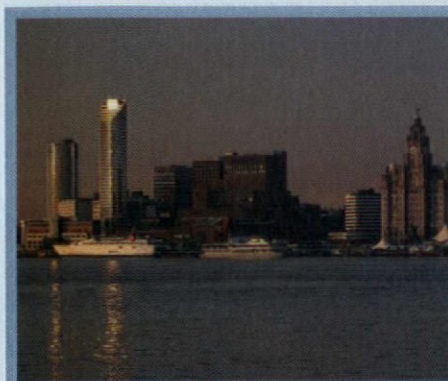
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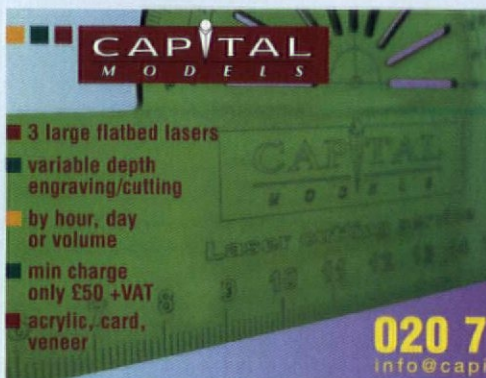
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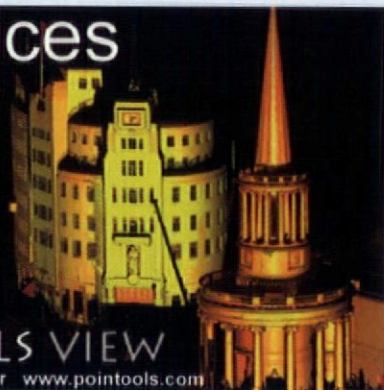
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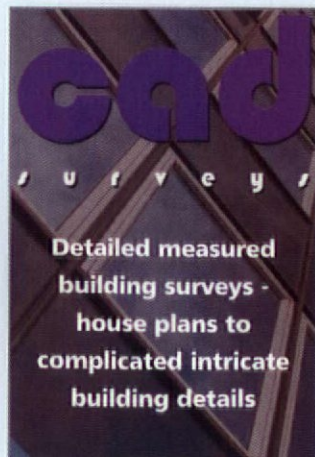
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the architects' journal | 65

Taking a stand

MIPIM just seems to get bigger and bigger every year. There is seemingly no upper limit to the amount of money that the ever-increasing number of 'property professionals' – developers to you and me – are prepared to spend to impress investors, competitors and government decision-makers. However, the event organisers had better be wary of attacking the 'parasites' (their label, not mine) who attend the many fringe events but never actually cough up the cash to buy a ticket to enter the exhibition space. There was a distinct sense of a backlash in the air, with more than one attendee observing that the event was now so big it no longer even needs the exhibition. A property fair without any stands. Now that would be interesting...

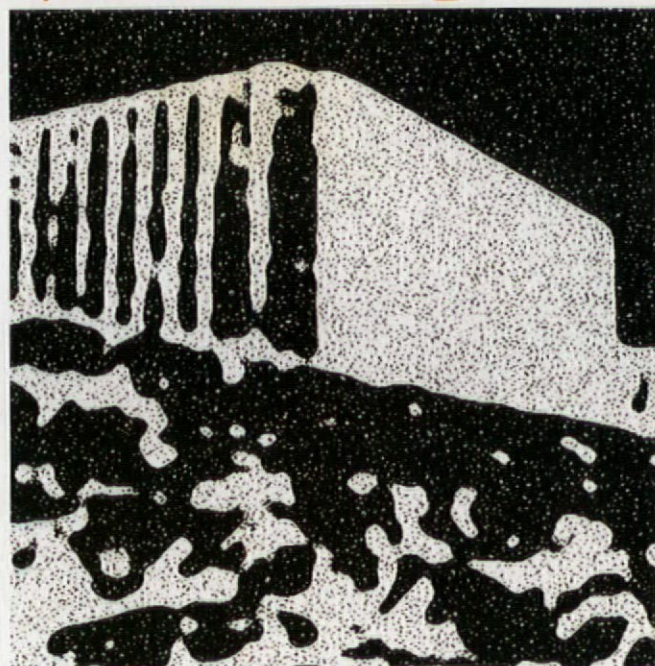
Fashionable fringe

Ranking among one of the best fringe events was, as ever, Wordsearch's private members' Carlton Club. As always, there was a hefty wedge of architectural, property and engineering luminaries, including **Ken Shuttleworth**, **Glen Howells**, **Neven Sidor**, **John Assael**, Arup's European boss **Phil Dilley**, the new CABI chief executive **Richard Simmons**, RIBA president-elect **Jack Pringle** and Astragal's old friend, the new AR editor **Paul Finch**. But one of the things that differentiated this year from many of the others was the addition of members from the slightly younger set, with 6a's **Tom Emerson** and dRMM's **Alex de Rijke**, who both won a competition organised by the Architecture Foundation and Piper to make it out to Cannes. They clearly enjoyed the best of **Peter Murray**'s hospitality.

Aryan apparition

Talking of visitors to the Carlton Club, Astragal was left bemused by the addition of three individuals dressed in full traditional German attire. What were these Lederhosen-wearers doing there? Were they members? Had they been forced out of the Carlton

spot the building



'Spot the Building' asks you to identify a well-known and recently completed building. To make it just a little more difficult we have had fun playing with the image. If you can decipher it, post your entry to arrive by first thing on Monday morning to *The Architects' Journal*, 151 Rosebery Avenue, London EC1R 4GB, or fax 020 7505 6701. The first correct entry pulled out of the hat wins a bottle of champagne. The building featured in the last competition (AJ 10.3.05) was **Athlone Civic Centre** by **Keith Williams Architects**. **Amy Boucher** from **Broomhill** in **Sheffield** was the winner.

Hotel's public bar by baying surveyors to find refuge with Murray and co? Or were they simply an apparition? Astragal's memory is rather hazy, so if anyone can explain their presence, it would be much appreciated. Answers on a postcard, please.

Praise be...

One of the most noticeable aspects of the whole event was the number of Brits wandering around Cannes sporting lapel badges backing London's bid for the 2012 Olympics. It was also one of the most discussed conversation topics of the whole bash. That and the surprise demise of estate agent Chesterton. A side effect of this pro-London euphoria was the praise delegates lavished on the French strikers who so successfully disrupted the International Olympic Committee's inspection of the Paris bid last week. Surely there are no other circumstances

where such a hardened group of capitalists would be heard singing the praises of the strength of France's Communist left?

Take what you can

Still on the theme of lapel badges, it was entertaining to see **Will Alsop** sporting a Liverpool Capital of Culture 2008 badge. One well-known architect approached him, asking how he could wear it after his proposals for the Fourth Grace had been shelved so shamelessly. 'Well, I was wandering around their stand and they gave it to me,' he replied. 'It's the only thing I ever got out of that city'.

Massi makeover

One small and peculiar event was a brief talk by global celebrity **Massimiliano Fuksas** on a new golf course clubhouse he is designing in Italy. Apparently, the building is going to be unlike anything he has designed before.

However, Astragal was more interested in asking the great Fuksas what he is up to in Blighty. Apart from the masterplanning work he is carrying out for Salford council, which he tells me is all going swimmingly, there is also another scheme in the pipeline. Given his current line of work, is it possible St Andrew's could be in line for a makeover? No one else loitering around the bars of Cannes seemed to have any idea at all...

Weighty support

John Prescott was in town touring stands of the great and the good and meeting many of those that matter from the UK scene. So it was fantastic to see him opening the AJ's UK Architecture stand. Apparently, he chose this event himself to emphasise his commitment to high-quality design throughout the British built environment. Hull's most famous resident also chose this occasion to throw his not-inconsiderable weight behind the slightly embattled CABI, following the harsh criticism in the ODPM select committee's report last week. It's interesting that Prezza is still very much behind the design watchdog. Let's be honest, this is probably extremely good news for all those who really care about whether the Thames Gateway is going to be a place worth visiting in years to come.

Food for thought

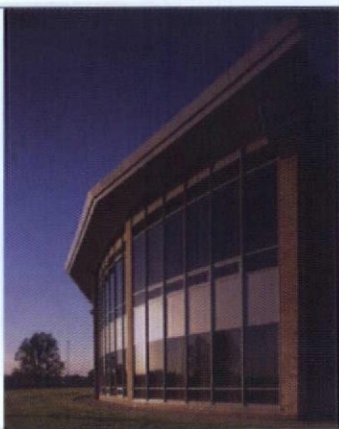
Every year at MIPIM, it is particularly interesting to watch how the different cities market themselves. Last year Liverpool was the most predictable, with a visit from former footballing great Alan Hanson and a Beatles cover band. Talk about living in the past. This year our friends north of the border held a bizarre event entitled 'A Taste of Scotland'. Those attending could have been excused for thinking this was an opportunity to sample a little high-quality Scottish smoked salmon. Oh no. Weirdly, it was Irn Bru and shortcake all round. There must be a more imaginative way of marketing Scotland's potential to the world than sickly soft drinks and biscuits? What will they pick next year? Tennent's Super and haggis?

astragal at mipim

METAL TECHNOLOGY

AJ ENQUIRY NO: 201

Metal Technology's high-performance System 17 curtain walling and System 4-20 windows offered continuous glazed 'ribbons' and a two-storey faceted entrance for Flogas UK's new V-shaped headquarters in Leicester. Aerofoil mullions created slim aesthetic sightlines that maximise the anti-sun glazing. Booker Flynn Architects worked with contractor Raynsway Properties.



BRADBURY'S

AJ ENQUIRY NO: 202

Bradbury's Kitchen & Bedrooms Centre has been contracted to design and supply four exclusive Alno kitchens for a prestigious new Barrington Homes venture in Thatcher Avenue, Torquay. A number of contemporary ranges have been used, including the fashionable Alnosign with its ultra-glossy front. For more information, contact Bradbury's Kitchen & Bedroom Centre in Exeter 01392 825940.



SCANDINAVIAN WINDOW SYSTEMS

AJ ENQUIRY NO: 203

A number of Olsen lift and slide doors have recently been supplied and installed into a new Roman Catholic school in Lymington for Hampshire County Architects. The doors were chosen for their ease of use, design versatility and high-security features. Full information on all Scandinavian Window Systems products are available on the new website at www.scandinavian-windows.co.uk



BRETT MARTIN DAYLIGHT SYSTEMS

AJ ENQUIRY NO: 204

A 19.7m-long Marvault RL double-skin clear polycarbonate barrel-vault rooflight has been installed to provide natural daylight along the central corridor of Sundorne Youth Centre's new Education Centre in Shrewsbury. Specified by Building Design Group, Shropshire County Council's in-house architectural facility, the polycarbonate rooflight was manufactured and fixed by Brett Martin Daylight Systems on behalf of the main contractor, Frank Galliers.



ICB

AJ ENQUIRY NO: 205

The impressive £7.5 million refurbishment of Coventry Transport Museum has ensured it a guaranteed place high in the UK's top 50 'must see' visitor attractions, and is another prestigious project where Alwitra's Evalon membrane was specified, beating all close competitors on price, technical performance, service and installation. The museum holds the largest collection of British road transport in the world.



IGUZZINI ILLUMINAZIONE UK

AJ ENQUIRY NO: 206

The concept of iGuzzini's state-of-the-art showroom at the Business Design Centre in London, devised by Maurizio Varratta, conceives the premises as a place where the attention concentrates on light. The walls are lined with a selection of products from the extensive range offered by iGuzzini; this selection varies over the course of the year according to specific and differing selection criteria. Specifiers and designers are invited to call in for demonstrations and assistance with lighting calculations.



EUROCLAD

AJ ENQUIRY NO: 207



Following the highly successful 2004 launch of the Euroclad Elite Warranty, which ensures the integrity of metal building-envelope components, the company has enhanced the package with full insurance backing. The new insurance-backed warranty is valid for 20 years, the maximum period offered by insurers.

TROAX UK

AJ ENQUIRY NO: 208

Industrial safety and partitioning specialist Troax UK has developed a new wire-mesh storage system, specifically designed to ensure the safe storage of aerosols and other flammable, volatile or potentially hazardous products in warehouse and distribution centres. The storage system is constructed using wire-mesh panels from Troax's Broadword range of industrial partitioning. The panels' tight mesh size (25 x 25mm) ensures that flammable products can be stored safely, as it prevents the escape of shards in the event of an explosion.



WANTED

ARCHITECTS WHO WANT TO EXTEND THEIR FREEDOM OF DESIGN

BOARDS FOR FACADE AND ROOFLINE

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