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A HANDFUL OF TENACIOUS ARCHITECTS HAVE MANAGED TO MAKE IT WORK

By Isabel Allen

Judging the RIBA/LSC (Learning and Skills Council) Design Excellence Awards (*see pages 16-17*) has been both illuminating and disturbing. The sheer volume of building work – some £4 billion worth over the last five years – is impressive, and it is hard to take issue with the LSC's aim of having 90 per cent of 17 year olds in education or training by 2015. But one cannot help but feel that the funds are being spread a little too thinly.

Colleges constructed under the LSC initiative can be built for as little as £1,200 per m², much less than the average expenditure on universities or schools. Busting the budget is not an option. All LSC projects come in on budget for the simple reason that it refuses to acknowledge overspend.

A handful of tenacious architects have managed to make it work, but they are the exception rather than the rule. John McAslan's South Trafford College is an accomplished essay in elegant simplicity, but a rare instance of

a very straightforward brief. Walker Simpson's MANCAT succeeds by combining college accommodation with a public library, thus securing access to additional funds. But there is rarely time to explore complicated partnerships or to indulge in lateral thinking: with political pressure for speedy results it is commonplace for an entire campus to be dreamed up, designed and delivered within a couple of years.

With an emphasis on vocational as well as academic training, many of the LSC colleges contain valuable community amenities; not just provision for evening classes, but hairdressing salons that are open to the public, and functioning restaurants where catering students hone their skills. These could, and should, be fascinating and sophisticated building types, the basis of integration between education and the community; mixed use, high-density projects which make a real contribution to the public realm. But not for a knock-down price.



CONTRIBUTORS



Richard Williams, who writes the *Building Study* on Reich and Hall's St Andrews University arts building on pages 25-35, is an art historian at Edinburgh University

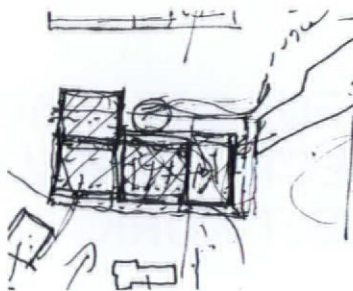


John MacLean, whose photographs are in this week's *Building Study*, is a photographer whose *Brasilia* exhibition opens at the Architectural Association in March 2007



Tom Holbrook, whose concept drawings are featured in this week's *Sketchbook* on page 58, is a founder of 5th Studio, featured in the *AJ/Corus 40 Under 40* exhibition

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- *Richmondshire Council* – architectural assistant
- *Manchester Cathedral* – cathedral architect
- *MEPK Architects* – architect
- *Andrew Kenyon Architects* – project architect

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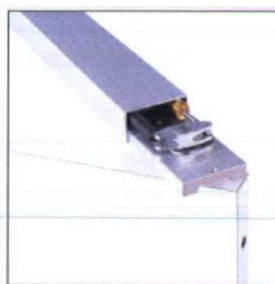
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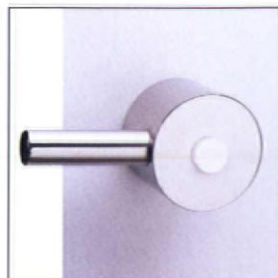
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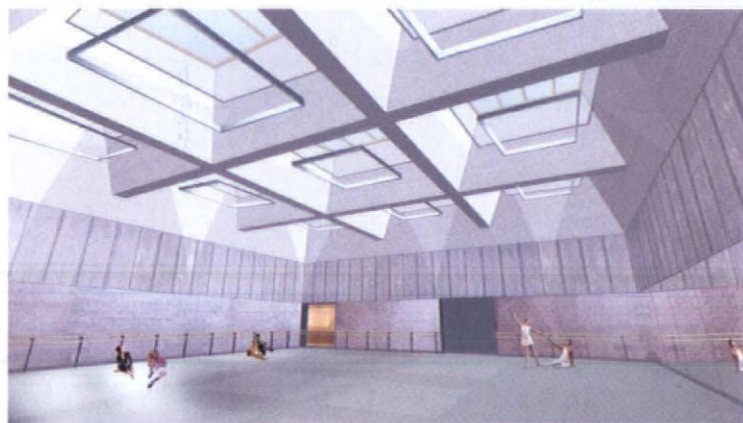
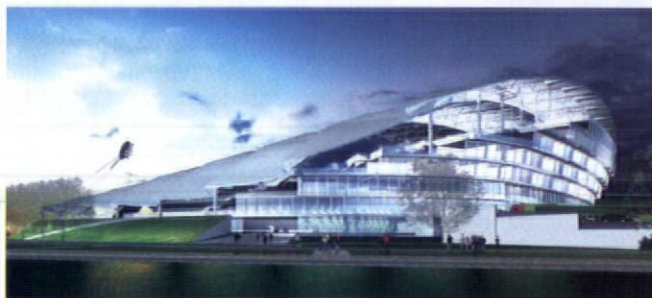
THURSDAY 2 NOVEMBER

- CABE blasts 'extremely disappointing' Sutherland Craig scheme in Wolverhampton
- Designer sought for new canal footbridge in Bootle
- Fears grow for Fortress House as potential new buyer emerges
- Fracas breaks out over plan to build on top of listed Belfast church (right)



FRIDAY 3 NOVEMBER

- Delay looms for McAslan's Birmingham New Street scheme
- Arup finally wins green light for Salford Reds' rugby league stadium (right)
- British architects snub France's international Palais de Justice contest
- Royal College of Arts shortlists architects for new sculpture building in Battersea



MONDAY 6 NOVEMBER

- 'Survivors' staircase' must move for Foster's Ground Zero plans
- Scottish buildings battle it out for British architecture's biggest cash prize
- Council reveals costs that finished Turner Contemporary Centre (see pages 12-13)
- Brighton Marina reduced in light of residents' concerns

TUESDAY 7 NOVEMBER

- Malcolm Fraser finally wins approval for Scottish Ballet's new home (above)
- Bedford regeneration brings CABE and English heritage together
- London Councils in U-turn to back Livingstone's new planning powers
- Chinese take development cues from Prince Charles



WEDNESDAY 8 NOVEMBER

- C F Møller wins race to land National Maritime Museum project in Greenwich
- Broadway Malyan's controversial Mann Island project wins go-ahead by whisker
- Hamilton Architects bags planning permission for Islington 'jewel box' (left)
- Hackney Council planners in 'anti-semitism' probe

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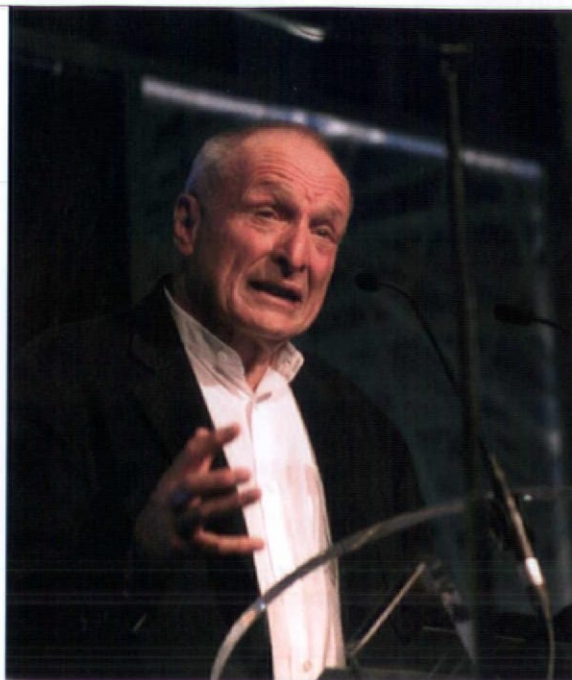
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ROBERT LESLIE

ROGERS VOICES OLYMPIC FEARS

By Ed Dorrell

Richard Rogers has told the AJ that both he and London Mayor Ken Livingstone are deeply concerned about the procurement strategy being undertaken by the Olympic Delivery Agency (ODA).

Rogers, who heads Livingstone's Urbanism and Architecture Unit, attacked the planned use of Design and Build contracts throughout the massive London 2012 construction process.

Sources have confirmed that the ODA has decided that all the major contracts should go to Design and Build rather than being architect led.

'It is certainly bad news,' Rogers said, 'and it is not what I thought had been agreed between myself, as Ken Livingstone's representative, and the ODA's chief executive [David Higgins].'

'I'd thought we'd agreed it would be competitions. Not necessarily traditional competitions but at least ones based on interviews. Ken and everyone agrees that Design and Build is not the way it should go.'

The Stirling Prize-winner also said that his practice will boycott any Olympic contracts if they do not change their strategy – quashing rumours that he may yet become involved on a strategic level.

'We will definitely not be involved in any Design and Build contract,' he said.

Rogers also condemned the procurement for the main Olympic Stadium, which saw a contractor-led consortium of Robert McAlpine and HOK Sport appointed.

'Every major Olympic stadium I can think of went

through [a design-led procurement process] and I don't know why London isn't doing the same. There is no proof that Design and Build contracts are cheaper in terms of value,' he added.

Rogers – a Labour peer – has long been involved with London politics and until recently was an adviser to John Prescott on architecture matters. He is understood to have the ear of Livingstone.

But a spokeswoman for the ODA said decisions were yet to be taken on the procurement route of any of the projects other than the stadium.

'We are yet to decide on how architects are appointed,' she said.

'It is wrong to say that contractors will appoint architects. We want to keep control over the designs.'

THE TRUE COST OF TURNER DEBACLE

By Richard Waite

In the final days of the doomed Turner Contemporary project all sorts of incredible figures were being bandied about. Depending on who you asked, Snøhetta and Spence Associates' proposed gallery off Margate pier in Kent, which they won in a competition in 2001, was going to burden the taxpayer with a bill for anything up to £50 million.

In the event, the final estimate, handed to Kent County Council (KCC) by Design and Build contractor Edmund Nuttall in February this year, was £39 million.

The scheme had more than doubled in cost since Nuttall's appointment in July 2005, when it estimated construction costs of £17.5 million – and had shot up by over £18 million from the revised estimate of £20.35 million in October 2005, which

came as soaring steel prices caused the budget to swell.

These figures were shocking enough for KCC to ditch the project – at a cost of four years' work and nearly £6 million down the drain.

Now, nine months after the demise of this ambitious and increasingly expensive project, an in-depth technical report has been released examining what went wrong and what led to the astronomical rise in costs.

The document, unusually, considering the size of the eventual budget, accounts for almost every penny of the price hike (*see table opposite*).

What appears to be the root cause of most of the increases are some seriously beefed-up specifications.

The authority demanded that the gallery building, which would have sat in the

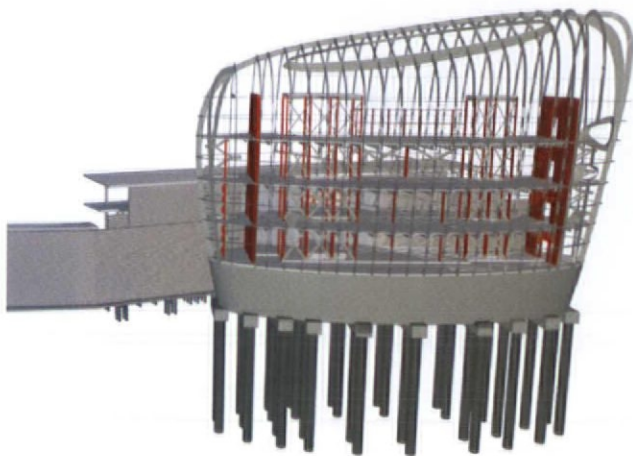
unforgiving North Sea, had to be designed to withstand a one-in-10,000-year storm – or 'superstorm'.

These exacting standards, the AJ has been told, were higher than Nuttalls would usually have expected.

However, having been given these criteria, the contractor also applied the one-in-10,000-year rigour to the link bridge and pierside building. This meant more steel, piling, and concrete was needed.

It could be argued Nuttalls had over-engineered the project. Yet there are indications that Snøhetta and Spence designed an unworkable scheme.

According to the report, there were a number of 'significantly problematic design issues' which had still not been resolved when the plug was finally pulled.



The Turner Contemporary budget shot up by over £18 million in just four months

The council thought there were still potential risks, which could have led to yet further costs, concerning the external paint finish to the gallery hull. No one had managed to supply a satisfactory warranty for the paintwork, despite testing with three international specialists.

Even so, the council must have known about some of these potential issues before Nuttalls was handed the job. Especially when, it is claimed, KCC was given professional advice throughout the process.

Why then, as steel prices rose, did the bigwigs press on throwing money at the gallery knowing the cost of the project could only spiral?

The issue of outright blame is murky. The council's lawyers appear not to know who to sue and are still considering a third-party review 'before any action

can be taken to... recover some or all of the costs'.

Meanwhile, the council is maintaining it did everything by the book. Edmund Nuttall is saying the same thing. And both architects are keeping their mouths shut.

Others have not been so reticent. Clive Hart, a member of KCC's cabinet scrutiny committee, is appalled at what he sees as the waste of taxpayers' money frittered away on an obvious non-starter.

He said: 'It was just an ego trip for architects, and the leadership at both the county council and Thanet District Council were completely taken in by it all.'

He added: 'Anyone reading the report should note that each page equates to around a million pounds wasted.'

WHERE THE EXTRA CASH WOULD HAVE GONE

Gallery piling – £5.65 million

The proposals required 45m-long piles welded together. The piling method had changed from a pier-based rigger crane to barges

Gallery building steelwork and link bridge – £4.65 million

An additional 1,200 tonnes of steel was specified in the new budget

Pier-side building structure – £1.8 million

The council said the method of constructing the concrete frame would have been 'extremely expensive' and too labour intensive

Building service – £1.15 million

The need for extra toilets and larger plant size was identified, plus changes to the sea-water cooling, fire detection and alarm systems

Link bridge bearings – £1.05 million

A 'unique' set of bearings would have been needed at each end of the bridge, capable of withstanding a 'superstorm'

Gallery substructure concrete – £550,000

Mass concrete infilling and divers working 24 hours a day would have been needed to connect the piles to the steel superstructure

Longer construction period – £500,000

Phase two of construction was months longer than originally planned

Partitions, linings and ceilings – £400,000

Subcontract tenders were 'well in excess' of cost allowances

Pier-side building piling – £400,000

The construction would have depended on 54 temporary piles through the pier – most to support a rail-mounted tower crane

Staircases, handrails and balustrades – £400,000

The council received 'very limited' details of these price hikes

Existing pier revamp – £350,000

Repair, cleaning, toe piling and stonework costs were all high

Temporary works during construction – £350,000

Extra health-and-safety measures, including safety boats, required

Temporary utilities – £300,000

The contractor proposed using generators on site rather than setting up a temporary mains supply

Rock armour – £150,000

The need for special armour around the base of the gallery to limit 'local erosion' of the sand was identified



1.



2.



3.

UNIVERSITY BUILDING SAVES CHURCH EXTERIOR

Lifschutz Davidson Sandilands has received planning consent for this new primary care and student centre for London South Bank University. The £6 million scheme will partially replace St George's Presbyterian Church on Borough Road in Southwark, south London, which was built in 1846 and has deteriorated and fallen into disrepair. As most of the existing church building is past saving, the practice plans to retain and refurbish two of the elevations, bringing them back into use as the enclosure to the centre's entrance. As well as acting as a care centre, the scheme will also provide training facilities, which the practice hopes will 'complement the main education facility'. The four-storey building will be clad in 'a low, easily maintained finish that will provide a strong architectural identity'. The practice hopes to be on site by the middle of next year, with completion aimed for 2008.

By Richard Vaughan

1 & 3. Two elevations of St George's Presbyterian Church will be incorporated into the primary care and student centre

2. Models showing original facades (in grey)

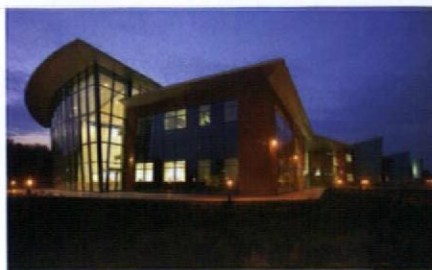
4. Lifschutz Davidson Sandilands' London South Bank University building will be located on Borough Road, Southwark



4.

RIBA/LSC FURTHER EDUCATION DESIGN EXCELLENCE AWARDS

North Manchester Sixth-Form College, by Walker Simpson Architects, won the inaugural RIBA/LSC Further Education Design Excellence Awards at a ceremony at the RIBA on 8 November. The awards were launched to recognise the best colleges that have been built with funding from the Learning and Skills Council (LSC). Since its inception in 2001 the LSC has committed £4 billion to building projects. Its aim is to have 90 per cent of 17 year olds in education or training by 2015. Stephenson College, Leicestershire, by Pick Everard, was the runner-up, and South Trafford College, by John McAslan + Partners, received a special mention from the judges. The other shortlisted entries were Newcastle Performance Academy, by RMJM, SE Essex College, by KSS Design Group, and New College Durham, by RyderHKS.



RUNNER-UP

Stephenson College, Leicestershire
Pick Everard

Following consultation with staff, Stephenson College decided to replace its collection of outdated buildings with a £15.2 million development on the outskirts of Coalville in Leicestershire. The college offers vocational qualifications in a wide range of disciplines, calling for bespoke environments. The key decision to locate accommodation off a central street, with workshop space on one side and classroom space on the other, has resulted in a highly practical and legible building.

SPECIAL MENTION

South Trafford College
John McAslan and Partners

The £2 million Creative Arts Block combines flexible teaching areas and staff facilities with creative studios for ceramics, sculpture, photography and computer-aided design. The jury was impressed by the use of a few key moves to bring a strong sense of identity to what is essentially a very straightforward building, including a 'cutaway' portion of the central corridors to create a top-lit full-height 'canyon' bringing natural light to every floor.





WINNER

North Manchester Sixth-Form College (MANCAT)
Walker Simpson Architects

This £9 million building combines a sixth-form college with a public library, meeting the needs of a local community which previously lacked access to public facilities and space. Visitors enter through an impressive glass facade into a full-height atrium and are welcomed up to the first-floor library, which is shared between the college and the city. Teaching accommodation is housed in a separate block, creating an L-shaped building which partially encloses a community garden. The judges said: 'While the building is both welcoming and fun, it is never patronising. There is a level of sophistication which suggests that it takes its students – and its public – seriously.'





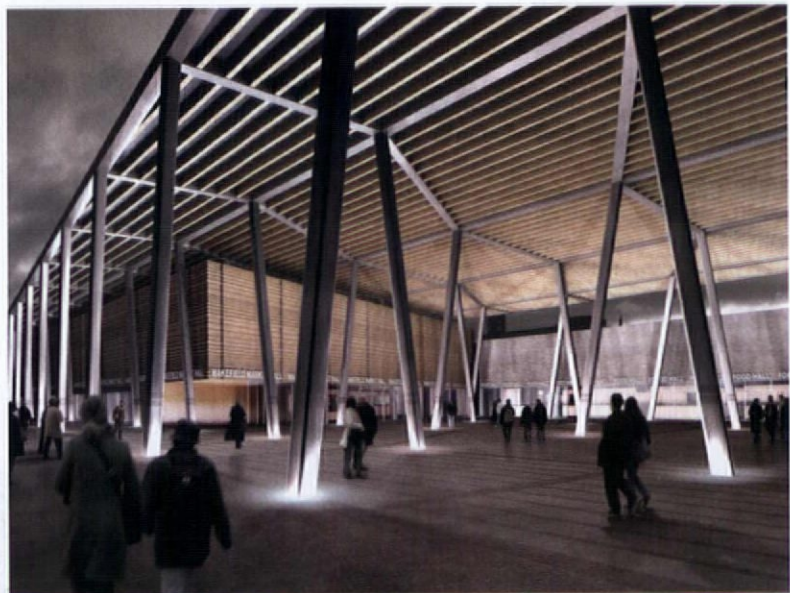
STUDIO TONI YLI-SUVANTO

1.

ADJAYE GOES TO MARKET

Adjaye/Associates has revealed these images of its £5 million market hall project in Wakefield, West Yorkshire. The scheme, which is part of the larger £140 million Marsh Way development, has already won the green light from the city's planners and was originally due to start on site in spring this year. However, the competition-winning proposals, for Simons Developments, are currently on hold pending the outcome of a compulsory purchase inquiry which starts next month. The two-storey building would replace an existing market hall – which is to be demolished – and would create space for outdoor market stalls as well as housing a new fish and meat market.

By Richard Waite



2.

1 & 2. The £5 million two-storey Wakefield scheme will feature outdoor market stalls and a new meat and fish market

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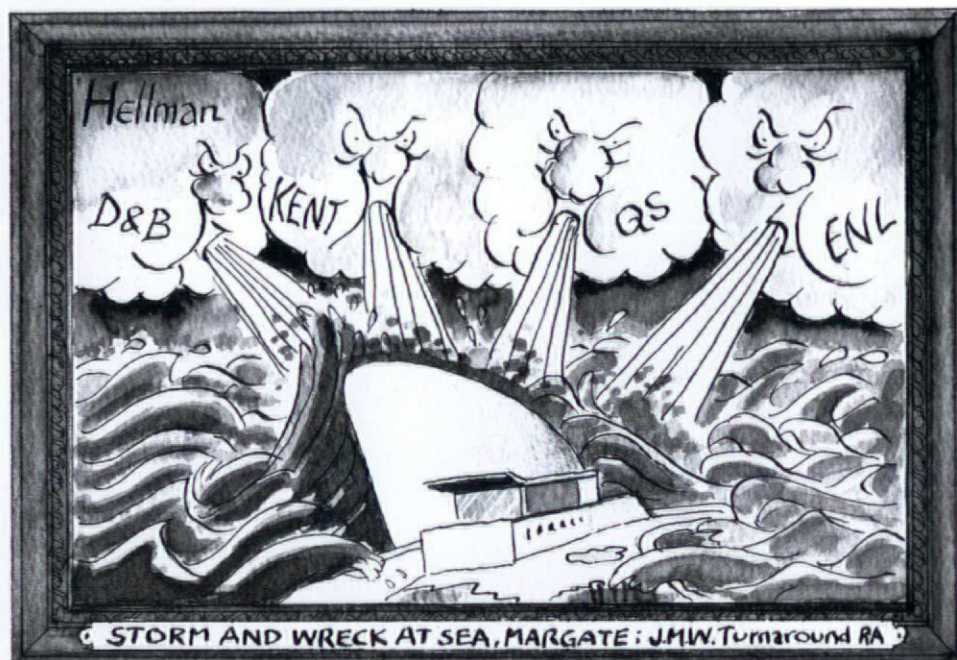
Roberta Smith. *New York Times*, 01.11.06

'I'm a football fan. I don't want my football being bugged around with architecture'

Peter Eisenman on his new Cardinals NFL Stadium in Arizona. www.yaledailynews.com, 27.10.06

'I know Harlow isn't a utopia but I feel very defensive about it – it will always have a special place in my heart'

Former resident Ritchie Parrott on growing up in a '60s New Town. *Guardian*, 06.11.06



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COURT ON CAMERA

Design influences are famously diverse, but few can be as bizarre as that discovered by **Paul Rynsard**, managing partner of Feilden + Mawson, when he was in Saudi Arabia. Because his practice has designed courtrooms, he was asked to look at a proposal for a new court. He questioned the layout, which looked eccentric. Even when it was explained that this was a first attempt at designing a Western-style rather than a traditional Islamic court, he remained confused. So the Saudi architect took him to one side and explained that with censorship and limited access to foreign information, the design team had been forced to rely on a video for their knowledge. And what was that video, Rynsard asked? **'Rumpole of the Bailey'**, was the reply. At which

point, Rynsard had to explain gently about the adjustments made for camera angles...

DIAMOND GEEZER

Anybody looking for suitable Christmas presents and idly scanning the Tiffany website may be astounded by the volume of work in the new **Frank Gehry** collection. If you thought he was prolific as an architect, just wait till you see the rocks. Sadly, or perhaps not, his Bilbao Guggenheim brooch, a pure one-off, does not feature. But there are rings, pendants, necklaces and bracelets aplenty, some rather oddly angular and others looking, to the uninitiated, just like any other jewellery. And for anybody hoping to deliver one of those signature blue-green boxes wrapped in white ribbon not to the little lady architect but

to the little gentleman architect in their life, do not despair – the range also includes the Axis cufflinks, which look a little like a collection of silver sticks.

PICK UP A PENGUIN

It's official – Modernism is bad for you. Just ask the former denizens of **Lubetkin's** famous Penguin Pool at London Zoo. 'Walking around on concrete all day was not very good for their feet or joints,' senior bird-keeper **Tim Savage** tells the Press Association, so in 2004 they were moved to new quarters with 'well-ventilated nesting boxes'. This has been like Viagra for the lucky little avians, leading to a 'breeding boom'. 'They are doing really well now and behaving like penguins should,' says Savage. Who knows what would happen if they decanted Highpoint One?

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POWER STATION'S FUTURE IS BEST SERVED BY TRUST

You report the latest excuses by Parkview spin doctor Ian Rumgay for the lack of progress at Battersea Power Station, and also the prospect of a new developer taking over (AJ 26.10.06).

Parkview may well be on its way out, but all the signs are that a new developer will be just as hostile to the listed building, continuing Parkview's neglect and spoiling Battersea's monumental impact by building blocks of flats on the adjacent site.

Of course it doesn't have to be like this. Three years ago (AJ letters 16.10.03) I wrote to you about a proposal by Alf Dubs (Lord Dubs of Battersea) for a public-interest trust to take a role in resolving this long-standing issue.

Since then, members of Battersea Power Station Community Group have set up the Battersea Power Station Company, a not-for-profit organisation, the principal objective of which is the conservation and repair of the building.

Given that Parkview appears to be unwilling to repair the building (as evidenced by the appalling conditions that could be seen by visitors to the 'China Power Station' exhibition at the site), the involvement of a public-interest trust, such as the Battersea Power Station Company, should now be considered.

A trust would be able to carry out targeted repairs on the exterior fabric and open the famous 'A' Station interiors to the public, using Lottery cash and other funding. We advocate a UK Energy Centre as an apt use for the turbine hall.

Other parts of the building would be developed on a commercial basis, as would much of the remainder of the site; although with a proper affordable-housing provision hitherto left out. A phased development by a consortium of interests would have a far greater chance of success than the single-phase multi-billion pound project advocated by Parkview over the past 10 years.

The legal framework for involving a trust would need to be established. The building would also need to be independently surveyed. The team engaged last year by the World Monuments Fund and 20th Century Society, who showed that the chimneys can be repaired without dismantling, should be entrusted with this.

For more information about the Battersea Power Station Company, visit: www.batterseapowerstation.com
Keith Garner, London SW11

THE NAKED TRUTH ABOUT 'BUTT-UGLY BUILDINGS'

We are fond of using the expression 'not knowing your arse from your elbow' in our office. It seems Meadowcroft Griffin cannot be accused of this. The Tolladine Centre (AJ 02.11.06) is the most butt-ugly, depressing building I have seen for a long time – although the AJ has covered quite a few candidates in recent weeks in its championing of 'Emperor's New Clothes Architecture'.

I thought the AJ had plumbed new depths of banality when featuring interior details of NORD's timber-merchant office extension (AJ 19.10.06), such as an OSB board shelf on spur shelving brackets, but the Tolladine Centre has raised the bar.

SUSTAINABLE-DESIGN CONFERENCE

The AJ is holding a conference on sustainable design on 5 December at Earls Court Exhibition Centre, London SW5.

Topics will include:

- sustainable materials;
- regeneration and energy efficiency;
- lateral approaches to sustainability targets; and
- running a sustainable business.

For more information call 020 7505 6044 or email constructconferences@emap.com

I particularly liked the revolutionary idea that 'sloping surfaces were conceived of as a pinball machine, ensuring footballs landing on them would roll back on to the street' – also known as a pitched roof. Presumably this was to help the kids whack footballs at the building when they ran out of air-rifle pellets.

Finally, to pick up on your editorial, since when has 'a makeshift quality' ever been appropriate to community buildings – why can't they just be beautiful and well designed?

I have the suspicion the AJ is testing us with ever more ludicrous schemes to see if we dare tell the emperor he's naked. Well I for one am prepared to stand up. AJ, you're 'avin a larf!
Steve Banks, Groundworks Architects

AUSTIN SHOULD TURN OVER A NEW (LETTUCE) LEAF...

I did not know why your magazine fell down to the level of the gutter press. Modelled presumably on the *Sun* or *Der Sturm*.

Your little man Austin Williams is trying to write something about the Future Systems book (AJ 26.10.06). You have wasted the whole page on this. Maybe he cannot even read. He certainly cannot see.

He should stick to planting lettuce in his back garden. If he can do even that we shall never know. What a waste.
Jan Kaplicky, Future Systems

... AND LEAVE 'DATED GRUBBY SHABBINESS' BEHIND

Austin Williams' article (AJ 26.10.06) matches the dated grubby, grey, graph paper mentality of your shabby magazine. Don't send it to us again. Or cheer up, sack the man and go pure white, with blue, pink, yellow with spots too if you can cope.

You should know when there is a genius on the planet and we are lucky enough to have him in the UK.
Richard Horden, Horden Cherry Lee

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



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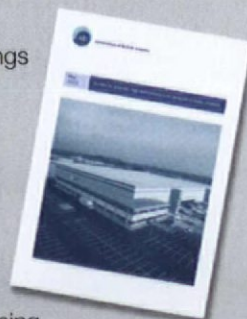
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REIACH AND HALL/ ST ANDREWS



A PRESERVATION-MINDED CITY AND A PICTURESQUE BUT HOPELESS SITE

By Richard Williams. Photography by John MacLean

Edinburgh-based practice Reiach and Hall was established in 1965, and has worked in the education, health, residential, commercial, arts and industrial sectors. Key projects include the Wolfson Medical School at Glasgow University (AJ 24.10.02) and the Westport Offices in Edinburgh (AJ 24.4.03). The practice has just won a competition to design a £20 million office building for Dundee Council.

In the past decade, new British university buildings have tended towards the spectacular. Think of Richard Rogers' library for Thames Valley University, or Norman Foster's Tanaka Business School for Imperial College. These are loud, demonstrative buildings, declaiming messages about technology and access to information. The resources they contain are high-tech and they want you to know it. Such buildings are the result of a minor boom in university construction, as institutions either came into being or rebranded themselves from the early 1990s onwards. Anxious to present new identities to the world, they found architecture to be an effective PR tool.

Reiach and Hall's Arts Faculty Building for St Andrews is something else entirely. This major building is the first addition to the central St Andrews campus in more than 30 years and adds 2,790m² of teaching and office space, in an L-shaped plan, to the university's stock. But it exists in a singular context, namely an ancient university certain about its identity, and a historic city with a delicate fabric. This is a calculatedly unspectacular building, in which public messages are downplayed in favour of a dialogue

with the difficult site. It also marks a development of Reiach and Hall's urban language, which references the work of Rafael Moneo, Eric Parry and Scandinavian Modernism, as well as the local vernacular.

This language has been seen already in two large Edinburgh projects: Evolution House at the western edge of the city's Grassmarket (2004) and the brilliant Silvermills project (2005), which created the first new street in Edinburgh's New Town in 200 years. The language is one of restraint, a word the practice is happy to use: a vocabulary of glass and stone; simple geometrical forms and a preoccupation with the site.

This restraint extends to engagement with the site; invariably the practice aims to improve on what is there, rather than impose something different: repair is a key concept. These are contemporary buildings, but ones that do not interrupt their context. The architects joke that their work is 'dull', perhaps too polite; a sublimation of Edinburgh's worst as well as best characteristics. But there is something quietly radical about this quality in a professional climate which celebrates novelty. Their work shows a lack of ego or preciousness and a willingness to make the building's profile secondary to the users' requirements for the space. The architects seem to enjoy how their work gets inhabited by the user, rather than prescribe how it should happen.

At St Andrews the client demanded a multi-purpose building for both teaching and offices. Particular demands were to house the expanding department of international relations



1. The arts faculty with its 19th-century neighbour, St Katherine's West

and provide new, accessible teaching space, accessibility being a problem on the St Andrews campus. Two possible locations were discussed: North Haugh, a low-density, science-dominated campus on the town's western fringe, home to James Stirling's leaky but exciting Andrew Melville Hall (1968); or the central town campus between North Street and the sea. Discussions quickly favoured the latter, as this was the main location for arts students.

The site was picturesque but hopeless. It was a gap site at the western edge of the campus, bounded by a number of distinct elements: Faulkner Brown's 1970s Brutalist library; St Katherine's West, a substantial 19th-century townhouse occupied by postgraduates; the New Picture House, a long, narrow 1930s cinema whose rear juts right into the campus; a car park; and a dozen or so private back gardens. Its heterogeneity was complicated further by fat stone walls and numerous changes of level. Worse still, a plant-room enclosure on the site needed to be incorporated into the building. The 1970s library, a pavilion plonked in the middle, abruptly curtailed the vestigial sequence of quads. On top of that was the preservation-minded city itself, inclined to stop anything out of kilter with the surroundings.

In the end, the very difficulty of the site offered a way forward. Its disparity and the frank ugliness of the backs of the surrounding buildings offered the chance of repair, which was the concept put to both client and planners. Here was the opportunity to heal, renew and join up the site, an approach with broad appeal for the client.

The end result is a building which responds to everything around it. It is four-storeys high, corresponding to the height of both the library and the 19th-century townhouse. The exterior facades acknowledge, without imitating, the surroundings; the height continues the line of the library and townhouse; and the warm stone matches the concrete of the library (surprising the client, who thought it was grey). The vertical, projecting bays along the building's north front are an equivalent to the traditional bays of Scottish domestic buildings. It is an exceedingly polite exercise in contextual Modernism.

But the building is far from dull. The south facade is tough and interesting, a Moneo-like flat plane with dark recesses whose severity makes the informality of the surrounding scrubby car park, garden sheds and thick wall picturesque by contrast. This idea works best inside, however. The views from the generous, bright and crisp interior are tremendous. If the building itself is calculatedly unspectacular, the views it offers are anything but.

Two views stand out. On the east facade, picture windows all the way up frame the library, lifting it from mediocrity. It suddenly seems sculptural: a massive, brutal, Neanderthal building, fat and ham-fisted, like an early Paolozzi sculpture. The second outstanding view is from the fourth floor, where a suite of offices and a gallery look out across the roof to the eastern Highlands. Anywhere else, this would have been a cocktail bar, but the views are terrific: seals bobbing offshore, the distant hills and the aircraft of nearby RAF Leuchars.



2. Projecting bays on the north front echo traditional bays of Scottish domestic buildings

The interior offers much to look at too. The circulation spaces at ground level are airy and generous, set off by a sculptural lighting scheme – in effect, a piece of serial minimalism. A full-height atrium criss-crossed by walkways provides light to the whole building. There is a superbly detailed stair at the western extreme of the building whose austerity has an almost moral tone. I felt I was in 1950s Sweden.

The individual offices are generous and well-planned, with beautiful views. Their occupants have already made them their own: some stuffed with books and struggling for air, others monastically free from clutter. The window inserts in the doors are covered with notices, ANC posters and pictures of Mao Tse-tung.

It feels like it will be a sociable building, too. The brief colonnade at the entrance gives an air of urbanity, while the ground-level circulation areas might be large enough to encourage students to linger, rather than simply pass through. The staff areas are well supplied with coffee points and generous spaces for informal gathering.

The teaching spaces are less convincing, at least as they are now configured. The seminar rooms were built for groups of up to 30, yet with lowish ceilings, sun through the south-facing aspect and the lumpy furniture (over which Reiach and Hall had no control) they might heat up quickly. The natural ventilation works in calm surroundings, with limited flows of people, in moderate temperatures – but how will these rooms perform at full capacity, in summer, with students fretting about exams?

The same applies to the lecture theatre, which seems to have been strangely specified. A long, thin shape, with a huge window to the south, it seems an uneasy compromise between the informality of the seminar rooms, in which discussion is the imagined activity, and the formality of a theatre proper. Here, a level floor offers poor sightlines to the podium, and whatever elegance the room once had is lost thanks to the university's furnishings. Like the seminar rooms, it also seems as if it might cook its inhabitants in hot weather. The intensity of light would impair the performance of AV equipment – a data projector would only work in a total blackout. The blinds are simple to operate but crude in effect, providing either complete darkness or light. Most of these issues can no doubt be resolved as the building beds in.

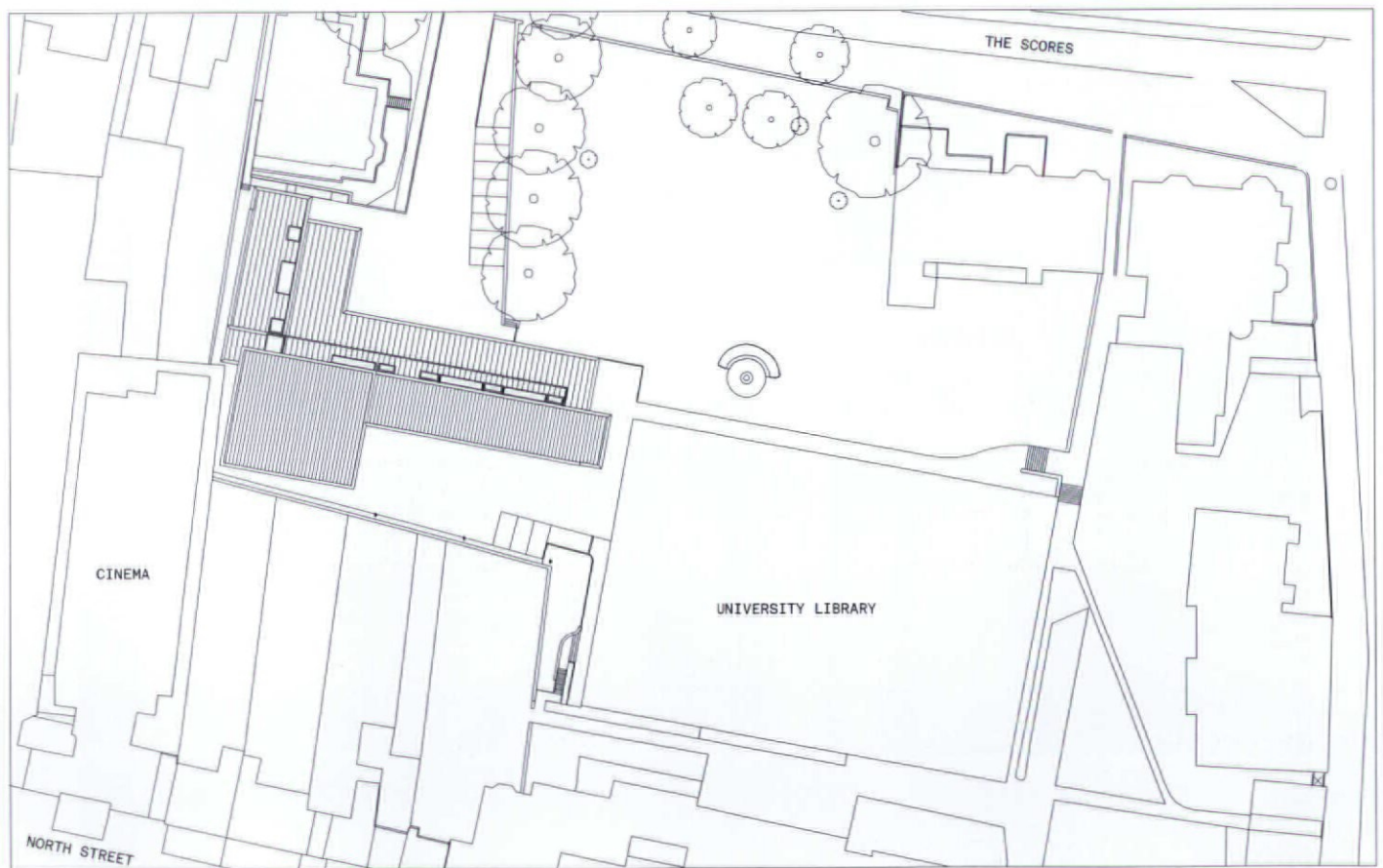
But the building's inhabitants seem to be half in love with it already. Rightly so – it is a beguiling and humane building and it creates a place where one did not previously exist. Unusually for a piece of contemporary architecture, it doesn't judge or overwhelm its neighbours, but makes them part of its programme. Given the complexity of the surroundings, that alone is some achievement.



3. Exterior facades acknowledge, without imitating, the surroundings

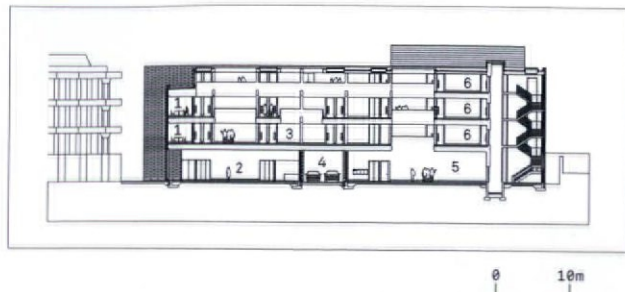


4. The severity of the south facade makes the scrubby surroundings picturesque by contrast



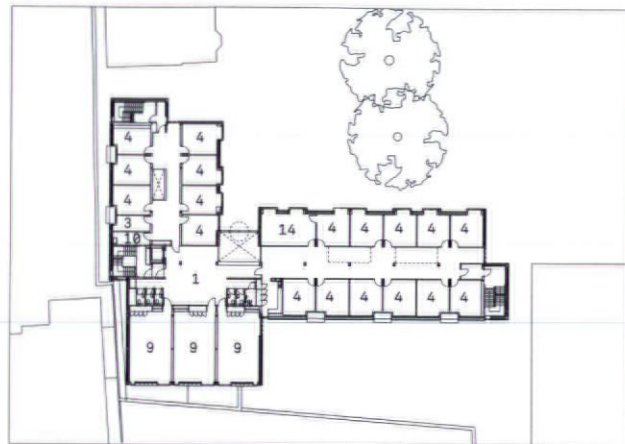
5. Site plan



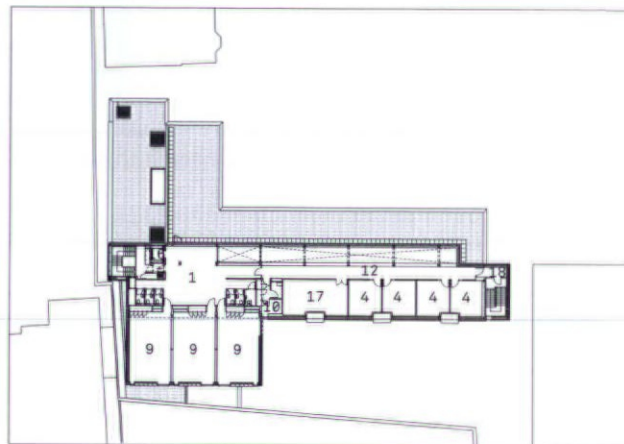


- KEY
- 1 INFORMAL MEETING AREA
 - 2 LECTURE THEATRE FOYER
 - 3 SOCIAL AREA
 - 4 PEND (PASSAGEWAY)
 - 5 RECEPTION FOYER
 - 6 SPILL-OUT SPACE

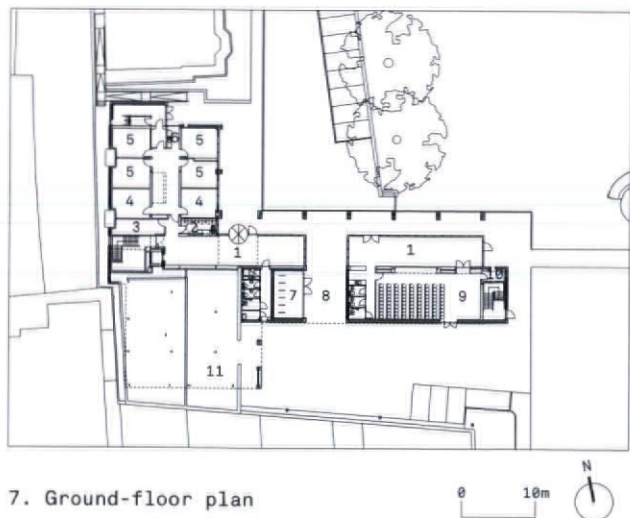
6. East-west section showing social spaces



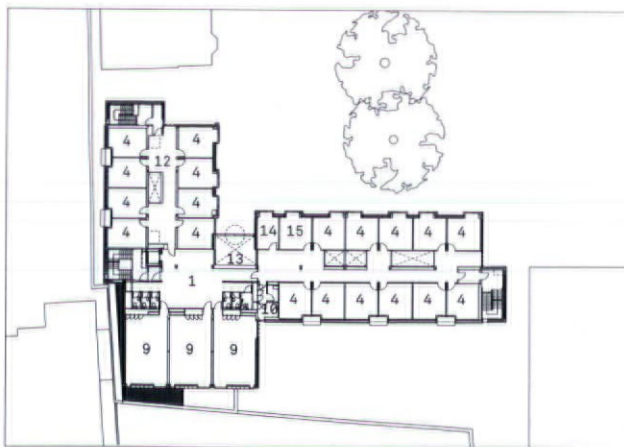
8. First-floor plan



10. Third-floor plan

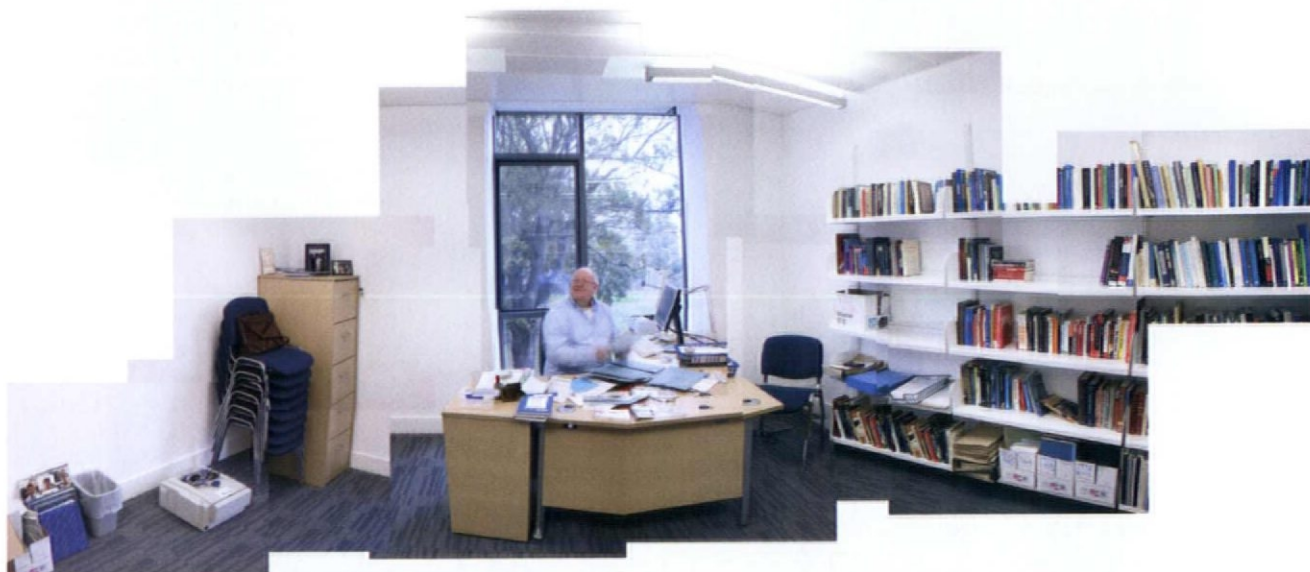


7. Ground-floor plan

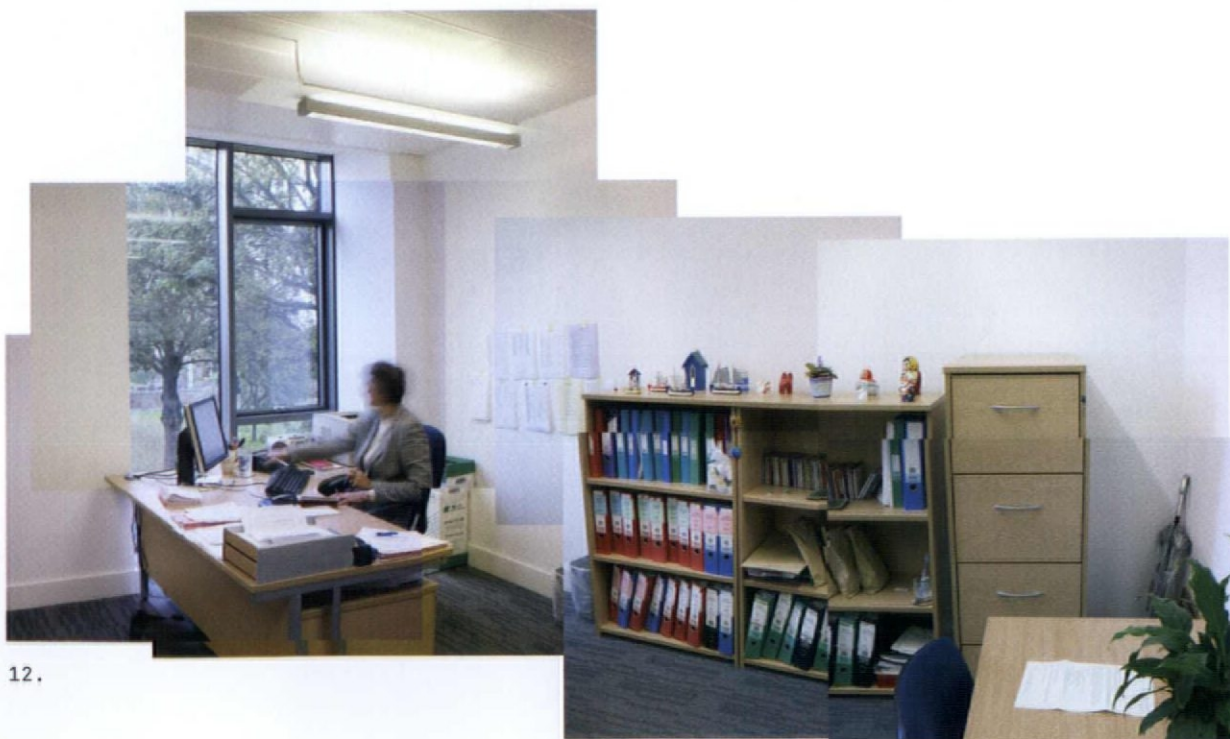


9. Second-floor plan

- KEY
- 1 FOYER
 - 2 RECEPTION
 - 3 COMMUNICATIONS ROOM
 - 4 OFFICE/TUTORIAL ROOM
 - 5 POSTGRADUATE OFFICE
 - 6 COFFEE POINT
 - 7 BIKE STORE
 - 8 PEND (PASSAGEWAY)
 - 9 SEMINAR ROOM
 - 10 STORE ROOM
 - 11 EXISTING PLANT-ROOM ENCLOSURE
 - 12 CIRCULATION/SOCIAL SPACE
 - 13 VOID
 - 14 PHOTOCOPY ROOM
 - 15 ADMIN OFFICE
 - 16 LIFT
 - 17 MEETING ROOM
 - 18 LOBBY



11.



12.



13.



14.

- 11 & 12. Occupants have made the individual offices their own
 13. The austerity of the detailing has an almost moral tone
 14. An atrium provides light to every floor

SUPERSTRUCTURE

The structure is framed in steel with concrete floors acting compositely with steel beams for efficiency and economy. The elegant facades of masonry and glass are framed and supported by steelwork fixed to the primary frame and isolated from stainless-steel masonry fixings. The support framing to projecting masonry at eaves, curtain walling and relief features were particularly intricate and required careful planning, detailing, and construction to achieve the desired result. In the south-west corner of the site a plant room and transformer enclosure serving the main university library building had to be kept fully operational throughout the build. Further constraints on available site area, planning height restrictions and existing boundary structures demanded that the new building incorporate the existing plant within the ground floor. To facilitate this, columns for the new structure needed to be taken through the existing concrete roof and supported on large transfer beams with columns taken down to new foundations formed at available locations alongside existing plant foundations and plinths. Cross bracing for the new building had to be carefully positioned to avoid critical existing plant, requiring detailed surveys of the installation.

SUBSTRUCTURE

Foundations were placed on the weathered rock at a relatively shallow depth. Care was required with underpinning operations to maintain the stability of existing foundations to the library's plant facility while new foundations were formed. It was also necessary to avoid any disturbance to an existing service duct running underneath the new building from the plant room to the university library. Vehicular access to the library had to be maintained through the site both during construction and in the permanent condition through a vehicle passageway through the building.

DRAINAGE

An existing combined sewer had to be diverted to allow construction of the building. The building drainage is formed in separate systems, with foul water taken directly to the diverted sewer. Surface-water disposal incorporates several sustainable urban-drainage techniques, including porous pavings and infiltration trenches to attenuate flows prior to discharging into the combined sewer.

Joe Arndt, Cundalls

Costs

Costs refer to gross internal area. Cost analysis based on tender sum

DEMOLITIONS	£1.62/m²
Demolitions of plant room walls and roof slab	
SUBSTRUCTURE	
Foundations/slabs	£30.05/m²
SUPERSTRUCTURE	
Frame	£104.49/m²
Primary steel frame including priming and painting; secondary steelwork supports as necessary; spray fire-protection beams	
Upper floors	£38.21/m²
Upper floors comprising Holorib metal decking and reinforced 150mm-thick power-floated concrete	
Roof	£38.42/m²
Single-ply membrane with ballast and slabs including perimeter detailing, flashings and fall-arrest system	
Rooflights	£12.46/m²
Aluminium double-glazed rooflights and smoke ventilator units	
Staircases	£16.72/m²
Precast concrete stairs and landings including galvanised metal balustrading	
External walls	£386.58/m²
Zinc rainscreen cladding with flashings; curtain walling including double and single doors and revolving entrance door; sandstone cladding combination of smooth ashlar and tooled finish, including stainless-steel angles and internal skin of blockwork; EPDM membrane	
Internal walls and partitions	£150.30/m²
Internal walls, partitions, linings, bulkheads, panelling; framing and subframes; glass partitions; handrails and feature joinery items	
Internal doors	£35.25/m²
Internal doors and ironmongery	
INTERNAL FINISHES	
Wall finishes	£23.41/m²
Decoration generally	
Floor finishes	£58.72/m²
Raised-access floor, tiling and carpeting	
Ceiling finishes	£33.33/m²
Gyproc suspended ceilings and zinc ceiling panels	
FITTINGS AND FURNISHINGS	
Furniture	£16.42/m²
Mirrors, fire curtains, kitchen units, blinds	

SERVICES

Sanitary appliances	£5.35/m²
Disposal installations	£2.67/m²
Water installations	£27.02/m²
Space heating/air treatment	£142.18/m²
Low-temperature hot-water heating, underfloor heating, boiler flues, plant and pumps; VAV air-conditioning system	
Electrical services	£95.40/m²
Electrical distribution, power, lighting and main switchboard	
Lift and conveyor installations	£10.86/m²
One 13-person lift	
Communication installations	£87.59/m²
Voice, data, induction loops, security and fire-alarm installation. BMS and lighting-controls system	

EXTERNAL WORKS

Landscaping, ancillary buildings	£59.06/m²
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PRELIMINARIES AND INSURANCES

Preliminaries, overheads and profit	£291/m²
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15. The fourth-floor offers sweeping offshore views

Cost summary

Item	Cost per m ² (£)	Percentage of total
DEMOLITIONS	1.62	0.01
SUBSTRUCTURE	30.05	1.80
SUPERSTRUCTURE		
Frame	104.49	6.27
Upper floors	38.21	2.29
Roof	38.42	2.30
Rooflights	12.46	0.74
Staircases	16.72	1.00
External walls	386.58	23.19
Internal walls & partitions	150.30	9.02
Internal doors	35.25	2.13
GROUP ELEMENT TOTAL	782.43	46.94
INTERNAL FINISHES		
Wall finishes	23.41	1.40
Floor finishes	58.72	3.53
Ceiling finishes	33.33	2.00
GROUP ELEMENT TOTAL	115.46	6.93
FITTINGS AND FURNITURE	16.42	0.98
SERVICES		
Sanitary appliances	5.35	0.04
Disposal installations	2.67	0.02
Water installations	27.02	1.63
Space heating & air treatment	142.18	8.55
Electrical services	95.40	5.73
Lift & conveyor installations	10.86	0.80
Communication installation	87.59	5.49
GROUP ELEMENT TOTAL	371.07	22.26
EXTERNAL WORKS	59.06	3.58
PRELIMINARIES & INSURANCE	291.00	17.50
TOTAL	1,667.11	100.00

Cost data from Jonathan Christie, Gleeds

Credits

Tender date
March 2005
Start on site
June 2005
Contract duration
13 months
Gross internal floor area
3,187m²
Form of contract
Scottish Building Contract with Contractor's
Designed Portion
Total cost
£5,313,084
Client
University of St Andrews
Architect
Reiach and Hall Architects
Quantity surveyor
Gleeds
Structural engineer
Cundalls
Planning supervisor
University of St Andrews Estates
Contractor
Morrison Construction
Mechanical and electrical engineer
Hulley & Kirkwood
Clerk of works
Ken Fairbairn Associates
Subcontractors & suppliers
Ironmongery Allgood; precast-concrete staircase Bison Concrete Products; EPDM membrane Flexible Building Products; rooflight Glazing Vision; WC wall panels Lam-Art; ready-mixed concrete CEMEX UK-Materials; British Gypsum dry lining Sheffield Insulation; joiner, first-fix timber and sheet materials Thornbridge Sawmills; electrical/controls/IT/comms installation FES; mechanical/plumbing installation Scan Building Services; stonework Watson Stonecraft; metal decking SMD; structural steelwork RIM Fabrications; curtain walling and revolving entrance door MagHansen; zinc cladding Fowler McKenzie; lift installation Kone; Saranfil roofing A&B Buchan; louvres Colman Moducel; Hormann door Redmill Fabrication; metalwork Irvine Engineering; fire coating Stopfire; intercell cable management flooring and floor finishes Veitchi; Mansafe roof system The Access Group; extra coring to plant room Easy Derill; us ceilings J&M Interiors; decoration Clandec; floor screed Glenalmond Contracts; floor tiling A De Cecco; blinds Goldcrest Furnishings; external glazed panels Greenberg Glass; Sto render to soffits Muirfield Contracts; manufactured joinery Alexander Oastler; mirrors and viewing panels Leuchars Glazing; surfacing works Ennstone Thistle; oak timber handrails Haldane; Emco entrance matting Boon Edam; builders' clean Shine Cleaning; mastic J&M Sealants; grass-seeding works St Andrews Landscaping Services

A STONE-CLAD FACADE WITH PROJECTING BAY WINDOWS

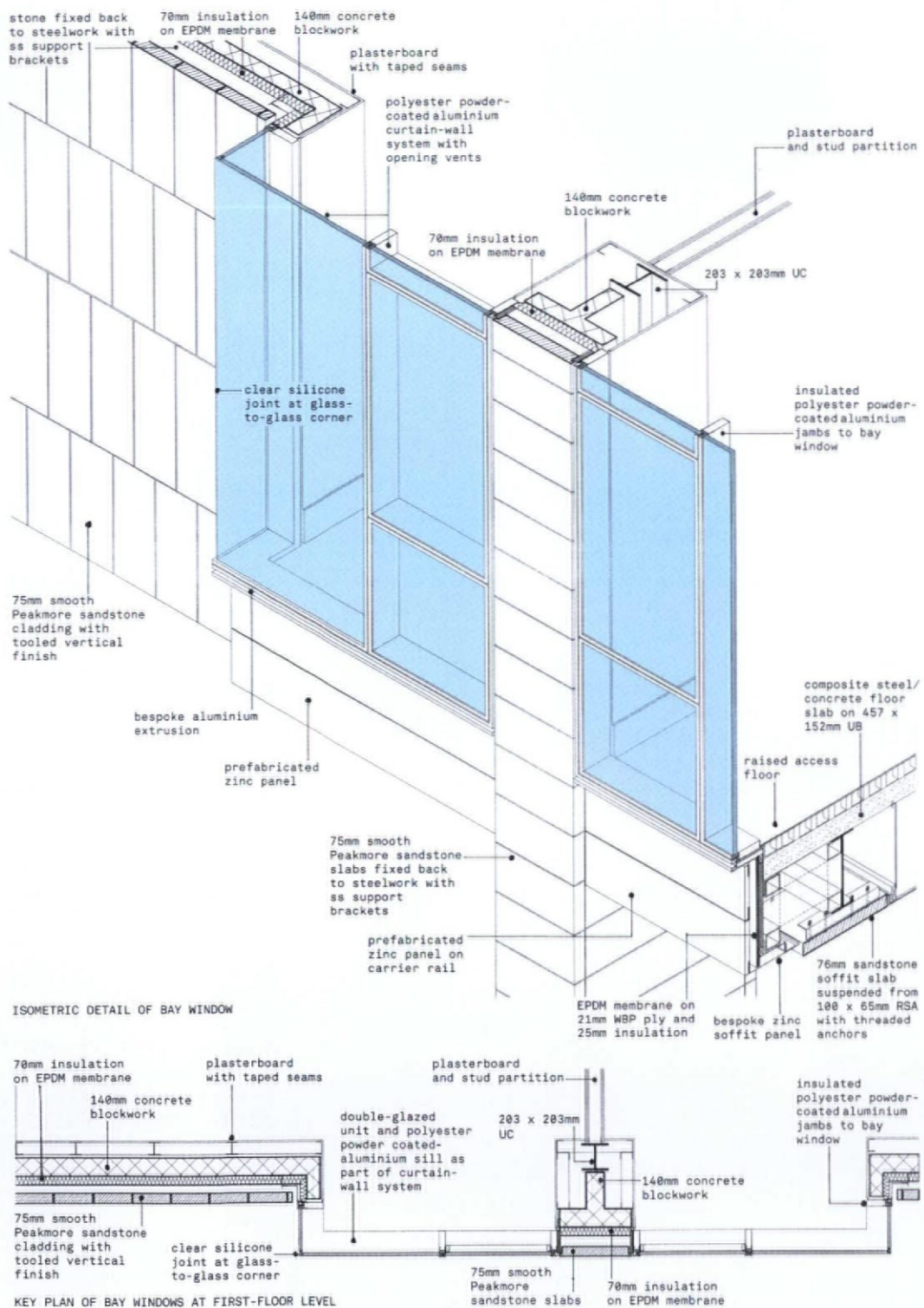
The arts faculty is clad with Peakmoor sandstone, matching the stone of the surrounding, traditional buildings while relating to the tone of the 1970s library's concrete facade.

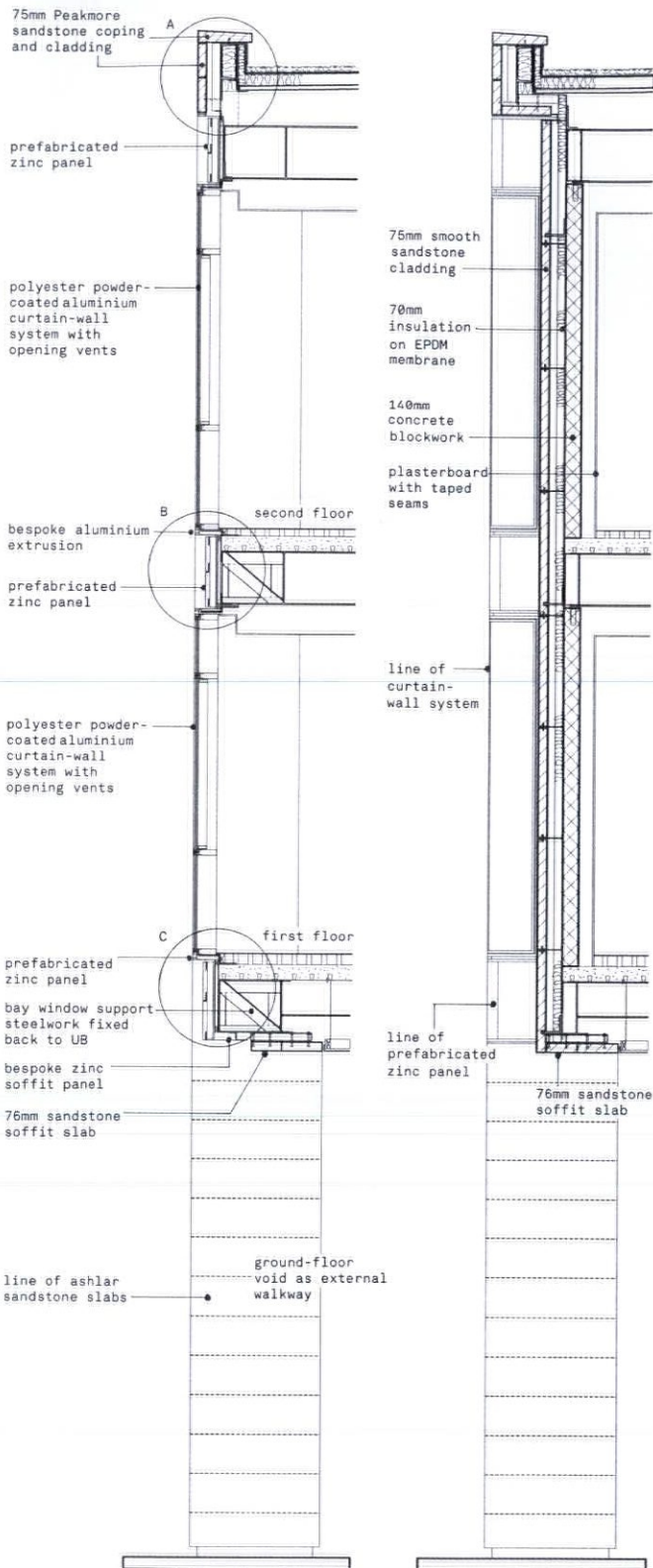
The ground floor of the south facade is a curtain wall set behind columns clad with smooth sandstone, forming a loggia leading from the library to the entrance. A horizontal stone string course above the columns frames recessed stone panels with a tooled finish on the first and second floors. Large bay windows project through the panels – a modern version of the bays common to the historic university buildings.

The structure is a steel frame with composite steel/concrete deck floors. Walls have a blockwork inner leaf with an EPDM membrane, 70mm insulation and cavity. The stone slabs are individually fixed with stainless-steel support brackets and solid joints.

The bay windows are formed of a polyester powder-coated aluminium curtain-wall system, with opening vents. The academic offices and the spaces beyond are naturally ventilated. The glass-to-glass junctions at two corners of each bay have clear silicone joints, giving uninterrupted lateral views. As a rainscreen, the bays have floor and ceiling zinc-panel spandrels with insulation and an EPDM membrane behind. The wall/zinc panel junctions are custom-made aluminium extrusions.

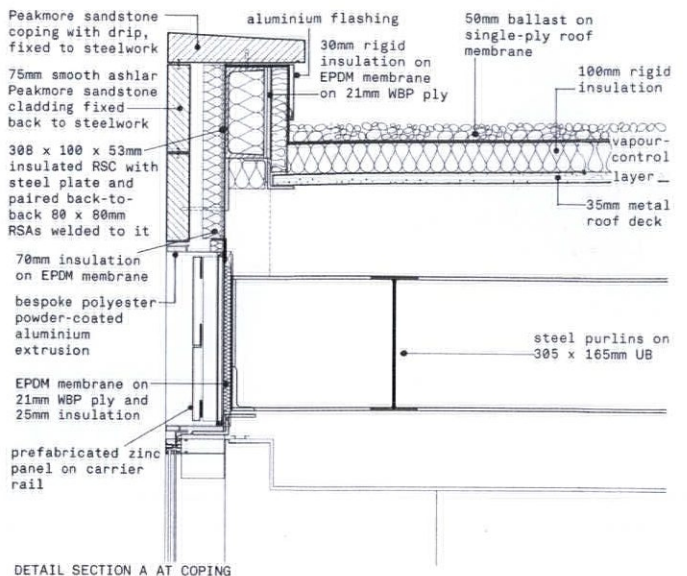
By Susan Dawson



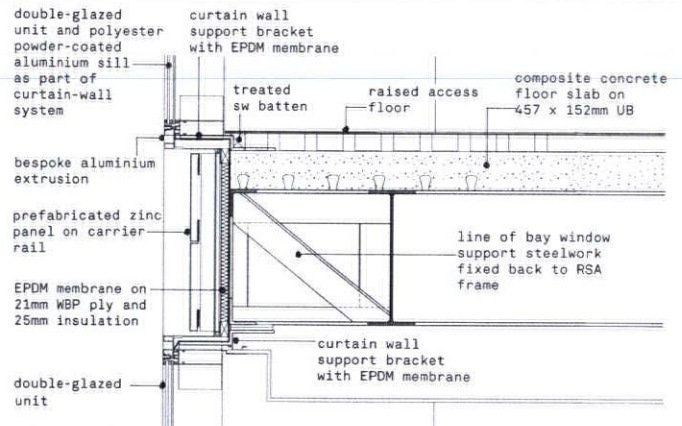


KEY SECTION THROUGH BAY

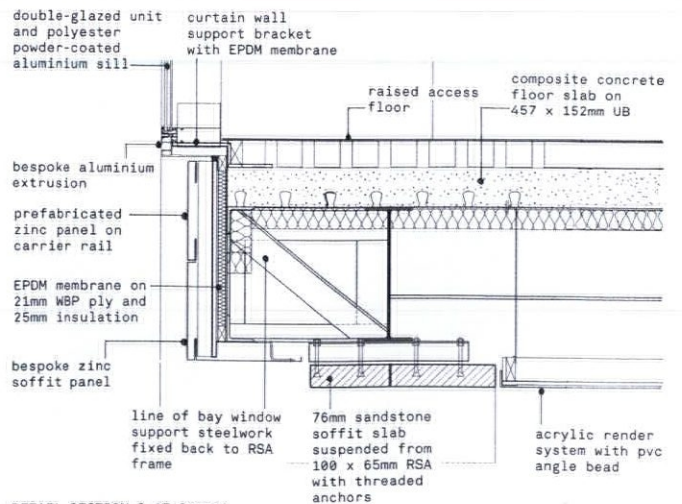
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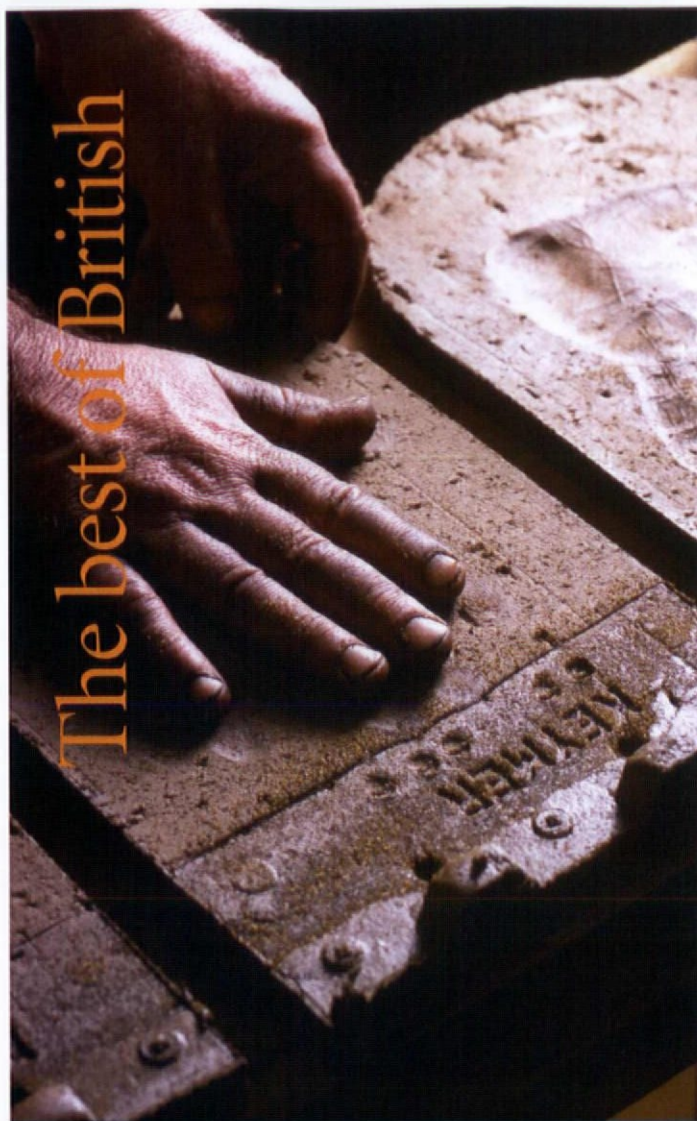


DETAIL SECTION B AT SECOND-FLOOR LEVEL



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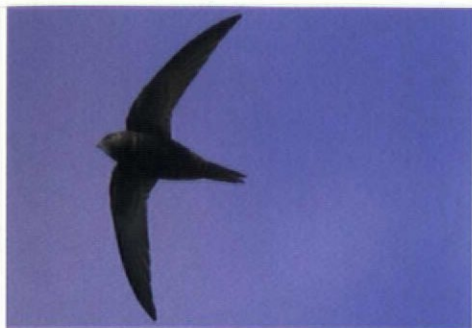


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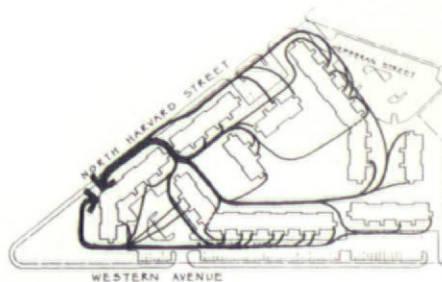


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1. Swifts – homes for this dwindling species can be incorporated into building schemes (see Technical News)



2. Site plan showing example of Zeisel's evidence-based research (see Books)

THIS WEEK ONLINE

- Our series on renewable energy sources starts in this issue and a fuller version of this week's article, exploring the various renewables technologies and giving advice on how to choose between them, appears on the AJ's website, www.ajplus.co.uk, as part of our growing coverage of sustainability.
- The site also has the latest information on national political issues, grants and finance, design and technology, organisations and future events.
- You'll also find a study of Lake Shore, the 1970s Bristol factory which Urban Splash is to convert into flats. This building reuse includes ground- (and lake-) source heating.

TECHNICAL NEWS

- UK Trade and Investment wants to help sell your green design services in the US. You can send your brochure to its stand at the Greenbuild exhibition in Denver in November and there's a trade mission you can join in early spring 2007. You can also call them on 0207 215 8000 for help with exporting your design services. www.uktradeinvest.gov.uk
- Designing for swifts: for free advice on installing nest boxes, including photos of swift bricks used at Terry Farrell's Swiss Cottage Sports Centre, London NW3, visit www.londons-swifts.org.uk
- Structural steel with hard stamping is becoming increasingly widespread. It is a byproduct of CE marking and allows a steel section to be traced to its fabricator and can help determine its suitability for recycling and/or reuse. www.steelconstruction.org

TECHNICAL EVENTS

- Louis Kahn and the Search for a Modern Brick Architecture*
Nov 15, 6:30pm
 The Building Centre,
 26 Store Street, London WC1E
 Richard Weston of the Welsh School of Architecture, delivers the Annual Brick Development Association lecture.
- Sven Pillars of Wisdom: Learning from Sustainable Developments in Sweden*
Nov 16, 3:30 – 6:30pm
www.buildingcentretrust.org/xplorer/forhcomevents.html
- BCO Guide to Environmental Management*
Throughout November
 In a series of events across the UK, the BCO is launching its Guide to Environmental Management, summarising thinking on how to limit the environmental impact of office development. Another recent BCO publication is *Getting it Together: the Work/Life Agenda and Offices*. www.bco.org.uk

BOOKS

- Inquiry by Design*
 By John Zeisel
 Norton, 2006, £16.99
 It is rare for a building to be evaluated in detail once it has been occupied. Despite the fact that since 1964, the RIBA's Plan of Work has included Stage M: Feedback, we still know relatively little about how buildings work. However, John Zeisel's *Inquiry by Design* is the best practical guide to researching and understanding buildings' functions. First published in 1981 and doubled in size for this year's edition, it combines descriptions of social science research methods and case studies of these methods in use on many live building projects. The US origin of these examples hardly matters, but finding someone to pay for a similar research project here may prove more problematic.

RENEWABLES HAVE TO FORM PART OF A DESIGN FROM EARLY ON

By Barrie Evans



1.

This overview of renewable energy for buildings is the first of four weekly articles to be published in the AJ. The other three will be on biomass and combined heat and power (CHP), ground-source heat-pump systems, and solar thermal. These articles will also appear in an extended form on the AJ website (www.ajplus.co.uk) with further information on each technology. The website will also cover small-scale wind generation, photovoltaics, and labyrinths and buried tubes (supplying ventilation air).

With renewables, step one is 'don't bother' – unless, that is, you have already done everything possible to cut energy demand. This can be done through choice of location, form and orientation; making best use of daylight, controlled natural ventilation, insulation and airtightness; use of efficient services; making the building's use legible and manageable; and more. It makes no sense to create unnecessary energy demand then attempt to meet it with renewables; in pretty well every case it will be cheaper to cut emissions by designing-out energy demand. Also, all renewables technologies (especially photovoltaics) currently have higher initial costs than conventional building servicing.

Another reason to get the building's passive design right is to invest in aspects of the building that will be hardest to upgrade in future. Typically these include airtightness, insulation, thermal mass, distribution of daylight, flexibility and longevity of materials. Renewables have to be part of an integrated design from early on.

Forward planning for renewables is another strategic design consideration. While most buildings built or converted

today do not use renewables, this will change. In future, renewable energy will be supplied in significant amounts: nationally, from major wind farms; locally, from combined district heating and power systems; and at the individual building level.

On projects that do not implement renewables today, it could pay to plan ahead, where possible, perhaps by picking a site in the best wind microclimate or ensuring good solar access for future harvesting of energy.

RENEWABLES TODAY

The relatively small carbon footprints of renewables (measured as CO₂ emissions per unit of useable energy) are their key attraction in trying to cut carbon emissions. (See figure 3, opposite). The Energy Saving Trust, a non-profit organisation funded by the government and private sector, has produced a summary of the maintenance, running costs, CO₂ emissions and payback periods for renewable energy technologies, as applied to homes. Having spoken to a few designers who have tried to put the case for renewables to clients, the shorter payback periods calculated by the Energy Saving Trust look optimistic and are perhaps better read comparatively, as a payback ranking (see figure 4, overleaf).

With the government focus both on sustainability and security of energy supplies, renewables tend to be talked about interchangeably with microgeneration, ie. energy generation at the building project/community scale. Most microgeneration is based on renewables, though fossil fuels can also be used, such as



2.

TECHNOLOGY	CARBON FOOTPRINT, CO ₂ EMISSIONS PER UNIT OF ELECTRICITY GENERATED (gCO ₂ /KWH)
Conventional coal-burning power stations	>1,000
Coal gasification power stations (emerging)	<800
Oil-fired power station (rare in UK)	Approx 650
Gas-fired power stations	Approx 500
Biomass – highest (direct combustion of miscanthus)	80
Biomass – lowest (wood chip gasification)	25
Photovoltaics – UK	58
Photovoltaics – southern Europe	35
Wave energy – UK high	50
Wave energy – UK low	25
Hydro – reservoir storage	10
Hydro – run-of-river	2
Wind – offshore	5
Wind – onshore	4
Nuclear – UK, Torness	5
Nuclear – Sweden, Ringhals	3

3.

1. Passive solar heating of communal space
2. Lake Shore, Bristol, which will incorporate ground-source heating
3. Range of carbon footprints for UK and European electricity-generation technologies

gas-fired combined heat and power (CHP). But even here, gas might be substituted by biomass in future. As part of preparing its Microgeneration Strategy: Power From The People, the DTI estimated the current number of microgeneration (and thus renewables) installations. (See figure 5, overleaf).

CHANGING TIMES

The renewables scene is changing, helped by growing concern for sustainability. Reasons for change include:

- rising fuel prices – improving the viability of renewables (while also increasing concern about fuel poverty);
- the Renewables Obligation – legislation requiring generators to provide a growing percentage of their output from renewables;
- security of future energy supplies – a motive for focusing on microgeneration as well as power supply on a national scale, for example from wind farms;
- a maturing market – there are few trained installers and limited production capacity, but signs that this is changing include Wolseley, the UK's biggest building materials supplier, opening its Sustainable Building Centre, including a variety of renewables technologies;
- the culture of the industry – this is changing, albeit unevenly and with little willingness to take a lifecycle view and invest more up-front on sustainability. Even so, major commercial developer British Land now produces a detailed sustainability brief, including 'must dos', given to every design team as part of its corporate social

responsibility policy – something unheard of two years ago;

- sustainability measurement – notably BREEAM, which includes energy and emissions targets; and
- legislation – any that sets energy targets is an encouragement to renewables and sustainable design. Local authorities have been highly influential in this area by including a required percentage of renewables in their Unitary Development Plans – often referred to as 'the Merton 10 per cent'.

However, in terms of cutting carbon emissions, it can be counterproductive to insist on renewables; it will often be more effective to spend the same amount of money on the fabric of buildings and improving their insulation or airtightness – investments that usually have lower running costs.

CIRCUMSTANCES ALTER CASES

Listed below are the issues you might consider when deciding to choose one technology over another:

- planning – apart from Merton's 10 per cent, the big planning issue is direct impacts. Wind turbines, while disliked by some, are less unpopular outside rural areas – but that could simply be because there are relatively few non-rural proposals yet. Both the solar-thermal panel and photovoltaics industries are working to make their technologies less obtrusive, from refining panel designs to integrating panels into surfaces such as cladding and tiling. Biomass power plants, meanwhile, can be unpopular because the fuel is bulky, requiring frequent deliveries by lorries.

TECHNOLOGY	MAINTENANCE	RUNNING COSTS	CO ₂ EMISSIONS	APPROX PAYBACK (YEARS)
Solar water heating	Medium	Very low	Very low	Around 10, depending on water use
Photovoltaics	Low	Low	Very low	>50
Wind	Medium	Low	Very low	11-25, depending on turbine size
Wood-fuelled boilers	High	Medium-high	Very low net CO ₂	5-10
Ground-source heat pumps	Medium	Medium	Medium-low	5-10

4. Comparison of renewables in domestic use

TECHNOLOGY	NUMBER OF UK INSTALLATIONS
Solar water heating	78,470
Photovoltaics	1,301
Micro CHP	990
Micro wind	650
Ground-source heat pump	546
Biomass boiler (pellets)	150
Micro hydro	90
Fuel cell	5
TOTAL	82,202

5. DTI assessment of microgeneration installations in 2004

- density – high building density can reduce solar access, create less favourable wind climates or make it difficult to find space to tap ground-source heating and cooling. On the other hand, building density creates high load densities, which can make communal/district heating and CHP plants, more viable;
- intermittence – biomass is a readily available fuel so can be used as required; the ground is also quite a consistent source of fuel. But wind and solar are intermittent sources, so if we look to these to provide an average 10 per cent of our energy annually we will need a much bigger contribution at favourable times. While you can store solar-heated water, solar electricity (photovoltaics) and wind-generated electricity are expensive to store, so generally this is not attempted. Rather they are grid-connected, so that if your building is a microgenerator, its meter will run backwards or forwards depending on whether it is a net exporter or importer of electricity at that moment. Research is being conducted into the impact on the national grid of having millions of often intermittent microgenerators (us) connected to it;
- load-matching – where generation is intermittent, generation efficiency should be improved by matching a building's energy demands to renewable energy output; for example, solar heating a pool in summer or matching photovoltaics to a cooling load. A similar issue arises when trying to match CHP's heat-dominated output (electricity generation is secondary) to building needs. Load-matching may also be improved by incorporating more than one renewable source in a project. Project size is another factor in

load matching. Solar thermal, photovoltaics and even biomass can work well down to individual dwelling size, while small-scale wind, CHP, district heating and bore-hole ground source systems work more efficiently and cost-effectively on a larger scale. Individuals trying to go it alone with renewables sometimes experience a significant loss in efficiency. David Cameron's rooftop wind turbine is a good example: it is in the wrong wind climate (too low down, not windy enough) but also too small;

- centralised plant – some energy technologies are novel or developing fast, so can be unfamiliar and difficult to run. Centralising the plant, with consumption metered locally, can simplify their use. Also, one central plant is easier to upgrade than individual boilers as the technologies evolve;
- codes and standards – clients and designers gain confidence in renewables systems if they conform to established standards and codes. Heat pumps are well established but whole ground systems incorporating them are more experimental. Photovoltaics have a wide range of standards, wind and solar thermal less so.

At one time in our history, renewables were dominant, with thousands of wind and water mills powering largely rural industries. Nimbyism was hardly an option. While we are not going back to that, nor can we all move to a future of following the few to their rural retreats. Overall, we lack broad visions of what our renewables-based futures could become.

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WE'RE REACHING THE END OF THE INITIAL PHASE

What do you call yourself? Years ago, lots of architects started translating their sometimes laborious practice names into initials. Laborious in the sense of Skidmore Owings and Merrill, which became simply SOM.

The initials – not acronyms, which are initials or the running together of shortened names to form a real word – were popular because people might confuse you with, say, ICI or BHP, to your advantage. I don't know if anyone ever did.

The fashion now seems to be to use your colloquial name. Like FaulknerBrowns, which was once Faulkner-Brown Hendy, Watkinson, Stonor. And, of course, Grimshaw. But there are still lots of initials about. And they look a bit wan as web names: Like www.abcd.co.uk or www.abcdarchitects.co.uk. Memorable. Not.

And what about the suffix? Do you go for dot com or dot co dot uk? Or could you go for something like dot biz? That choice might say something to clients, but also to potential staff. So perhaps the detached-sounding dot org? Or do you lobby ICANN, the internet naming body, for the suffix dot arc? Too late; it's already a general computer suffix for 'archive'. What about dot prof? sutherland.lyall@btinternet.com

SETTING TRAPS

There is no doubt that setting out can cause problems, writes *Kim Franklin*. There is seldom a single point of responsibility for the production of setting out drawings. Instead, the process is collaborative, involving the various designers responsible for the building, the landscaping, the roads and drains.

There is also no clear boundary between the design and the physical process of locating the building on the ground. The designers work with the contractors to resolve queries as the building is set out. A mistake of a few centimetres can have consequences out of all proportion to the error, such as an action for trespass, a hurried application to the planners, feverish negotiations with potential tenants and, if all else fails, demolition. Once the dust has settled, the task of finding where the buck stops begins.

Standard forms of contract tend to be silent on the question of setting out. Instead, attempts to point the finger at those responsible for mistakes rely on various contractual phrases along the lines of 'the designers will satisfy themselves as to the accuracy of any survey information' or 'drawings issued for construction should be checked by the contractor'.

The number of potential culprits, the complexity of the process and the size of the financial loss when something

goes wrong make up a recipe for litigation – as architect Graham Whitehouse Practice (GWP) found in the case of *Hodson Developments Limited v GTA Civils* (Judgment 13.07.05).

GWP was engaged by the claimant developer for a housing development near Aylesbury. The planners were concerned about the layout of one particular property in a dominant position. They imposed a condition that it be set back further from the road. GWP's drawings, which complied with the planning conditions, were subsequently changed by the defendant civil engineer, who moved the location of the house to improve access.

Crucially, the engineers did not notify anyone of the change and it was not until the house was constructed to wall-plate level that the planners spotted it. They described it as 'a strident and oppressive feature, over-dominant in the street scene' and issued an enforcement notice requiring its demolition. After an unsuccessful appeal the house was demolished and rebuilt in the right place.

The developer claimed losses of more than £100,000. One of the various issues for the court to rule on was whether the architects ought to have checked the engineers' drawings and spotted the change of

position. The judge held that GWP was under no contractual duty to examine the drawings in detail and was entitled to expect that the engineers would merge its drawings without changing them. While it was obliged to make a cursory examination for glaring errors, the change of location would not have been readily apparent. The engineers were ruled to be liable for the developer's losses.

While it may not be unreasonable for designers to be held responsible for their own mistakes, as setting out involves various disciplines, you may want to be make sure your contract makes it clear that you will not be responsible for the mistakes of others.

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



1.



2.

1 & 2. 'Escape is everywhere in the air'

BOOK

By Gillian Darley

Designing the Seaside:
Architecture, Society
and Nature

By Fred Gray, Reaktion,
2006. 336pp. £29

Fred Gray is quite angry about the lack of academic interest in a subject which has been, quite evidently, a lifelong passion. He now pursues this passion as a professor at the University of Sussex, where he works quite close to the little lost town of Brighthelmstone, which morphed into Brighton in the early 18th century.

Seaside architecture and the international sweep of its range of graphic expression provides an ideal window onto popular culture, but *pace* Gray's sense of grievance, this book is proof that any such deeper discussion must be accompanied by a rich visual treatment to make the point coherently. And it is precisely because of the pull of that imagery – here a wonderful assembly of archive material, ephemera and modern photography – that it

is hard to pursue the single issue or advance an isolated theory.

Even within the narrowest confines of architectural structure, the discussion of technique, of piling and bracing, takes us from the 19th- and (in Brighton anyway) 21st-century piers to the stillborn Turner Contemporary Gallery in Margate.

Do we pursue a domestic debate bemoaning the souring of the seaside, epitomised by the filthy sewage that passes for seawater in many resorts, or the much-advertised new danger posed by the sun?

Or do we celebrate the rebirth of the coast, whether through the agency of landscape conservation and protection (in the shape of an ever-lengthening stretch of coastal walks, resort to resort), or the social reinvention

of towns such as Brighton, Hastings or Scarborough?

Of course the topic is peculiarly elastic: look up Venice in the index and the references jump from California to Great Yarmouth. If the Venetian style is redolent of holidays and escapism, then why confine it to northern Italy? Ramsgate and Coral Gables, Florida, deserve their turns too.

Escape is everywhere in the air at the seaside, suggesting a break from the tedium of domestic routine or the limitations of a humdrum landscape (or society).

In many respects this book pulls both ways; the text (perhaps rather like everyday life at home) is sober and matter-of-fact, the images (more like a good seaside holiday) providing a

compelling alternative, a tonic to the spirits, full of people, sun, sand and licence.

Let us hope that everybody who sits at the DCMS, which is now considering the location and physical form of Britain's first giant casino, has a copy of Gray's book on their desks so that decisions can be guided by the elegance of Menton or the charm of Trouville, rather than the pervasive kitsch of Las Vegas or the pointlessness of that black hole at the centre of Greenwich. Affluent as we mostly are, our leisure frames our lives, and the setting of that leisure is not at all a bad way in which to see ourselves mirrored.

Gillian Darley writes on architecture and landscape

EXHIBITION

By Andrew Mead

Henry Moore and the
Challenge of Architecture
At the Kunsthall,
Rotterdam, until 28
January



P. VAN DER MEER

1.

1. Moore's Bouwcentrum Wall Relief, Rotterdam, 1955
2. 'Three Standing Figures in a Setting', 1948

The Austrian author Robert Musil, whose novel *The Man Without Qualities* vividly depicts the suffocating world from which Modernism emerged last century, wrote: 'There is nothing as invisible as a monument. Every day you have to walk around them, or use their pedestal as a haven of rest... but you never look at them.' Musil was thinking of statues of civic or national dignitaries, but the same goes for many sculptures by Henry Moore: former must-haves now stranded unseen in countless plazas and forecourts.

Even on the hillside of the Yorkshire Sculpture Park they're easy to pass by, and it's hard to recall that Moore was once thought *avant-garde* – a member of Modernist group Unit One along with Isokon-architect Wells Coates.

So does an encounter with Moore's work outside its usual settings make it visible again? That's one of the questions which this exhibition in Rem Koolhaas' Kunsthall raises: a version of a show first seen at Moore's Perry Green studio, which acquires extra resonance now because Rotterdam's Bouwcentrum is the site of his 8.4 x 19m *Wall Relief*, made unusually (for him) of brick.

For Moore, says the show's title, architecture was 'a challenge' – but it was also a mixture of ambivalence, dissatisfaction, pragmatism and persistence. Rehearsing the now familiar argument that sculpture is usually an add-on, not integral, Moore initially resisted his first architectural commission: figures for Charles Holden's LT headquarters in 1928. Though unhappy with

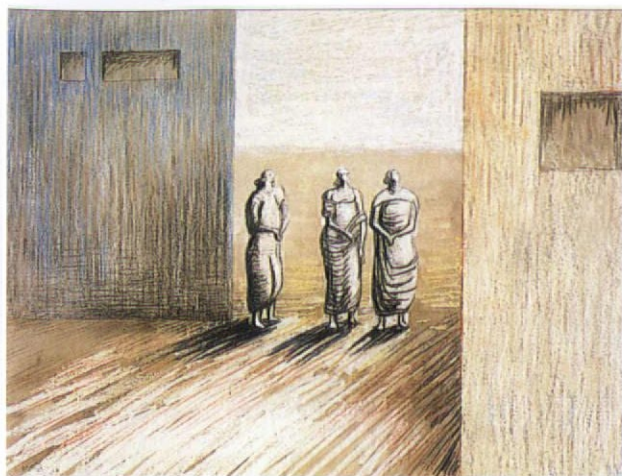
the eventual results (not three-dimensional enough), Moore accepted another job for Holden at Senate House, but abandoned it midway.

A project for Lubetkin's Highpoint II penthouse foundered when artist and architect disagreed over the sculpture's placement. When Moore completed his screen for Rosenauer's Time/Life Building on Bond Street, he thought that the four forms it contained should have been freestanding and the screen ditched. After agonising for ages about his piece for Breuer's UNESCO building in Paris, and then opting (no great surprise) for a reclining figure, he argued with the architect about the sculpture's size; Breuer wanted it bigger. Eventually the work was made as Moore had wished but he later conceded that Breuer

was right. So it was hardly plain sailing, yet Moore couldn't let architecture go.

These schemes and more are presented in depth in the main hall of the Kunsthall, with a mixture of drawings, archive photos, maquettes and sculptures – the latter benefiting from natural light coming both from above and through the glazed south wall.

Moore once wrote that he was 'not a purely abstract artist... I have three or four unending themes and the basis of all my work is the human figure.' This show is not of such a size that the question of repetition – of whether Moore brought sufficient psychological insight or formal invention in reprising those themes – really arises; some works, though, are more allusive than others. The different stones that vivified



2.

Moore's sculptures, especially his earlier ones, are missing; almost everything here is bronze, if variously finished. There are some memorable drawings, with figures poised or recumbent in De Chirico-like piazzas, which have a poetry that doesn't always transfer into three dimensions.

Perhaps most interesting is the big Rotterdam *Wall Relief*, though it doesn't quite succeed as a composition. Moore clearly didn't want the geometrical motifs to be just a border round the swelling brick biomorphs, but the latter aren't integrated into the whole. Seen close to, however, there are many shallow-relief subtleties in the the brickwork, which sunlight reveals, but as the wall faces north these are usually lost.

Letters between Moore and the Bouwcentrum's architect,

J W C Boks, are illuminating. 'My accountant has suggested that it might be best (because of my high return for income tax this year) to leave the money due to me in a Dutch bank account,' writes Moore the pragmatist. He was often pragmatic too in his attitude to 'collaboration' with architects, not aiming to produce 'site-specific' work but inviting them just to enlarge their maquette of choice (as I M Pei, for instance, did).

So not quite Richard Serra, then, with his insistence on the site specific, his truculence and his budgets. But the problems Moore wrestled with haven't gone away, as both the Welsh and Scottish Parliaments make clear, and contemplating his work beneath the sawtooth lights of the Kunsthal, one can see those problems anew.



CRITIC'S CHOICE

By Andrew Mead

Just a couple of minutes' walk from the Henry Moore exhibition at Rotterdam's Kunsthal (see left) is *Spectacular City: Photographing the Future* at the Netherlands Architecture Institute. In a way the title is misleading, but the show's all the better for that. True, some images are certainly spectacular: for instance, *Andreas Gursky's* 2m-tall print of Foster's Hongkong & Shanghai Bank, lit up at night, where you can peer through the glazing on each floor and even make out the contents of people's desks; or *Sze Tsung Leon's* more dystopian photos of a sprawling Beijing, which look like a latter-day version of one of Hilberseimer's grim urban visions.

But the exhibition has its intimate moments and a range of moods. *Thomas Ruff's* tiny nocturnal pictures of dimly lit corners of the city are strong on atmosphere, with a distinct film-noir feeling, as are *Todd Hido's* photos of the fringes of LA. By contrast, *Heidi Specker* focuses on details, including a series of studies of the concrete on London's Queen Elizabeth Hall. Reiterating the question of how far the show is 'documentary' are several photos made from models – some painstaking ones that are convincingly real. No single argument emerges from the selection but it makes for an excellent show; and many of the photos are well-reproduced in the accompanying catalogue (NAI Publishers, 47.50 euros).

Also at the NAI, in its top-floor gallery, is an exhibition that consciously highlights the mundane, rather than the spectacular: *Neither Town Nor Country/The Spatially Disordered Netherlands*. The photograph above by *Dieuwertje Komen* gives the general idea, as the show examines those indeterminate areas where greenfields (albeit man-made ones) are steadily eroded by piecemeal development; this, of course, has echoes for the UK. Dutch *savoir-faire* is definitely in evidence, though: 'Between houses, barns and factories, people find room for plants, seesaws or an erotic massage parlour,' says the introductory text (www.nai.nl).

So there's plenty to see in Rotterdam just now – a taster for 2007, when it will be City of Architecture, with many events scheduled, including its third architecture biennale (www.rotterdam2007.nl).

For forthcoming events visit www.ajplus.co.uk/diary

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Tamworth To - £30,000pa
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Planning Supervisor Vac ref 1106-001 Permanent
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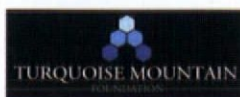
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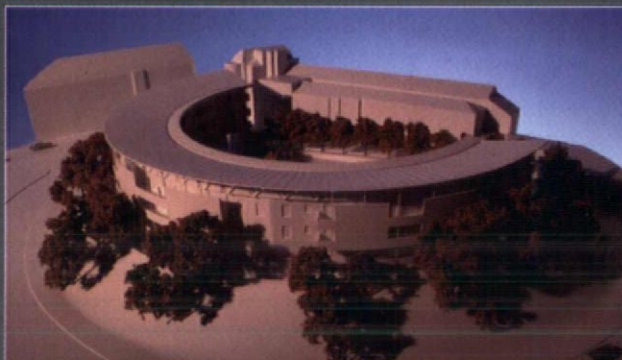


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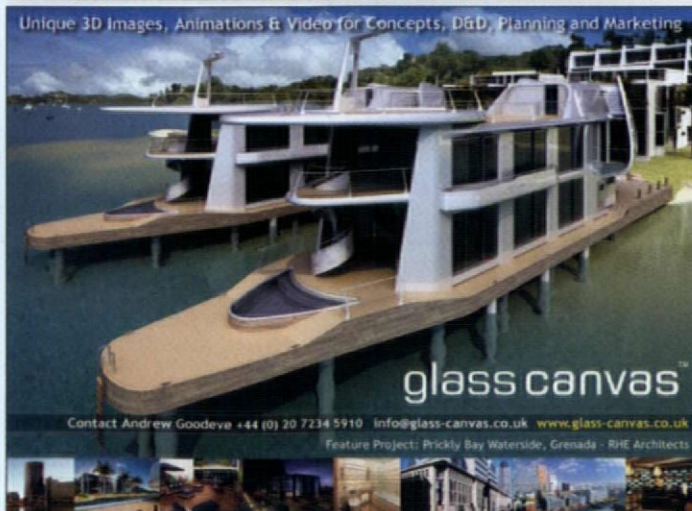
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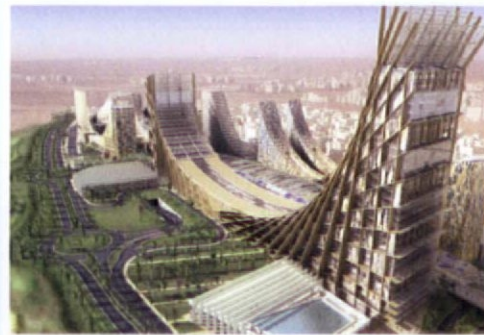
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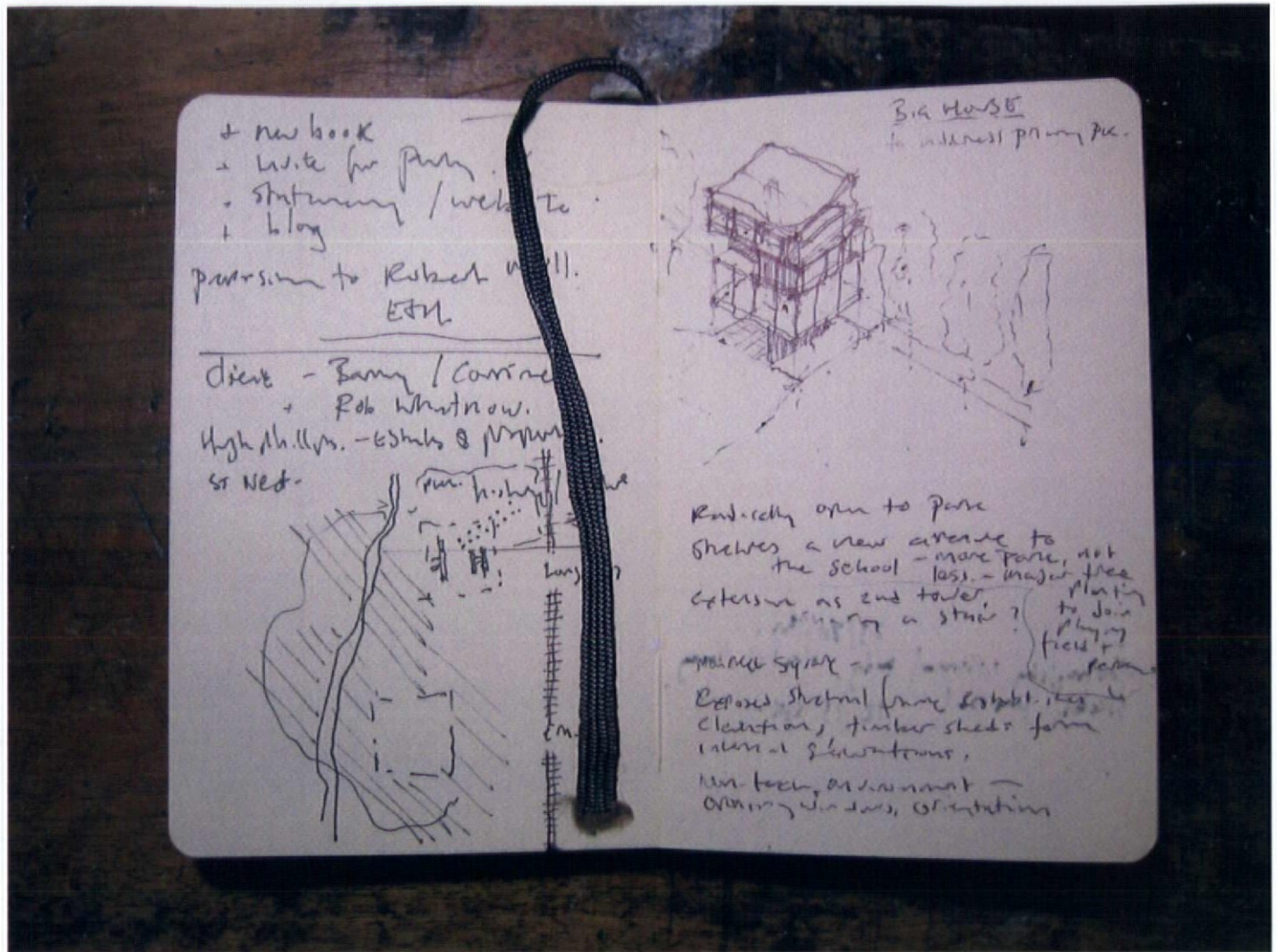
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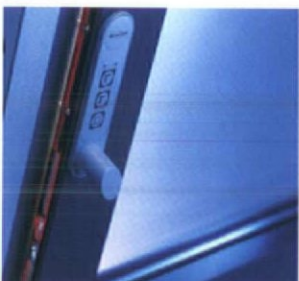
PENDOCK



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Fifty decorative column casings from Pendock have been installed at Birmingham NEC's refurbished piazza. Specified by Seymour Harris Architecture, Pendock-Radius casings conceal the concrete structural columns. A series of numbered, narrow elliptical casings provide highly visible entrance signage.

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GEZE



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