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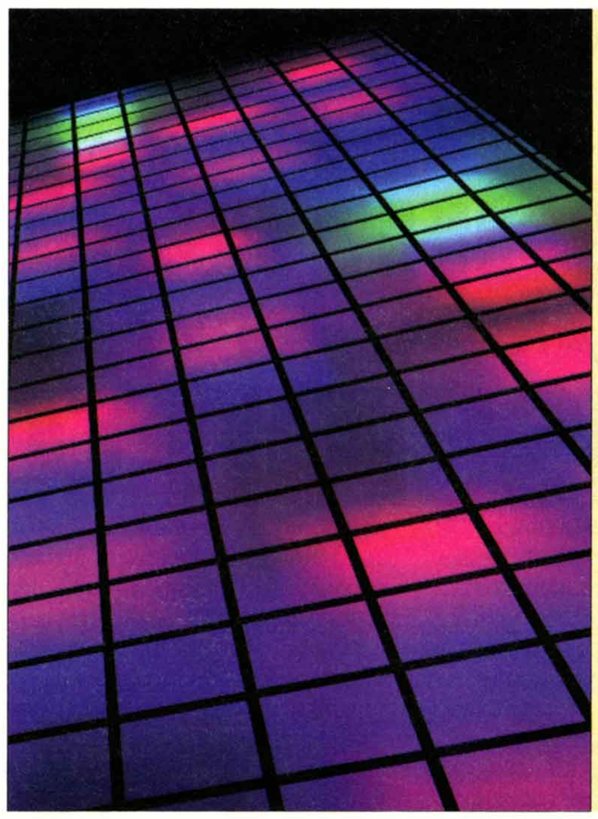

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CMP
United Business Media

Architect slams Cabe's research

An architect called on Cabe to change the way it comments on proposed schemes this week after she accused the design watchdog of supporting a scheme in London's Crouch End without doing proper research.

Sole practitioner Ruth Selig claimed that this view was "vindicated" after the Horden Cherry Lee scheme to redevelop a Texaco service station into a white steel-clad five-storey modern mixed-use scheme in a largely red brick Victorian quarter was rejected on appeal by a government planning inspector.

Selig said she was still furious that Cabe had supported the scheme, on the corner of Tottenham Lane, on the grounds that it was "well designed and dealt with issues of urban regeneration, mixed use, scale and density in a well-considered way".

She was angry that the watchdog had claimed the fact that the building would overhang two nearby schools and block their daylight did not present a problem. This, she said, it had no right to do without undertaking a formal review or making a visit to the site.

Design review chairman Paul Finch and officers scrutinised the scheme but the review panel did not.

"Cabe seems to have looked at the building in isolation and without a site visit, which is surely not how you assess architecture," said Selig. "It shouldn't have commented full stop unless it was prepared to do a full review and site visit. This discredits Cabe's role."

Cabe defended itself robustly in a letter to Selig. It claimed that its comments regarding overshadowing and daylight on the school were irrelevant because they were "technical" issues for the council to decide on.

Simpson sets sights on Manchester tower

In a move that could seal its position as Manchester's dominant designer of recent times, Ian Simpson Architects is proposing a 48-storey skyscraper for the city, which would be the tallest British building aside from Canary Wharf.

The architect has already built the iconic Urbis museum and the housing block Number One Deansgate in Manchester, but is now pushing higher with plans for a tower. Planning documents were due to be submitted to the city council today (Friday).

Simpson claimed support for the structure from both English Heritage and senior figures within Manchester City Council, but both bodies declined to comment on the application before it was officially submitted.

The tower, for developer Beetham Organization, is based around plans for a Hilton hotel and residential units on Deansgate in the city centre. A separate office building will complete the £150 million development.

The tallest building in the city at the moment is the 28-storey Co-operative Insurance Society headquarters.

Exclusive: Holyrood architect breaks silence after public carpeting by parliament

RMJM hits back at 'ignorant' MSPs

Robert Booth

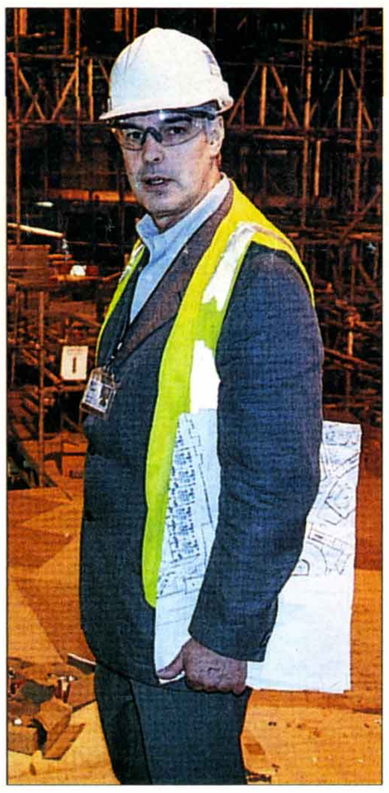
RMJM boss Brian Stewart has accused members of the Scottish parliament of displaying "ignorance" about the emerging Holyrood parliament building and hit out at MSPs who use the project "as a political football".

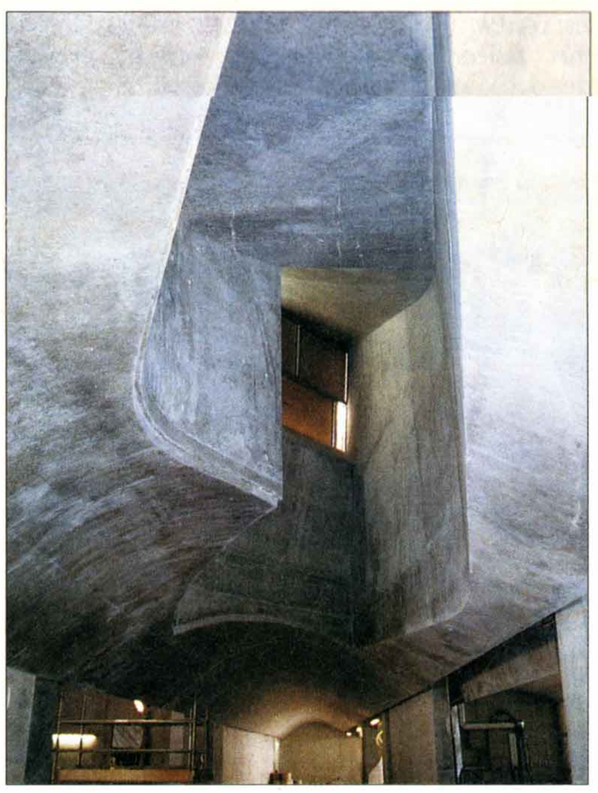
In an exclusive interview with *BD*, Stewart also made a potentially explosive rebuttal of claims by presiding officer George Reid that he has secured agreement to cap fees and even reduce recent payments to consultants.

Only two weeks ago, Reid stated publicly that consultants had agreed to cap fees, "including a reduction in fees in respect of the latest projected increase in cost". He presented the agreement as a victory for "the public interest". But Stewart told *BD* he had "refused to waive scale fees on the £18.75 million [latest construction cost increase] because that would admit guilt".

He also said that any agreement to cap or reduce fees would have to be discussed with Enric Miralles' office in Barcelona, adding that fees are negotiable "only in terms of what we require as a business to be able to fulfil the contract".

"He [Reid] has chosen to present this in his own way for his own reasons," Stewart said. RMJM had agreed to "look at fees in a sympathetic way" at a meeting on March 17 2002, but he claimed he had made no agreement to cap the latest increase.





Far left: Stewart: "There isn't anyone who wants to be interested in the building because they're all interested in the process."

Left: One of the dramatic cast concrete voids in the vaulted ceiling of the canteen parliament.

"We are not trying to take more out of the project than a modest profit," he said. "It is very frustrating." Consultants' fees are understood to total around £60 million already.

As he mounted a robust defence of the architecture and the professionalism of the construction team, the experimental nature of construction on the job and a new delay to completion became clear. Bovis Lend Lease project leader Dick Mulholland estimated that four out of five design details need to be reworked on site and it emerged that architects are now working to complete work on the project by Easter 2004 rather than the November 2003 date that has been the public goal until now.

"At the moment there isn't anyone who wants to be interested in the building because they are all interested in the process," Stewart said. "It is a feeling of disappointment because I don't think we could try any harder. It stems from a level of ignorance about what we are doing here. But I can understand that for George Reid, the only thing is to show some kind of control." He continued: "I don't think [the politicians] are engaged enough in the building. There are an awful lot outside the Holyrood Progress Group [a committee of politicians, civil servants and experts overseeing the project] that believe this is a political football."

Margo MacDonald, independent MSP, said: "This is not a political football. I listen to what people are saying to me, and people are saying 'this is ridiculous'."

To Stewart's accusation of

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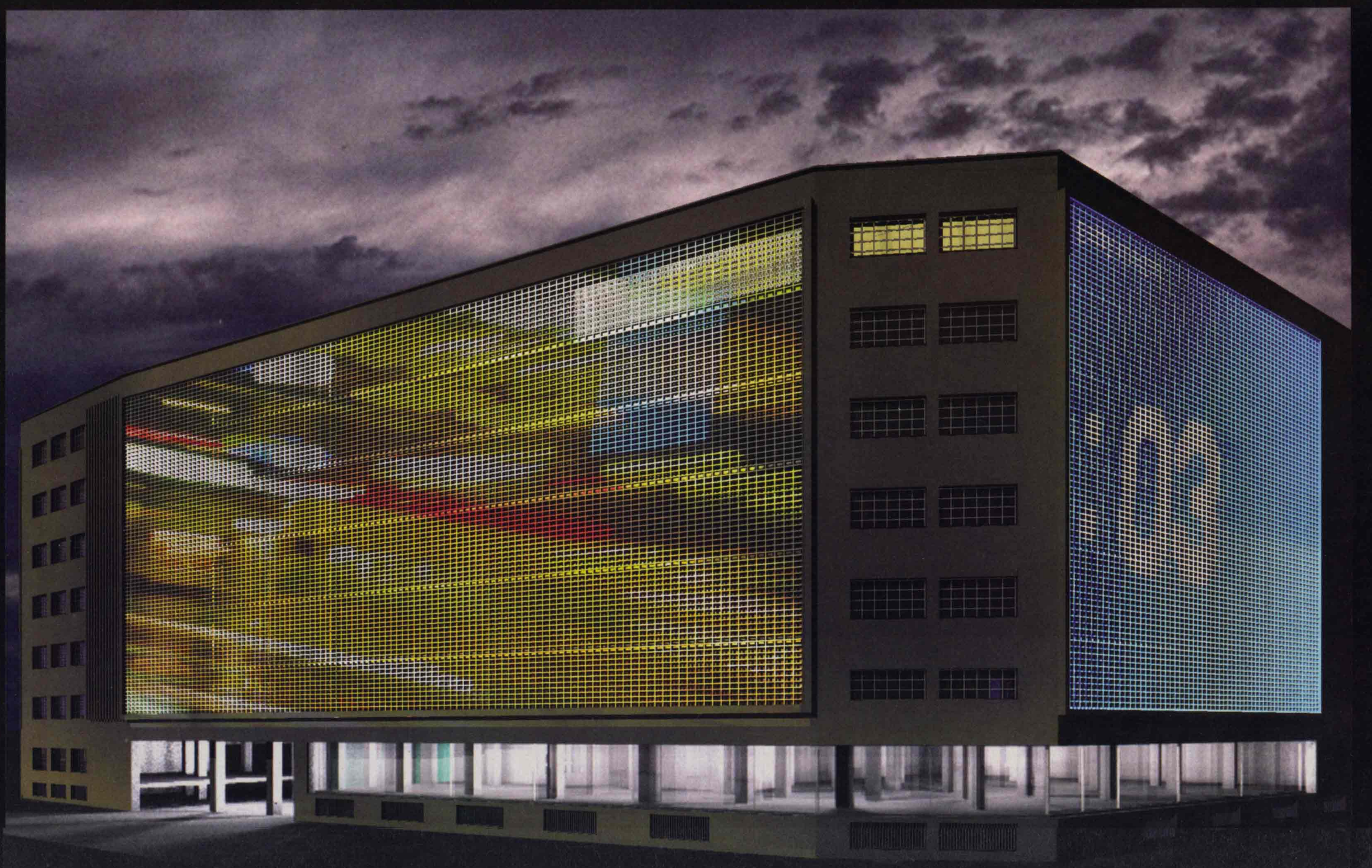


Lighting up

A former cigarette factory in Athens is to be transformed into the world's biggest digital landmark. Amanda Birch reports

You get the feeling that Tom Barker's idea of stress relief might be to untangle the puzzle of a Rubik's Cube. The director of the multi-disciplinary design practice SmartSlab has the air of someone who relishes conquering the impossible. It's an attitude of mind that extends to the rest of the eight-strong practice.

SmartSlab is facing one such challenge in a project to integrate a giant digital display into the facade of a 1930s cigarette factory that was further extended in the 1970s.

By applying innovative lighting technology to some 10,000 apertures, the Keranis building is to be transformed into a digital landmark for central Athens. When complete – hopefully in time for next year's Olympics – the project will represent the biggest digital facade in the world.

The brief was driven by an architectural duo, Athens-based Kostas Grivas and London-based Harry Dobbs. Grivas, who studied with Dobbs at the Royal College of Art and is now completing his PhD in artificial intelligence & architectural space, was appointed to refurbish the seven-storey building located on a major road that links the port of Piraeus with Athens city.

Grivas says: "The first moment I saw the building with its interesting facades, I knew it was appropriate for this sort of technology. The concept is very radical and the resolution of the facade is very similar to the resolution of a screen that mobile phones have."

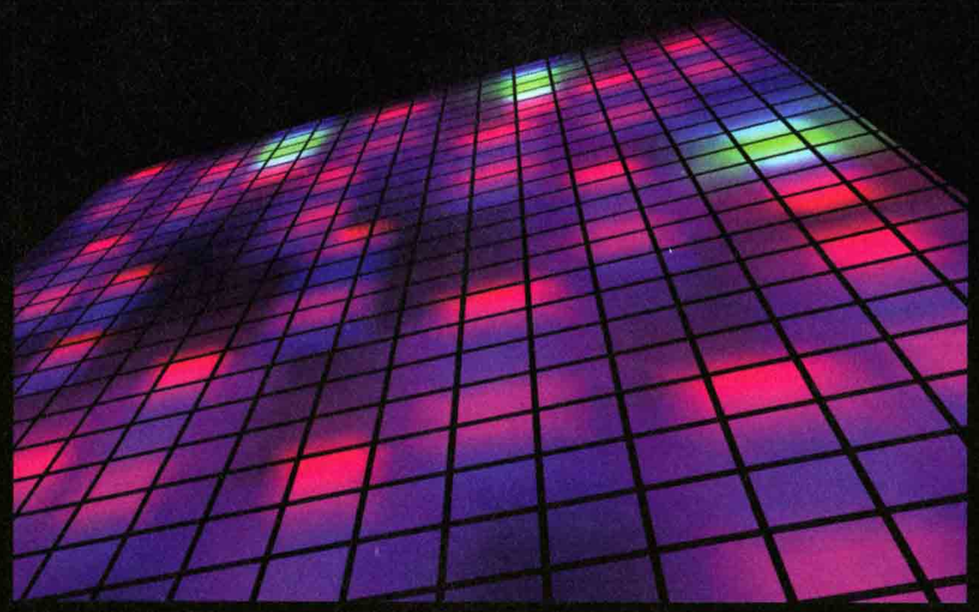
The building's front elevation is composed of three separate concrete sections, the largest measuring 57m wide and 23m tall. Piercing this surface are 10,000 1.2m x 0.9m-sized hollow apertures with a depth of 0.2m. This outer layer is offset from the building's main glass skin by 0.8m, creating a facade analogous to a large-scale egg crate-style screen. Advertising will undoubtedly be a key feature of this screen, both during and after the Olympics. But Dobbs adds that there is no reason why one couldn't just display material downloaded from the internet or show a film.

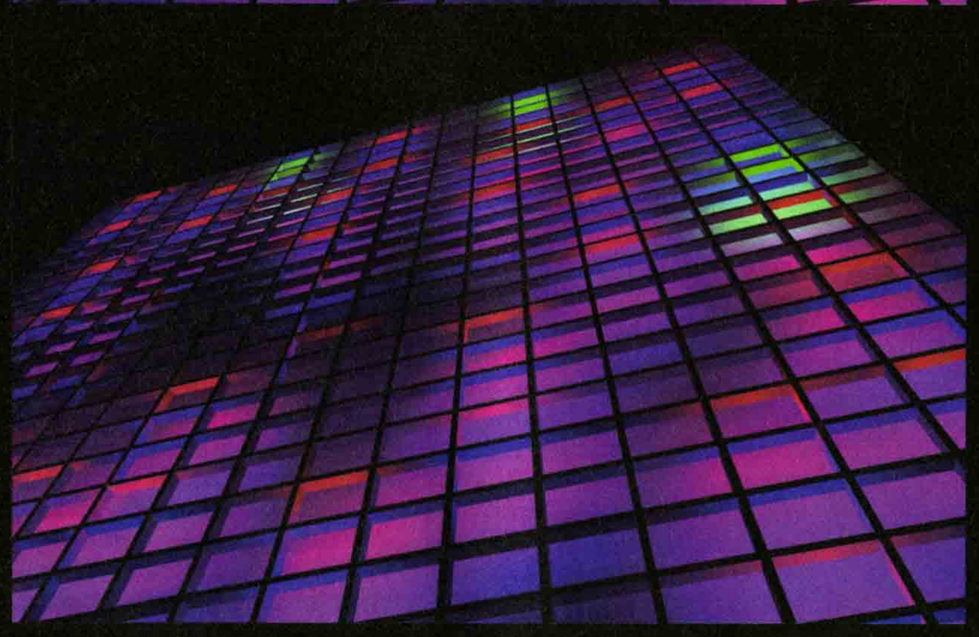
Dobbs recalled the LED digital display structural tile that SmartSlab had already produced (*BD* Technical, October 25, 2002), which he thought would be ideal, and given that there were no firms in Athens with the distinctive skills that could develop such an ambitious concept, Grivas and Dobbs turned to SmartSlab for help.

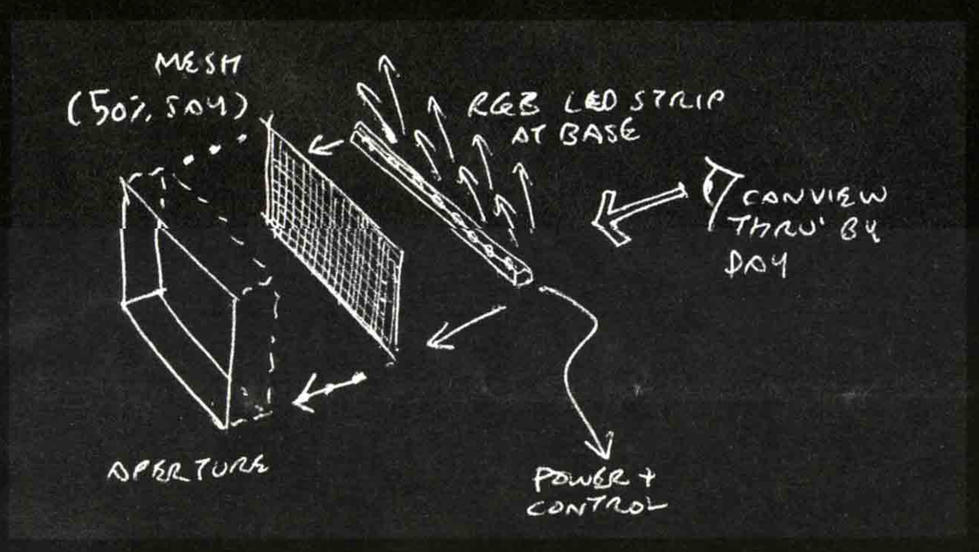
Lighting consultant Phoenix Large/Lightmatters, Chris Jackson of Mono design group and the Bartlett were among the key players drawn in to help. Given that a digital facade already existed at New York's Whitney Museum, albeit on a smaller scale than the one proposed, both Jackson and Barker knew it could be done and thought it would be a straightforward project. But further research proved that it was going to be considerably more complex.

The first hurdle involved outrageous cost estimates. Simply integrating the SmartSlab tile into the facade was quickly abandoned due to the expense of covering such a vast area. To achieve the multi-coloured lighting quality for the screen, the higher-end systems available were between £1,200 and £1,600 per aperture. "Taking into account the number of apertures involved", adds Barker, "we would have been in trouble".

So with a budget of about £1 million, SmartSlab had to cultivate its in-house







Far left, top: Computer-generated image of the huge digital facade to the Keranis building in central Athens.

Far left, bottom: The existing seven-storey cigarette factory with its distinctive concrete apertures.

Near left, top and middle pics: The two images show a line of the apertures to the facade lit in exactly the same way and demonstrate the difference that a diffusing screen makes. The top picture has the diffusing mesh, which gives a single surface on which light is projected. The image below doesn't have the mesh and the inside surfaces of the apertures can be seen. Images by Chris Jackson, MONO design group

Bottom: Working from the outside in, this sketch shows the structure of each aperture.

team and specialist lighting consultants and modify the existing SmartSlab technology. Multi-coloured LEDs, manufactured in Hong Kong by Light Engine, proved to be the answer.

"The control system is very similar to the SmartSlab system, where the colour data is distributed to the apertures, they each behave like a giant SmartSlab pixel," says Barker.

A further complication arose – how could a facade that was being used as a digital screen also allow building users to look out during the day?

In order to have a clear and precise image, Jackson realised that the lights used, whether LEDs or fluorescent tubes, would need to be red, green and blue. In addition, he found that colour bleed between adjacent apertures would need to be controlled so that specific colours could be selected, therefore treating each aperture as a pixel in a digital image. "As I thought more about how the images would appear to observers, I realised that maintaining a constant appearance would be difficult," explains Jackson.

"The problem relates to how each aperture is lit and the brightness ratio and contrast found on the inner surfaces of the concrete grid. The position of the lighting and the observer's position relative to the building would all give a different appearance. The structure of the facade is perfect for dividing the pixels, yet it is not so good at providing a common surface upon which the light would be seen. Whether viewing a television, computer monitor or digital display, the image always appears on one common surface, the screen."

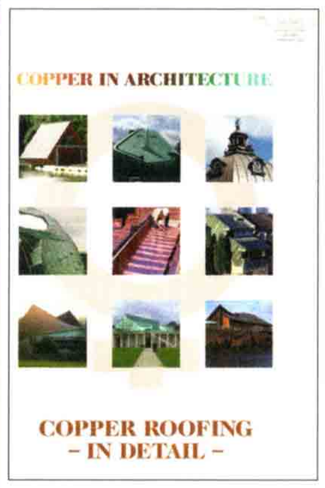
If each aperture was floodlit, a uniform appearance for each pixel would not be achieved, as according to Jackson, people would be viewing a four inner surface within the aperture, from each side, of varying brightness, in addition to the main building facade in the background.

The solution proposed by Jackson came in the form of a silicone-coated fibreglass mesh. This translucent mesh, with its diffusing characteristics, would need to be fixed as close to the outer edge of the concrete aperture as possible to avoid views of the egg-crate structure (see sketch). To understand how it works, Jackson draws a comparison to a net curtain. "When looking out of a window on a bright day, the background brightness of the net is far greater than the foreground, therefore allowing a view out. While at night, when looking out of the window with the internal lights on, the net becomes, in effect, a screen, which we can no longer see through."

While at night, due to the position of the lights, low ambient light levels and high contrast levels will be created and will, insists Jackson, "transform the facade into a giant digital display". But if the facade is to perform to maximum effect, Jackson cautions that internal lighting in the building will need to be switched off or shielded by using blackout blinds.

Each aperture will have a strip of LEDs positioned along the bottom behind the diffuser mesh. Barker anticipates about 75 projecting LEDs per strip, arranged red-green-blue-red-green-blue etc, and in a process similar to mixing paint, more than 4,000 colours will be created.

"It's not such an unusual format to create these colourways," explains Graham Large, director of Lightmatters, who has advised Barker and his team on lighting effects and positioning. "But to use the sort of equipment within such a concise and contained format and on such a massive scale will create an absolutely staggering building."



Copper in Architecture

An essential, new 120 page technical guide, **Copper Roofing – In Detail**, has been published to help architects, contractors and roofers with the design and installation of copper roofing, using today's best practice. Several years in the making, the comprehensive guide is based on the long experience of experts working in the field combined with the modern, established European and British techniques. It also recognises the move towards mechanisation, in line with the Egan ethos. A wide range of roofing situations is covered with sequential drawings to clearly show how each detail is formed, backed-up with explanatory notes and commentaries. Extensive use is made of tables for clear explanation of where particular details, roof pitches and bay widths can be used and in what combinations.

The new document can be previewed on www.cda.org.uk/arch. Available at £25 each, copies can be purchased from Copper Development Association: Tel: 01442 275700; Fax: 01422 275716; E-mail: helpline@copperdev.co.uk

ENTER 4000 ON ENQUIRY CARD

New 'Trimless' fittings – a seamless fusion of lighting and architecture

Selux Lighting are offering architects and designers a radical new opportunity to re-evaluate the way they integrate lighting into buildings and structures, allowing it to become an architectural feature, not just an after effect.

The ability to deploy light sources with absolute minimal interruptions to the ceiling plaster or wall introduces an entirely new concept in design, allowing the creation of perfect, clean edge detailing.

'Trimless' is neat, tidy and seamless, due to the positioning of the luminaire flush with the wall or ceiling. The range features a comprehensive series of state-of-the-art Trimless recessed modules.

Tel: 01926 833 455
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Web: www.selux.co.uk

ENTER 4003 ON ENQUIRY CARD

Altuglas® fluorescent showcased at urban gardens

When Theories Landscapes were looking to create an intriguing display for the second annual Urban Gardens exhibition at Olympia, they decided that a combination of plastic and wood would give them the aesthetic they desired.

Altuglas® Fluorescent Yellow Acrylic sheets – manufactured by Altoglas and supplied by Altumax UK – were combined with Sea Groin timber.

Long strips of Altuglas® Fluorescent Yellow were applied to the internal edges of the 4 supporting columns of the Outdoor Room, while full panels were inserted to form a cross shape in the roof. Thus, from a distance, the display was one of traditional materials, but an altogether more striking design became apparent on approaching.

ENTER 4001 ON ENQUIRY CARD

GEZE in wonderland

The prestigious 120 acre Daresbury Park development in Cheshire is shaping up to be one of the UK's largest business parks, and is expected to house some of the UK's most eminent enterprises. GEZE UK, one of the world's leading manufacturers of window and door control technology, has been carefully selected to supply the eye-catching entrance system to the new building.

Topside Group Ltd, who installed the façade on the new office blocks on plot 1200, were never in doubt that the innovative automatic revolving door TSA 325 from GEZE would be the best choice to welcome visitors into the building overlooking Daresbury village, the birthplace of Lewis Carroll. The cylinder shaped door, serves as an immediate focal point for the remarkable central atrium, creating an inviting and attractive look in line with the rest of the building's sophisticated image. The drum walls are constructed from light metal alloy profiles and form a 30mm thick curved frame, with 65mm top and bottom rails. The curved walls are fitted with aluminium panels and door leaves are glazed in 10 mm green tinted toughened glass.

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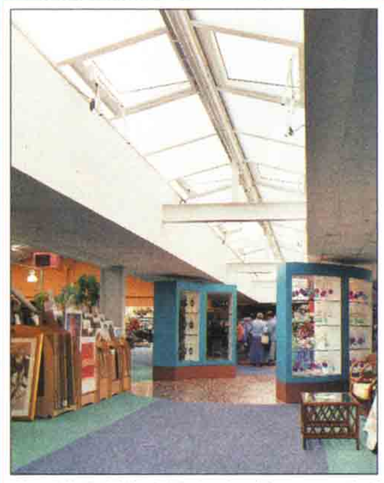

Daylight solutions!

Two of Hartington Conway Daylight Systems most innovative new products, **HeatShield™** site-assembled, low U-value in-plane rooflights and the **Xlok Ultra™** interlocking panel glazing system have been used to provide daylight solutions for the conversion of an old cotton mill into Lancashire Homes & Gardens, Haslingden.

Over 1,600 m^2 of triple skin HeatShield rooflights were installed comprising outer sheets of translucent SafeLight™ (the safest GRP rooflights available) with 1.8 kg/m^2 GRP liners and intermediate sheets to permit high levels of diffused daylight in.

Xlok Ultra (pictured) is an attractive panel glazing system that is specially designed for fast, simple installation with 25mm thick structured polycarbonate glazing panels providing direct light and U-values down to 2.0 W/m^2K.

With the widest range of rooflight options available, Hartington Conway Daylight Systems can provide the ideal solution for every application.

ENTER 4002 ON ENQUIRY CARD

Hot as chilli peppers

The unique Under Ceiling Cassette manufactured by Daikin has been chosen for the Pachanga restaurant in Northampton. In total 6 FUYP71B units connected to RZP71DV condensers using R407C refrigerant were supplied by Space Airconditioning plc and installed by D & S Air Conditioning Ltd, of Northampton.

Darren Scott, sales manager for D & S Air Conditioning Ltd, explains "we were commissioned by the end user to look at air conditioning systems suitable for a restaurant. The main problems we encountered were limited space for the piping of the indoor units and where to site the condensing units. There was also an added problem of no ceiling void. The decision to use Daikin equipment was easy because they were the only manufacturer that offers an Under Ceiling Cassette."

ENTER 4005 ON ENQUIRY CARD