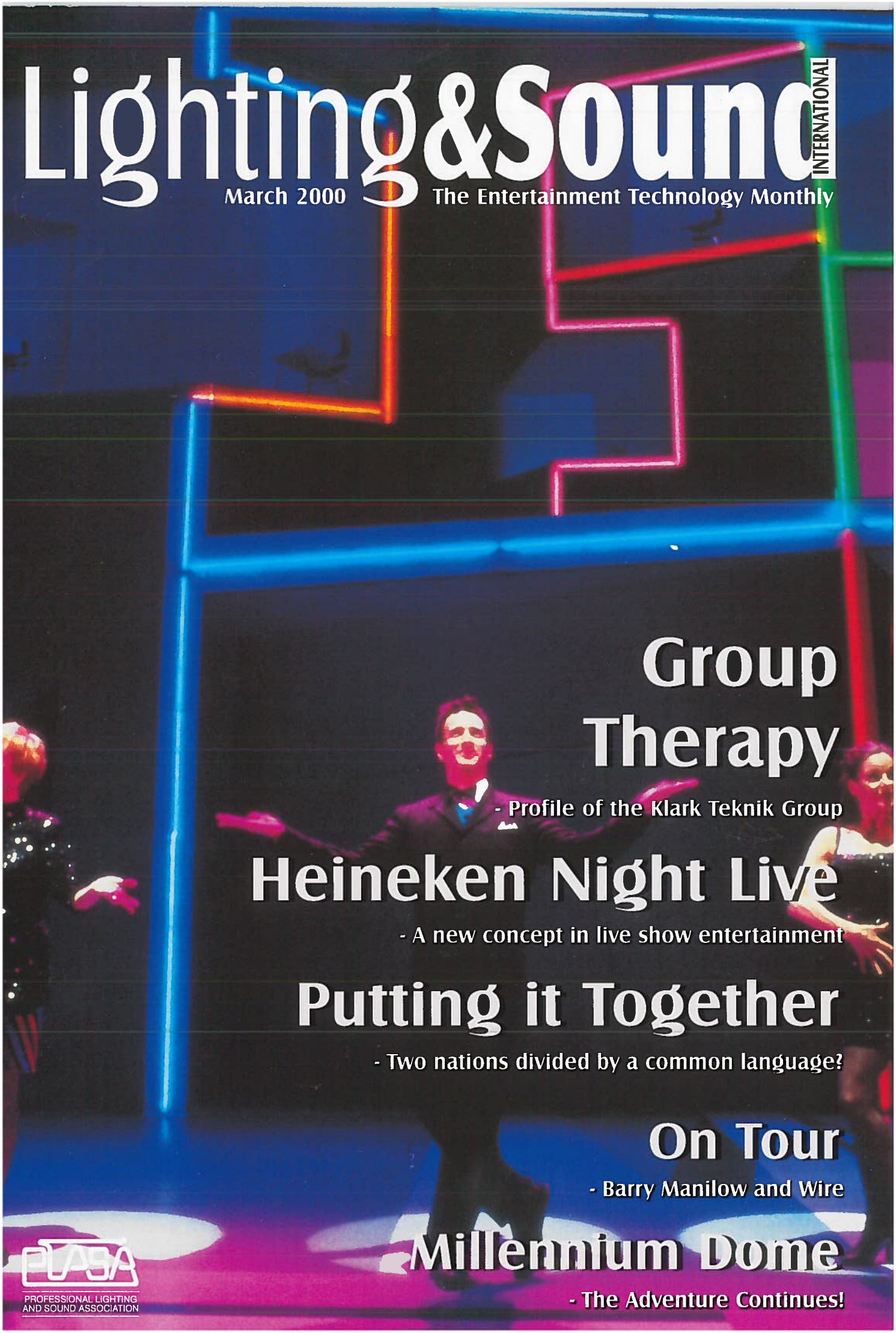
Lighting&Sound INTERNATIONAL

March 2000 The Entertainment Technology Monthly



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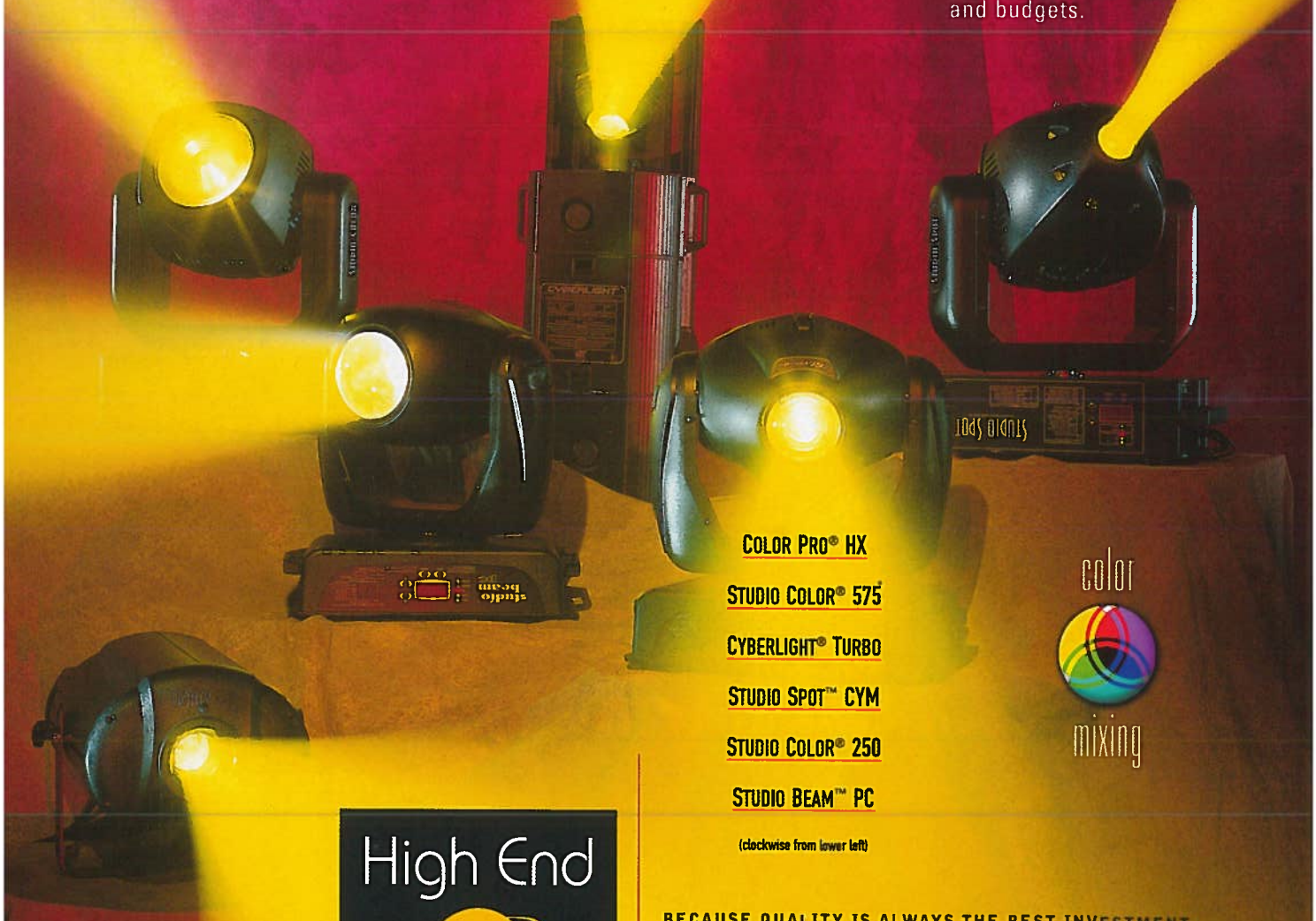

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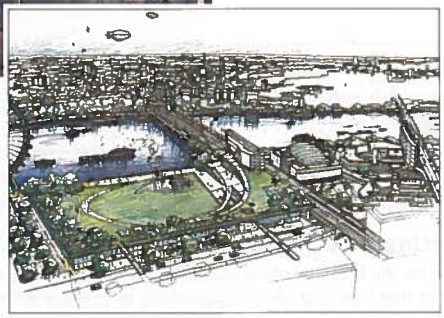
South Bank Unveils Masterplan

World-class arts facilities, with opportunities for striking new architecture and a spectacular riverside park, are proposed in Rick Mather's Masterplan for the South Bank.

The draft plan for the 30-acre South Bank site from County Hall to Waterloo Bridge includes a brand new British Film Institute showcase, the bfi Film Centre, a new concert hall to be built beneath the park and a new performance and conference complex. Improvements to the South Bank will create new and upgraded arts facilities, linked public squares and landscaped green spaces that are open and accessible to all, integrating the arts complex into an exciting new riverside quarter for arts, leisure and the media.

Phase 1 will see a major refurbishment of the Royal Festival Hall. It will include a new home for the Poetry Library and Voice Box, a new lecture and recital hall and improved education facilities, as well as work on the auditorium to upgrade the technical facilities and improve the acoustics. Refurbishment will start in 2001. The total cost of this first phase will be between £40m and £50m. A detailed planning application will be made in the summer for the new building proposed between Hungerford Bridge and the RFH.



Karsten Witt, chief executive of SBC, added: "The centrepiece of the South Bank site is the Royal Festival Hall. In parallel with developing the Masterplan, work will begin in the summer of 2001 to restore the entrances, foyers and terraces whilst improvements are also to be made to the stage and technical facilities.

Phase 2 will address The Jubilee Gardens and Hungerford site and includes extending Jubilee Gardens, by creating a landscaped park stretching from County Hall and the BA London Eye to Hungerford Bridge. Beneath the Hungerford end of the park, a new flexible middle-sized concert hall will be built. This is where the new bfi Film Centre will also be situated. For the first time since its inception in 1933, the bfi will combine all its public activities on one site. The bfi Film Centre will include the National Film Theatre, the Museum of the Moving Image and the bfi National Library.

SBC is planning to locate a multiplex cinema near to the bfi Film Centre. It will also explore the possibility of a further subterranean development under Jubilee Gardens to accommodate the many requests received from other cultural organisations wishing to relocate to the South Bank, such as the National Film and Television School, the Theatre Museum or the Architecture Foundation.

Phase 3 covers The Waterloo Site. The Hayward Gallery is to be retained as a stand-alone building, refurbished and extended within its existing site. The rest of the site offers the opportunity for a new building with improved concert and performance venues. There will be a variety of flexible spaces of different sizes for arts and business purposes including conferences.

Copy Dates for April Issue • Editorial - March 20 • Advertising - March 24

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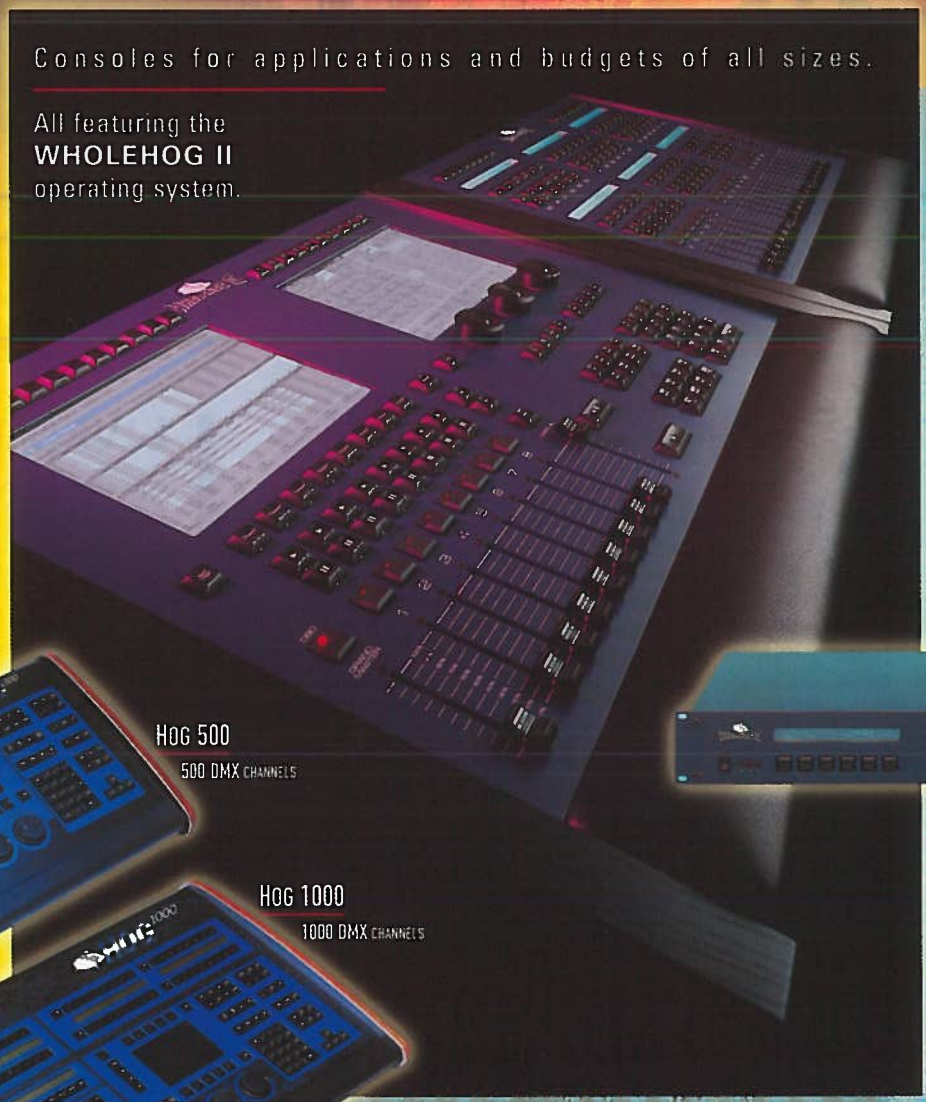

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Live! 2000

The Live! Show enjoyed another successful event at Alexandra Palace in February.

Big-name lighting companies in evidence included **Vari-Lite** (showing the company's latest products including the Virtuoso lighting control console), **Clay Paky & Pulsar** (sponsors of the Live! Show and Awards ceremony), **High End/Flying Pig Systems** (making their first appearance at the Live! Show), **Martin Professional**, **Avolites** and **Bandit Lites** (another first-timer) who sponsored the Show's central Guinness bar. However, in terms of new product launches, this year's show was more noticeable for its audio content, with a number of prominent mixing console manufacturers making major launches into the live arena. These demonstrate just how competitive this area has grown - much to the satisfaction of sound engineers who are being offered increasingly sophisticated tools.

Turning first to **Spirit by Soundcraft**, the new Digital 324 Live desk incorporates the design philosophy and many of the features of the already highly successful Digital 328, but with a number of specialist features designed to provide fast access and editing facilities. These include the Isolate function, which keeps updated or edited channels separate from the stored channel attributes. This is a very compact desk (72cm wide by 54cm deep) and a very flexible one: it includes 16 mic/line inputs plus 16 TDIF digital inputs; AES/EBU and S/PDIF inputs and outputs; four groups and four matrices; and left, right and mono busses.

Yamaha's PM1D is the first totally digital version of the company's popular PM series consoles. It is aimed at live and installed sound applications, and performs all mixing and audio processing functions in the digital domain, with 32-bit internal processing. The CS1D control surface operates the DSP1D digital audio engine, which can be located with the control surface or remoted to any convenient location.

Midas' Heritage 1000 console was being previewed on the **LMC Audio** stand, prior to its official launch at AES in Paris, whilst Klark Teknik showed the sexy-looking DN9848 digital loudspeaker processor. (More on these in our feature on the Klark Teknik Group, beginning page 44).

Allen & Heath gave its flagship live console, the ML5000, its official UK launch, following previews last autumn. The ML5000 is the first of a new generation of performance mixing consoles from A&H, and offers dual functionality for FOH/monitor configuration and eight VCA groups.

Arbiter launched a new digital loudspeaker management system, in the shape of the Driverack from dbx, which Arbiter say is designed to be all you'll ever need between your mixer and your speakers, incorporating graphic EQ, real-time analyzer, parametric EQ, notch filter, alignment delay and comp/limiter functions.

UK distributor **Fuzion** was showing two new products from Crown - the powerful new IQ-USM 810 Digital Mix Processor, and the next generation of the CE range of amplifiers, the CE 4000. The IQ-USM 810 is a PC-controlled DSP device offering high-powered system processing. The CE 4000 amp, meanwhile, delivers 1800W into 2 ohms, 1200W into 4 ohms and 600W into 8 ohms and incorporates Crown's patented Balanced Current Amplifier (BCA) switching technology. Fuzion was also promoting the recently-updated Innova Son Sentury digital mixing console, now available in three formats - Sensory Essential Live, Sensory Digital Live and Sensory Grand Live.

Away from audio, **Compulite**'s UK distributor **Stagetec** joined the **Coe-Tech** stand at the show, and demonstrated the Compulite SparkTOP system. This was the first showing of this compact control system since its final release in December.

Above, the Live Show at Ally Pally and left Live! editor Robin Johnson at the awards ceremony

James Thomas Engineering highlighted its new Moving Light Truss (MLT) designed to house three moving yoke fixtures per section. The company also showed its new PA towers constructed from standard Thomas 30.5cm.

LIVE! Awards

Among the Live! Award winners were:

New Audio Product: Midas Heritage 3000.
New Lighting Product: High End Studio Beam PC.
Lighting Control Desk: Flying Pig WholeHog II.
Staging Innovation: Star Hire Vertech.
Transportation Company: Edwin Shirley.
Set Fabrication Company: Total Fabrications.
PCM Rigger of the Year: Ken Mehmed.
Audio Production Company: SSE Hire.
Lighting Production Company: Neg Earth.
Video Production Company: PSL.
International Production Company: Ampco.
Venue of the Year: Brixton Academy.
Theatre Production of the Year: Stomp '99.
Production Manager: Dick Tee.
Live Video Director: Blue Leach.
Set Designer: Mark Fisher.
Sound Engineer: Ray Furze.
Lighting Designer: Paul Normandale.
Excellence in Training Award: PCM.
Avolites Young Lighting Designer: Dave Gibbon.

Blackout Triple E Goes Forward

Following the recent announcement that Blackout and Triple E are to merge (see last issue), L&SI caught up with David Edelstein and Steve Tuck to talk further about their plans for the new company.

Triple E's David Edelstein (left) and Blackout's Steve Tuck prepare for the merger

The possibility of a merger was first discussed four years ago and in the intervening years, the two companies have increasingly collaborated on projects, to the point where Triple E has recently been using Blackout to handle some of its installation work. Apart from the obvious connection of curtains and track, the companies have many things in common, including a growing order book, strong profiles in the theatre and corporate events sectors and a desire to extend each company's market share.

The immediate plan is to bring the two operations together under one roof, which will facilitate easier handling of projects such as the recent corporate event for Marks & Spencer at the Skyscape on behalf of Jonathon Bicknell Scenery, this month's Brit Awards and acoustic curtains for a large, purpose-built recording studio in Beverly Hills.

In terms of structure, the new company, which officially begins trading on April 1st, will have David Edelstein and Steve Tuck as joint MDs, with Dominic Peissel continuing as MD of the group's Paris company, with Chris Brain and Martin Wood of Blackout joining the board.

The merger ensures that the new company can provide a complete turnkey package of specialised curtains, tracks and hardware, backed by a full rental operation which includes trussing, fibre optics and starcloths, with all the sales supported by Blackout's installation team. As a result, Blackout Triple E should attract bigger projects than either could previously have managed independently.

The merger also gives momentum to a jointly-held ambition to develop a stronger profile in the US, whilst also expanding the markets for a growing product range worldwide. Both companies have witnessed growth in the last few years and with the recent launch of Triple E's interactive CD-Rom providing a further fillip to the sales effort, things bode well for the new company.

FEATURES IN THIS ISSUE

"Doyle reveals that the KT Group is working closely with Telex engineers in Minneapolis - so should we expect revolutionary developments in the near future? "It's no secret that Midas has a digital product lurking," he replies." **Klark Teknik Profile - Mike Mann - p44**

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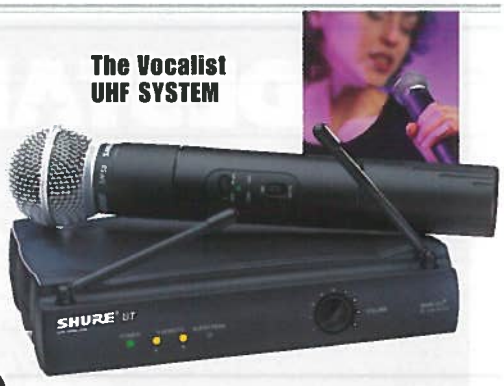
The Vocalist UHF SYSTEM



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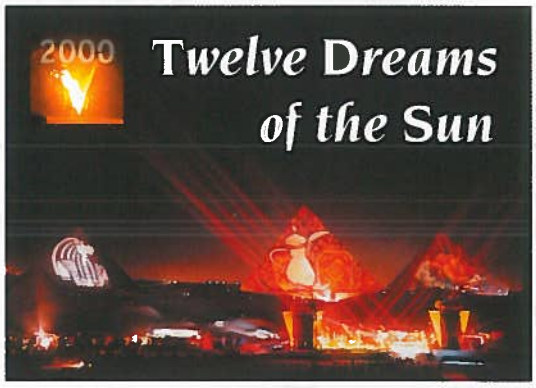
Short of painting Ayers Rock white there's going to be a bit of a problem when Jean Michel Jarre's Trojan horse invades this sacred place in a year or two's time. Something similar confronted lighting designer Gary Westcott when Jarre chose to mark the end of the century from the Pyramids at Giza.



"Mark Fisher and I had been working on this project throughout the preceding 12 months. Despite several advance visits to the pyramids, until we started set-up I was not wholly confident about what I designed." Never having been asked to light several acres of sand and stone before, Westcott did take the considered route. Using the Pantone book for an exact sand-colour match, he set about scouring the vaults of the world's lighting manufacturers: "My goal was to balance levels - relative to the camera - between foreground and background."

In the absence of a commissioned production manager (Roger Abriole eventually took up the job when he completed his commitments to Johnny Halliday), Westcott seized the opportunity and drew up a production schedule himself. Then Jarre went on holiday and when he returned he'd changed his mind. Henceforth, there was to be nothing on stage or above it, that could block the cameras' view between Jarre and the backdrop of the Pyramids. "We had to fiddle quite a lot," was Westcott's demure comment on the impact of this edict. But it didn't end there. When load-in began in late October it was decided that the stage would be widened, by a mere 30 metres each side. "The guys from ESS were in a tricky position, because of shipping time and customs, there was little chance of getting extra staging from the UK. Fortunately, they were able to improvise, borrowing parts of the Aida stage that is in permanent residence on the North side of the Pyramids." As well as a 50 by 35 metre stage and 30 metre ramps each side, ESS built all mixer, camera and projection platforms, but the VIP platforms were provided locally.

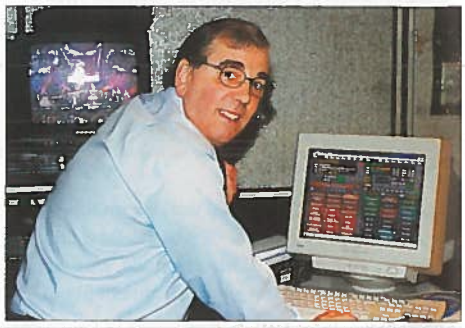
PA was extensive, Clair Brothers Audio providing a main system of S4s hung from ESS's Tower System (20 metres tall, five metres wide) each side of stage, plus delays to cover an audience of some 60,000, plus an astonishing 20,000 VIPs.

Jarre's long-time projection expert Marie-Jeanne Gauthe called in ETC who provided 32 PIGI projectors. Although a heavy fog on the actual night of the concert prevented the live audience seeing much of Gauthe handiwork, the images did read strongly on camera. Westcott, Gauthe, and Mark Jeumot (of La Croix Evenements, who did the pyro), spent considerable time choreographing the interplay between their three elements. "Essentially we conspired to always work with either directly complementary colours, or contrasting. For Marie and I this was fairly easy, but the pyro was more limited in its colour range, hence if you see the video you'll note a preponderance of red and green from them." And were all the presentation efforts rewarded?

"The funny thing is the glory is in the work," said Westcott. "After all the time we spent in preparation, we finally got on site with the Studio Due City Colors (132 of them, a quantity that exhausted the stock of all three French lighting contractors; SPL, Magnum and X&Y). I took one out of its box the night we got there. My first assistant, Andy Doig and I, went and bribed a guard to let us try out positions around the pyramid base. When I finally saw how well they lit that flat, dun, absorbent surface I went to bed and slept really contentedly."

ShowMagic 128

Dial Sound & Lighting has just announced the launch of ShowMagic 128, the latest addition to the ShowMagic range of lighting and sound controllers for the PC. To coincide with the launch, both Dial and distributors Cerebrum ran a series of workshops to introduce the new 128 to a wider audience.



Andy Blackwell in his Bradford showroom running the latest version of ShowMagic

The latest release is an entry-level version of the flagship 512 channel version, and has been developed in response to the demand for a ShowMagic product tailored to smaller projects. The software enables control of all the technical aspects of any performance or presentation from a single PC. With the new version, the 'virtual desk' enables control of up to 128 DMX512 channels and six stereo input audio channels and comes with upgrade versions which feature RS232 control and a seven-day auto-schedule facility.

The new 128 complements the existing 256, 512, 1024, 1536 and 2048 versions. Designed by ACE Visual from Thorn near Doncaster in collaboration with Andy Blackwell at Dial, ShowMagic is going from strength to strength. Not long after its launch in February last year, effects lighting manufacturer Abstract quickly identified its potential and has now developed a customised version to control its range of lighting fixtures. The shows on the Abstract stands at PLASA '99 and LDI '99 were both run using Abstract ShowMagic and now Tracoman in the States and Universal Lighting & Audio in Australia are both carrying the Abstract version, whilst SoundLight in Germany is distributing the original. Elsewhere, the product has found its way into shopping centres, schools, bowling alleys, themed venues and, in one slightly unusual application outside this industry, through a company called SpaceKraft, is being used to show children with special needs how to synchronise sound, images and colour at the touch of a button.

A demo version is available at www.showmagic.net

Avolites Middle East

Tony Shembish, Avolites' long-standing salesman has left the Park Royal-based company to set up as an independent distributor - Avolites Middle East. The move was prompted by the rapidly expanding potential of the Middle East territories, and to take full advantage of the relations Shembish has developed with Avolites specifiers and users in this area. Shembish will have offices in Luton, UK and Beirut in The Lebanon and will be in charge of 20 countries.

Clear Channel and SFX Merger

Clear Channel Communications, Inc and SFX Entertainment, Inc have entered into a definitive merger agreement.

Clear Channel operates 867 radio and 19 television stations in the US reaching over 120 million people weekly. SFX, meanwhile, currently owns or operates 120 live entertainment venues across the US markets and as we reported last year, is establishing a foot-hold in the UK market. In August, it bought the UK's Apollo Leisure Group, which owns 23 theatres across the UK, for around US$254 million. The purchase was SFX's first major investment in UK venues.

The deal is expected to be completed later this year subject to the vote of SFX's stockholders.

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ETC Get Together

On the weekend of February 11-13, nearly 80 people from the international world of lighting descended on the Selsdon Park Hotel, Croydon, for 48 hours of hard work - and some hard play as well!

ETC Europe was hosting a sales and marketing training weekend, attended by over 50 dealers from 19 countries. ETC staff from both the UK and the United States had arranged an intense schedule of seminars, covering not just product, but also system integration and the fundamentals of networking for theatrical and entertainment control systems.

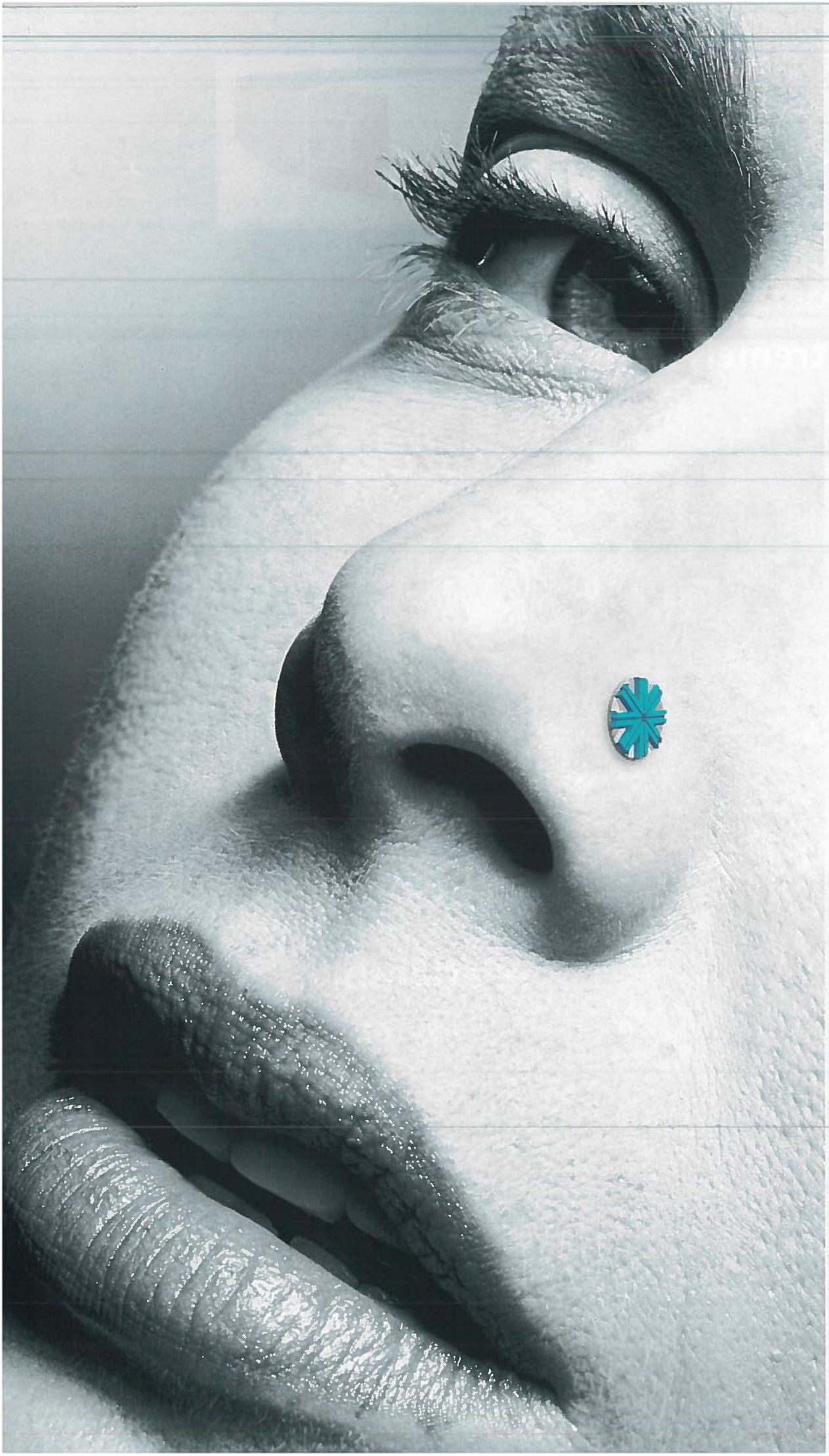
A Walk in the Back Forest

Following a brief, but well-publicised run at the Drury Lane theatre, the latest Celtic foot tapper - Dancing on Dangerous Ground - shifted to the US last month.

Although the show is set to open in New York, at Radio City no less, not all the stages it's booked to visit will be so ample as the Big Apple's 120 feet. There are two major scenic elements that make stage width an important consideration, for this is no ordinary terpsichorean delight; Dancing on Dangerous Ground is a visual presentation to rival the grandest of West End productions. Total Fabrications Ltd were approached by a consortium of Harvey Goldsmith, Ian Allen and Adrian Legget (the show's producers) to come up with a solution to their dilemma. Essentially, they needed a high-tech stage set that combined all the splendour of Tim Hatley's design, yet was tourable, and flexible enough to cope with varying stage widths. "Tim Hatley has won Olivier Awards for his set design," explained TFL's Peter Hind, "so we knew immediately that this would be an interesting project. What we've engineered integrates Hatley's design with the stage lighting (supplied by VLPS) and fits over and around a horseshoe stage built by Tait Towers in the US."

The two big elements are a cross-stage bridge cantilevered off the front of a four-tower ground-supported grid, and a huge forest of trees which fills most of the upstage area. "The tree hanging is impressive," said Hind. "We produced a vertical sub-grid of ladders to which they are attached." No small items, the trees are made by Simon Kerry at Souvenir Scenic and stand eight metres tall. "The header of the ladder arrangement locks into the main grid as it's flown in, and swings into a horizontal attitude, spreading the trees backstage to form a forest covering 64sq.m. All the tree and ladder joints are hinged, so when flown out, the whole affair folds itself down to barely half a metre deep, but when deployed stands four-square."

The bridge, though a simpler affair, still has to rise the full height of the proscenium with up to eight dancers on-board. As such, TFL built stabilising guides into the facade towers that flank the stage to smooth the travel, and brought in frequent collaborators Unusual Rigging to provide a wire winch system which features soft start and stop, as well as fulfilling all safety requirements. "We made the whole thing very practical and adjustable," explained TFL's MD Chris Cronin. "Wherever possible, we've fabricated these special pieces using stock items as the major components, such as our Light Duty truss for the bridge spans. Even the big seven metre tall scenic flats we've built top hang off the grid, which again is our standard Heavy Duty truss supported on TFL 18" towers. Modularity of design means the grid, bridge and forest can all be adjusted to fit a variety of stage widths."



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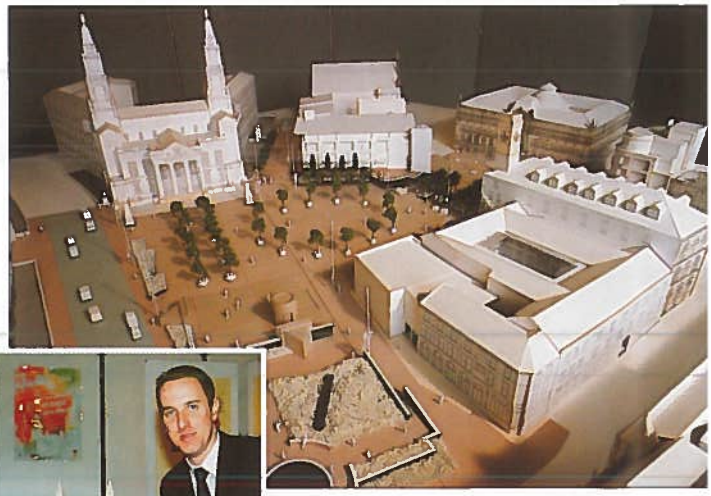
Millennium Square Preview

The plans for Millennium Square, Leeds, destined to become one of Europe's most innovative city centre event spaces was recently unveiled.



Above, Millennium Square
Inset, Patrick Loy of Leeds City Council

The £12m project, funded by the Millennium Commission and Leeds City Council, is due to open in October 2000 and has been designed and built with the event promoter and manager in mind, with services and infrastructure incorporated into the design.

Set to become one of Europe's most impressive civic spaces, the Square has a capacity of 2,000 seated, 5,000 standing and up to 20,000 for free events. Millennium Square will play host to a year-round programme of events and festivals commencing with the UK premiere performance of a major piece of outdoor theatre in October 2000. Other events likely to feature include an outdoor ice rink, Christmas markets and a summer concert season.

The square will also play host to a number of existing Leeds events including Rhythms of the City, along with commercial activity such as product launches, roadshows and sampling promotions.

ABTT 2000

The Association of British Theatre Technicians (ABTT) will be holding its 22nd annual Trade Show for theatre equipment and supplies at the Royal Horticultural Hall 2, Greycoat Street, London SW1 on Wednesday 5th and Thursday 6th April 2000.

Application forms for complimentary tickets are now available from the ABTT office. L&SI will, as usual, bring you all the news from the show floor in the May issue.

ABTT (UK) - + 44 020 7403 3778

FEATURES IN THIS ISSUE

"What was interesting about that time wasn't so much the way the rehearsal process went, which wasn't that different on the other side of the Atlantic (apart from generally being noisier - and being worse for the waistline), but about the completely different way that theatre is perceived in the Big Apple."

The winner is... Stage Line

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PROFESSIONAL SHOW LIGHTING

News Round-Up

ADS Classroom Aid

Audio Design Services has introduced a Solid State Language Laboratory system that will, say the company, provide great benefits for teaching, particularly in the field of language learning.

Following two years of close liaison with schools and colleges, the company has developed an enhanced memory personal computer system that enables hundreds of hours of lessons to be stored on the hard disk at the start of term. Any lesson can then be 'dragged' down to any student's workstation by using the mouse, and the student then has all the facilities offered by traditional audio cassettes. As lessons are downloaded individually, a single class can provide as many lessons as there are students, with each having the facility to record answers directly onto the hard disk for the teacher to download at the end of the lesson.

ADS (UK) - +44 161 66 66 363

Vari-Lite's Theme Park Sales

Vari-Lite Inc is expanding its new direct-sales product line into the amusement park industry. Feedback from theme park owners and operators has led to the introduction of the new Vari-Lite VL2400 Series luminaires and the VL2201 spot luminaire. Vari-Lite's Rusty Brutsché told L&SI: "Unlike our traditional clients, theme parks have entertainment production needs centred around the long-term use of equipment. The purchase and installation of Vari-Lite's new automated lighting products will provide all the features and capabilities of our specialised proprietary products."

Dome Shortlist Surprises

Despite the proliferation of cartoons touting 101 uses for a Dome, a shortlist of just six proposals, whittled down from over 70 applications, has been put forward for the Dome in 2001.

The six are varied to say the least. The Tussauds Group, working with McAlpine, have put forward a scheme for **Greenwich Media World**, a visitor attraction, which will retain some elements of the 14 feature zones, but will extend the theme to focus on the British film and television industry. A theme park to rival the likes of EuroDisney and Universal Studios is the brainchild of a consortium led by MEPC and Monex. The consortium's **City of the Future** will feature a theme park within which will be the largest covered waterpark in Europe complemented by a series of multi-media attractions. It will also play host include flats, hotels, a retail centre and a science park. **Dome Europe**, put forward by the Principal Finance Group of Nomura, doesn't stray too far from the current styling of the Dome and promises to enhance the more successful parts of the Dome and rethink those which have proved less popular. The scheme would also include an expanded retail element.

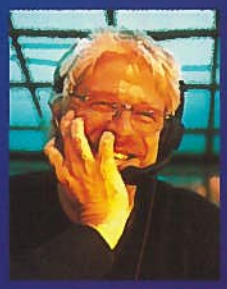
The remaining three schemes are **Sports Dome 2001** which will convert the Dome into a sports facility; **Legacy**, a technology centre, and an **International Merchandise and Cultural Centre**. A final decision is expected by early summer.

rosco

Designers on Colour

Totalisant 60 années de métier à eux deux, Christian Brean et Jacques Rouveyrollis, ces deux grands complices, ont bourlingué a travers le monde pour apporter leur touché de la lumière à la Française. Ils ont ainsi éclairé des Opéras, des Ballets, des scènes de Music-Hall, des Evènements, du Sport-Spectacle, des pièces de Théatre. Le monde de la Télévision comme celui de la Vidéo ne leur sont pas étrangers non plus. Au-dela des grandes productions pour lesquelles ils sont si souvent appelés, ils aiment apporter leur experience à des spectacles peut être moins prestigieux mais tout aussi intéressants.

Gianni Mantovanini nato a Milano, dal 1963 al "Teatro alla Scala". Nel 1975 firmo per la prima volta le luci di uno spettacolo messo in scena nella allora "Piccola Scala", dove dal '75 all'80 ho svolto il ruolo di Lighting Designer. Nel 1981 passo a collaborare alle produzioni del "Teatro alla Scala", affiancando il lighting designer e mio maestro Vanio Vanni, assumendone il ruolo nel 1991.



Max Keller hat sich in Deutschland stark für den Beruf des Lichtgestalters eingesetzt. Mit seiner Bildersprache, die sich vor allem in einer Kombination von Lichtquellen mit unterschiedlichen Farbtemperaturen vermittelt, prägt er die Aussagekraft des dramaturgischen Lichts. Er entwickelte seine Lichtgestaltungen für das Schauspiel an den Münchner Kammerspielen, aber auch für Opern an anderen Bühnen, vor allem in Europa. Als Autor des einzigen deutschsprachigen Fachbuches über Lichtgestaltung im Theater trug er viel dafür bei, dass die Arbeit mit Licht stärker als künstlerisches Gestaltungsmittel akzeptiert wurde.

rosco

The first choice for colour - in any language

Hans-Åke Sjöquist has worked as a lighting designer in his native Sweden for almost 30 years. From 1978-79 he studied in the USA at the Yale University School of Drama. He worked at the Royal Opera House in Stockholm for six years as Resident Lighting Designer from 1980 to 1986, lighting over 20 major productions during this period.

For the past 13 years he has run his own lighting consultant company, Candela Design Limited, designing numerous drama, musical and opera productions in Scandinavia and throughout Europe. Mr Sjöquist also designs architectural lighting for indoor and outdoor environments and has just lit two major permanent exhibitions at "The Museum of Natural History" in Stockholm, introducing the largest fibre optics installations ever made in Scandinavia.

Widely regarded as the dean of lighting designers for both the West End and Broadway, Richard Pilbrow also heads Theatre Projects Consultants. His second book "Stage Lighting Design - The Art, The Craft, The Life" was named LDI Product of the Year. "When I began lighting only about fifty shades of Cinemoid were available. I often used them two and three to a frame seeking new possibilities. Then I discovered Rosco and first brought this wonderful range to Britain. Now the possibilities are almost limitless. Colour brings life, texture and vibrancy to the stage. I love it."

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Kennedy Space Center

The Kennedy Space Center at Cape Canaveral, Florida, is the home to two new exhibits.

Opened in February of this year, the exhibits 'Early Space Exploration' and 'Exploration in the New Millennium' represent the work of a number of US firms, including Idletime Network of Orlando, Jack Rouse Associates of Cincinnati and Soundelux Showorks, also based in Orlando.

The 8,000sq.ft Exploration in the New Millennium is designed to stimulate interest in the future of the space programme. It contains an 80-seat theatre that polls visitors on their views on the space programme and features a JVC C-15 rear screen projector. The exhibit also features a number of interactive elements, as well as a video show entitled 'SpaceRace 3000, 'that uses two 40" plasma screens and a JVC G1000 projector to take guests on an informative race in space.

The exhibit takes visitors through the cosmos in the Exploration Gallery, an area that makes use of three JVC G1000 video projectors sync'd together to produce a continuous picture. Sound comes from 70v RCF S4T loudspeakers, with amplification from Crown. "They're an efficient speaker," comments Soundelux Showorks project manager/design engineer Tom Swetitsch of the S4Ts. "In fact, I've used them many times around the world." The show uses about 24 channels of audio, which are mixed in mono. Rather than using a small number of large cabinets, Swetitsch takes a different approach. "We tried to put a larger quantity of small speakers in," he explains. "If you put a smaller box in with a 5" driver, you can contain the audio better." The exhibit also employs a Peavey MediaMatrix system for audio processing.

The 6,000sq.ft Early Space Exploration exhibit features the history of space exploration and includes the Hall of Discovery, the Time Tunnel and the Hall of History. This is a simpler project in terms of audio, encompassing six zones. The high point of the exhibit is the Mercury Mission Control Room, which is introduced through a pre-show in the Time Tunnel.

Sharon Stancavage

Stage Electrics' City Presence

Stage Electrics is to open a London branch in June 2000.

The company, which has a head office in Bristol, with branches in Birmingham, Exeter, Plymouth and the NEC and sister companies in Cambridge and Cardiff, has signed an agreement to rent space from DHA at its Waterloo Road offices. The agreement is purely on a rental basis with both businesses continuing to operate separately.

To support clients from the theatrical and events industries, the branch will offer sales of consumables to the West End for same day delivery. It will also offer a comprehensive demonstration suite for main line products. In addition, a tailored range of service exchange stock will be available for Stage Electrics long-term hire and live events clients.

The office will also include a WYSIWYG-based virtual lighting studio, in association with lighting designer Durham Marenghi. This will save clients pre-production time on site, as well as providing a valuable tool for lighting designers and production companies. A new 'drop-in' café area completes the facility, providing a meeting area for clients.

From DHA's perspective there will be an opportunity to exhibit a wider range of market products in addition to its own Digital Light Curtains, moving effects and fibre optics and initial ideas for the demonstration area detail a perfect environment for demonstrating gobo and effects projection. The move also enables DHA to bring forward its programme of premises improvements.

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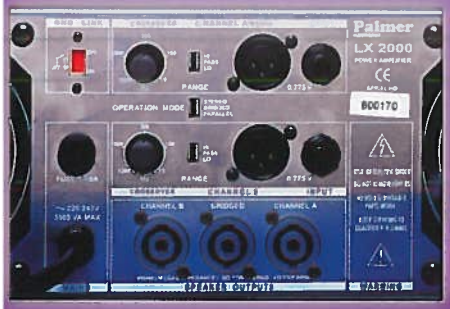

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RCF Celebrates 50th Anniversary

Italian loudspeaker manufacturer RCF celebrated its 50th anniversary in January, with a special party for its 250+ staff and guests at the company's factory in Reggio Emilia.

RCF's Phil Price (right) with Tony Williams (left) and Jamie Engen (centre) of Mackie

Coming some 18 months after the acquisition of RCF by Seattle-based Mackie Designs, the event gave clear sign of Mackie's commitment to the company and also of the excellent relationship that has developed.

Many of Mackie's top executives flew in to join the party. Highlights of the day included a very well-received short film which conveyed the 'Buon Anniversario' message to all at RCF from Mackie headquarters, and an equally well-received turn on the dance floor by Greg Mackie. There was no secret made of the fact that a previous celebration immediately following the acquisition had been a far more subdued affair: this time around, however, with increased production and a very positive future, the atmosphere was very different - nobody who saw Greg Mackie being mobbed and kissed by dozens of enthusiastic young RCF revellers could doubt that morale is running high.

The combination of Mackie's audio electronics expertise and RCF's strengths in the design and manufacture of professional drivers and enclosures has proved a powerful match. Loudspeaker production in Reggio Emilia has increased by an estimated 20-25% since the incorporation of Mackie-branded speaker products into the range, and the increasing global presence of Mackie - along with the success of products such as the Digital 8 Buss (d8b) console, points to continued success for the future.

L-Acoustics Opens UK Sales/Rental Company

Paris-based loudspeaker manufacturer L-Acoustics has restructured its UK sales and rental activities. V-Dosc Rentals UK has been renamed L-Acoustics UK and will continue renting the V-Dosc and dV-Dosc systems.

The major change is the incorporation into L-Acoustics UK of the sales and technical support for all L-Acoustics products, thereby focusing the two distinct business activities under one roof. All sales products will supplied direct from Paris, including the purchase of V-Dosc and dV-Dosc for permanent installations. L-Acoustics UK will be managed by Paul Nicholson, with responsibility for both sales and rental activities.

FEATURES IN THIS ISSUE

"I just hope that in all the song and dance about Sloane Square, we won't lose sight of those 50 theatres outside London, or that one theatre at the other end of the road, where there is also good, if not quite so fashionable theatre."

Ian Herbert - Asleep Again - page 60

China in Britain Day

An authentic Chinese tea room of the 19th century, a spectacular laser show from the 21st and a live transmission from China Central Television were part of China in Britain Day held on the eve of the Chinese New Year.

Companies, community groups and artists from across the UK participated in the event which took place at the Grosvenor House Hotel in London. Launched in September 1999 with the official imprimatur of the Chinese Embassy, the China in Britain Campaign promotes grass roots projects which generate understanding and co-operation between people and institutions in the UK and China. The Display ran in tandem with the annual Chinese New Year Lunch of London Export Ltd, supported by the 48 Group Club, whose long-standing ties to China date from 1952. Attending the event were 500 key decision makers in the field of Sino-British trade and diplomacy. Keynote speakers included Chinese Ambassador Ma Zhengang, Lord Chancellor Derry Irvine and former Deputy Prime Minister Michael Heseltine.

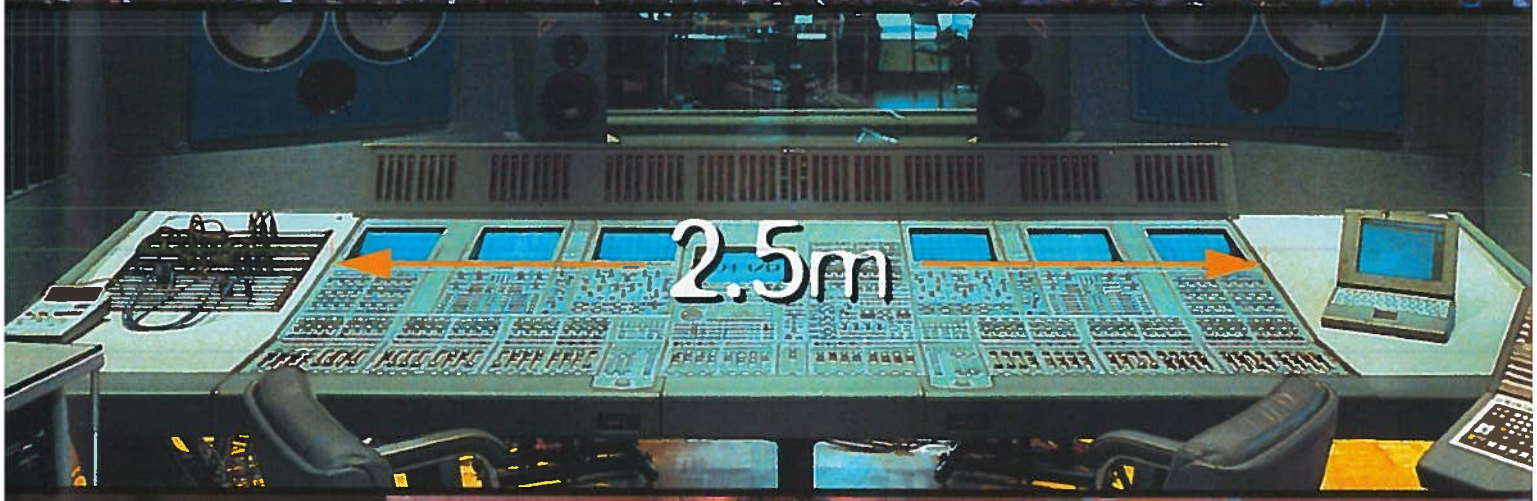
From left to right: Marcus Bernie (Clarion Events Ltd/PLASA Shanghai), Roland Connor (LCI), Brenda Dunsire (ADB/LSI) and Simon Jones (Chinese Marketing & Communications)

The Display, organised by Chinese Marketing and Communications, in conjunction with the Cultural Office of the Chinese Embassy, was taken from concept to reality in little more than a month thanks to key input from Clarion Events (organisers of the PLASA Show and PLASA Shanghai), LCI (Laser Creations International), LSI Projects - ADB (creative lighting) and China Gateway North West. Pulsar Lighting and DHA also lent their support to the project.

High Court for Console Dispute

A further day in High Court has been scheduled this month for the case between Paul Madden (Intimate Studios) and GLW (the manufacturer of Harrison recording consoles).

The hearing will address the claim for £400,000 against GLW in regard to the alleged failure of the Series Twelve Music console, which was installed at Intimate Studios in London, to perform acceptably and the termination of an associated marketing contract. It will also consider if it would be best heard in the USA. GLW's contention is that Intimate Studios' Paul Madden obtained the console in the full knowledge that the Series Twelve as configured for music was in development, therefore any terms in regard to 'fit for purpose' did not apply to this sale. Further action is being undertaken by the finance company who purchased the console from GLW in 1995.



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AES Paris 2000

The newly-refurbished Palais des Congres in Paris was the venue for the 108th AES Convention which took place from 19-22 February and featured extensive workshops, paper presentations and special events, alongside a pro audio show featuring over 300 exhibitors.

Top, new members of the Beyerdynamic GmbH team - Karl Arnold (left) and Hartmut Reichert. Centre, Meyer Sound Labs' Tim Chapman with the new QuickFly rigging system

While the majority of the new products and updates on show addressed the recording, broadcast and rapidly-developing multi-media market sectors, there was a fair spread of products of interest to the live sound and installation sectors. One did, however, get the feeling that many manufacturers are keeping their powder dry for Frankfurt (16-20 April).

Klark Teknik kicked off proceedings in style, opting to launch the new Midas Heritage 1000 console with a presentation on the first floor of the Eiffel Tower. Features of the compact 1000 include a high number of outputs accessed via simple routing with comprehensive monitoring facilities. All routing may be automated, either via VCAs auxiliaries or audio subgroups. Also making its European debut was Klark Teknik's DN9848 loudspeaker management system.

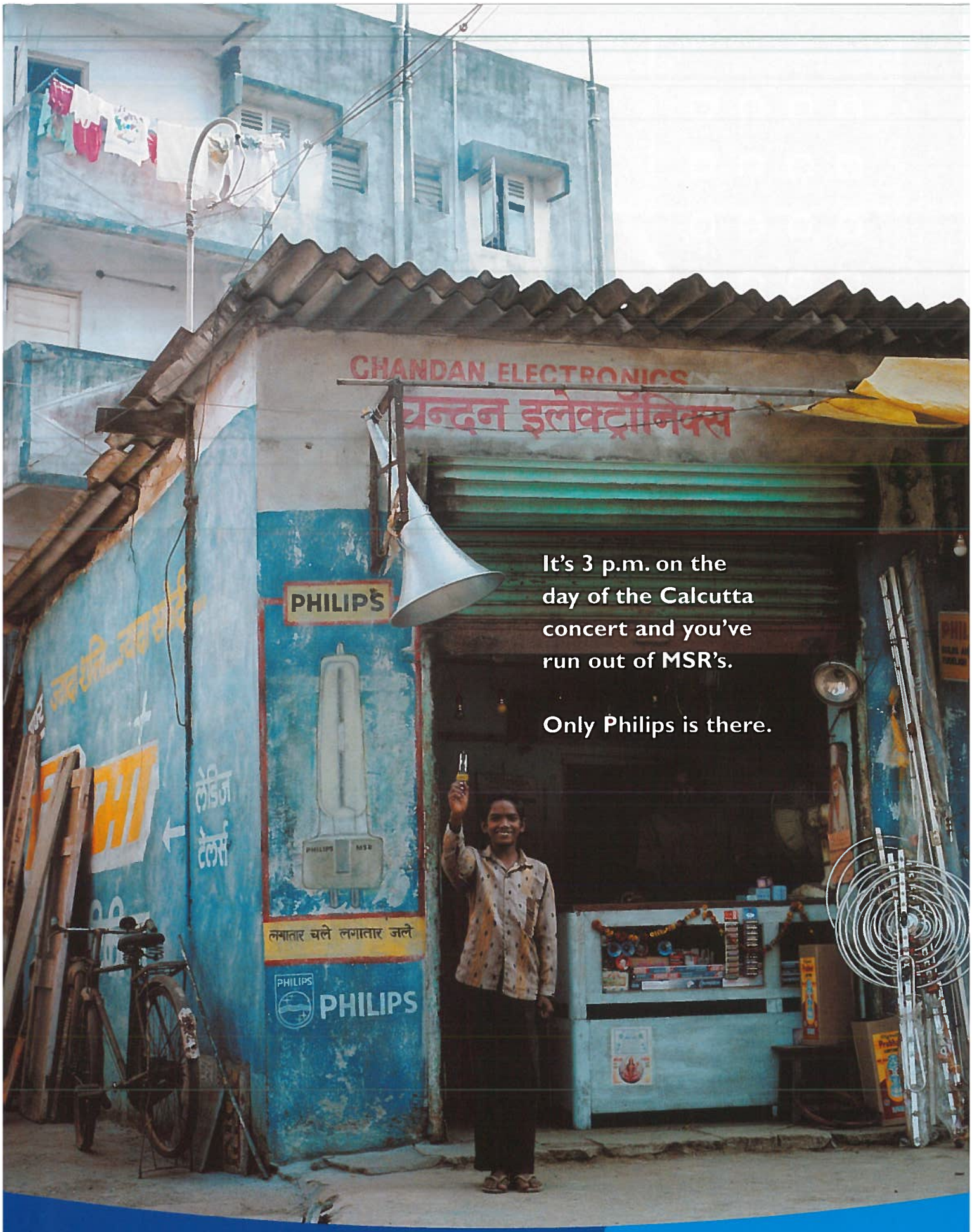
Cadac showed its full range of mixing consoles and also its Remote Microphone Amplifier/ Splitter system. **Allen & Heath** majored on its ML5000 live console which is a VCA-equipped, 16 aux, eight audio group mixer with eight mute groups, matrix and enhanced LCR and IEM facilities. It can be expanded with up to two 24-channel sidecars. **Yamaha**'s PM1D live sound production console was shown for the first time in Europe. It uses 32-bit processing with the CS1D control surface operating the DSP1D digital audio engine.

On the loudspeaker front, there was a number of notable absentees - unsurprising since this convention was scheduled just eight months after the last European AES and a matter of weeks after NAMM in the US. However, **Martin Audio** reported steady levels of interest in its established product lines (new products are scheduled for Frankfurt), while **Duran Audio**'s AXYS Intellivox series and Intellivox 1608 were popular draws. **L-Acoustics** showed the final version of its dV-DOSC product. **JBL**, while concentrating on its LSR 25P monitoring system, confirmed a number of sales of its Venue series.

Beyerdynamic had new components for the MCW conference system, with new general manager Dr Karl Arnold promising product and organisational announcements in the near future. **Sennheiser** introduced the Evolution wireless UHF series, and Neumann marked its move into the live performance mic sector with the super-cardioid KMS 105 model.

I'll leave the final words to AES president David Robinson: "Even the most wise visionary in 1900 would not have been able to conceive of most of the technical innovations we have seen; how much more impossible to foresee the changes that will happen in this next century? Only one concept is true - we will always want to listen to and make music, and to communicate with one another. There will always be audio engineers."

Jim Evans



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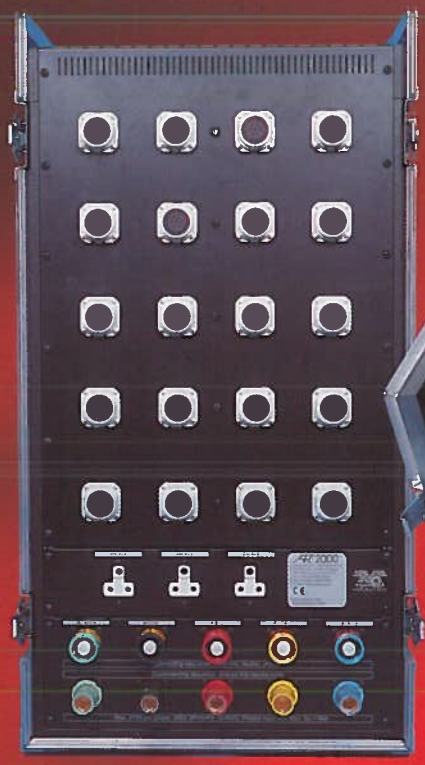

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People News

Following the departure of Tony Shembish to set up Avolites Middle East, the company has expanded its UK-based sales team. **Beverley Robinson** has moved into sales full time. She has been with the company for four years and will be concentrating in sales to the club market. **John Snelling**, a graduate in Lighting Design from Rose Bruford College, joins the team and will specialise in the theatre market. **Koy Neminathan**, a graduate from University of Hertfordshire, also joins the team and will have special responsibilities in the film and television market.

Tony Shembish (left) lines up with the new Avolites sales team

AC Lighting has announced a number of staff promotions, including two new additions to its board of directors. **Murray Gellatly** has taken on the role of financial director, whilst **Glyn O'Donoghue** becomes marketing director. Gellatly has been involved with AC since the early 1970s and has been its full time financial controller since 1993. O'Donoghue has been with AC Lighting for over eight years and has been a key member of the marketing team. In a further promotion, **Kevin Coker** takes on the position of UK sales manager.

After eight years, first as engineering director and latterly as general manager with Mitsubishi Electric's PC Division in Glenrothes, **Bill Campbell** has left to take up a similar position at Strand Lighting in Kirkcaldy. He will be overseeing a vigorous R&D programme in both Strand's digital desk and dimmer products.

Mackie Designs has appointed **John 'Bruno' Wayte** as cinema product manager. Wayte has spent the last nine months with the Mackie-owned speaker manufacturer RCF, where he worked on the development of cinema sound systems.

Stephen Phillips has joined Martin Professional UK as the company's new Architectural segment manager. His new role will be to manage and develop Martin's business for the architectural markets in the UK. Martin UK has also appointed **David Martin** as its new club sales executive. Martin has worked in the technical side of the club industry for five years, working with names such as Zen, Palladium and Stringfellows.

Ben Sullivan has left Spot Co after 11 years with the company. In the short term, Sullivan plans to take a long holiday, before spending some time in Australia, which will include working on the Olympics in Sydney.

As a result of Trantec's revision of its sales and marketing strategy, **Steve Bickford** has been appointed to the newly-created role of export manager. The move marks a milestone for Trantec, whose products have hitherto been confined to the UK only as a result of an exclusive licensing agreement overseas.

Find out who else is on the move by checking in to www.plasa.org/news

OPTI has appointed **David Naylor** as regional sales manager for the sales and marketing of OPTI Kinetics effects lighting equipment and OPTI Trilitesystems. Naylor will have responsibility for UK North and the retail sector of business.

NXT has appointed **David Pearson** as chief executive of the Group. He will join the board on March 1. Pearson is an Oxford law graduate and began his career with Proctor & Gamble, subsequently holding senior management positions at Mars and more recently at Sony UK.

Vari-Lite has appointed **Geralyn Harvey** as marketing manager. Harvey, a 13-year marketing veteran, most recently with Canadian firm Milltronics, will oversee all advertising, promotion, public relations and trade show activities for the company.

James Thomas Engineering has expanded its Special Projects team with the appointment of **Paul Young**. Young has been with the company for seven years during which time he has worked within various aspects of the company's production processes.

PROFESSIONAL LIGHTING AND SOUND ASSOCIATION

Association NEWS

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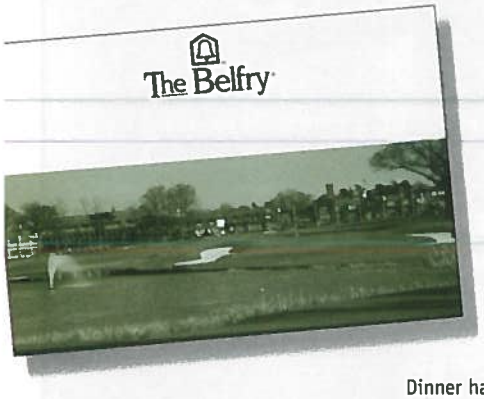
PLASA AGM/INDUSTRY DINNER

PLASA has announced plans for its 2000 Annual General Meeting and Industry Dinner. This year, the event moves to The Belfry, near Birmingham.



For the first time, the AGM and dinner will take place on the same day - Thursday 15th June - with the AGM in the afternoon, followed by the evening dinner. This new format has been implemented to address members' concerns about taking two days out of the office, only to face an often difficult return journey on the Friday afternoon.

Also for the first time, PLASA is offering all members two dinner tickets for the price of one if they book early for the event.

Previous guest speakers at the PLASA Industry Dinner have included Richard Noble and Sir Ranulph Fiennes, and the guest speaker for this year's dinner will be announced shortly. We would again like to encourage all members to make the effort to attend this important event.

How it ALL BEGAN

At the end of last year, PLASA formalised its ambition to produce a documented history of the industry by commissioning journalist Jerry Gilbert to perform the almost impossible task of getting it all down on paper.

Following months of research, the first chapters are now written; these chart the emergence of the industry, including the formation of the British Association of Discotheque Equipment Manufacturers (BADEM), the pioneering work of companies such as Pulsar, Meteor, Optikinetics and Cerebrum, the influence that people such as Roger Squires, Ben Cree and Tony Gottelier had on the industry and, of course, the predecessor to the PLASA Show - Discotek 77 at the Bloomsbury Centre Hotel.

We are now in the process of collating photographs, visuals, historical documentation and if you can bear the journey to the attic, we would like to hear from anyone who feels they could contribute material to the project.

PLASA Yearbook

The 2000 edition of the PLASA Yearbook is now out and, in addition to being mailed with the February issue of L&SI, is also being sent to all British embassies worldwide, as well as being distributed from PLASA stands at trade shows where the Association exhibits.

The yearbooks lists all PLASA members and offers a brief company profile, together with detailed indexes which should help Yearbook users identify a particular company for a particular product or service. If you would like a copy, call the PLASA number below.

Theatrical LONDON

Preparations are now well underway for this year's Theatrical London event which will run directly after the PLASA Show in London from the 13th through to 15th September.

Although certain parts of the programme are still to be finalised, shows already booked include The Lion King at the Lyceum Theatre and the Witches of Eastwick at the Theatre Royal, Drury Lane. As with previous events, Theatrical London will include a number of backstage visits to venues of interest to this industry. Full details next issue.

THEATRICAL LONDON
Setting the Scene

New MEMBERS

The following Companies have recently joined PLASA.

THE CUSTOM GROUP LTD
(trading as Custom Theatre Services)
Manufacturer of stage curtains and lighting, and a designer/installer of stage equipment.

OPAL AUDIO VERTRIEB GMBH
Founded in 1989 in Germany to develop and manufacture sound reinforcement systems.

AB SVENSKA INTERLITE GRUPPEN
Founded in 1993, a Swedish company; importer, exporter and distributor for many companies including several PLASA members.

PLASA ELECTRONIC News

Traffic visiting the PLASA Electronic News website continues to grow, with a record 6,500 individual page requests made during January 2000 and rising.

The site, which is updated daily with the latest industry news, also now offers free weekly e-mail updates of all the headlines featured on the site. PLASA members are now automatically receiving the weekly headline updates, and further subscriptions are received via the website on a daily basis. Over the few short months of its existence, the PLASA Electronic News website has regularly been first with the big stories - providing the most up-to-date and comprehensive news service available.

Visit: www.plasa.org/news/

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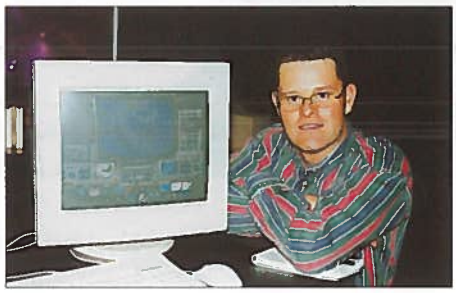
Siel's Spring Showcase

Just under 300 exhibitors decamped to the Porte de Versailles in Paris in early February to take part in the annual Siel show. Business appeared brisk on the show floor - no doubt fuelled by the fact that the visitor count stretched to 24,356 - a tally any international trade show would be glad to put its name to.



Simon Curtis with Denon's Motion Dive system

SIEL still has some way to go to shake off its reputation for being a national show (the majority of visitors were from France with less than 6% making the journey from overseas), but in recent years, organisers Reed-OIP have been working hard to strengthen the show's international credentials and, visitor profile aside, the measures seem to be working. Great Britain followed in the footsteps of Spain and Italy by being this year's Country of Honour and as we reported in last month's issue, the UK's Minister for Trade & Industry - Richard Caborn MP - visited the show. Accompanied by PLASA MD Matthew Griffiths, he met with most of the UK companies and PLASA members in attendance.

Reed-OIP have also taken steps to address the slightly hybrid and sometimes confusing nature of the show: having previously mixed both the theatre and nightclub industries together, everything theatre-related was confined to one hall whilst everything nightclub-related was siphoned into the adjoining one. Running alongside the trade show was a revitalised programme of events, conferences and workshops targeting every sector of the industry and a number of special features including a Net Forum, the Picardie Village and a Careers Centre.

Above, Richard Caborn MP (centre) talks with PLASA MD Matthew Griffiths (left) and Ken Achard of Peavey.

Left, Rocco Borghese of Futuraneon, whose line of Rox-Plasma, launched at PLASA 99 has now been supplemented by a new range of Picasso and Matisse-style pictures clad in neon

Scanning the show floor for genuinely new product wasn't that rewarding. Presumably because the proliferation of international trade shows that brought last year to a close and those still to come, means that companies have either launched at PLASA or LDI or are keeping their powder dry for Rimini and Frankfurt. However, Siel did have one or two technical aces up its sleeve.

Many of the major new audio products were having parallel launches at Live in London and AES, also in Paris and are featured elsewhere in this issue.

In terms of intelligent lighting and its devotees, all the major manufacturers were represented: **Martin Professional** was showing its new MiniMac range, **Clay Paky**, who have recently completed a major install at the Moulin Rouge (more on this in a

future issue), had the StageLine range, whilst **Pulsar** announced that the Demon Strobe, first seen at PLASA is now shipping. **Griven** was giving a French airing to its Acrobat, first seen at PLASA, plus another growing trend - illuminated balloons - whilst **Coemar**, who recently appointed Sonoss as its French distributor, was showing prototypes of its new CF7WZ and CF7HE automated luminaires. **Chameleon**, meanwhile, hinted that a new version of the Telescan Mark V projector with moving mirror is in the pipeline.

Above, Clay Paky and Pulsar always have a strong presence at the show - Enrico Caironi and Pasquali Quadri from CP are pictured with Isabelle Reyne and Xavier Drouet of Impact Diffusion with Pulsar's Andy Graves (right)

Denon had a brace of new technology; the DNI800F, to be released shortly, is a reworked version of the DN2000 and whilst it's cheaper in price, it certainly isn't on features and actually has more to offer than its big brother. The DN2600 is the replacement for the DN2500 and it too boasts a number of new features. However, of most interest was Denon's new Motion Dive software - not unique by any means - but it does offer the DJ a very tactile, user-friendly mixer and who knows where the applications for this might take it.

Strand's new 300 series is introduced to the French market

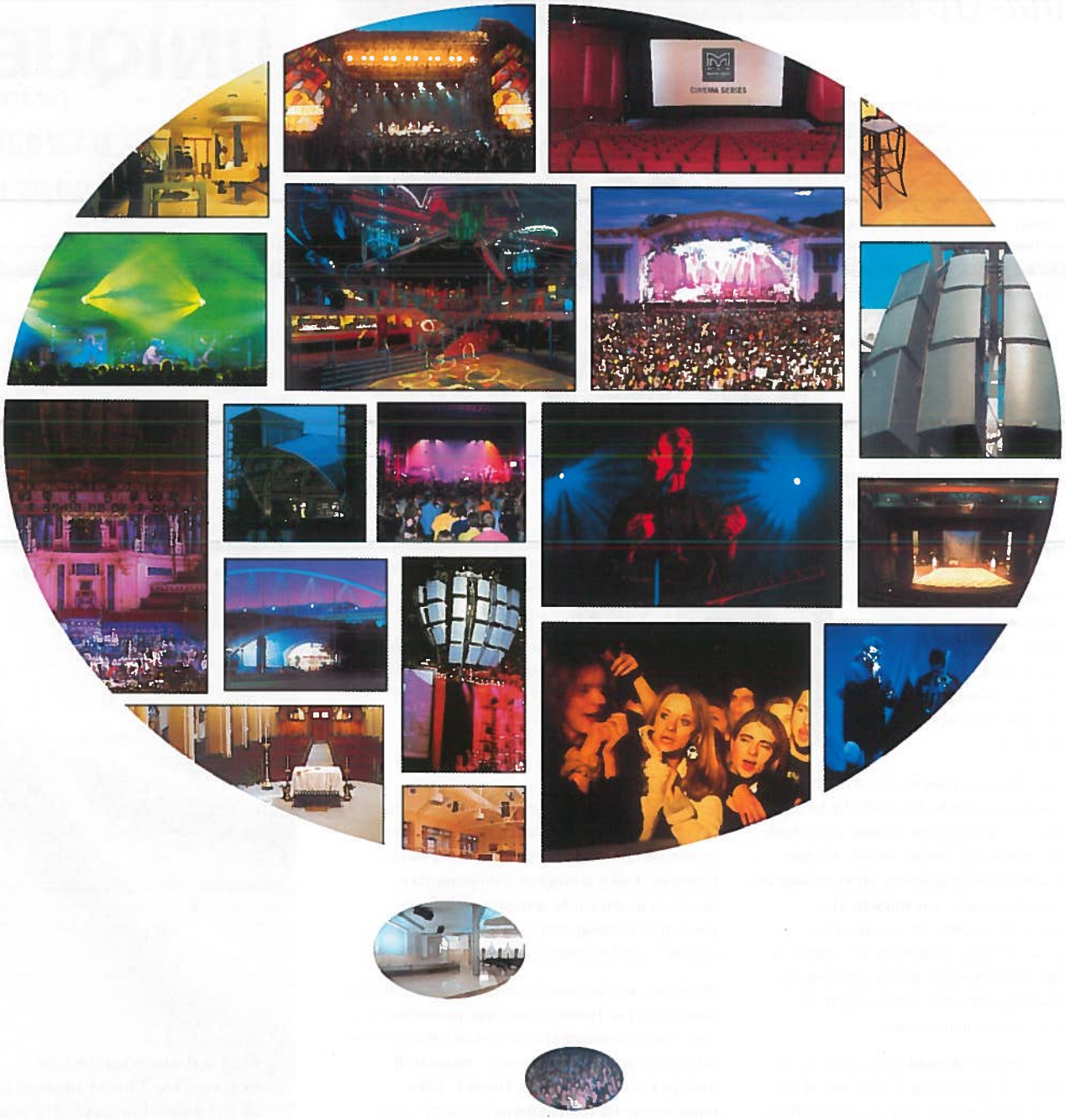
Griven's Danilo Bettinazzi and Silvio Pederzani with Dominique Picquart of Griven France

Belgian manufacturer **Barco**'s DLite digital daylight display system had its first official outing, whilst **Saco**'s new Smartvision 10mm resolution screen was on the Supervision stand. Another company with interesting screen ideas, though this time on a smaller scale, was **Binocle** who specialises in 3D images. The company has developed a computer-controlled 3D camera in partnership with Thomson Broadcast Systems which make it possible to control, adjust and visualise 3D images in real-time.

Elsewhere in the hall, **Strand** had parked up its tour bus and was previewing its new 300 Series console. The series ranges from 24/48 and 48/96 memory manual desks through 125 and 250 channel memory systems up to the 400 and 600 channel memory consoles. All systems are modular so can be arranged in any order and continue to work effectively up to 300 feet apart. Central to the **Lighting Technology** stand was a prototype of the company's new Funky Image projector. This is a range of mini-projectors designed to attract the attention of lighting specialists working in the smaller-scale retail, exhibition and museum sectors.

Whether it was because or despite the fact that GB was Country of Honour, there was nevertheless a large British contingent with several UK companies taking stands in their own right - **Adam Hall**, **Artistic Licence**, **Blackout Triple E**, **DHA**, **Futuraneon**, **Hz International** and **RAT**, whilst others - too numerous to mention - were to be found on the stands of French distributors.

SIEL 2001 4-7 February



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News Round-Up

Web Business

If you're looking for business advice, visit the following sites

5

1. Looking to update your Internet Service Provider? Check out this site where more than 6,000 are listed
   www.thelist.com

2. Mondus gives access to a range of suppliers offering just about everything from IT to printing to human resources
   www.mondus.co.uk

3. The Television Education Network offers advice on law, finance etc
   www.tenmedia.co.uk

4. Capital Exchange is an on-line information service for small companies seeking finance and potential investors
   www.capitalexchange.co.uk

5. Look Smart is an online directory that will guide you to advice on business and finance, industry and trade
   www.looksmart.co.uk

Yamaha Launches Commercial Audio Department

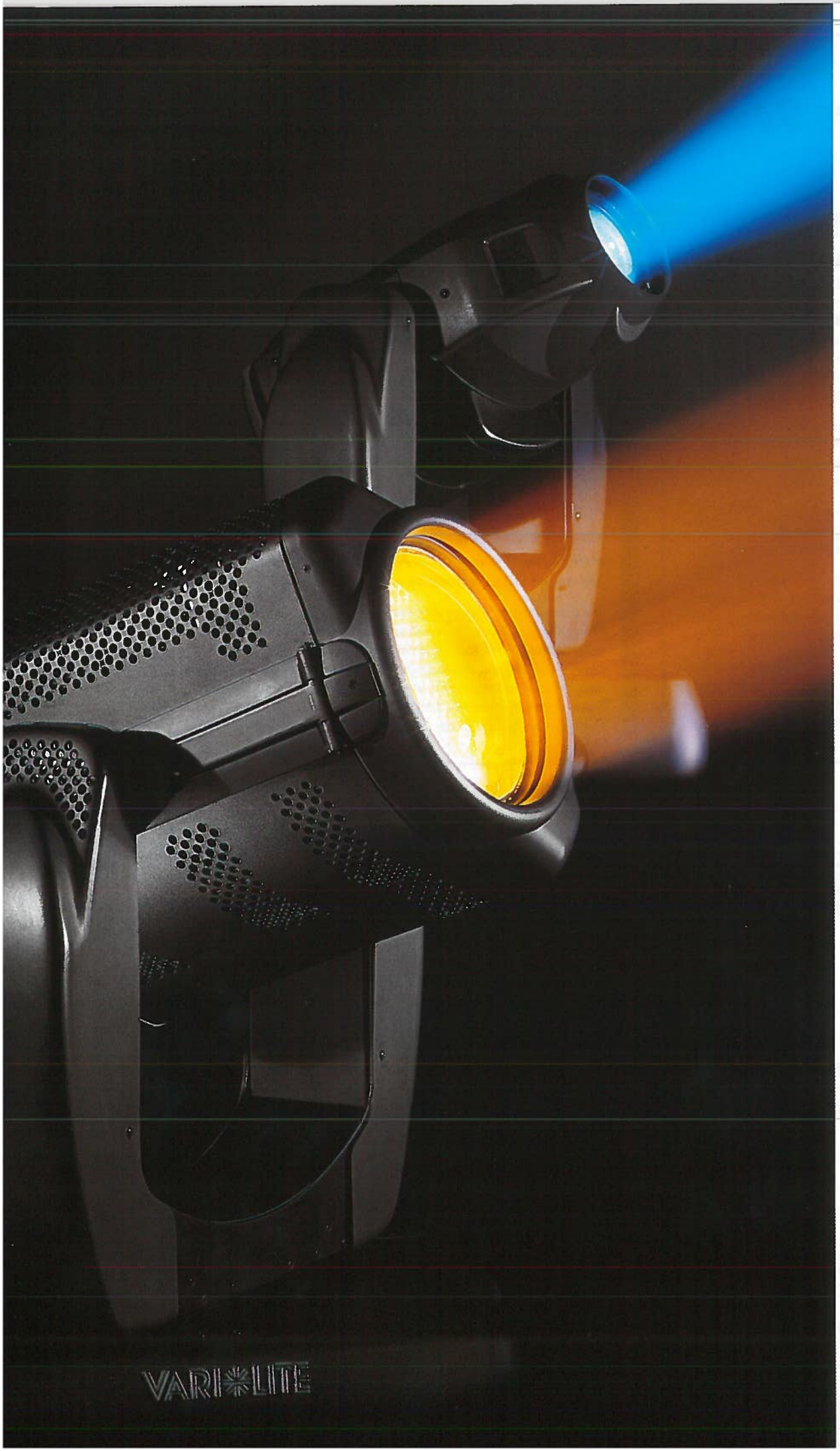
In a move that marks an increased focus on professional commercial audio markets, Yamaha-Kemble Music UK has formed a separate commercial audio department, to be headed up by Alan Johnson as sales and marketing manager.

The new department, as part of Yamaha's Pro-Music Division, will be separate from the current pro audio department and will concentrate on live sound, outside broadcast, installed sound systems, touring sound, professional recording, audio post-production and broadcast applications. A number of initiatives are already in place, such as a dedicated dealer hotline which will resolve any technical and system enquiries.

Ambassador Buys West End Theatres

The Ambassador Theatre Group (ATG) has recently added a further seven high profile London venues to the ATG portfolio, bringing its total holdings to 16 buildings and consolidating its position as a major industry player.

The seven theatres, previously managed by Associated Capital Theatres, include the Donmar, Albery, Phoenix, Piccadilly, Wyndhams, Comedy and Whitehall. The Group currently owns and operates the Duke of York's and the New Ambassador's in London's West End, the Ambassador's Centre in Woking and also the historic Theatre Royal, Brighton. The Group is also the appointed operator/ leaseholder of the 1,600-seat Regent Theatre and 1,400-seat Victoria Hall, both in Stoke-on-Trent, as well as the new 1,350-seat Milton Keynes Theatre, and has just been awarded a 10-year management contract for the Churchill Theatre in Bromley.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Group Therapy

Mike Mann visited Kidderminster to find out how the newly-renamed Klark Teknik Group manages to tread the fine line between corporate success and customer satisfaction

Above, the Klark Teknik Group's UK HQ. Left, Group managing director Bob Doyle

COMPANY PROFILE

EQUAL PARTNERSHIP

The Klark Teknik name has been at the heart of pro audio since its inception in the mid 1970s. Formed by Terry and Philip Clarke (who adapted their surname to give the company its rather Teutonic title), KT was formed as a tape machine manufacturer. With the enormous growth in equalisation and processing in the mid 1970s, the brothers turned their attention to graphic equalisers, a product that has been the backbone of Klark Teknik ever since.

The addition of DDA and then Midas in the mid-eighties propelled the Group into becoming one of the industries' best known names. The three specialist brands that form the Klark Teknik Group (KT itself, Midas and DDA) command great respect in sound reinforcement circles, and have gained worldwide acceptance in the installation market. Much of this success, according to Group managing director Bob Doyle, is due to the personal nature of the relationship between the companies and their customers. "We have always been conscious that we need to maintain close contact with customers," he explains. "All our customers know where they can call for help or information."

Doyle and his team are well aware of the fickle nature of the live sound market and take great pains to keep up the Group's reputation for being approachable and hospitable. Doyle himself has a legendary reputation for being the last to leave the party, and the rest of the KT team fulfil the strong social element in their work with relish.

ALL CHANGE

Even those who do not closely follow the corporate comings and goings of the audio world cannot fail to have noticed the repeated changes of ownership of the Midas, KT and DDA brands in the past few years. Swallowed up by the Mark IV Group in 1990, the Group was sold to Greenwich Street Capital Partners in 1996 in line with Mark IV's return to its core activities in mechanical and fluid power transmission products. Greenwich formed the EVI Group, which also included Electrovoice, Altec Lansing and Dynacord. In 1998, EVI and Telex Communications merged, adding one of the world biggest intercom manufacturers to the portfolio. With so many changes going on, Doyle took the opportunity at the beginning of last year to regain the original KT name, placing the three UK brands under the umbrella of the 'Klark Teknik Group' - just in time for KT's 25th anniversary.

SPIT AND POLISH

Doyle's fierce loyalty to his brands often places him at odds with his corporate seniors, but he is unequivocal about the need to retain a distinctive identity. "We have always driven the brands very strongly. Larger corporate structures tend to consider a brand to be just a vehicle for producing a profit margin. This is true up to a point, but if no attention is paid to the maintenance and development of the products, the support and the customer, that vehicle is going nowhere fast." He adds that the balance between financial gain and customer relations is a fine one: "We have continual pressure from shareholders to increase revenues in ways which would completely change the ethos of the brands. We resolutely resist this trend. In the end, it's our love of what we do that pays the return on their investment."

CENTRAL LINE

Though a degree of centralisation has occurred within the Telex corporation, KT has been careful to minimise the impact that this has on its own staff and customers. "Every corporation is chasing that dream of a cohesive, centralised system - where you can manufacture anything, anywhere," says Doyle. "I certainly agree with this philosophy, but if we let this happen 100%, it would destroy the spirit of a brand that has been around for a quarter of a century."

Being part of a larger organisation has its merits, as Doyle is quick to point out: "Over the last few years we've developed really strong relationships with the other companies - especially Dynacord. Their engineering people are frighteningly on the case. There has been a lot of successful co-engineering on the DN4000, 6000 and 7000 products." The co-operation necessary to harness complicated new technology has necessitated a re-evaluation of some relationships, according to Doyle: "When you've only got one brand you tend to look at everyone else as a threat. Getting to know people who were once our competitors, you find out that they're just nice guys who are doing the best for their own brand."

AROUND THE CORNER

Doyle reveals that the KT Group is working closely with Telex engineers in Minneapolis - so should we expect revolutionary developments

in the near future? "It's no secret that Midas has a digital product lurking," he replies. "The plain fact is that other prominent console manufacturers can introduce large-format digital consoles that sell on facilities alone. If we brought out a Midas digital console right now, with the technology that exists, we couldn't emulate the analogue domain. The Midas reputation is built on audio purity and we don't want to be accused of selling out."

Left, Dave Wiggins (left) and Dave Webster with just some of the Klark Teknik product range

Inset, a member of the KT team hand-wiring an XL3 - still in production after 10 years

GOLDEN TOUCH

The mixing console has traditionally formed the heart of the live audio system, and the impressive reputation of the Midas Pro4 and Pro40 consoles, designed before the company's acquisition by KT, was eclipsed by the XL3, which was released shortly after Bob Doyle's arrival in 1990. Even though the amount of hand-wiring and labour-intensive assembly looks laughable by today's standards, the XL3 was a landmark for the company, as it represented a console that could be built in steady numbers to a standard design.

The fact that it was clearly designed to a monitor board format did not deter the confident Doyle from marketing the new desk to rental companies as an all-purpose workhorse - which it proved to be, with many of the original desks still in use on high-profile shows. In fact, the XL3 tradition of providing a very limited number of variants carries through to this day; customers for the XL4 and the new Heritage Series are steered towards a standard frame size as this has been shown to improve the consoles' rentability.

Although the introduction of the Heritage 3000 and 2000 large-format consoles last year has given Midas two new products of which the company can be justifiably proud, the launch of the Heritage 1000 at last month's Paris AES show is a more important move than most people will realise. For Midas has always had a problem getting into the installation market; previous consoles have been too big, too rock and roll or simply too expensive. The Heritage 1000, however, addresses all three criticisms in one stroke - it is compact (810mm front-to-back), hugely versatile (with a well-thought-out routing section and a proper matrix) and priced to compete with brands that would never previously have considered Midas as a threat.

A-D CONVERSION

As far as Klark Teknik is concerned, the story is one of steady progress into digital processing, while keeping the company's analogue roots well and truly in place. The DN360 1/3-octave graphic equaliser, has been a regular sight in monitor and FOH racks for the last decade, and to mark its 25th anniversary the company produced a limited edition silver-plated version - with no less than a 25 year warranty!

The power of digital control is proving a major benefit for KT's customers. The DN3600 digital graphic EQ shows the kind of conservative approach the company has taken to the digital domain; though the processing is complex (dual channels, plus the same bands and filter design as the DN360 and seamless crossfades between the 66 memories), it is all performed in the analogue domain, and the user interface is surprisingly straightforward.

TRADITIONAL OUTLOOK

KT's design team knows that the majority of the brand's users are seasoned professionals, so the more closely a new product's operational design resembles the previous model, the happier its customers will be. Despite the demand for ever-increasing processing power in a small package, the Klark Teknik product range still manages to exude an old-fashioned appeal. Even the brand new DN 9848 digital loudspeaker processor, which provides a four-in-eight-out matrix of input and output EQ, delay and dynamics, is completely programmable from the front panel. Anxious to appeal to the PC-literate as well as the more technologically-challenged, KT's designers have included RS232 and RS485 comms ports on the unit to allow full remote control and off-line programming, using a plug-in piece of software that runs under Stardraw Audio. In fact, the KT Group promises that any future products that have remote control capability will be made compatible with the Stardraw system.

THIRD BASE

DDA, which was bought by KT three years before Midas, has moved away from the mid-priced recording sector into the live field and (much like Allen

MARK FARLEY - Director of Manufacturing

Having started at Klark Teknik 16 years ago, Mark Farley has seen the manufacturing process change out of all recognition. Despite this, he says, some things still hold true; "As volumes have gone up, we've had to maintain and improve out quality levels. When I started there was a lot more time to do things, because there was not as much competition. I think that being British, and quite strong-willed, has really helped - we've fared very well through the changes in the business."

Farley still takes personal responsibility for dealing with any customer issues - knowing his way around almost every job in the manufacturing process helps with this, he says. "We're very quality-orientated," he adds, "but we don't have a quality department. The responsibility is spread through everyone in the company."

Farley, like most at KT, was pleased to see the Klark Teknik name above the door again: "That identity was missing for a while - but now it's back, which is good for us and our customers."

DAVID HOARE - Director of Engineering

Though a comparative newcomer, having joined in late 1998, David Hoare knew the Klark Teknik reputation first-hand - he was with fader manufacturer P&G for nine years, during which time P&G supplied products to the KT Group. One of Hoare's key tasks is to improve the Midas' design-to-manufacture process so that complex concepts are made easier to realise. "We've been on a fairly steep learning curve," he admits, adding that he endured his own baptism of fire during the Heritage 3000 launch. "The plan for R&D is to make our design process more efficient," he explains. "We are now designing the product, rather than the prototype." This is becoming critical as the software content of products increases, and means that software and hardware designers have to work in close harmony.

& Heath in the Harman Group) has always been overshadowed by the more high-profile flagship brand. But growth in the shade has not proved a problem for DDA - the CS3, CS8 and CS12M consoles have found homes in a wide variety of installations.

INDUSTRIAL EVOLUTION

Manufacturing at the Kidderminster factory is a constantly evolving process. Moving from hand-wired controls and conventional printed circuit boards to surface-mount technology has dictated a restructuring of the Group's facilities; PCBs are now made and populated by external subcontractors, who can afford the cost of SMT plant upgrades. Despite the advances in automated test equipment, an experienced pair of ears is still used as the exhaustive final check on every Midas product - and KT processors are 'burnt-in' for a minimum of 48 hours before being allowed out of the factory. The Kidderminster staff have a reputation for being willing to put extra effort in, with instances where customers' consoles have been serviced overnight or at weekends to allow a rental company to continue a long tour uninterrupted.

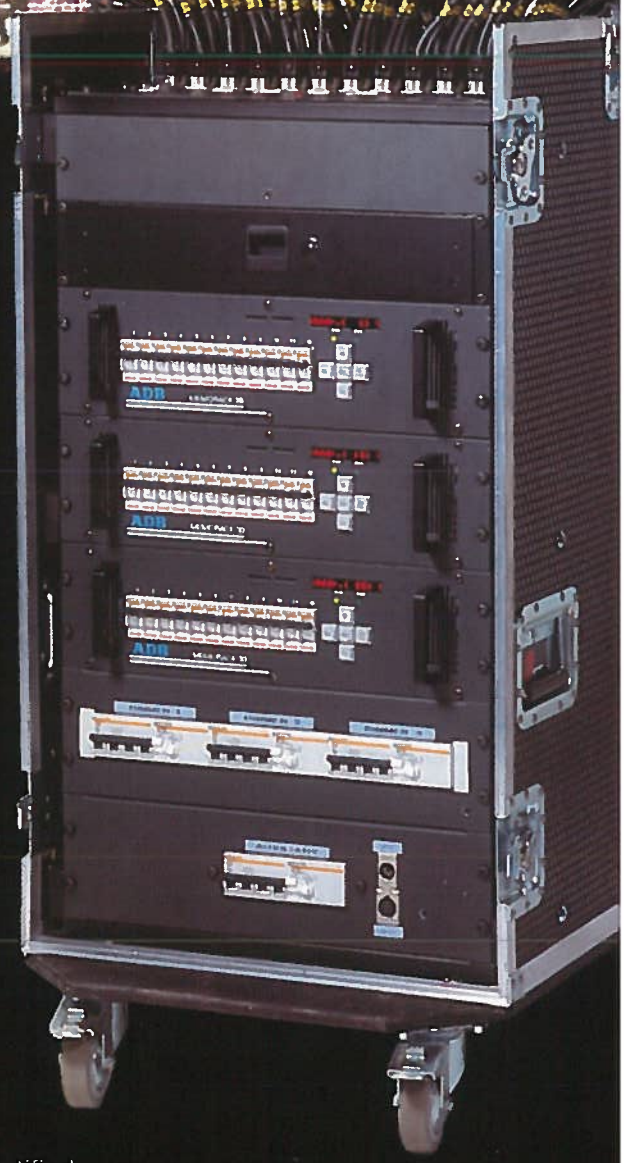
EXPANDING UNIVERSE

Bob Doyle, like so many of the industry's stalwarts, started his career as a musician, and

Bob Doyle and Dave Cooper with the new Heritage 1000

has seen the audio industry grow up around him. "When I started in 1961, you couldn't even get your van or your gear insured!" he exclaims, adding that even by 1974 everyone in the industry was still making it up as they went along. "The music industry has marched down a evolutionary path, and nowadays everything is so fine-tuned that you can't afford to be anything other than professional," he concludes. The growth of the manufacturing industry that feeds this business is not based on rigid corporate principles, he asserts, but something more personal: "Customers don't want universal names for everything they buy. What really makes it enjoyable for us is constantly making friends and building relationships."

The best Dimmers may well not be those you are used to ...



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John Watt Second Take...

John Watt's view from beside the camera

To get things strictly in priority order, at the Grosvenor Hotel in Glasgow they serve porridge with Whisky, not just for flavour, as in some products, but an actual bottle of Grouse from which you help yourself - whoops, sorry my hand slipped! Perhaps this has something to do with my having such an enjoyable visit to the Scottish Lighting Exhibition; a bi-annual event organised almost single-handedly by the irrepressible Joe Breslin in and around a studio loaned by his employers, BBC Resources Scotland. It's a two-part thing with an exhibition well supported by 19 manufacturers and hire companies both local and from further afield, plus a number of seminars to exercise the little grey cells as Poirot would say (he was Scottish too, wasn't he?)

> "It seems that the current vogue is to back the band with a 40 foot wide diamond vision screen . . . Doesn't that cause a vision howl-round I hear my technical friends ask."

WELL ATTENDED IT WASN'T. What's the matter with everybody - new gear, new software and new ideas appear at a relentless pace, but it appears hard to get people out of bed even when it's for their own good. I think the publicity had been a bit thin, but presumably the grapevine works as well north of the border. I spotted two intrepid southerners, Messrs Duncan and Dines, who had ventured north of Watford and two local LDs, Tom McGarrity from STV and freelance Ron Higgs - there may have been more.

I'LL TALK ABOUT THE EXHIBITION in a minute in order to allow time for ETC (who weren't there) to take cover, but I was there to chair the seminars in my usual monosyllabic style and did my level best to let the speakers do the talking. The panel was a varied lot to say the least, and each had something relevant to tell. Jeanine Davies, a freelance theatre lighting designer enthused engagingly about her work and described in some detail the mechanism for making a lottery bid which she and Rick Fisher successfully did for the Lyceum in Edinburgh. She went on to describe the impact this now completed update has had on production. Robert Juliat, you missed the best commercial you've ever had!

CHRIS HIGGS, WHO ONCE HUNG some trussing for me in an impossible location (it didn't fall down), made what could have been a dry topic come alive. He's a rigging and safety specialist working for Total Fabrications and has a very pragmatic and common-sense approach to his subject. His relaxed performance converted me anyway - the washing line is coming down in the morning.

MIKE FALCONER FROM AC LIGHTING gave a very polished presentation of some new software, Wysipaper, which they will send you for nothing. Quote: "It's a database and report generating programme that runs on your PC to help you with all your lighting paperwork." Damned clever these Chinese. It struck me that it was a cunning ploy to sell WYSIWYG itself, but I don't understand these things. If I did, I think I might find it rather good!

LAST ON WAS STEVE MARR, a concert lighting designer who spends much of his life lighting Texas - no, this isn't where the cowboys stash their gold (that's in Manchester) - it's a band that I expect most of my readers swing along to on their way to Fortnum's. It seems that the current vogue is to back the band with a 40 foot wide diamond vision screen upon which run live pictures of the band. Doesn't that cause a vision howl-round I hear my technical friends ask. Yes it does and they love it; in fact, they think they invented it. Poor Steve, meanwhile, is now faced with the biggest light source imaginable competing with his not inconsiderable array of Cyberlights and Studio Colors. With the screen working at about 10% brightness it still lights the audience, let alone the band. Worse still, the four cameras (director and racks in a truck - all sounds a bit familiar) demand a bit of light on each musician so they can cut around at will and put close-ups on the big screen. The screen itself provides a lit background of course, rather than the familiar velvet black, so the moving lights are much less graphic anyway. You see, you're not the only one with problems.

MEANWHILE BACK IN the exhibition there wasn't too much new, but it does no harm to remind yourself of what's out there if ever you got the opportunity to use it. Lee Lighting showed its gas-filled balloon soft light; I would love half a dozen on a windy night to try out my sailing skills. I asked if you can scrap the soft bit and hang a pup underneath and do some proper lighting, but the dour Scot on the stand didn't share my sense of humour - he's in good company. Zero 88 had a brand new control aimed at the bottom of the market for about two grand, but there'll be no proper critique from me as I didn't study it enough - it does look interesting, however. There are some very small HMIs appearing - an 18W one on the new LCA stand took my eye, but they aren't cheap.

LIKE THEY SAID IN THE WAR, the only trouble with Americans is they are over dressed, over paid and over here. Blacklight was showing the new ETC 750W PARnel. This appears to be a device that is every Par can you ever wanted in one variable beam housing. A knob on the bottom seems to contra-rotate two bits of lavatory window glass, which do the business. More I know not, and no-one on the stand could tell me. Dear Mr Foster, can I have a demo please.

I ROUNDED OFF MY TRIP to the frozen north by meeting up with Jim Fyffe who for many a long year was head of lighting at STV. Long since retired, his friends will be glad to know he remains the epitome of an old-style true gent with an attitude to life all too rare now. He has many a tale to tell; one day I'll pass them on if he lets me.

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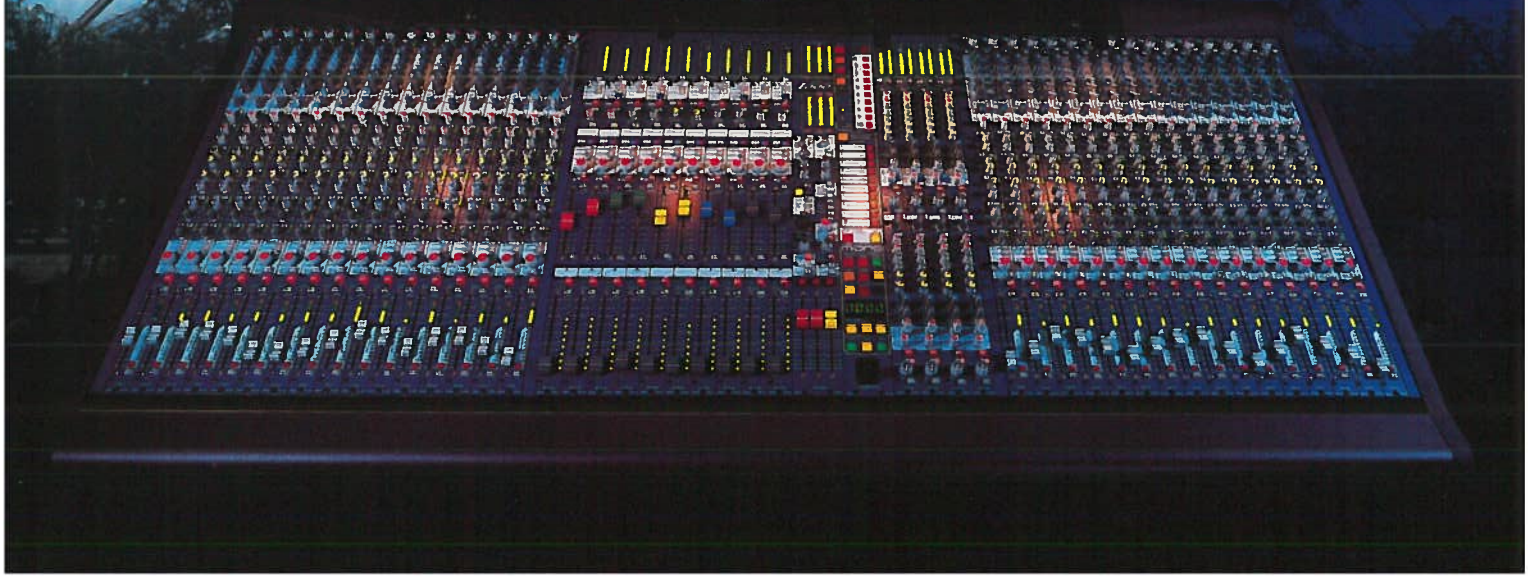

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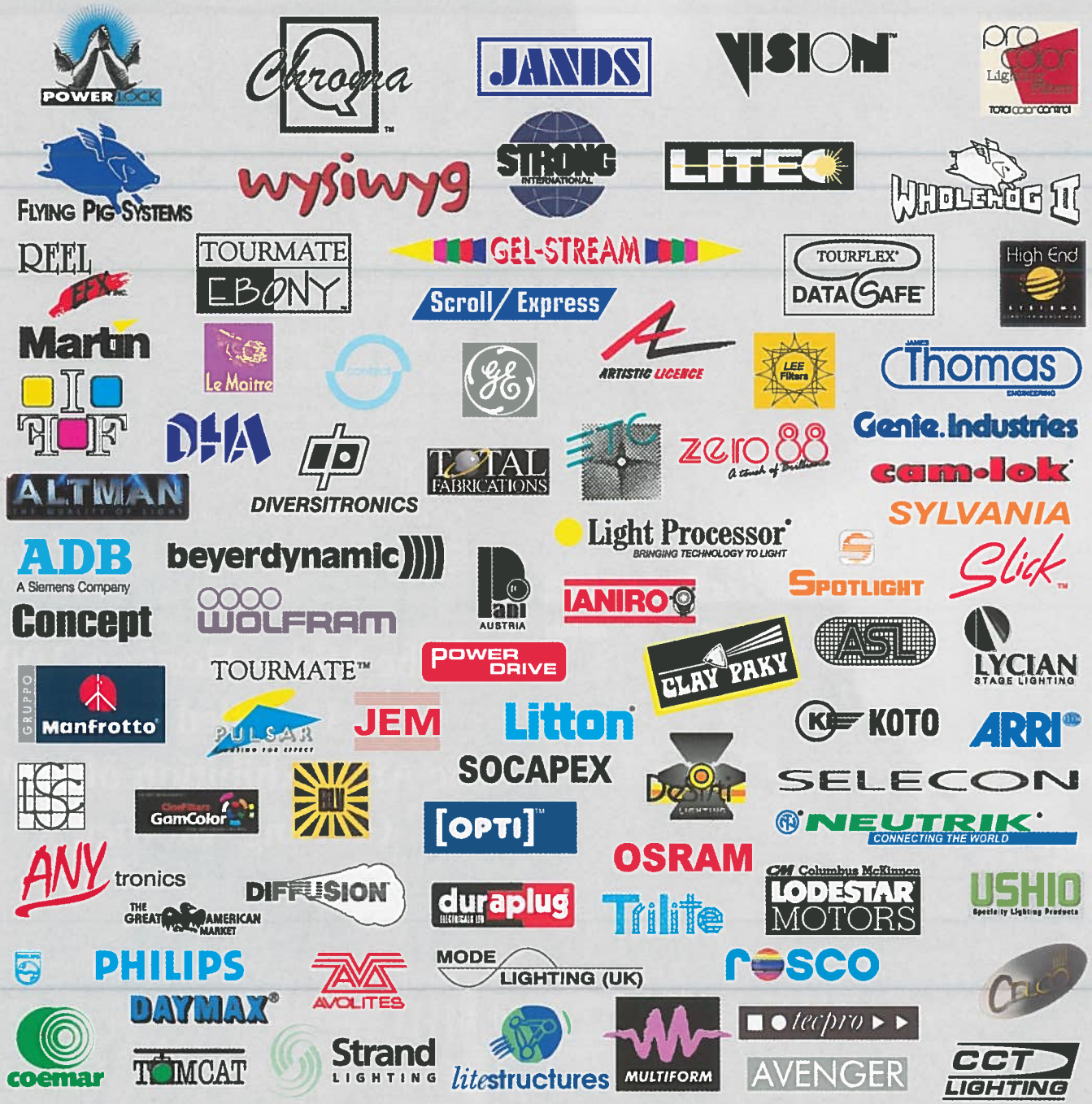

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003013

Heineken Night Live

Elvis Costello who performed his big hit of last year - She

Towards the end of last year, a new concept in live show entertainment, developed under the Heineken banner, opened at the Ahoy in Rotterdam for a run of six shows. Fiona Harley reports.

Heineken NightLive, billed as a mix of movies and music, features film clips, graphic effects, a full orchestra, backing band, DJ and a parade of contemporary artists: Belgium's K's Choice, Toni Braxton, Elvis Costello and Roland Gift. Production was co-ordinated by Sightline with Ampco Pro Rent and sister company Flashlight providing, respectively, sound and lighting.

The resulting show - which is set to tour Europe later this year - is something of a hybrid: a conflation of top-line technology and a combining of entertainment forms for new effect. The concept appears to exploit the mutually parasitic relationship between those old shagging mates, movies and music, spurred by the music video format and transformed, via digital mixing a la rave VJs into a live concept, backed by a full orchestra, a rock and roll band and featuring an eclectic mix of artists and performers.

Designed for Heineken, with Frank Van Hoorn and Michael Aherne putting together the initial concept, it is a hard experience to describe. When the concept works it's a 'wow' thing, and even when it doesn't it is never less than interesting. But you are always asking yourself - what is this really - a gig, a night of movie cut-ups, a live soundtrack experience? The show itself might make some uncomfortable transitions and expose some of its roughly stitched seams, but the production values remained constant, with both lighting and sound components having to work within some extremely closely defined and exacting limits. The sound system had to cope with live artists, a backing band, the entire orchestra, MC, DJ, plus surround-sound movie effects. The staging was a real eye-opener in the way three-tier balconies were built up on either side of the stage to house the various sections of the orchestra.

CONCERT/ TOURING

From Concept to Reality

Heineken branded the product, and it marks a continuation but also a significant departure from its previously 'sponsored' Night of the Proms series. Van Hoorn, who concentrated on the overall music content and marketing, says: "The (NOTP) contact was up for renewal and Heineken felt it was time for a change. They wanted a new show, an exciting one. I had this idea for a long time; I've been working on shows with Heineken and (in Hong Kong) had experimented a little with film and music. I felt this could be the next thing, particularly with soundtrack sales getting so popular. Production-wise it was so complex we hired Michael Aherne as show producer/co-ordinator and David Campbell, the musical supervisor (whose previous credits include Aerosmith, Rolling Stones and Prince) did the arrangements for strings. The backing band was Stevie Winwood's band."

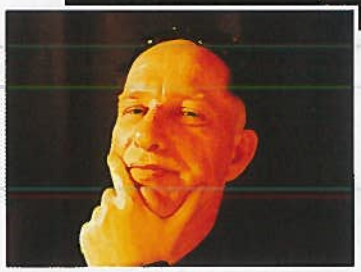
The movie aspect was complex. Van Hoorn acknowledged that licensing clips from famous movies does not come cheap and there was a lot of negotiating. Plus, being a first-time show, the artists had to be convinced. "Most of the artists were afraid of it being a Night of The Proms-type show. Now they love it, but initially they were all very critical and suspicious," says Van Hoorn.

He adds that some artists and songs relate to movies - such as Green Day's Waiting to Exhale (Notting Hill) and Elvis Costello's She (also Notting Hill) - whereas K's Choice hasn't done a movie and Roland Gift was doing a warm-up for solo shows.

With such an experimental format, there was inevitably the odd conjunction. Where Costello sang against the backdrop of a movie, at times the live and film synch'd with uncanny accuracy as he appeared to dance with the actress in the movie; at other times the MC's MTV-style persona interrupted the mood of some segments, and Gift, though crowd-rousingly good, delivered a standard live performance, albeit with some pretty graphic projections on the backdrop.

However, the production played its part seamlessly, and the musical arrangements and execution were uniformly first-rate. Five of the series of six shows sold out with the last selling over 60 per cent - falling as it did on one of Holland's special 'Santa' days.

Technically very far advanced, the production was designed with the intention of touring it and Van Hoorn confirms there is already interest from several venues around Europe.



Left, Gerald Van Den Kaap (aka 00-Kaap) and above, his quirky visuals that provided the backdrop to Heineken Live

Interactive Visuals

One of the creative heads brought into the project was Gerald Van Den Kaap (aka 00-Kaap) - a well-known Dutch visual artist and one of the original VJs - mixing DJ'ing with visuals in the late eighties and early nineties. "Frank phoned me and said, 'this is a totally different kind of show'. They wanted to do something with movies and an orchestra and wanted me to supply images." In one segment Van Den Kaap cut up a number of Hitchcock movies including Psycho, Vertigo and The Man who Knew too Much -creating in the process a mini-Hitchcock movie where the juxtapositions also had the effect of being a comment on Hitchcock. Van Den Kaap adds: "I consider the whole evening to be a movie, which highlights movies but also is a movie in itself. It starts and ends with credits and so on."

Although he had already been creating in a similar vein on a smaller scale in clubs, this was his first time working with broadcast quality on such a major production. Van Den Kaap says it became quite an interactive experience, both in terms of performers and movie visuals and also in terms of the audience. "It was like Shakespearean audiences or pantomime, all the cheering and booing." Of the demographics of the audience he says: "The general public attending are a little bit older, but there were also fans coming for (DJ) Dimitri. There are two kinds of things going into each other - melting. They have to get used to it. Some of the audience would never have heard a DJ play; the younger crowd would wonder why they were listening to Elvis Costello. The styles and the audiences are all in different boxes but in one place. It's the beginning of something: the development potential is there."

Sightline was the local production company responsible for hardware and crew. Jack Smale, managing director of Sightline Productions, who had previously worked with Dutch promotion/production giants Mojo Concerts and on Night of the Proms says, "Frank asked us to get together with Michael Aherne and take responsibility for the whole production - lights, sound, video and set."

For audio, Ampco Pro Rent's Holland office supplied its Renkus-Heinz Synco Touring System (RH-STS) PA for the event, along with Synco stage monitoring. (The benefits of using the same co-ordinated sound system in different venues and countries led to an agreement with Renkus-Heinz to develop a range of specifically-tailored technology exclusively for the Synco Europe concept.) Smale points out that the orchestra boasted "the biggest in-ear system in the world" while a huge lighting system was supplied by sister company Flashlight Lighting. Saco Systems provided ground support for the StageCo stage and a ground-support goalpost rig for the giant 14-tonne Saco LED video screen. Four video-projected side screens were hung to assist audience sightlines.

Smale adds: "It was really experimental. Frank really stuck his neck out with this production and did a good job. It's not a standard show, but it is with a client who wants to take a risk." Sightline had a major co-ordinating role. "There were a lot of creative people and a lot of hardware companies - and we were the link between them all." Smale says they had originally budgeted for a run of 10 shows, "So we cut down on some things and had to find creative solutions, rather than throw money at it, and the atmosphere was really good. For example, we used standard scaffolding for the set but finished it with a different 'skin'."

Kees Heegstra, one of Ampco's production managers, explains: "The compact nature of the Synco system allows us to hang most of it, clearing sightlines and getting the best coverage." The audio team was dealing with 150 inputs, along with 30 cross-mixes, and numerous consoles: one for artists, one for the band and another for the orchestra - the latter including no less than 75 monitor mixes. Heegstra: "We've got a separate 20:12 desk into which all the talkback mics are routed - so band members can hear the conductor and we can send in-ear mixes to the conductor on stage, when they're standing by the artist. This method saved us three months of sound checks, live checks and rehearsals." A basic surround sound system was used to complement the VJ's visual effects.

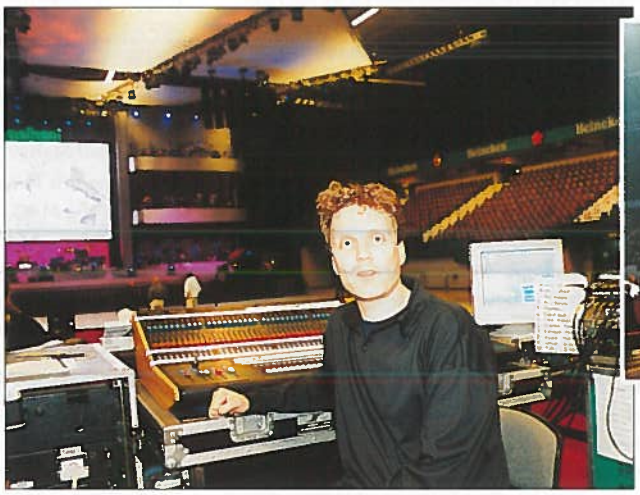
For Ampco Pro Rent, co-ordination was in the hands of Rob van der Meys and Kees Heegstra,

with Jan Willem Stekelenburg and Stefan Behring on FOH, PA crew Erik Hendriks and Ruud Kaltofen, and monitor crew Peter Schmitz and Syd van Gastel. Ronald Koster provided the premix with Hayo den Boeft and Merijn Mols as stage crew.

Rob van der Meys developed a custom in-ear monitoring system for the orchestra. Because of the large number required to enable the orchestra both to hear each other and for each player to have access to a personalised mix, a hard-wired solution of individual in-ear sets was the answer. Says Van der Meys: "It's used by the orchestra, so you need a lot of them. Where the wireless types - Garwood, Shure and so on - need batteries, with Mixx the power and the signal are delivered through a hard-wired XLR cable daisychain. Also, each musician can create a personal mix. Each unit has two inputs. One is from the monitor console with the full mix, while the other allows the player to hear their own instrument to help play in tune; channel A is in stereo and channel B is in mono to either the left or right ear." Adds Ampco's production manager Kees Heegstra: "What's special is the simplicity of the set-up, and its compactness. It lets a musician have some control over their own mix - you couldn't give them all individual mixes from the monitor desk given the numbers involved. So it's ideal for musicals." Rather than personalised ear moulds, this system employs standard Walkman-style mini headphones with comfortable, soft pads and ear surrounds.

The stage was taken care of by 24 Synco CW-152 and 12 CW-121 stage wedges, RH-STS sidefills and matching Synco racks, cases and flying hardware. Monitors were mixed on two Midas Heritage 3000s and two Yamaha O2R mixers, while the monitor mix employed 80 Schertler string pickups, 80 wired in-ears and 16 Shure Wireless in-ears for the band and vocalists.

The house mix position was equally well-populated with a pair of Midas Heritage 2000 desks, a Midas XL4, a Yamaha O2R and a DDA CS8. System drive came courtesy of two BSS Soundwebs, eight BSS VariCurves, one Midas XL88 matrix and a JBL SMAART system. The business end of all this was 100kW's-worth of Renkus-Heinz Synco Touring System PA, which features RH-STS CoEntrant Topology low and mid/high cabinets and subwoofers.



Left, LD Al Gurdon at the Avolites Sapphire and inset, DJ Dimitri takes his decks skywards . . .

Lighting the NightLive

Freelance lighting designer Al Gurdon regularly works for LSD and has worked extensively in lighting for TV. While Mark Cuniffe operated the Icon desk, Gurdon took command of an Avolites Sapphire. "It's an ambitious show. Until we actually got together and worked it through, it wasn't easy to see how it would all work." He says the remit for the lighting was to complement the film pieces and for the film pieces to not be dominated by the lights. "We aimed to create an environment which suits the mood of each piece." A truss-supported white scrim projected from the stage over the audience at pros arch height, was used as a gobo projection screen to extend the visual effect. "It's important where you've got something being televised; it extends the stage and gives you another dimension to light.

"It's a very busy show in terms of looks and cues. We put as much onto the Icons as possible - there's so much to concentrate on as well as doing the board." His rig comprised 44 Icons, the same number of Cyberlights, 82 Studio Colors, 16 5ks with scrollers, 49 Molefays with scrollers and 150 Par 20s. He continues: "One thing Frank wanted to avoid was a really high-tech look - in the sense of techno-heavy, a thousand trusses and endless moving lights - so we concentrated more on lighting the set and hiding the fixtures.

"In rock and roll there's not often attention paid to those aspects; it's more about 'if it's in view it has to be seen to do something'." But, he adds, "It's been a nice show to work on. I do a lot of TV stuff and this is an unusual event, the mixture of film and music . . . it has been a challenge to incorporate the two in a cohesive package."

"What's special is the simplicity of the set-up, and its compactness. Plus it lets a musician have some control over their own mix - you couldn't possibly give them all individual mixes from the monitor desk given the numbers involved. So it's ideal for musicals."

Heineken NightLive is a highly experimental project, with some truly iconoclastic artists, and it's all backed up by a unique, smoothly integrated, heavyweight production. Companies and personnel worked together to translate this strange 'fusion' both of forms and of the purely commercial and breathtakingly avant-garde live production. Its hybrid nature points to some very interesting future projects.

tony Gottelier No Comment...

While there can be no denying that The Royal Opera House has experienced some initial difficulties with their hugely complex technical system, particularly with the stage automation and associated systems, nevertheless it must irritate the dedicated team at Covent Garden when they have to carry the can for outsider's failings as well.

> "The problem is that when all the snags are out it will all be taken for granted and nobody will pay any heed. It is only hot news when the pears take over the trifle. "

AT A RECENT performance of Gounod's Roméo et Juliette, which has attracted much attention because the production stars opera's two contemporary love birds, Angela Gheorghiu and Roberto Alagna, the live revolve of a stage piece made sufficient noise to cause a considerable snigger amongst the great and the good seated in the stalls. However, as ROH technical consultant, Mark White, explained to me: "This set is not part of the House system, the opera is a co-French production. The scenery and its built-in mechanics came with the package." Mark was far too discreet to criticise the eccentric mechanics therein employed.

ASIDE FROM the colossal cost of the seats, I find it hard to reconcile such a reaction with the reality of opera production which is notoriously fallible to failures of all kinds, most especially human ones. For example, on the night in question, just prior to curtain-up, we were told that Angela Gheorghiu was unwell and unable to perform, which must have been a huge disappointment to the entire audience.

Astoundingly, in an extraordinary coup de téâtre, the producers conjured up Leontina Vaduva who, earlier that same day had been rehearsing in Germany, to take over the demanding role of Juliette at the very last minute. After the rush from Bonn, she apparently arrived at the House less than one hour prior to curtain up, but seamlessly carried off the part in a way that denied the five year gap since they had last performed the two roles together.

COMPARED TO SUCH HIGH DRAMA, technical glitches seem rather sterile, and of course nobody wants them to occur, but the reaction to that particular episode on stage made me realise that there are some people who are simply lying in wait for an opportunity to mock. I know that scepticism is a British disease, but it is high time that mature individuals and the national press put aside childish motivations and gave credit where it is due for the astounding technical achievement that the new ROH represents. The problem is, of course, that when all the snags are out it will all be taken for granted and nobody will pay any heed. It is only hot news when the pears take over the trifle. Within all of this, spare a thought for the Opera House in Lyons, rebuilt in 1993 to the glory of President Mitterand, which has been forced to close for an entire season due to 'unsafe' stage machinery.

FURTHER CONFIRMATION of the altering shape of our industry comes from the large number significant personalities who find themselves on the move these days. Of these I have chosen just three as a focus this month.

FIRST CHARLIE KAIL, the diffident founder and shaper of Brilliant Stages, has semi-detached himself from his own creation following the sale of the company to Tomcat by erstwhile parent company Vari-Lite, that also resulted in the business moving to Hitchin. Apparently, the new location was just too inconvenient for Kail and his wife Anne. So Charlie reached an agreement with Mitch Clark which has enabled him to set up as a consultant, partly to Brilliant, but also as a freelance to anyone who wishes to employ his considerable engineering talents and unique production experience.

SECONDLY, IT LEAKED OUT at SIEL in Paris that Fin Kalstrup would be leaving Martin Professional. Although another quiet individual and not one to shout the odds, Kalstrup was the man behind Martin's successful products even before the first Roboscan, and right up to and including the MAC range. As Martin's head of R&D, the shape of his job must have changed radically since those early days under Peter Johansen and he may not have been finding that to his taste. The possibility that it is nostalgia for those times, is evidenced by the fact that Fin is off to rejoin his old boss, in his new venture that involves high tech dental technology. Quite a change from the razzmatazz of showbiz. Peter Johansen is no slouch when it comes to spotting and exploiting a money making opportunity so it seems that there's gold in them thar molars, and Peter has found a way to drill and tap it.

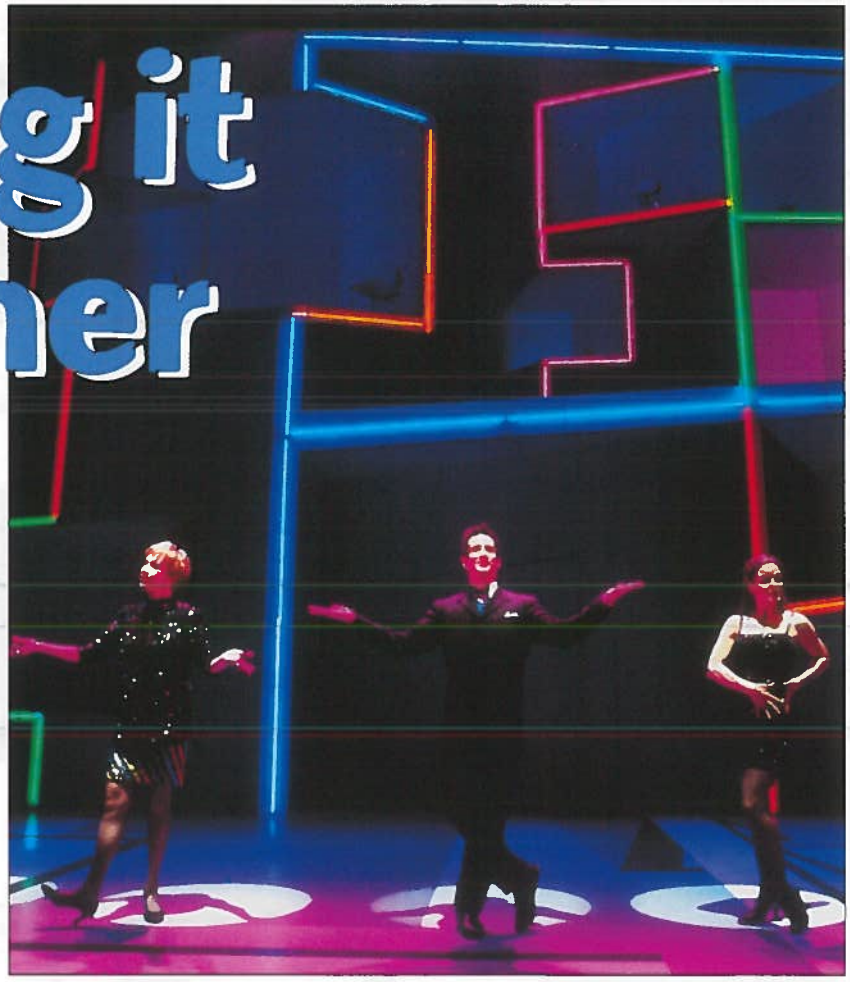
LASTLY, THE INVENTIVE AND HIRSUTE Bran Ferren is leaving his long-held job as chief of Disney Imagineering and, with his former no 2, setting up an independent R&D company which, if memory serves, was exactly what he was doing prior to getting the summons from the Mouse.

ANYBODY WHO SAW the sequential TV documentaries about the building of the Dome will remember the irascible character who had been sent by the roofing American contractors, Birdair, to supervise the installation of the 188,000 square metres of Teflon-coated fibreglass membrane which covers the structure.

HE WAS THE GUY seen clinging to the top of the skeletal building in all weathers using fragrant language to express his displeasure at the deadline. To paraphrase Teflon Tom: "It will be done, when it's done, subject to the elements, and if other people can't deal with that, I don't give a s***!" Rigger Fortis, you might say (or perhaps not).

WE MAY NEVER KNOW how close to reality missing the deadline was, since Teflon Tom ended up eating his own hard hat on that one, but if the timekeeping of Birdair's marketing department is anything to go by it may have been a near thing. In the third week of February I received in the post a beautifully produced, Millennium calendar featuring the infamous Dome in full colour. Predictably, the accompanying letter included numerous references to time, and specifically, a 'new beginning of time'. Obviously, the year 2000 started somewhat after January 1st according to Birdair time.

Putting it Together



THEATRE

The hardest part of working on a show called Putting It Together is explaining to people what you're doing. 'What are you up to?' 'Putting It Together'. 'Yes, but putting what together?'. And so it goes on . . .

That confusion reigned pretty much continuously from mid-October, when the show started fitting up at the Barrymore Theatre in New York, until its first night on November 21st. During that four-week period, Cameron Mackintosh's production team worked to breathe a fourth life into the show, a collection of Stephen Sondheim songs first seen at the Old Fire Station in Oxford in 1992, and subsequently performed at the Manhattan Theatre Club in a production remembered mainly for bringing Julie Andrews back to the Broadway stage after too long an absence. This new production was created at the Mark Taper Forum theatre in Los Angeles during 1998, with subsequent events suggesting that it was actually a try-out for the team who are now working to create Cameron's next new musical, The Witches of Eastwick, due to open in London in the middle of this year. Thus American director Eric Schaeffer and legendary American choreographer Bob Avian were paired with British set designer Bob Crowley and lighting designer Howard Harrison.

With a starry cast led by American TV legend Carol Burnett, a New York run for the show was always on the cards, but transferring the show wasn't a simple matter of packing everything up and shipping it across the country. The Taper is a thrust-stage theatre; nothing comparable exists on Broadway and the show would have to be adapted to work in proscenium-arch form.

DESIGN

The action of Putting It Together is loosely defined as taking place in a series of apartments in Manhattan, and Bob Crowley therefore designed an abstract representation of the city, with a central 'wall' of distorted, boxy rooms, the edges defined by neon in a selection of colours. The floor in front of the 'wall' continues the colour theme, also containing a number of tiny square cubes that pop up to form chairs or platforms at various times, these built by Scenic Technologies (who acquired their new name, Entolo, during the production period) and controlled from one of their mini-controllers.

Seen under worklight, Crowley's set with its pale-blue finish appears bland and uninteresting, but it wasn't designed to work on its own: this is a projection show, with the set acting as a backdrop for a range of real and abstract images. These were designed by the undisputed queen of Broadway projection, Wendall K Harrington, along with her team of associate Chelsea Pennebaker and projection programmer Paul Vershbow. Harrington treats the wall in different ways at different times, sometimes using it as one large canvas to show images of New York skyscrapers, sometimes projecting images aligned to different parts of the set.

The technical and creative team pooled the talents of people from both sides of the Atlantic. Rob Halliday had an opportunity to compare different working methods . . .

All of these effects are achieved with just two projectors, Pani BP4s, fitted with PIGI single scrollers - one unit with the scroll running vertically, the other with the scroll running horizontally - and Pani dimmer shutters, all controlled from the PIGI control software running on a Dell PC and all supplied by Production Arts in New York. Installing these projectors turned out to be about the most complex part of the fit-up. The obvious location, the Barrymore's followspot box, was ruled out by sightlines to the top of the set. This left the circle front bar (or 'mezzanine rail', in the American terminology that the English visitors had to learn!) - but it wasn't strong enough!

The eventual solution was the installation of a 25ft long steel cantilever back into the circle, the removal of part of the circle front to allow the installation of a sealed box that the projectors were then positioned in - sideways, to minimise the depth of the box and so sightline problems from the back of the stalls ('orchestra seating'). Divertor mirrors were then used to re-direct the images towards the stage. Finally, an air-conditioning system was installed to feed cold air to the box.

LIGHTING

Howard Harrison's rig was an expansion and re-configuration of his design from Los Angeles, adapted to take the new stage shape into account. He also opted to use the show to try the latest product in the Vari*Lite range - the zoom-lens VL6B, instead of the standard VL6s that were used in Los Angeles. The VL5s remained on the show

Left, the cast of Putting it Together

Inset, the Barrymore Theatre on 47th Street where the show opened

as before. In total, the rig uses 12 VL6Bs, 12 VL5s and an array of ETC Source Fours and Par cans running from two 96-way Strand CD80 touring racks and one 48-way ETC Sensor touring rack.

These racks indicate one of the many differences between Broadway lighting practice and that still found in the West End. A West End house will still generally have a dimmer system and probably a lighting desk for an incoming show to use, should they choose. Broadway theatres are rented practically empty - 'four walls' - with just a power supply. Thus the 'temporary' dimmers for the show were located on a stage-right perch and all of the wiring from the rig was run back to there, leaving the installation looking more like a large-scale tour in the UK than a long-running 'permanent' show.

The other major difference between the two theatrical capitals is in the working practices of the crews - most noticeably that you always get a proper lunch and dinner breaks in New York, things so often sacrificed in London because of seemingly-inevitable emergencies. Those are the rules of IATSE, the union to which everyone working backstage in New York belongs. To a Brit, it feels odd that meal breaks can't be staggered across departments to keep the fit-up process rolling - but it is strange how the show still opens on time with no lunch-time panics. The other strange part of the scheduling is that during the fit-up, the working day tends to run from 8am (far too early!) until just 6pm.

And, of course, they earn a lot of money. There is no denying that. Far more than anyone in a comparable position in Britain would earn - which can be no bad thing, though New York ticket prices are also noticeably higher than their London equivalents. Perhaps the higher wages are why there seems to be so much more pride in the profession in New York - and perhaps also why the profession continues from generation to generation far more than is seen in the UK; here your mother tells you to get a proper job, there being a stagehand is a proper job!

We were very lucky in being introduced to Broadway and its ways by a top team: production carpenter Joe Patria, production electrician Bob Fehribach, both veterans of practically every Cameron Mackintosh show of the last 10 years, head electrician Randy Zaibek, returning to New York after a long stint on Phantom in San Francisco, and assistant electrician Scott DeVerna, a member of one of those Broadway 'clans' (Four Star, supplier to our show and practically every other theatre on Broadway, was the DeVerna family company for a long time and is still run by Scott's cousin, Darren).

The other difference between London and New York is the amount of preparation work that happens outside the theatre, with the whole rig assembled and labelled at the lighting supplier's shop prior to the fit-up. This is because theatre time, particularly fit-up time, is expensive: the 'yellow card' rule means the entire crew has to be on call on a higher, 'fit-up', hourly rate until the fit-up has ended - which is taken to be the time at which the last light is focused. The pressure is therefore on the lighting designer to get to every lamp, even when the set isn't actually really finished enough to focus a particular light properly! Fortunately, we were navigated skilfully through this process by American associate lighting designer Ed McCarthy and assistant Jason Livingston.

As we learnt about the Broadway way, so we brought something relatively new to the Big Apple with our choice of control system: the Strand 550i that has found increasing popularity in the West End and the rest of the UK, but has only made rare appearances in New York. The show had been programmed on a 530 in LA and it therefore made sense to use the same system in New York, Four Star choosing to provide twin 550is, acting as main and back-up.

Under the console's control, the show was put on with few problems apart from the occasional tantrum from the VL6Bs: these are potentially great lights with superb zoom optics, but they seem to take some time to settle down to a life in the theatre. They do their job, though - a combination of washes, specials and 'razzle dazzle' moments that make use of their seemingly-instantaneous colour-bump capability. The 5s and scrollers then fill in, providing

base washes of colour, with the cast then picked out using Lycian 1266 400 followspots mounted on a front-of-house truss to allow them to light the cast as far upstage as possible without spilling too badly on the set and so potentially spoiling the projection work.

SOUND

The Anglo-American co-operation of the production team as a whole was reflected even more strongly in the sound department, where the show was co-designed by Andrew Bruce of Autograph and his long-time American associate, Mark Menard. With a cast of just five, the show was deceptively simple - except that in a cast of five each expects to have their point of view listened to; a cast of 30 are often actually easier to deal with!

What a cast of five does mean, however, is that the mixing desk doesn't have to be that big: Bruce and Menard specified a Cadac J-Type with just 18 mono inputs, four stereo inputs and 12 VCAs. The result was that, for the first time in a long time, the lighting desk (sorry, console) was bigger than the sound desk, much to the chagrin of sound head Bob Biasetti. Vocal sound was received from eight Sennheiser SK50 transmitters (those principles who spent most time on-stage wearing a back-up microphone, with house sound man Brian Brannigan in charge of the mics), into the Cadac, out through the increasingly popular TiMax automated mixing/delay system and on through a mixture of Crown and Yamaha amplifiers to Meyer UPA-2P, UPM-1P, MSL-2, PSW, UPA-1P and CQ1 loudspeakers, with d&b audiotechnik E3-LSs serving as the delay loudspeakers. With such a small desk, the sound department were tightly constrained as to their 'footprint' in the auditorium, leading Menard and his team to adopt some unusual solutions to standard problems - which is why the Cadac power supplies can now be found on a shelf suspended from the ceiling behind the mixer!

Sound control came from a Cadac desk - probably one of the smallest Cadac consoles ever seen on a musical!

Below, the show's electrics team: head electrician Randall Zaibek (right) and Scott DeVerna (left)

Sound is another area where the Broadway working practices differ considerably from the West End, particularly during a fit-up. In London, the person mixing the show will concentrate on that, while a production sound engineer will install the rig to the sound designer's specification. In American practice, the head of sound does much, much more - effectively being the production sound engineer then moving back to the console and mixing the show while the cast arrive. This can lead to some tense moments when (for example) a comms problem occurs mid-rehearsal and the person who knows how the system works can't come to help because he's mixing the show, but those guys (and girls) earn their money! Anyway, what at first appeared to be the biggest sound problem during the preview period turned out not to be anything to do with the sound department at all - though they were the ones who had to point out to the band that leaving a cellphone set to 'vibrate' mode on top of a synthesiser during the show is probably not a good idea . . .

PUTTING IT TOGETHER

Putting It Together evolved over 10 days of on-stage rehearsals and technical rehearsals, then about three weeks of previews. What was interesting about that time wasn't so much the way the rehearsal process went, which wasn't that different on the other side of the Atlantic (apart from generally being noisier - Broadway crews seem to like you to know they're working - and being worse for the waistline, since tray-fulls of doughnuts really do magically appear at the coffee break every morning), but about the completely different way that theatre is perceived in the Big Apple.

Theatre in London, it seems, just happens, is taken for granted, and rarely grabs the headlines. In New York, theatre seems to be one of the primary reasons for the city's existence. Theatre's importance to the city means that it is lifted and carried by an incredible wave of energy - perhaps helped by the theatres being more tightly packed together than in London. Those who work in theatre are proud of it - there is a higher concentration of people wearing show jackets here than anywhere else I know - and are always greeted with interest by the people they meet. It is completely, utterly intoxicating and addictive. Sadly, that energy and excitement doesn't always guarantee a hit, and Putting It Together closed at the end of February, having been wounded by a slightly strange collection of reviews.

Q: How many actors does it take to change a light bulb?

A: Only one. They don't like to share the spotlight.

Q: How many mystery writers does it take to change a light bulb?

A: Two: One to screw it almost all the way in and the other to give it a surprising twist at the end.

Q: How many gods does it take to screw in a light bulb?

A: Two. One to hold the bulb and the other to rotate the planet.

Q: How many art directors does it take to change a lightbulb?

A: Does it have to be a light bulb?

Q: How many jugglers does it take to change a light bulb?

A: One, but it takes at least three light bulbs.

Q: How many Real Men does it take to change a light bulb?

A: None. Real Men aren't afraid of the dark.

Q: How many companies does it take to supply all your light bulbs?

A: Only one...

The Lighting Technology Group

Q: How many folk singers does it take to screw in a light bulb?

A: Two. One to change the bulb, and one to write a song about how good the old light bulb was.

Q: Which company ships worldwi sameday, from stock ?

A: Lighting Technology Group

Q: How many movie actresses does it take to change a lightbulb?

A: One, but you should've seen the line outside the producer's hotel room.

Q: How many London taxi drivers does it take to change a light bulb ?

A: What ? Go all the way up there and come back empty ? You must be jokin' mate !

Q: Which company has over 2 million pounds worth of light bulbs in stock?

A: Lighting Technology Group

Q: How many safety inspectors does it take to change a light bulb?

A: Four. One to change it and three to hold the ladder.

Q: How many magicians does it take to change a light bulb?

A: Depends on what you want to change it into.

Q: How many consultants does it take to change a light bulb?

A: We don't know. They never get past the feasibility study.

Q: How many politicians does it take to change a light bulb ?

A: Four, one to change it and the other three to deny it.

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Ian Herbert, Asleep in the Stalls...

So Mark Henderson has picked up his third Olivier as Best Lighting Designer, edging himself ahead of Rick Fisher (with two) to the top of the Olivier league table. He beat Donald Holder (*Lion King*), Howard Harrison (*Private Lives, Sleep With Me* and *The Tempest*) and Peter Mumford (*Collected Stories, Richard III, Summerfolk, The Merchant of Venice*), who all still have a space waiting on their mantelpiece for one of those handsome little mementos. Mark was nominated for no fewer than seven shows, which may be great evidence of industry on his part, but hardly shows the firm decision-making from the Olivier panel.

> "In front of the iron, you can easily see where £18 million quidsworth of Lottery money and half as much again in matching funding has been spent . . ."

WAS IT THE SUNRISE over Maria Bjornson's cornfield in *Plenty* that swung it for him, or the gloomy house of Vassa? Was it the colourful palette of *The Lion, the Witch and the Wardrobe* or the Northern grime of *Spend Spend Spend?* I think we should be told - and I think next year the lighting award should go to one show, or at least to one theatre: my nomination would have been to the whole team (including Mr Mumford) who brought acting back into focus at the Olivier theatre with their use of its new, low-slung rig. The Olivier awards panel couldn't reward a single show in their set design section either - Rob Howell pinched it for an RSC *Richard III*, an NT *Troilus* (that new focus again) and an Almeida show, *Vassa*. Would any one of them on its own have been good enough? I thought his *Troilus* terrific, but found his *Richard III* ironmongery intrusive, and would have put any of his runners-up (Maria Bjornson, Lez Brotherston, Richard Hudson) ahead of him on a single-show basis. Indeed, Ms Bjornson's *Plenty* was my choice in the Critics' Circle Best Designer category, as those of you who can find the March issue of Plays International will know: you'll find the selections of thirty-odd critics there (not thirty odd critics, please, dear subeditor).

OTHERWISE, THOSE OF YOU who don't take Theatre Record may find it a little hard to check out where the Critics' Circle awards differed from the Oliviers and the Evening Standard's choices. The other two sets of awards were all over the papers, but the ones chosen by their own experts got hardly a mention.

LET ME DECLARE a personal interest here: because the critics couldn't find a sponsor to take over their awards ceremony from The Stage, who had generously backed them for some years, Theatre Record took on this year's sponsorship. After all, we're 20 years old this year, so we have something to celebrate. And in spite of the low profile we so successfully achieved, I don't at all regret giving Janie Dee and Barbara Dickson, Trevor Nunn and Henry Goodman, the chance to get together with lots of other people and a jolly bunch of more or less sober critics. It was a less formal occasion, a lot more fun than the grandeur of the Lyceum do - and, of course, a great deal cheaper. I wonder if there's a theatrical supplier out there in the L&SI readership who'd like to take on next year's Circle awards? You'd get a very enjoyable day out, a minuscule amount of press notice - and the entire event for less than the fee The Standard paid their presenter to read his autocue.

HAVING BEEN SAT FIRMLY in the back row of the Lyceum for the Oliviers, I felt very honoured to be sitting directly in front of Gerry Robinson and Chris Smith for the opening of the Royal Court. The new theatre is lovely, though for some unaccountable reason I have yet to see backstage. All my other critical colleagues sneaked in to the Old Vic to see Dublin Carol, so that on the Court's opening night they were able for once to review the theatre rather than the play. In front of the iron, you can easily see where £18 million quidsworth of Lottery money, and half as much again in matching funding, has been spent.

THE SEATS ARE LEATHER, like old luxury car seats, complete with a net behind them for your programme or your Gucci clutch-bag, and a couple of tiny spotlights to help you read your programme, or rifle through the Gucci. These little beauties dim with the house lights, to discourage you from actually reading during the performance. Oh, and the seat arms can be lifted, so that on the Court's singles nights, the audience can snuggle up closer. All over the public areas there's evidence of that fashion for very simple effects achieved at horrendous cost: bare walls, distressed fabric, old iron from the loos re-hung as decorative features. The big restaurant hollowed out from under Sloane Square is a bit of a disappointment with its dull, starkly monochrome walls.

SO IS IT WORTH £28 MILLION? Let's try a couple of figures to put it in context: according to the Daily Telegraph a few weeks ago, 'Regional theatres received more than £35 million in public money last year, including lottery grants.' Presumably this doesn't include all the building money - at least, I hope it doesn't - but we are talking here about 50 theatres, most of them bigger in capacity than the 'National Theatre of New Writing', which gets more than a million a year now in ongoing grants and which has re-opened its doors with an Irish play downstairs and an American one upstairs.

THE OTHER FIGURE I'd offer you is the £350,000 given to the Chelsea Centre, down at the opposite, unfashionable end of the King's Road from the Royal Court. It would have been more, but the lottery people decided that they wouldn't contribute so the Centre had only the 'matching' money they'd raised for themselves. Of this, £150,000 had to go towards stopping the rain from coming in through the roof, but with the remaining £200,000 they have been able to spruce up the foyer and the bar very attractively, install new (non-leather) seating, and completely equip a new lighting rig with digital dimming thrown in. Now I love the Royal Court and all its dynamic team very dearly, and can only gasp at their achievement in making good new theatre a trendy and fashionable talking-point. I just hope that in all the song and dance about Sloane Square we won't lose sight of those 50 theatres outside London, or that one theatre at the other end of the road, where there is also good, if not quite so fashionable, new theatre.

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Barry Takes it to the Wire

It would be hard to find two more different performers than Barry Manilow and Wire, but Steve Moles likes his diet varied

It's been said that Barry Manilow fans have Vincent Van Gogh's ear for music. One-sided they may be, and partisan they certainly are, but they're no fools. In a medium where fame is as transient as the English weather, Manilow, whatever you may think of his music, has stood the test of time.

His final UK concert was no less a test. Blighted by a broken toe and battling a larynx raw from bronchitis, he put on a show that was positively stoical. This was no light rasp - the pain in his throat was self-evident with each passing croak. I could ramble on with platitudes like 'what a consummate professional', but truth is he survived the night by his attention to detail. Manilow examines every aspect of his presentation, continuously, throughout each tour, and it was because he knows his stuff so thoroughly that he was able to pluck songs from a rehearsed repertoire of 52, that were at least kindly to his tattered vocal cords. Some punters demanded their money back, most gave him an ovation for trying.

Audio

"Yeah. I make a recording of every show and he listens to them all." So says Ken Newman, Manilow's sound engineer for some nine years. "He'll come to me the next day and he'll say something like 'You know on the twelfth bar of this song, the strings should come out, be a little more resonant'. And he's consistent. I've been working with him enough years now that whenever possible I listen to the recording myself before he gets it, so I know what he's liable to pick up on."

The big challenge for Newman on this tour is, or rather was, the addition of a 30-piece orchestra. Manilow performed a special concert at Carnegie Hall last March, a concert centred heavily upon Sinatra's work, and decided then that something more than his standard rhythm section was needed. "For the orchestra, I spec'd a whole bunch of stuff and the people at Carnegie said 'you're out of your mind'. So I had a conversation with Barry, asked him if this was an orchestral show with rhythm section behind or the opposite. He was emphatic - 'orchestra'. Fortunately, I'd started my career at the Sands Casino in Atlantic City, and had done lots of shows with artist and orchestra, so for me it was fairly standard. The one thing I did steal from the Carnegie experience was mics - Crown GLM100 clip mics for the strings - which have proved excellent."

TOURING

Having dismissed the change to orchestra so lightly, Newman then went on to explain Manilow's particular foibles, the ones that make him so attentive to every recording. "There are a lot of effects he's listening for. Mostly there's extra reverb on the strings, but also the horns and woods, just to make it less sterile." Newman runs the full orchestra through one half of a TC Electronics M5000, with Manilow's vocals on the other side. An M2000 covers backing vocals, a Lexicon 224 attends to reverb for the kit, and a PCM 70 set 'for strings' is used for just that. "It gives a kind of echoey slap, something that blurs the image a little - just how he wants it."

On the PA side, Newman is using a d&b C4 system supplied by Wigwam, Eighth Day Sound being the primary contractor in the US, the two companies now working in ever-closer co-operation since their dalliance on the Spice Girls, as evidenced here by a mixed US/UK crew. "For the US tour I used a Flashlight system, and coming to England this was my first time with the d&b. To be honest, at first I was overwhelmed by how different it was. It didn't throw as far as I was used to and I was expecting more high end at the desk," Newman mixes from right at the back of the arena, "but once I'd adjusted I have to admit it sounded good." He uses an Amek Recall to mix, and takes full advantage of the software side - just as well with that huge repertoire and a song order and content that changes nightly, not least for this concert. "Doubly useful tonight, where Barry has added a choir as a treat for the audience. I can just re-assign a VCA for when they're on. Simple."

When Manilow performs a bizarre version of Flight of the Bumble Bee on kazoo, backed mainly by the strings alone, it reveals just how natural those Crown mics are, and how true the system really is. Newman keeps Manilow's vocals to the fore, using a Sabine Exterminator "for that extra 2-3dB of gain before feedback." Under normal circumstances that would be ideal, as was discernible for the first two minutes of the show, before his doctor's

ministrations failed. But of course it also exposed every creak, groan and crackle. I just wonder whether he'd have been better off submerging the voice a little for one night?

Lighting

This is a radically different show from the last few tours that have passed through these shores. Seth Jackson, who we last heard of with Kenny G, has been LD for Manilow for little more than a year, but it's not his arrival that wrung the changes. "For that Carnegie show he wanted something different. 'It has to be big enough and elegant enough for the orchestra', he said to me. 'But it has to fit in a Volkswagen'." Jackson has Manilow's gag writer sat beside him for every show and it's obviously beginning to rub off.

"Because of the Sinatra thing we spent a lot of time looking through old Architectural Journals at pictures of his (Sinatra's) house. The wooden slats were a simple look, they take light wonderfully and are very strong." Made by Image Technologies of St Louis they're just double planks of Birch-faced plywood attached to 4mm wire rope. "The abstract motif applied to them is copied from the poster design for Carnegie," added Jackson. They might not sound much, but apply a deep amber-red from the Martin Mac's dotted about and suddenly they're a very expensive looking piece of Red Maple.

And things like the Macs are the other big change Jackson has wrought. Sticking to his 'in a Volkswagen' brief he's elected to use only automated lighting - just 36 Mac 500s/600s and four 300s. "I've chosen the 300s for the downstage slats, just because they're much smaller and less obtrusive. Truth is, they're about the same intensity as the 600s, just not as wide a beam, so you don't even notice the difference in this application."

"There were two major concerts in London this night, Mariah Carey at Wembley and Wire at the Festival Hall. Twenty years from now, people will still be talking about the Wire show, for Carey fans it will have been just another gig."

Jackson's rig is supplied by Bandit Lites, and as with sound, this is very much an Anglo-American co-op with crews from both London and Nashville. Normally, Manilow has dancers and props that have given previous LDs plenty of material to work with. This, however, is a largely static show, with just Manilow patrolling the front stage line for 50% of the numbers. "As such I was briefed to use the lights to provide 'the glamour' for the show. That's why I went all automated, plenty of bang, little truck space."

Jackson lights the orchestra not as individuals (except for one or two rare solos), electing to colour them in with the slats. Using lots of strong back light (he almost never lights them from the front) they are subsumed into the set, which he lights simply but boldly with unfussy two-colour combos and the odd gobo pattern here and there.

But the real force of his lighting is, of course, focused on the man. While that might have been unfortunate for Newman on this particular occasion, for Jackson it was entirely right. Having worked with artists of this stature, not least Sinatra himself, I know what consummate actors they can be, turning a tear with the best of them. When we looked up at the video screens this night and saw Manilow in the full glare of Jackson's lighting, there was no disguising the genuine distress that crept out from between the smiles.

There were two major concerts in London this night, Mariah Carey at Wembley and Wire at the Festival Hall. Twenty years from now, people will still be talking about the Wire show, for Carey fans it will have been just another gig.

Wire who? Well you might ask, and here I must confess a personal indulgence. They were a punk band of some repute, one I toured with in the late seventies. But they were no ordinary punks, these guys sought to present their work as art, and succeeded. A performance at the Jeannette Cochrane Theatre one night contained a passage where a cooker was unceremoniously dispatched to the municipal tip with the aid of a fourteen pound sledge hammer. To say they were challenging would be an understatement: these guys took no prisoners, assiduously refusing to play their early hits just a couple of years after they'd been released: "That's where we used to be, we've moved on since then," was the justification. That might be one reason why the audience this night at the Festival Hall looked more like the cast of grotesques that inhabit Royston Vasey (BBC2's League of Gentlemen) than a bunch of geriatric punksters.

That aside, this was their first gig in 10 years, promulgated by the 'Living Legends' series at the Festival Hall, and the band did relent this evening and gave us a healthy dose of 12XU and other romps through their more frantic early catalogue. Was watching a group of 40-year old men have a thrash valid? More so than the Pistols two years ago, and for one good reason. There's no way they were doing it for the money - Wire would have only been there if they wanted to, and want to they did.

Sound

Picking up the reins of this band, and after such a hiatus, is no easy task. Fortunately, the band's manager, Paul Smith, was a long-time friend of one Steve Wright. Wright had variously worked for Bruce Gilbert (one of Wire's two guitarists) and been an employee of Mute Records who published the band. Nonetheless, Wright had never mixed for them before, was able to attend only one rehearsal and a warm-up gig with the band and a lumpy PA at a small club in Nottingham, before entering the portals of the Festival Hall. "Fortunately, I've done shows here before, most recently with the Creatures (Soozie Soo and Budgie) so I wasn't worried about the venue." In fact, Wright seemed unconcerned about everything. Not that he didn't care: indeed, when I arrived at 4.00pm he was wading through his third sound check of the day, having elected to mix for the entire four hours, 30 minutes of tonight's show. (The programme included a procession of other conceptual musical artists, mostly solo incarnations of the band members).

Just to make matters harder, Britannia Row offered Wright a spanking new Midas Heritage instead of the XL3 he asked for (he could have had either) and he accepted. "I knew I'd like the Heritage by its reputation, and I'm used to plenty of desk changes from touring the festival circuit. Jock Bain (Brit Row's system engineer who would be attending Wright's every need on the day) spent a lot of time building my confidence." Jock had also done many a show with the Flashlight rig at this hall and knew just how to deploy it, for it was to be a musically aggressive evening.

The Festival Hall was never designed with sound reinforcement in mind and it's not without is foibles. Apart from PA hanging point positions that make covering the first couple of boxes each side a headache, there's a chunky bass trap under the balcony of this 2800 seater venue. Inevitably, Graham Lewis's bass is a fundamental part of the Wire sound. "I did ask them to turn down on stage," said Wright, "which they agreed to." A victory in no small way attributable to the band's good sense and Aide Barnard on monitors. "Fortunately, they don't want a tremendous amount of level," Barnard explained. "They want the feel of a club, so a couple of wedges

on end as side fills with a full mix across stage, and a bit of everything but themselves in their respective floor wedges, did the trick." Barnard did roll off a lot of low end, to make things more punchy, and in so doing helped Wright. "It sits around 102dBA on stage, so I could give them quite a pretty mix - I didn't have to slash it around at all." Not that it was easy. "The only thing that surprised me was Wright's choice of a Beta 87 for vocals, a condenser didn't seem the way to go." Barnard cut heavily around the upper reaches, 8kHz and over, due to what he characterised as the mic's HF peaks. This was not an issue for stage sound, and, in truth, the important information from both vocalists is below that, so it didn't matter in the house either.

Wright did very little to colour this show, other than the necessary EQ and DBX160As on everything (but only noticeably compressing bass). He did have a Roland SDE3000 and two Yamaha SPXs (900 and 990) but only did the most occasional flanging (on the drums), reverb (on the vocals) and a touch of delay here and there. He had some nice touches - for instance, his use of a completely clean signal from Gilbert's guitar used to put a bit of punch over the quite brittle sound that emanates from his cabinet.

To me the band sounded better than they ever had, though naturally they didn't have quite such a modern PA at their disposal back then. Wire are an aggressive band musically, intimidating even - as such the mix needs to be raw, a feature that could tempt into excessive loudness. While some at the back of the stalls might have reason to complain about the bass, for the rest of the room it was perfect.

Lighting

The South Bank Centre (SBC) supplied the lights for this show, Terry Hoverd the man charged with design and operation. "The only directive we received from the band was the Venetian Blind look," a reference to heavy use of this gobo by their former LD Simon Miles. (Now to be found in LA lighting TV talk shows.)

The SBC has invested a great deal in the past two years, buying desks and dimmers from Avolites, Source Fours from ETC, moving lights from Martin Professional, and most recently a truss system from James Thomas, specifically to give themselves the ability to respond to the needs of such a show. Hoverd put a bit of everything in for Wire: Mac 500s and 600s on the front and rear trusses, S4 Zooms and the odd Patt 26, and 24kW of Pars, all run from a Diamond III.

"Dark and moody said the band," and, sure enough, Hoverd had the stage looking dingier than the concrete overcoat that dresses the exterior of this musical morgue. His dominant look was more redolent of the Hamburg Madhouse (a club of dubious moral standing) than the UK's premier concert hall. "I try and do as much as possible when the band are in the hall soundchecking. If they see something they don't like, they'll usually jump." An effective, if somewhat bruising MO he applies to all such 'off the cuff' designs.

Hoverd was not foolish; limiting himself to a single colour from the Macs at any one time, which was played against a patchy low level wash from the Zooms. The Pars only really saw action when Michael Clarke's dancers appeared. Other animation on stage was suggested by the subtle application of rotating gobos overlaying the blinds projected onto the stage floor. If Hoverd was frustrated by having to hold back he never showed it.

Apart from creating the club-like feel, Hoverd was also obliged to keep things down for the video projection that featured centre stage. Creative Technology supplied a machine I'd not seen before, an Electrahome 7000 (known as the Roadie?) which was both bright and sharp. What more can you say? Most of the evening was taken up with VT, mesmeric sequences of passing trains and rotating wind turbines. But for Wire's performance something quite clever and different filled the screen. Just a few feet above the drum riser, a mirror was placed facing the audience. Convex, it was one of those highly polished metal jobs you normally find at the roadside opposite a hidden driveway. Focused up onto it was a small camera which thus presented the audience with a fish-eye view from the back of stage. Black and white, it was very grainy, and with a slow flicker effect that made the physical motions of the band jerky and spasmodic. Somehow it left you distanced but compelled, like being the witness to a car crash. That's Wire.

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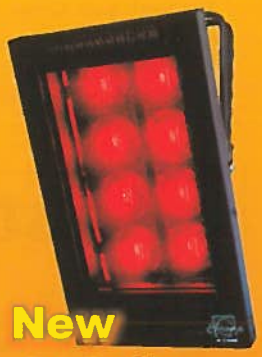

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Greatest Show on Earth II

Tony Gottelier talks to Chris Hey sound designer of the Millennium Show and to Roland Hemming head of audio at the NMEC

If you were to ask Chris Hey, sound designer of Mark Fisher and Peter Gabriel's Millennium Show at the Dome, what his greatest challenge was, he, like the lighting team, would cite: "The severe restrictions on roof loading, versus the need to hide all the speakers in between shows, which meant that virtually all of them had to be mobile."

Chris, whose design and sound consultancy Spencer Hey Associates, was recommended to the project by Gabriel's Real World music company, uses a Formula One metaphor to describe the dilemma he faced: "It was the power-to-weight ratio of the speaker and amplifier combination which needed to be dramatically improved to stand any chance of producing a viable system with so many limitations in such a huge space." Lucky for him then that two of the UK's most innovative audio equipment developers were already working on radical new products which, in combination, would go a very long way towards providing solutions to what otherwise might have proved intractable problems.

Conventional wisdom has it that a high power PA speaker must be a big, heavy, wooden box, since the laws of physics demand that a big volume of captive air is necessary, plus a big lump of metal in the shape of the speaker casting and its magnet. When you add to that another piece of 'heavy metal' in the shape of the amplifier, with its solid iron cored transformer, which you need to build into the speaker housing in order to reduce the attenuation inherent with long cable runs, you end up with a very weighty combination indeed.

Fortunately, there are those around these days who are challenging the 'set in stone' aspect of these Commandments, among whom is the trio behind the Funktion One Research moniker. Tony Andrews, Toby Hunt and John Newsham, collectively the founders of Turbosound, had restructured themselves seven years ago, following that company's pass-the-parcel sale first to Edge Technology and subsequently to AKG. Since then, they have been responsible for both the Flashlight and Floodlight speaker designs, both of which have been mould-breakers in their own right. But what they were now planning was really something else, as they say in the vernacular, nothing less than bucking the paradigm.

MILLENNIUM

For some time previously, Funktion had set out to design a high power, long-throw PA speaker which, in its own right, would weigh on average 50% less than its more conventional predecessors. To achieve this, Andrews and his team brought together unconventional structural design, using contemporary high tech materials, and a new concept in drivers, that they developed in conjunction with Fane Acoustics. Unfortunately, for reasons of commercial confidentiality, we are unable to say much more about the materials involved in this process, except to say that the 'wood equivalent of carbon fibre' is used for the enclosure, while 'high tech magnets' are used in the drivers. It may be significant that with the switch of a single letter this, so called, Resolution Series of speakers yields the word Revolution. Eventually, there will be both indoor and outdoor models of these speakers available, and certainly such lightweight 'boxes' could revolutionise touring, and indeed all forms of temporary installations, changing that particular landscape for ever.

Coincidentally, the C-Audio subsidiary of Harman International had set out on a development programme to produce its new Pulse range of high power amplifiers, announced last year, which use switch mode power supplies to reduce weight by up to 70% - the holy grail of a Class D amplifier. Once again there is a cloak of secrecy, so I am guessing that the PWM amplifiers custom-made to Hey's requirements for the Dome, which are apparently even lighter and cooler running, and they need to be cool when attached to a speaker, are a derivative of this same technology. Thus, it remained to bring amplifier and speaker together in a single package to achieve, what Hey describes as, "a treble advantage in the power-to-weight ratio - for example a comparable conventional speaker typically weighs 90 kilos, the Resolution F9s weigh only 67kg including the amplifier, but deliver three times the output". 220 of these PWM specials were used for the Millennium Show, one for each Funktion One speaker in the scheme, the majority being four channel versions,

paradigm (pàr´e-dìm´) noun - An example that serves as the pattern or model for the rest.

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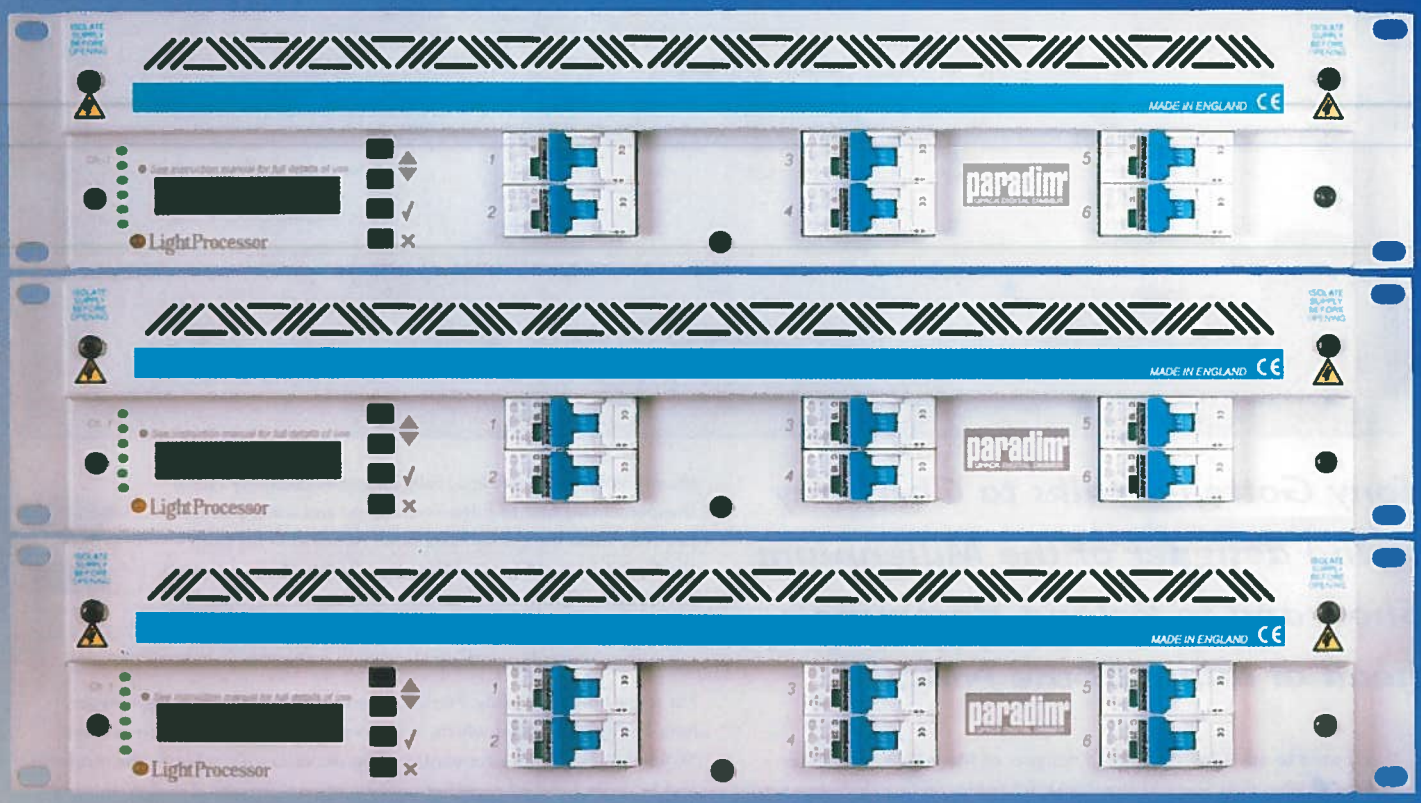

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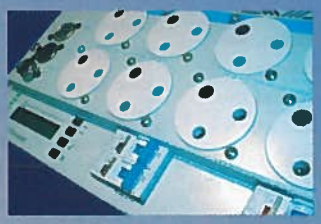

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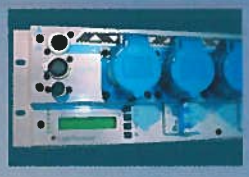

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but with two channel models used for the 96, 2x18" bass bins under the stage.

Aside from the sub-bass, the rest of the configuration of the system designed by Chris Hey, has Funktion One's Resolution F9 speakers surrounding the 'mast', which ascends from the stage during the performance, 12 forward facing effects positions using more F9s which fly in and out at the perimeter of the arena, plus 12 delay positions using 48 custom skeletal JBL 2110s, and on the 'bicycle wheel', 45 metres up in the roof, there are a further 12 F9s in fixed focus. 32 Galaxy Hotspots are built into the stage for front fill.

"Since, with the exception of the wheel, every speaker moves, the system represents a huge cable management exercise," Hey told me in something of an understatement. Slip-rings were used on the motor chains, a high tech drum system on the mast, while the rest of the speakers on the stage are gravity fed from hoppers below. Cat-5 stranded cable is used for the moving speakers, and solid core Cat-5 for the rest.

With radical new speakers hot off the press and an untried amplifier species, it shows the risks with new, and untried, technology that Chris Hey was forced to take to resolve the challenge of this huge, transparent space and its 'show-in-the-round'. That it all seems to work without any obvious problems and very little extraneous spill is both a credit to his faith in that technology and

The central show

its developers and to his own perspicacity not to mention to his skill as a designer. Just take the spill issue as an example: the arena is surrounded by other exhibits, with nothing between them and the show apart from their own structures, so effective central focus was vital.

So again, the signal distribution wasn't going to be straightforward either with the huge distances involved. Hey selected BSS Soundweb using optical fibre to glue the system together, again something of a leap of faith was probably required as at that stage Soundweb had not been used previously in any major way as far as I am aware. Consequently, BSS developed its 9014 fibre interface to allow network extension by up to two kilometres thus facilitating the transfer of up to eight channels of digital audio in both directions together with data. There are 89 Soundweb DSPs in the show audio system, though 170 are in use in total when you include a second network for comms, plus timecode and other audio feeds.

The 40 channel system has been configured by Hey as a 7:1 modern cinema set-up using the Ambisonics programmer. "The only analogue device in the entire spec," as the designer is quick to point out. The whole arena is divided into 12 sectors each of which has its own mix, and when these are configured into zones via the Ambisonics it enables both large and small scale effects to occur simultaneously, while also facilitating the possibility of revolving the sound in a whirling motion and other clever tricks.

The playback system consists of five linked DAR OMR-8, 24bit, 8 track recorders, running Protools software, to deliver the 40 track show tape. "Peter Gabriel and I were determined to emulate the sound track in the Dome exactly as it had been recorded at Peter's Real World Studios," Chris Hey points out: "The only way that could be achieved was to take the session disks to the Dome, together with a Sony Oxford, as was used for the original recording, so that we could play it back and edit it through Protools without re-recording." Bearing in mind that the Dome was still a building

Left, the central sound monitoring room and inset, the Hiwayrack system that transfers audio and comms around the dome

site at the time, I bet that was an 'interesting' exercise, to say the least. Anyway, Chris expresses himself delighted with the result.

Sysco installed the entire performance audio system in the arena, and we apologise to them for omitting their name from last month's credits due to misinformation from an otherwise unimpeachable source.

Ask the same question that we asked Chris Hey at the beginning of this article of Roland Hemming, Head of Audio at The Dome, and he would doubtless mention: "The 24 hour nature of the site, and the short time between each show, which will get worse as the number of shows increases as we go into the summer." As we outline the comms stats these comments from Hemming will come into sharp focus.

"Every performer has in-ear monitoring, and some have radio mics, this means 75 radio packs per show and 150,000 batteries per year," says Hemming, revealing his photographic memory for statistics. "Bear in mind we are dealing with aerialists, so this is a big safety issue and I don't believe this has ever been done this way before." The in-ear monitors used by the 'high flyers' are AKG IVM receivers spread across 10 channels so some performers can get different sounds depending on their roles and, in view of the safety issue, there is lots of back-up and redundancy. The IVM receivers also serve to protect the ears of those performers who come within close range of the powerful speakers. AKG modified its receiver packs to make them less obtrusive and less likely to cause physical injury, but each performer has to choose where best to wear this kit. A Soundcraft SM12 manages the monitoring, though this is only one of 21 consoles of that marque used throughout the Dome, including Series 15 analogue mixers and a Spirit 328 digital console which are at work in the broadcast suite.

"You can see, with a cast of 75 and all the displacement of speakers between shows, why all this prepping consumes a huge amount of time," Hemming emphasises. So, bearing in mind that the show is only one of his may responsibilities in the Dome as a whole he, and his 38 staff, are kept pretty busy. In addition, the comms system includes 35 customised Telex RTS TW power supplies and 2 to 4 wire converters, plus 80 Telex RTS outstations, together with 50 Duplex radio comms linked to the system. Canford Audio supplied and installed the communications system in co-operation with Telex UK though, again, this is only a small part of the overall site-wide installation which they have provided at the Dome.

The show audio system has its own technical earth and all major hubs are UPS-protected as are most of the comms.

With ATG Spectrum handling the control room installation alongside Sysco's main install, and with Marquee Audio handling much of the work outside the arena, Roland Hemming is especially impressed by the spirit of partnership which pervaded the site as the December 31st deadline loomed: "Everybody worked in total co-operation without any enmity in recognition that the deadline is king," Hemming says.

To broaden the story somewhat, or to put it into context in terms of the massive scale of the Dome and the consequent task his department faces, here are some overall

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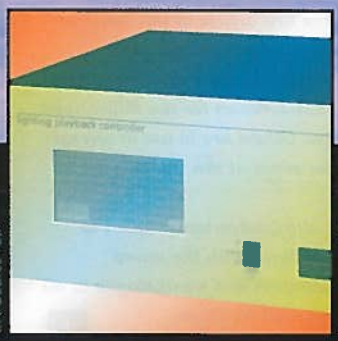
Millennium Dome, UK. ©MEC / QA Photos

ETC Source Four



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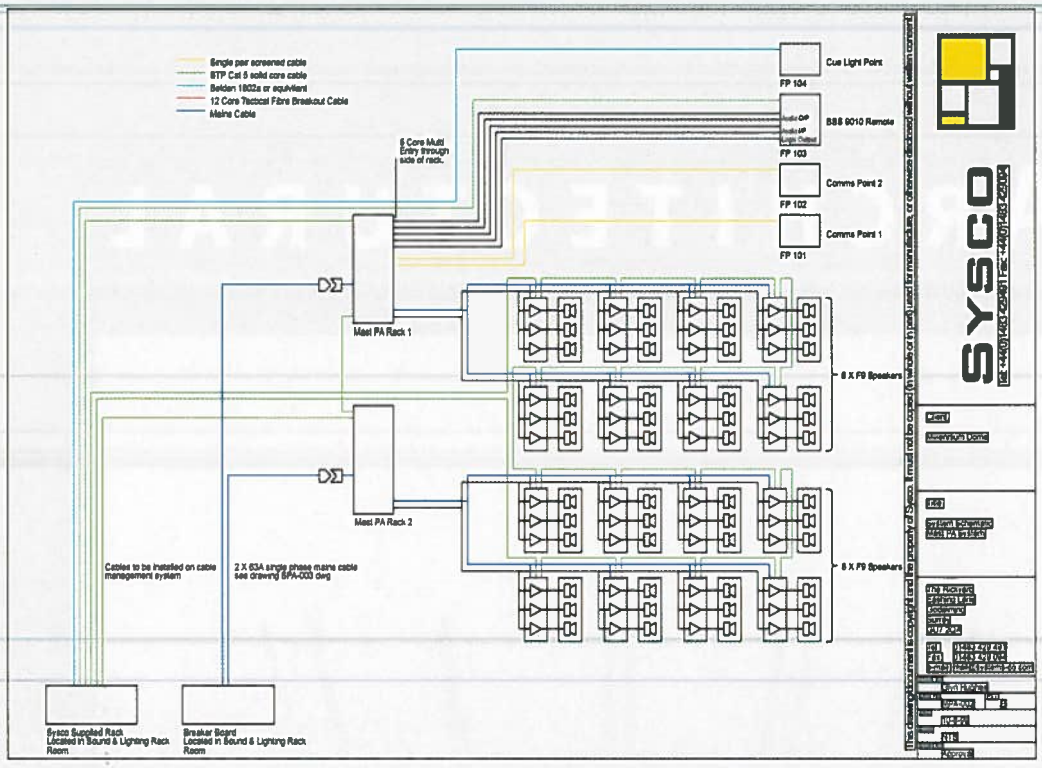

statistics from Roland Hemming about the site as a whole: 80 kms of fibre optic cabling, 804 Soundweb units, 57 individual sound systems, 600 audio tracks, 800 amplifiers (many multi channel), 220 microphones, 74 radio frequency mics (excluding Duplex). Is that the biggest sound installation ever?

At the end of the previous article about the Millennium Show I speculated as to whether Mark Fisher would get his wish to finish his show in its entirety as it was conceived. It seems that the arrival of Pierre-Yves Gerbeau has facilitated that wish and the work is already underway. Not only that, but as we went to press, P-Y announced that the number of performances was to increase, perhaps not surprising since the current, and most effective, TV commercial features this jaw-dropping spectacular.

If any inaccuracies have crept into this article, I would like to apologise here and now. If they have, it will be down to an almost total lack of accessible paperwork since the documentation for the audio system is so vast, none of the protagonists had the time to rifle through the paper mountain to find anything more useful than an equipment list, so all this information was gleaned from interviews which are not always the most reliable method without hard back-up. Last month a couple of gremlins appeared in the text for similar reasons, and these are redressed on the adjacent panel.

In the first article in this series we failed to mention that Light Processor supplied their Paradime digital dimmers for the Millennium Show. Others are in use in several other zones at the Dome.

We also inadvertently failed to credit Sysco with the sound installation and we apologise to all concerned for these errors and omissions.

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Stage - Brilliant Stages
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RIGGING:

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SOUND:

Installation - Sysco
Speakers - Funktion One/JBL/Galaxy
Amps - C Audio
Processing - BSS Soundweb
NMEC - Roland Hemming

TECHNICAL CONSULTANTS:

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Sound Design - Spencer Hey Associates
Lighting Design - Patrick Woodroffe
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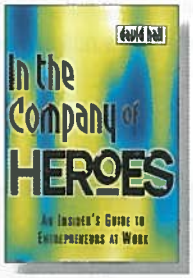

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ULTRAK INTERVISION

Due to expansion, London's leading conference, music and event stage lighting company has vacancies in the following positions to work from its new Croydon facility. Applicants should have either formal training in technical theatre areas or a suitable electrical qualification of three years experience in stage lighting.

OFFICE STAFF
- Lighting Production Assistants

WAREHOUSE SUPPORT STAFF
- Automated Engineer/Technician
- Equipment Supervisor
- Dispatch Supervisor
- Cable and Mains Distribution Technician
- Lantern Technician

MIDNIGHT

Please send CV and application letter to:
Alan Thomson, Midnight Design, Unit 3 Beddington Cross, Beddington Farm Rd, Croydon, Surrey, CR0 4XH.

AV for the millennium

The Millennium Experience is the most exciting event in the world in the year 2000. The Dome is hosting the most dynamic and spectacular celebrations, with exhibits, performances and numerous events in a state-of-the-art equipped environment. All this offers a truly modernistic challenge.

Audio Visual Staff

Our AV team is responsible for installation, supporting AV sub-contractors, implementation of temporary and permanent presentations, supporting TV broadcast crews and internal TV networks and maintenance of all AV and video systems around the Millennium Dome. We are looking for all levels of AV staff including:

- AV Project Engineers
- AV Technicians/Riggers
- Broadcast Video Engineers/Technicians
- Film Projectionists and Engineers/Technicians (35mm & 70mm)
- Large Screen Display Engineers (LED video display and LCD/CRT projection)

You should have experience in AV control systems, LCD/CRT display equipment, broadcast video systems, film projection equipment, video replay, LED large screen displays and general AV systems.

Contracts will run through until January 2001. Individuals on all contracts must be prepared to work as scheduled throughout the Christmas and New Year period 2000.

Please send your cv and a brief covering letter to Glen Steggall, HR Co-ordinator, NMEC, Gate 1, Drawdock Road, Greenwich, London SE10 0BB. Or by email to: productionrecruitment@newmill.co.uk

Closing date for applications: 3 April 2000.

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Education Centre - Theatre Technician

Location: Kent • Job Ref: 1149/1

The successful candidate will provide technical assistance and advice on AV, lighting, video, presentations and performances and liaise with the IT department. Applicants should have good customer liaison skills and be flexible with experience of event/conference organisation.

Technician

Location: Berkshire • Salary: £13K • Job ref: 1145/1

A young production company is looking for an enthusiastic technician to prep, repair and generally look after hire stock. Additional duties will include monitoring lead times and PAT testing, as well as occasional site visiting.

Executive Position - Director of DSP

Location: Worcester • Salary: £40K + benefits • Job ref: 101/1

Candidates will have held a senior design or development role within the pro audio industry and have an excellent understanding of project management. Excellent management, communication and customer liaison skills are required, as well as good commercial acumen with sales and marketing knowledge. Candidates will be educated with at least 10 years audio industry experience and a solid track record of achievement and innovation.

DSP Project Engineer

Location: Worcestershire • Salary: £30-35K • Job Ref: 101/2

Candidates will be qualified to degree level and experienced in software writing for real-time embedded systems to assist with building and testing prototypes. With good hardware knowledge, the successful candidate will also help contribute to new product definitions and will be experienced or very interested in the audio industry, self-motivated with the ability to generate and work to project timescales.

Audio Technician

Location: Nottingham • Salary £17-25K • Job Ref: 019/1

Five years experience of sound system installation work and the ability to liaise with clients, consultants and contractors is required for this position. Candidates must be willing to learn and explore new ways of achieving satisfactory solutions, be computer literate (including CAD) and have an understanding of sound/PA systems. Additionally, candidates must be able to read architects drawings.

Project Engineer

Location: Worcestershire • Salary: £22-25K • Job Ref: 101/3

This position requires education to degree level in electronics/software and at least two years audio experience. The successful candidate will design and develop new products within timescales and budgets, help build and test prototypes and prepare product specifications whilst keeping up-to-date with relevant technologies.

INTERNATIONAL - Sound Engineer

Location: Hong Kong • Salary: £18K + accommodation

Looking for a career opportunity overseas? Candidates will be an enthusiastic good team players with the ability to train others and a minimum of five years experience with audio and live music.

INTERNATIONAL - Lighting Designer

Location: Hong Kong • Salary £30K + accommodation

*Candidates will be enthusiastic team players with the ability to train others and have five years experience with audio and live music. Applicants will be Vari*Lite trained and have knowledge of Auto-Cad.*

European Salesperson

Office Base: Hants • Salary: £30-35K + bonuses • Job Ref: 100/1

This position would suit an energetic self-motivated international, multi-lingual salesperson with a proven sales record in dealing with blue chip companies. Experience at board level is essential.

All applicants should send a CV, along with a hand-written covering letter, explaining why you would suit the position, along with latest salary package information.

In Profile...

L&SI Talks to the Industry Trend-setters

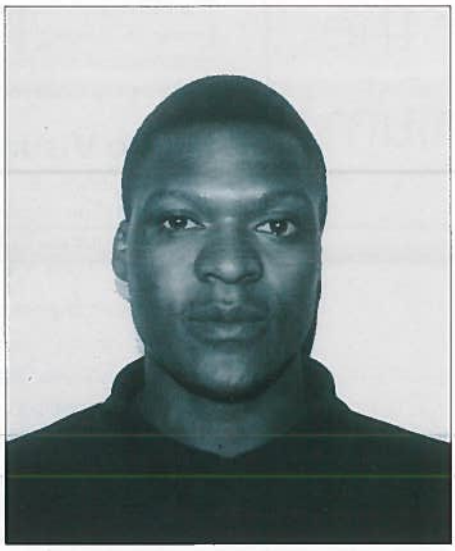
This is two men's story really, but mainly it's about Vincent Khumalo, a rigger. Most of you have never heard of him - if you're lucky you'll meet him one day. But you'll remember his story, and you might even tell it to your kids at Christmas.

Although many come into this industry by unorthodox means, rigger Vincent Khumalo has perhaps a unique story to tell. Steve Moles met with him in South Africa . . .

Khumalo was born in Bergvill, a small farming community near Ladysmith in Kwa-Zulu Natal. It was 5th August 1975. His mum was a housewife, his dad worked for the Town Council. The early years of his life witnessed the awful mundanity of Apartheid abuse - the belligerence of the State is nothing if not a dull instrument, as the Gulag Archipelago emphasised in such detail. At best, Black people were paid so poorly as to be barely on subsistence. "I left school at Grade 8," he informed. "I could read and write, but never matriculated." He was 18 years old. Most students achieve Grade 12 by that age, but already Vincent was having to divide his time between school and work to help put food in the family's belly.

Khumalo is at once an engaging and warm human being. Whatever the deprivations of his schooling, he is articulate. He speaks with the soft intonation of Mandela - he is by nature a gentle man, but there is a fire in his eyes, and as we'll learn, one in his heart as well.

He ran away to Johannesburg when he was 19. The city of opportunity, Johannesburg was reputedly less oppressive than the farmlands of his home territory. He quickly found work as a pamphleteer, spending hours stood outside all day handing out leaflets nobody wanted, for virtually no pay.



By night he curled up inside a storm drain for shelter, except that is, when the rains came and turned his home into a raging torrent. Khumalo's pipe home was also his good fortune, as it sat across the road from this strange but busy company. Strange to him because lots of people - black, white and Asian - came and went all day, but what really caught Vincent's eye were the bosses. Nearly all white - nothing new there - but everyone, bosses included, spoke to one another with courtesy.

"That's where we first found him," said head of Gearhouse rigging Pieter Joubert, "living in a drain. I quickly gave him a job, just casual labour at first, filling boxes, that sort of thing."

Now there's something you ought to know about Joubert - he's a true son of Afrikaanerdom. According to his boss, when he first came to Jo'burg he could hardly speak English, so isolated was his Dutch South African upbringing. He's also a classic example of how an intelligent leopard learns to change its spots. For example, from my own experiences, I've noticed that when two Afrikaaners are together in the presence of English speakers they think nothing of lapsing into their own tongue when it suits them. Joubert studiously sticks to English, even when one of his fellow countrymen tries it on. I mention this because it was Joubert's great pleasure to discover Vincent The Man. "It was quite amazing. For several months he was learning everything; he knew nothing of our equipment, ropes, steels, hoists. Nothing.

"So I taught him the inventory and how to put a kit together. Sometimes I'd take him out on a job, but just as an extra pair of hands . I never realised how closely he was watching what I was doing. Then one day I was out on a job and Vincent was back at the store. I was supposed to be running a rigging school the next day so I returned late that evening to put together a small rig for demonstration purposes. I got back and it was already hanging there, and it was perfect."

At this time, Joubert had never once shown Vincent how to assemble a basket, make a bridle, even which way to orient a shackle for a hook to rest in. "He'd taught himself," said Joubert with some pleasure. And so Khumalo rapidly progressed to the position of rigger, though it wasn't quite so easy as putting together a mock-up for a rigging school. These days he often spends his evenings with Joubert in the shop, being taught maths so he can calculate bridles and work out stresses. Joubert recollects Khumalo's transition to rigger with affection. "I remember the first time I took him into a roof, his legs were shaking but he wouldn't say anything." And also the spirit that got him up there. "He was determined, and nothing, not even his own fear, was going to stop him." ■

Lighting&Sound International

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