

# LIGHTING+SOUND

*International*



EAST 17 AT THE BRIGHTON CENTRE

PHOTO: PHIL DENT

- Screen Images for East 17's Insomniac Tour
- New Year Revolutions for Dome II, Birmingham
- Malaysia's All Asia Broadcast Centre enters Digital Age
- Lyceum Theatre, London - a Phoenix from the Ashes
- Rent on Broadway and Die Soldaten at the ENO
- Bristol Cream: Theme Bars in the City

PLASA

**FEBRUARY 1997**

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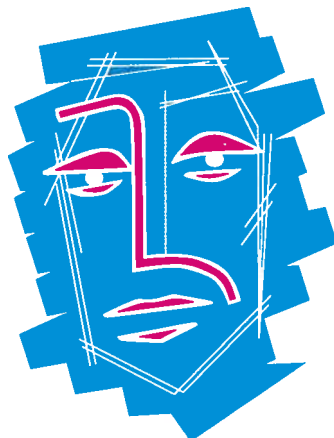
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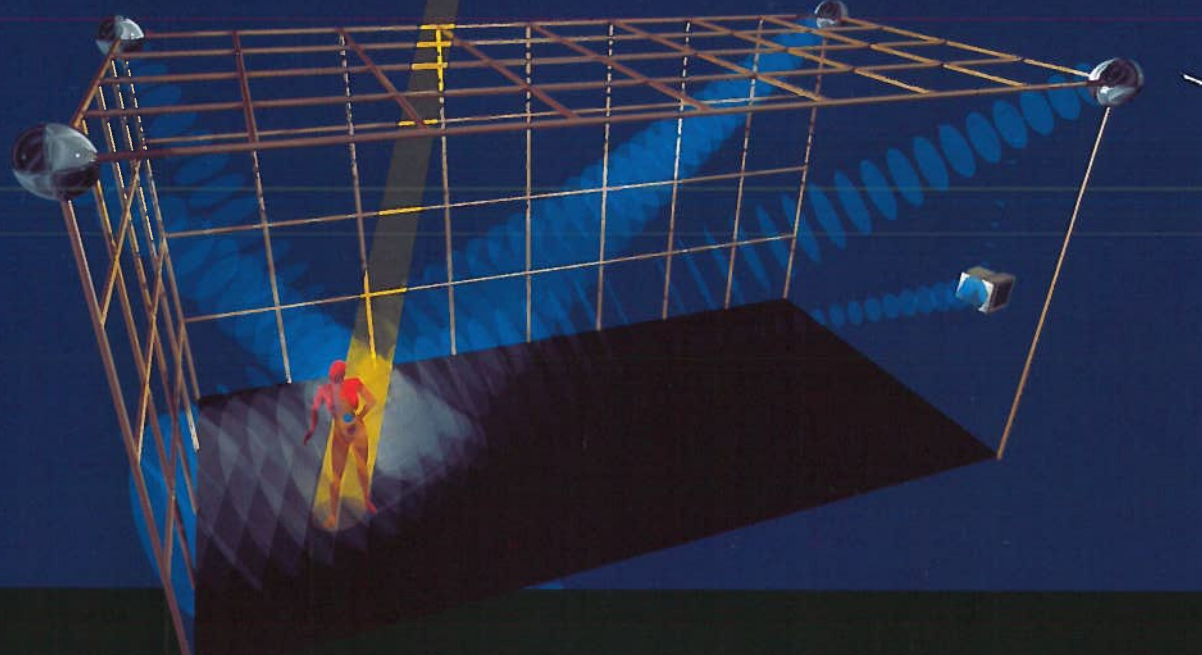
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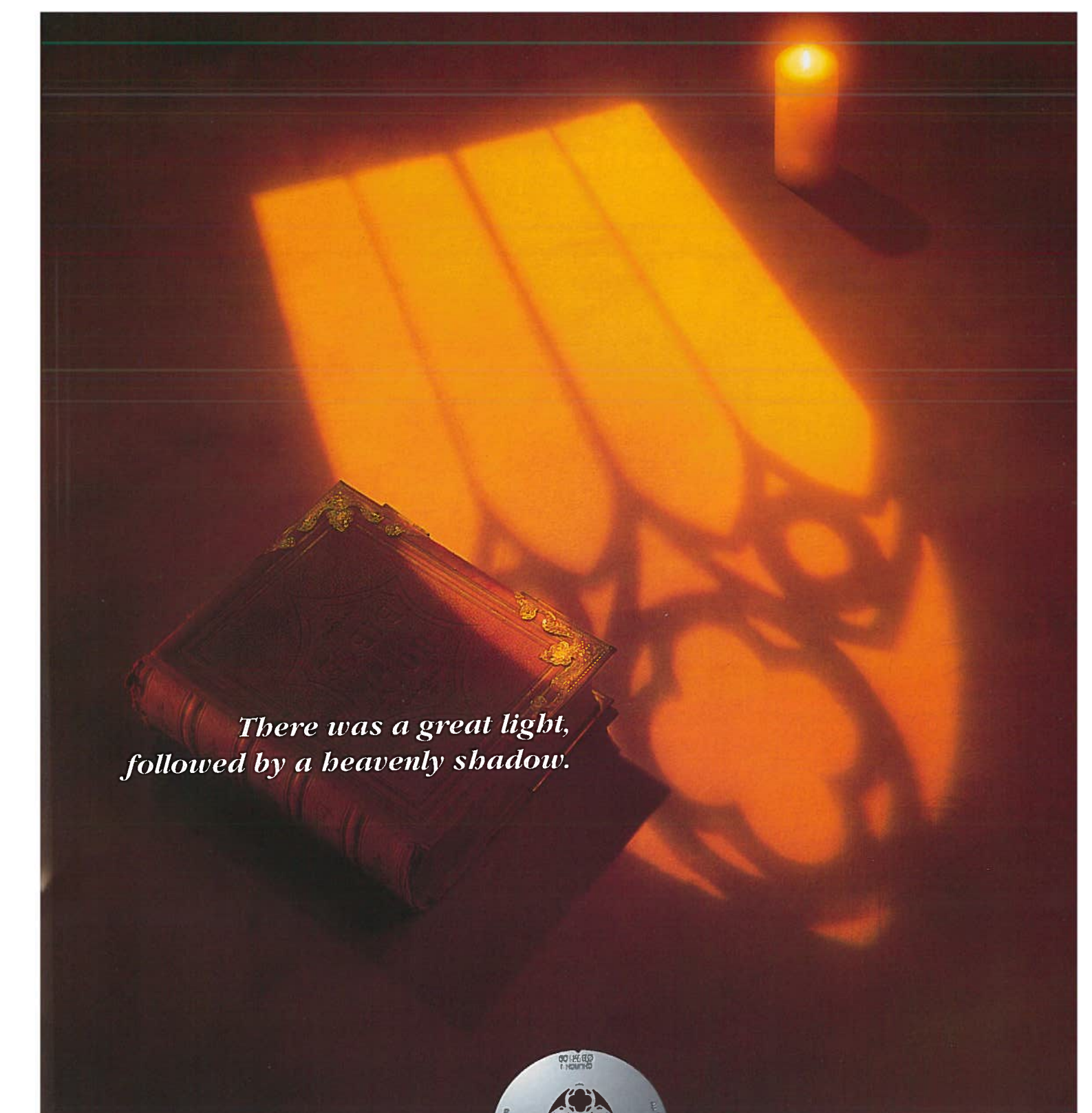
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Deputy Editor: Ruth Rossington

Associate Editor: Tony Gottelier

Assistant Editor: Lee Baldock

Advertisement Manager: Barry Howse

Production Manager: Nicola Evenden

Production/subscriptions: Sheila Bartholomew

Advertising Co-ordinator: Jane Cockburn • Editorial Assistant: Jo Boyd

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## dj Culture

A new show for the expanding DJ market will take place at the G-MEX Centre in Manchester from May 31st to June 1st. Organised by P&O Events and sponsored by PLASA, dj Culture will be the first show for the growing number of professional, semi professional and enthusiast DJs.

Over the last five years, dance and DJ culture has increased sixfold and many of the leading consumer magazines are now reporting readerships in excess of 100,000. dj Culture will be an international event for the whole DJ fraternity and will benefit from the strong club scene based around Liverpool, Manchester, Leeds and Sheffield.

The decision to launch dj Culture was stimulated by companies highlighting the growing demand from DJs for an event of their own and also for a show that addressed the retail/consumer end of the market. On show will be the latest equipment, a wide range of accessories and merchandising and products from record companies. Top DJs have also been invited to participate and a series of workshops will offer advice to practising and aspiring DJs. The event has already attracted the support of some of the leading companies in the



The G-MEX Centre in Manchester - venue for dj Culture.

industry, including Numark, Vestax, Martin, CD Pool, Gemini, Lamba and Music Factory.

PLASA Chairman Paul Adams told L+SI: "dj Culture will give our members an even better chance to expand their sales to a vibrant and fast-expanding market. PLASA is enthusiastic about this new initiative." James Brooks-Ward of P&O Events added: "This event will embrace all aspects of DJ and club lifestyle. This is the first of its kind and we are looking forward to making it a world leading show."

For further details contact Bridget Beaurepaire at P&O Events on 0171-370 8179.

## If you Knew Sushi



In mid-January Soho morphed into the modern world as a new brand of restaurants, Yo! Sushi was launched, complete with Skytrackers from Theatre Projects, to an invited audience and two hungry hacks from L+SI.

Lit by the new Irideon AR5 moving lights supplied and installed by LT Projects, customers sit at bars or in booths surrounded by the latest Sony widescreen televisions broadcasting, amongst other things, live news from Japan, whilst a 60m long conveyor belt delivers sushi to them. This is the UK's first installation of the AR5 and the 12 units are primarily there to saturate the room with colours via automated dichroic filters and programmable positioning. LT Projects also supplied a custom-designed 'Lightbeam' structure containing 80 fixed downlights to illuminate the conveyor belt and dining areas, in addition to installing the Sony audio and video equipment including the TV monitors for satellite TV link-up and cameras for 'interactive' viewing, all of which are controlled centrally from a specially designed control rack.

The restaurant was designed by Simon Woodroffe, brother of LD Patrick, who programmed the lighting for the venue, and is part of a new leisure brand which has just been launched by Dellway.

## Speakercheck Returns in S+CSI

Anyone over 30 in the audio industry must surely remember Ken Dibble's Speakercheck series which ran from 1977 until 1983 in International Musician & Recording World magazine. In fact, we know of many who still keep the entire six year run in binders! The series certainly sorted the men from the boys at that time and we feel sure it will do so again - and that's why L+SI sister magazine, Sound+Communication Systems International, is embarking on a major new Speakercheck project that will run up to the Millennium. If you would like to submit product for the survey contact Ruth Rossington at PLASA Publishing on (01323) 642639.

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## Mark IV Audio Sold to Greenwich

The audio division of Mark IV Industries has been sold to New York-based Greenwich Street Capital Partners. The move allows Mark IV to concentrate on its core automotive parts business, whilst allowing the audio division to benefit from additional funds being invested into product development and marketing.

Bob Pabst, who stays on as president of Mark IV Audio told L+SI: "Having Greenwich as a parent company will produce very positive results for both customers and employees around the world. Greenwich is planning a dynamic growth programme which will be supported by new marketing initiatives. The only change in company identity will be a new name, which will be announced shortly."

## Millennium Bridge Launch Spectacular

Searchlight manufacturer Skylites International worked alongside Laser Grafix for the recent launch of the proposed Tate Gallery/Millennium Bridge at Blackfriars in central London. Two Skyscanners were used, along with Laser Grafix's mainframe Argon lasers, which projected an 80m long image of the new bridge and a 'beam' marking the route of the bridge's path across the Thames.

With the Millennium celebrations in mind, Skylites have been replacing their entire stock of searchlights with units capable of being fully remote-controlled via DMX512 from the company's own or any other DMX lighting desk.

To cope with increased workload, Skylites have recently moved their operation to a new, larger site in Braintree, Essex. They can now be contacted on (01376) 326726.

## Technomad Speakers Give T-Rex its Roar



Technomad loudspeakers (distributed in the UK by Fuzion plc) have been used to provide the terrifying roar of a Tyrannosaurus Rex at the Jurassic Park theme attraction at Universal Studios, Hollywood.

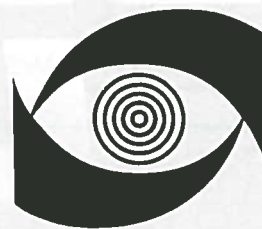
When a boat full of spectators emerges from a tangle of twisted metal and shattered pipes into the wrecked remains of a laboratory, the 6m tall T-Rex suddenly swings into action with a blood-curdling roar. In case this doesn't scare the audience enough, the dinosaur then lunges down at the boat, snapping almost at the heads of the passengers, before the vessel makes its escape by plunging down the USA's largest water ride to a splash pool 85ft below.

The ride is an unfriendly environment for loudspeakers, with spray from the waterfalls and steam gushing from ripped pipes producing massive amounts of humidity for 16 hours each day, on all but two days of the year. Technomad's WeatherTech loudspeakers were chosen to replace the original sound system, which failed after just four months of service.

On the choice of Technomad's speakers, Ed Carri, sound and video foreman at Universal, commented: "It was the fact that the speakers are designed to meet military specifications that made them the ideal choice for the job. If they are good enough to be mounted on M-1 tanks for battlefield simulations, then they should withstand our theme park."

## Showlight 97 Set For Record Event

Showlight 97, the fifth international conference on lighting for the performing arts, will take place at the beautifully restored Flemish Opera House in the Belgian city of Ghent from April 28th-April 30th. This year's event promises to be the best ever, bringing together lighting professionals from all over the world in a stimulating and enjoyable environment.



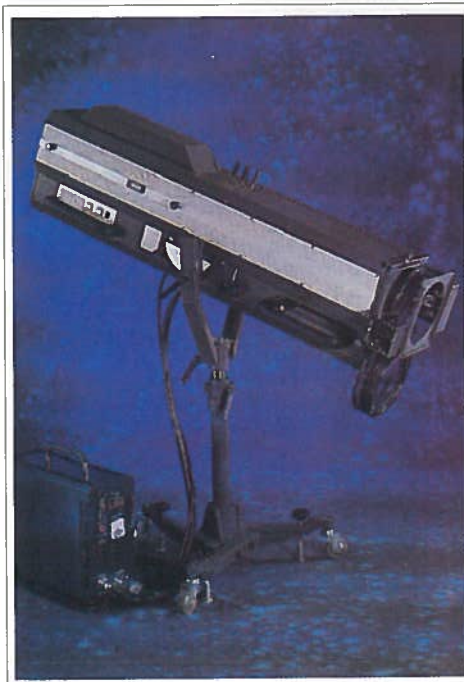
A central part of the conference is the papers programme, and some of the leading players in the industry, drawn from across the broad span of entertainment and the arts, will present papers. Jim Tetlow is an award-winning American lighting designer with over 20 years' experience lighting for theatre, television and architecture; Rick Fisher is a leading UK drama, opera and dance lighting designer, perhaps best known for his work on the award-winning 'An Inspector Calls' in London's West End; Mike Southon, BSC, is a Director of Photography with wide ranging credits for documentaries, feature films and commercials, and is also the winner of Prix Italia, BAFTA and many other prestigious international awards; Harry Hollands is a lighting designer and architect for Philips Projects at Eindhoven who were responsible for the spectacular relighting of the Pyramids at Giza last year.

Other papers will cover a diverse range of issues, from 'The Next Generation of Lighting Designers', 'Automated Lighting and Applications For The Theatre' to 'Entertainment Lighting For The Cruise Industry', 'CAD', and 'Lighting the Way to Digital Movie Magic'.

The event also showcases lighting equipment manufacturers and service companies, and will be a strong attraction for delegates who will see some of the most stimulating ideas in the industry from over 30 international manufacturers and distributors, including AC Lighting, ADB, Amubel, ARRI, Avolites, Beo Brackman CCT, Cirro-Lite, Dedo Weigert, DeSisti, ETC, EVDV, Flashlight, Glantre, Howard Eaton, JEM, Lee, Lightfactor, Lite Structures, LSC, M&M, Optikinetics, Philips, Pulsar, Rosco, Sachler, Strand, Sylvania, Teatro, Theatre Projects, Vari-Lite, White Light and Wybron.

However, Showlight is not just about the technology - it's also about the people in lighting and a number of events are planned to give everybody attending the colloquium a chance to meet in a more informal setting. Highlights include a civic reception hosted by the Mayor of Ghent, followed by dinner at various restaurants, where delegates will experience traditional Flemish hospitality. Delegates can also visit a local television studio, or the historic Vooruit and Minard theatres in Ghent, whilst the Conference Dinner, will take place at the beautiful 10th century St Peter's Abbey with a pre-dinner reception in the crypt of the adjoining International Club of Flanders.

If you would like further information on how to register for Showlight 97, see page 61 or contact Ruth Rossington in Eastbourne on +44 (1323) 642639.



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# What do you use yours for?



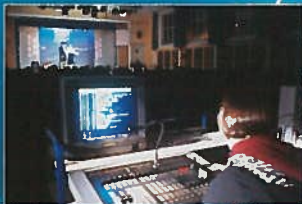
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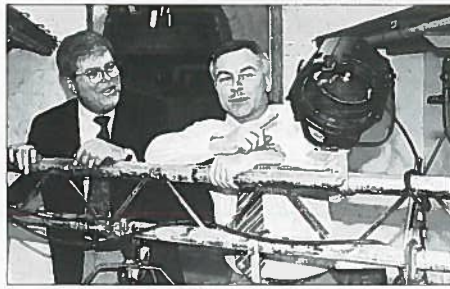
## ROH Dimmer Survey

The Royal Opera House is about to allocate serious money to new dimmer technology and will shortly award a contract for 1,348 dimmers in the main house and a further 450 in the Studio Theatre. Because such large numbers were involved, Mark White and the team at the ROH opted to conduct comparative tests and invited four manufacturers to submit product for testing - and so from Strand came the EC90, Electronic Theatre Controls supplied their Sensor dimmer, ADB offered Eurodim and Bytcraft provided Solution 28.

The first thing the team looked at was acoustic noise generated by both the racks and the lamp filaments. To create the best possible conditions in which to test the dimmers, Ove Arup acoustic consultants, who have done much work with the ROH, set-up a test area beneath the main stage and ran through a series of tests between midnight and 4am when the noise levels were just 18dB.

Oscilloscopes and harmonic meters were then used to measure harmonics and the rise time of each dimmer producing a set of results for each manufacturer that was correlated against the acoustic noise. The team then assembled a test rig of 'nasty' loads including tungsten high and low voltage fluorescents, R&V beamlights which have large transformers and finally neon. The ROH then invited 50 lighting professionals to join them during the testing period and gave each a questionnaire for feedback, the results of which are currently being collated.

Further tests were then conducted to measure the heat generated by the racks and most critically, electrical overload performance. The team then brought in an ARRI image desk with 100 step



Lighting designer John B Reid (left) with Mark White of the ROH and the 'nasty' loads.

output in order to test manufacturers' claims about smoothing.

White is keen to acknowledge the assistance of all the manufacturers and also noted that the test results to date have not varied significantly from the performance characteristics claimed by the manufacturers. Once all the results are in and collated, the tender will be awarded on March 31st. A useful by-product of the survey is the likelihood of the setting up of a User's Group on dimming technology.

As has been well documented in these pages, the ROH is due to leave its present home shortly in preparation for the development of the site to create a theatre for the 21st century. The last performance is on Bastille Day, and the technical team then have three weeks to strip the stage and hand over to the demolition contractors on 4th August. The ROH companies will tour for two and a half years, during which time the new building will be erected. If all goes according to plan, the venue should be ready for handing back to ROH in June 1999 at which point the commissioning of the various technical systems begins, with a grand re-opening in December 1999.

## Nexo Wembley Launch



Flying demo: Nexo's Mick Anderson with the Alpha system array, flown on the Crossbow system in under seven minutes.

Loudspeaker manufacturer Nexo chose Wembley as the setting for the launch of their new Alpha system recently. The system, which consists of the M4 or M8 mid/high, the B1 bass and the S1 sub, was introduced to over 200 invited guests at Wembley Conference Centre. The power and clarity of the lightweight system was demonstrated with various recorded sound as well as with multi-track material.

Nexo, one of Europe's biggest loudspeaker manufacturers, also introduced the Alpha system's own flying system, the Crossbow system, which provides a fast, versatile and easy method of flying considerable arrays of cabinets. We'll have more on Alpha in a future issue...

## Media City

A UK-based consortium led by Sony Europe, partnered with Kvaerner Construction, has won a major \$314 million contract from Egyptian state broadcaster, ERTU, to build a digital production studio complex on the outskirts of Cairo. The new 420,000sq.m complex will be the central feature of a new Media Production City being built by ERTU and the focal point for media production in the region.

Unofficially dubbed 'Hollywood on the Nile', the City will be one of the world's largest production studio complexes ever built. The initial three year contract involves the building of six digital studios, workshops and administration buildings, fully-equipped television edit suites, OB and support vehicles and the supply of Sony Digital Betacam production equipment. A second phase involving another seven studios is also planned.

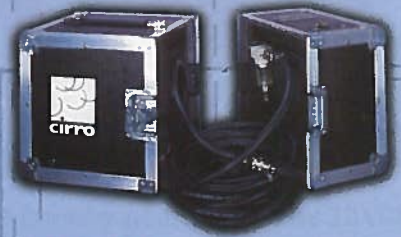
Sony Europe will be overall project leader and will be partnered by consortium members Strand Lighting and Quantel, and sub-contractors Solid State Logic and Cintel International, whilst Kvaerner will handle the civil engineering and construction side of the contract.

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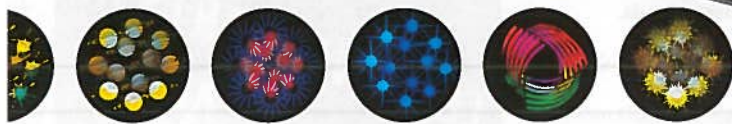
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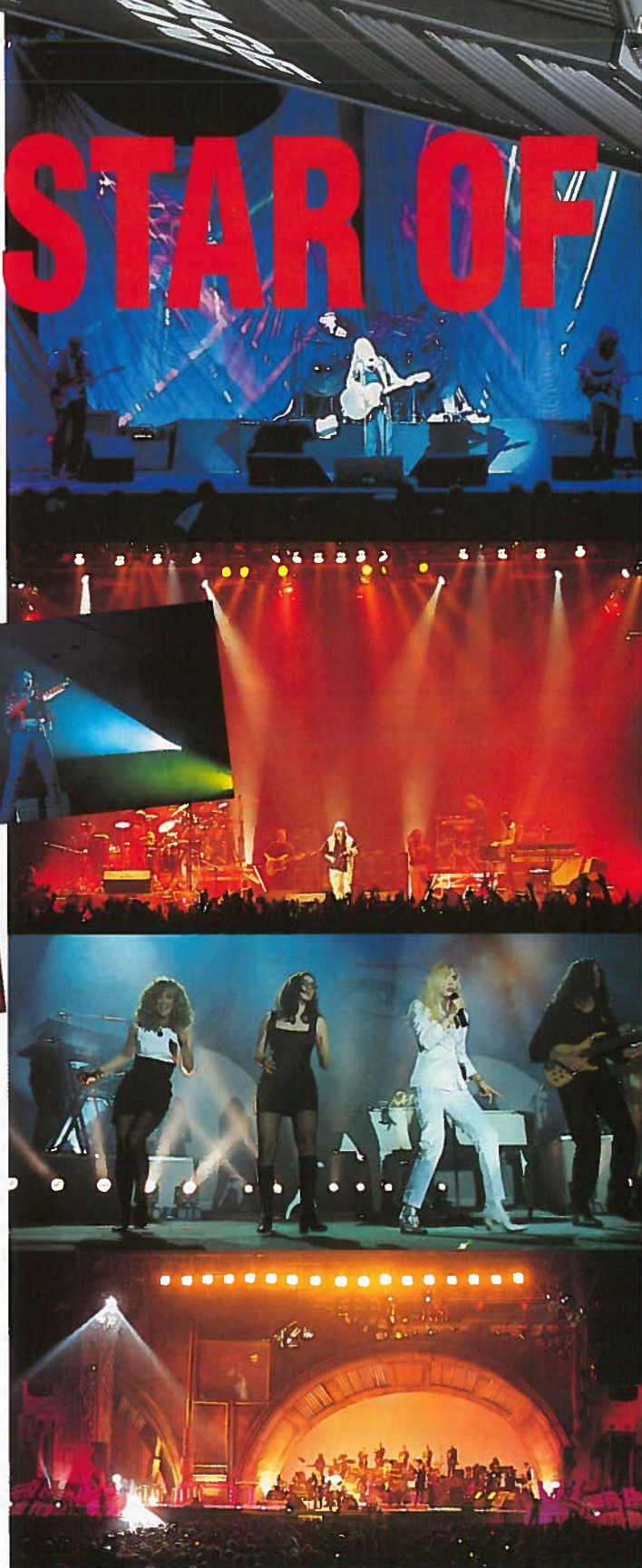
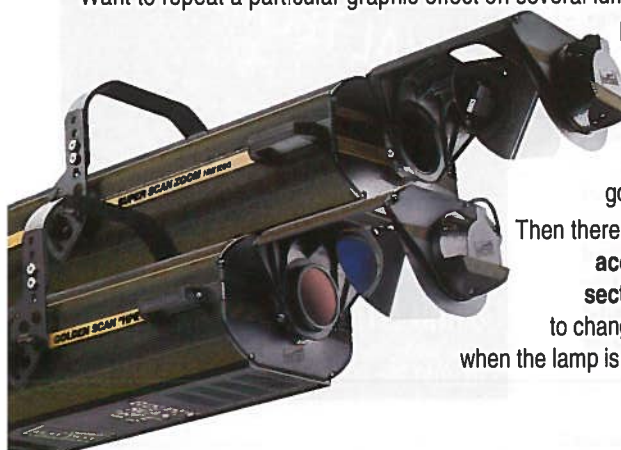
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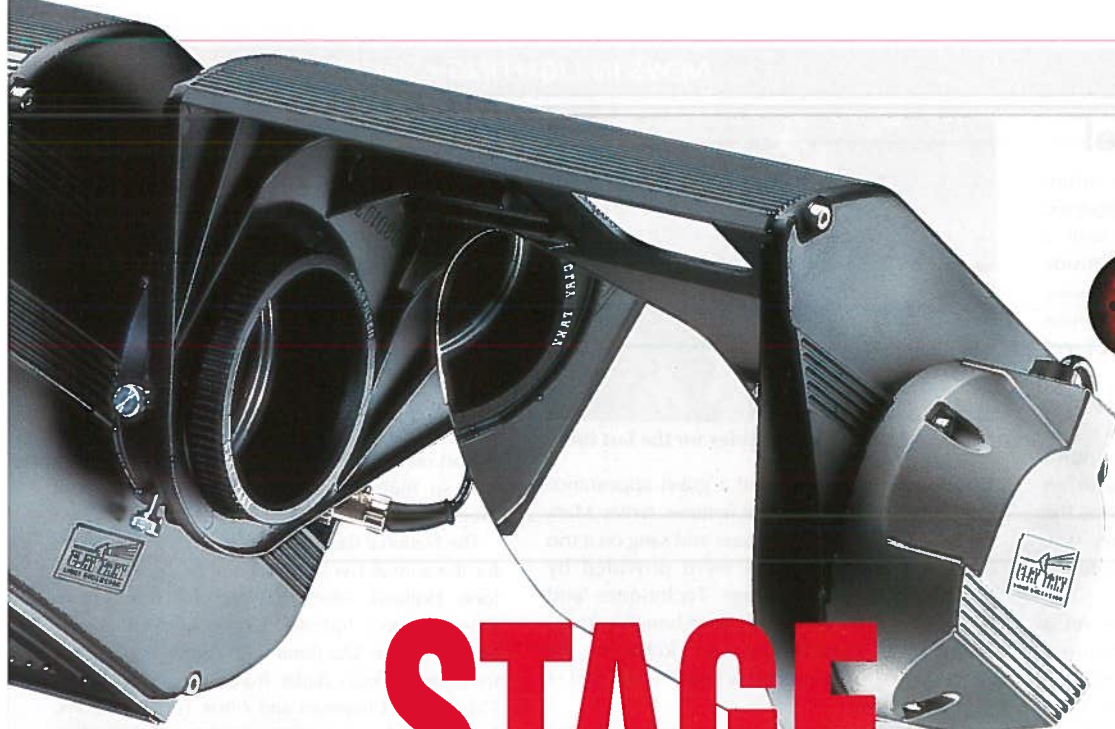
With Stage Scan there's no need to hang around for the bulb to cool before switching on again: the built-in **hot-restrike igniter** means that the luminaire is always ready for action. You won't even be left in the dark after momentary power failures, so there's no need to keep your fingers crossed during thunderstorms! And when the shutter is closed, you can either power down the luminaire direct from the desk or select automatic power-down. Stage Scan's innovative **MSZ (Multi Step Zoom)** system provides apertures from 13 to 25 degrees by selecting the most suitable of the fixture's 6 lenses - directly from the lighting desk. You'll also have fingertip control



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# THE STAGE

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## Event Show and Live!

Industry spectators who doubted the future welfare of the Outdoor Event Show departed Wembley Exhibition Centre in January with a revived impression as new organisers Inside Communications announced both a 5% increase in attendance and a heightened level of business pledged at what has been simply titled 'The Event Show'.

A wide range of businesses covering the entire industry, from balloon manufacturers and specialist printers to lighting and sound companies and video rental facilities, were on display across two halls. At centre stage was the attractive meeting point-cum-bar, a three-way initiative by Screenco, Edwin Shirley and catering giant Eat Your Hearts Out.

Many visitors commented favourably on a decrease in noise levels, whilst exhibitors remarked on the genuine nature of enquiries. One said: "The visitors seem to be coming here for a real purpose, whereas at a lot of other exhibitions you normally tend to get a lot of volume, but less quality leads. This year we have seen a turnaround where the visitors appear to be genuinely interested and that can only be a good thing. The mix of exhibitors is just right. If more sound companies came in, things might get too loud and I think it's better for them to concentrate on the more appropriate events like PLASA."

The highlight of the three-day exhibition's social diary was the Event Industry Dinner at the Royal Lancaster Hotel with entertainment provided by comedian Lee Hurst and live band Pleasure



The Event Show - at Wembley for the last time.

House, whose set included a guest appearance from none other than L+SI features writer Mark Cunningham, who played bass and sang on a trio of rock oldies! Services were provided by Mushroom Lighting, Stage Techniques and Canegreen. Engineered at front-of-house by Peter Hughes, with monitors manned by Robin Fox, the PA consisted of Canegreen's new Meyer MSL-4 flagship system.

There were mixed reactions when it was announced that the 1998 Event Show is to be held at London Arena, with several northern and western-based companies slating the decision to relocate to the east of the city. Despite the criticism, Graham Brown remained positive. "There will be more new exhibitors next year and it will undoubtedly be a bigger show, judging by the feedback. London Arena offers a larger exhibiting area with much greater height which will allow companies more freedom to have working exhibits than has been possible at Wembley. There is also the potential for outdoor

activities, such as having firework displays and searchlights, which we cannot have at Wembley because of restrictions. We want it to develop into the European event exhibition, and with London City Airport so close, the arena will be the ideal location to attract mainland Europeans.

Coming hard on the heels of The Event Show, on January 30th-31st, was the 1997 Live! Show which was held this year at the legendary Roundhouse in Chalk Farm and attracted a staggering 100% increase in visitors compared with 1996. Interest in the recently-published PRS Report on the state of today's live music industry was so high that BBC Radio 1 ran a special programme on the subject to tie in with the show.

The National Ballroom in Kilburn was the venue for the annual Live! awards dinner, compèred by Jools Holland, which boasted live music from Peter Green's Splinter Group and an all-star line-up of The SAS Band with cameo vocal spots from ex-Spandau Ballet frontman Tony Hadley, Fish, Roger Chapman and Chris Thompson. PA, lighting and video were courtesy of SSE Hire, Vari-Lite Europe, Pulsar and Creative Technology, and a record number of 16 individual in-ear monitoring systems were provided by Garwood Communications and managed by monitor engineer Alan Bradshaw.

Award winners included Wigwam (audio rental company of the year), LSD (lighting rental), Martin Wavefront 8 Compact (new audio product), High End Studio Color (new lighting product), Huw Richards (sound engineer), Paul Normandale (LD), Mick Double (production manager) and Manic Street Preachers (tour of the year).

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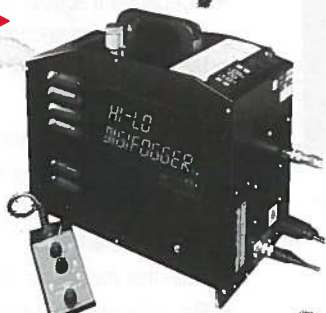
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## Work and Play at ETC



Electronic Theatre Controls recently organised a three day Technical Workshop covering seven main product areas, including Sensor dimming and Express consoles, with subjects ranging from installation and commissioning of equipment to fault diagnosis. Based in London, the Workshop was attended by staff from 17 of ETC's European distributors, with UK distributor M&M taking advantage of the location to invite its own Master Dealers to participate.

The Workshop wasn't all work and no play and an evening of go-cart racing was also arranged. The winner was Gerry Hopkins of Theatre Vision, Cardiff, second was Philippe Bouchet of ETC SA, France with Pete Floyd of White Light, London, coming third.

## Patents: Fifty Years Ago this Month

Following the publication and launch of 'British Theatrical Patents 1801-1900' at the PLASA show in September last year, the authors were staggered to find the book virtually sold out in six weeks! The technical information contained within the volume has proved to be of great historic interest to theatre buffs and theatre techies alike. But it has, in addition, raised a good deal of interest from technical equipment manufacturers around the world. Manufacturers have for many years been delving through the patent archives trying to sift out any relevant information specific to their latest invention. The biggest problem has always been the lack of an index which recognises all things related to the theatre. Consequently with the advent of 'British Theatrical Patents' the task of identifying what is known as 'prior art' became considerably easier.

Whilst manufacturers may find the nineteenth century too distant for moving light technology (though in reality it isn't!) the authors, Messrs. Rees and Wilmore, have already embarked upon research into the twentieth century. This will provide specific UK patent information relating to the development of theatre technology, and it will all be available as a database for PC use. Research is already well under way and copies of the work to date are now available, with FOC updates to follow as the project develops. In the coming months, L+S will be featuring patents which were produced 50 years ago to the month, covering the whole gamut of human theatrical endeavour!

Manufacturers and researchers wishing to find out more about the database should contact: David Wilmore at Theatresearch, Braisty Woods, Summerbridge, North Yorkshire, HG3 4DN, or fax a request through on (01423) 780497.

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## People on the Move

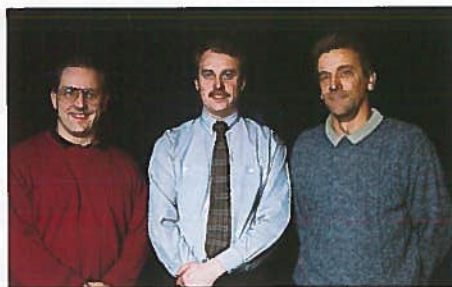
**Chris Adamson** has joined Light & Sound Design in the newly-created post of Icon operations manager worldwide responsible for the evolution of a range of Icon products. LSD have also appointed **Lester Cobrin**, who has a history of client and production management, to the production team at the London office.

LT Projects Ltd, the newly-formed company within the Lighting Technology Group, have made three new appointments. **Bruce Tompsett**, formerly with Donmar, has joined the company as project engineer responsible for installation, design and project management. **Paul Fowler**, who previously worked with Zero 88, takes on the role of field sales manager, with responsibility for developing UK and overseas sales, whilst **Ray Dolby**, formerly chief electrician at the Derby Playhouse, becomes project sales manager.

Capital Sound Hire have added to their office staff with **Andy Jackson**, formerly of Delta Sound Inc and **Dave Hall**, one-time manager of Concert Sound.

**Patrick Eagleton** has joined Production Arts as the Juliat product manager for the US. Eagleton has a long career in the industry, having worked for Rosco and most recently for City Theatrical.

Northern Light have appointed **Roland Chadwick** to their sales team. Formerly hire manager at Blacklight, his track record also includes Pitlochry Festival Theatre, Lighting Design Partnership and a couple of years employed in freelance lighting.



**Ray Dolby, Paul Fowler and Bruce Tompsett - new recruits to LT Projects.**

**Ian Cross**, formerly of Stagecraft, has joined the growing team at AJS Theatre Lighting & Stage Supplies in technical sales.

JBL Professional have appointed **David Scheirman** to the position of director, tour sound marketing. Scheirman assumes complete responsibility for JBL Professional's worldwide tour sound product development and marketing.

**Peter Threadgold** has been appointed a director of Cerebrum Lighting Ltd. He will continue to be responsible for sales and marketing, whilst also overseeing quality of service within the company.

**Julian Chiverton**, son of MD George Chiverton, has joined Doughty Engineering. His appointment will not only provide continuity in corporate ownership, but also allow for further company development.

Zero 88 have appointed **Tim Burt** as sales executive, with responsibility for external sales and training for the Zero 88 range.

## LTP Name Change

After three years as Lighting Technology Projects (LTP), trading as a division of Lighting Technology Group Limited, Lighting Technology have announced the formation of a new company, LT Projects Ltd.

Under the direction of Bruce Kirk as project director, LT Projects Ltd will continue all business previously conducted by LTP and will maintain the same staff, premises and suppliers. The new company has been formed to allow the business to develop in its established markets with new dedicated systems and management facilities.

Meanwhile, parent company Lighting Technology has sold two Limelight followspots to the Mayflower, the busy touring and production house in Southampton. The sale follows hot on the heels of the sale of nine Limelight 2K Xenon electronic ballasts to Bytecraft for installation into the Victorian Arts Centre in Melbourne. Pictured below is LT's Jack Exell with Eric Butler, chief electrician of the Mayflower.



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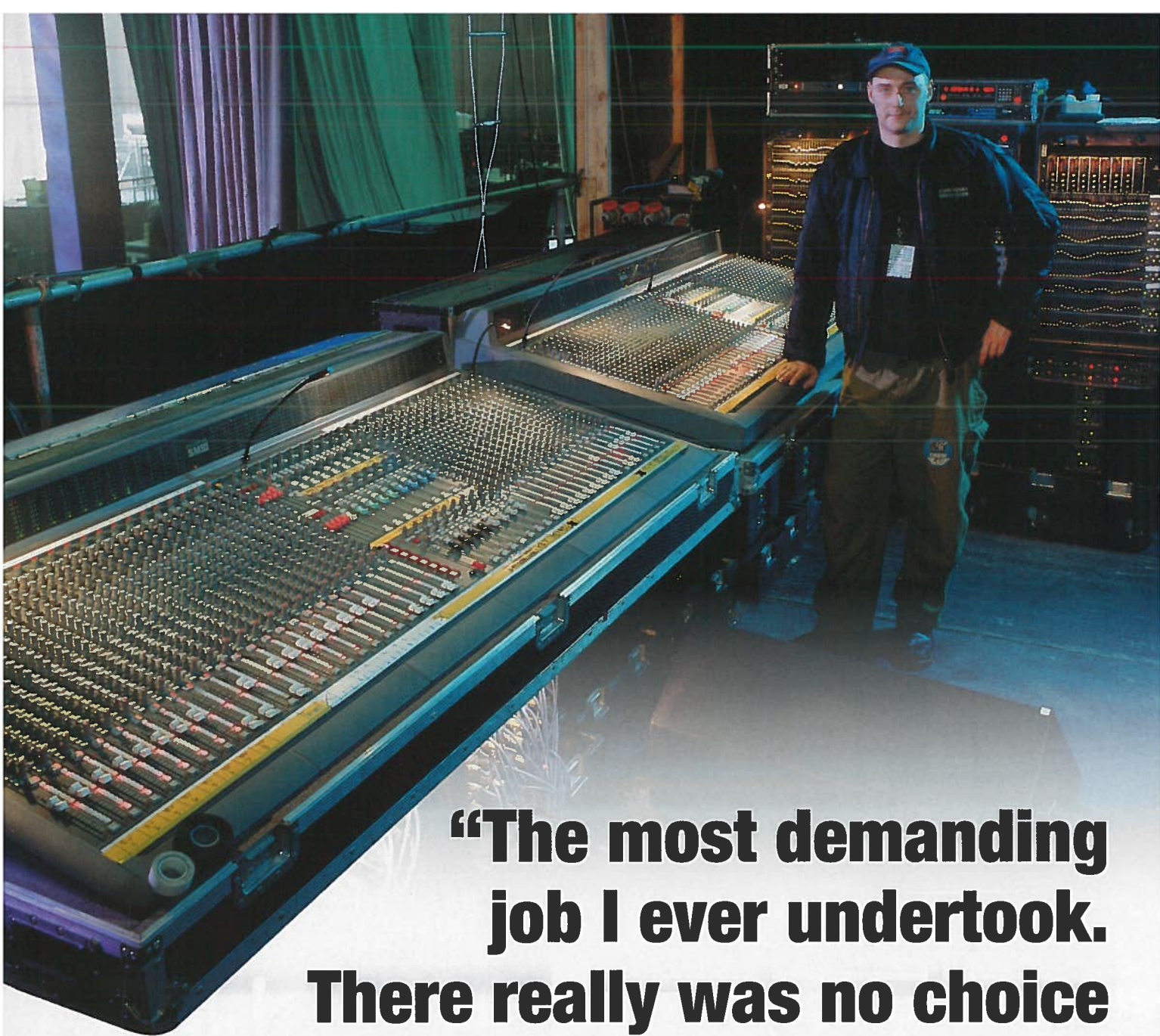
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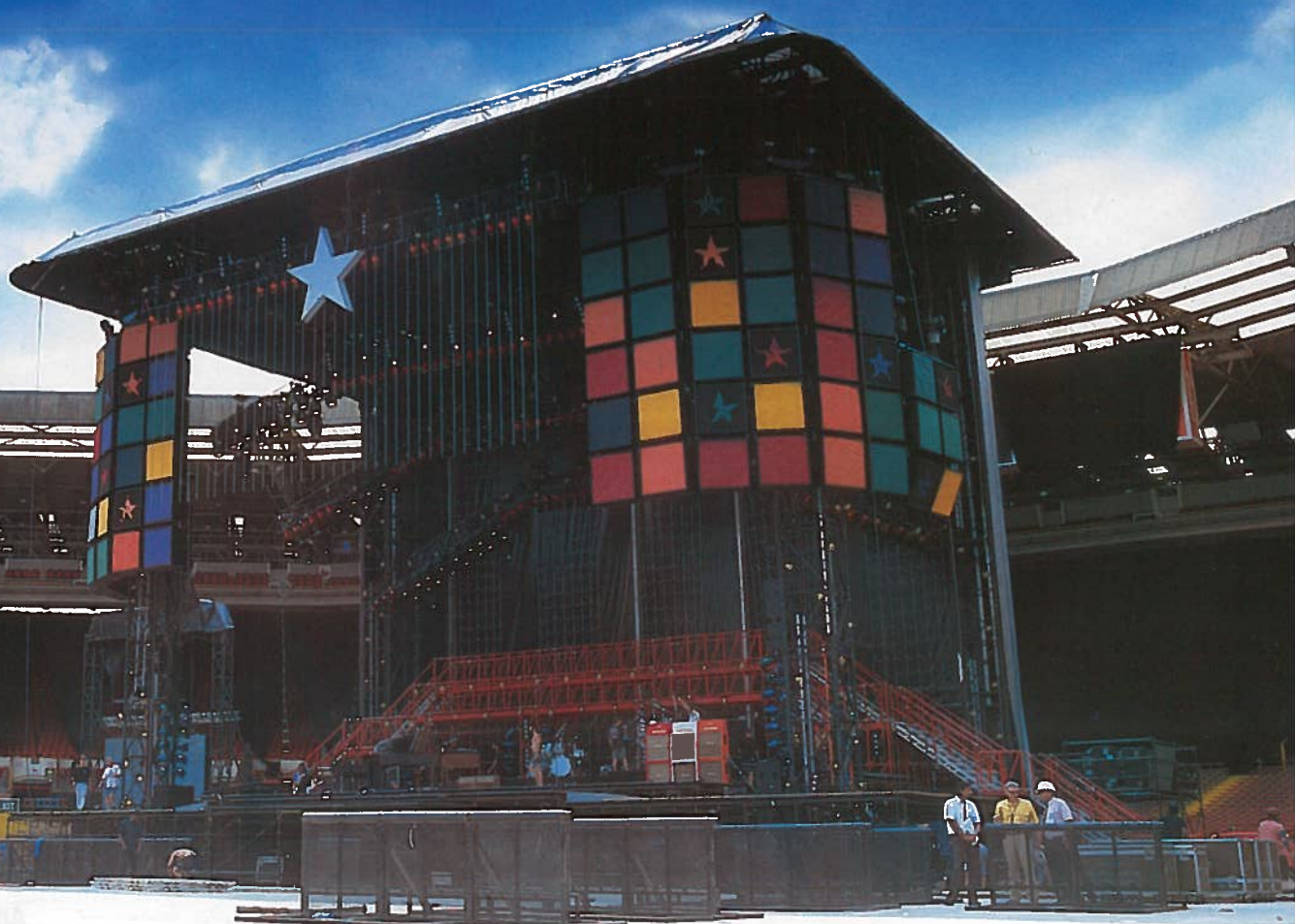
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## Jands Consolidates for Growth



Jands of Sydney, Australia, recently called upon their own renowned organisational abilities to complete a major project as part of the reorganisation of their own operation. They have spent the past nine months building themselves a new home - albeit upon the site of their original rental operation. The A\$3.5m project was self-managed, and involved the levelling of the original building, owned by the company since 1986, down to its concrete base. The Jands team then custom-built a new 80,000sq.ft facility from the ground up whilst still keeping their major rental operation running from the same site! The move has allowed Jands to bring all its operations - manufacturing, sales and rental - under one roof, and at the time I visited the complex in late January, the only things left on export director Paul Mulholland's list of things to do were of a dusting and polishing nature that would give the complex a shiny FOH image.



The facilities are impressive - from meeting rooms and catering areas right through to a pool table and games room for the 150 strong staff. It's a new age complex that provides the Jands team with every reason for making commercial gain from the forthcoming Sydney 2000 Olympics, and the good news is that the enquiries are just starting to come through.

Pictured above is an overview of part of the rental operation area at Jands' new Sydney complex and right is Paul Mulholland with the latest arrival in their manufacturing area.

John Offord

## 3i Lead Digital Projection Bid

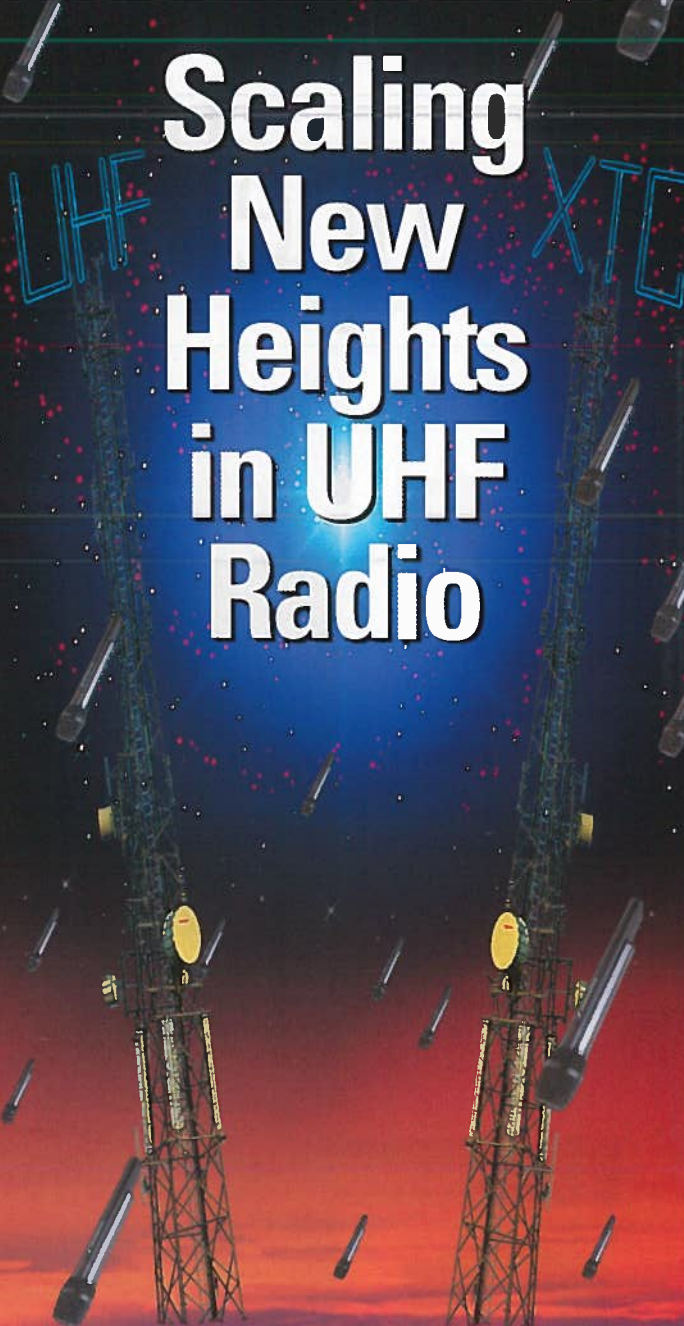
Digital Projection Limited (DPL) has been acquired by its management team from The Rank Group Plc in a deal led by investment capital group 3i. The new company, acquired for £6 million (total funding for the venture of £18 million was jointly underwritten by 3i and The Phildrew Ventures Fourth Fund), will manufacture large-screen electronic projectors using the unique Digital Micromirror Device (DMD) developed by Texas Instruments.

DPL commenced sales of the projectors in early 1997 and a substantial proportion of the financing will be invested in key areas of the new business including a manufacturing facility at its premises in Manchester, the formation of a subsidiary in the USA and future product development.

L+S invited technical consultant Brian Fitt to offer his comments on DPL's new system: "Until recently projection systems for video often relied on a red, green and blue image being projected individually and then superimposed to produce a screen image. The alignment was a lengthy process and image drift was not unknown. By using a 2kW Xenon light source and splitting the beam into its red, green and blue components via a prismatic beam splitter, DPL have made it possible to modulate the beam with three semi-conductor light valves. Each of these microchips consists of an array of hundreds of thousands of tiny identical mirrors, each acting as an on/off digital light switch, one per pixel. By positioning the devices to an accuracy of one pixel and then gluing them to the prism, it is possible to prevent any image alignment problems.

"The screen is sharp and shows no significant line or pixel structure. At a demonstration at Pinewood /film studios, clips from the films Apollo 13 and Waterworld were shown reproduced from a video-tape source. The image quality was impressive, being not much inferior to 70mm film and the screen brightness was similar to normal film projection."

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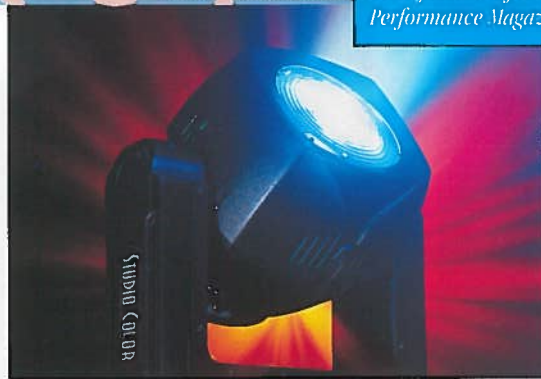
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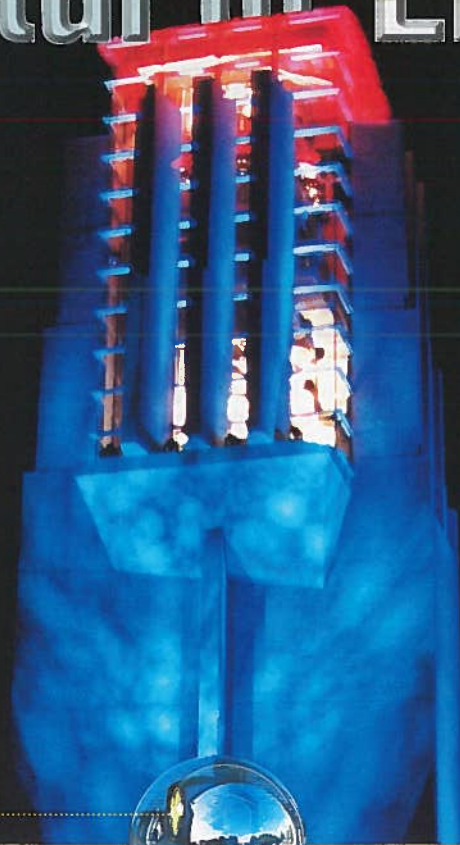
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## Water Animation

ECA2, a French company inspired by Yves Pepin which specialises in the design and construction of 'multi-sensory extravaganzas', won the contract to produce the event commemorating the 25th anniversary of the United Arab Emirates in Abu Dhabi.

To graphically illustrate the anniversary, designers from the company created an animated tale of the Emirates' history which involved a combination of live performers and multi-media technology. A 250m x 450m superstructure, complete with castle and small village, was constructed and sited part-way over the sea. Six inflatable spheres, 15m in diameter, were also positioned in the water alongside three 13m high sail-shaped screens for the projection of complex laser graphics, combined with special effects. The production ended with a volley of fireworks from separate technical platforms and a blaze of projected flowers to represent the metaphorical change in the nation's circumstances.



## CP&P Germany

In order to support the growing use of their products in new market sectors in Germany, Clay Paky and Pulsar have reached a new agreement with long-term partner Lightpower. On January 1st 1997, Paderborn-based Lightpower were appointed exclusive distributors of Clay Paky and Pulsar products in Germany. Pulsar's Ken Sewell told L+S: "The new agreement helps us to meet the need for closer co-operation between the show lighting and other markets, including theatre, television, exhibition, retail and architectural."

## Dukes Design

As part of a complete renovation of Dukes Youth Arts Centre in Lancaster, Futurist Light & Sound has recently installed new lighting and sound systems. Working in close collaboration with David Wilmore from Theatre Search, Futurist was commissioned from the design stage of the project and for the first time specified ETC equipment, including an ETC rack and Express deck.

Meanwhile, the company have also recently won the contract, again in collaboration with David Wilmore, to supply a new dimming system to the Harrogate Conference Centre where they will install one of the first ETC Sensor systems in a UK theatre or exhibition centre. Major features include 204 channels of 32kW, 32 channels of 5kW, with standard electronics reporting.

Futurist have also recently launched their 1997 Products and Services Guide.

## M&M Open Day

M&M are to host an Open Day at The New London Theatre, Covent Garden, on March 10th to offer the industry an opportunity to try all the ETC products they distribute. The full range of Obsession, Expression and Express consoles will be available, as well as Sensor and Smartrack dimming. Also on show will be the internationally acclaimed Source Four fixtures, including the first UK appearance of the new Source Four jr, a smaller version of the Source Four ellipsoidal spot, ideal for smaller venues and amateur theatres. In addition to the ETC range of products, guests will also be able to put Rainbow Colour Changers through their paces.

For full details contact Nigel Sadler at M&M Studio in London, telephone 0171-284 2504.

## Invitation

M&M cordially invites you to an  
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## Litestructures Invest

Litestructures have made a £10,000 investment in new 3D CAD facilities to enable high quality 3D presentations of projects. This CAD upgrade is currently being used to develop a Litestructures library of symbols in 3D format, which is scheduled for release on CD ROM shortly.

On the project front, the company were recently commissioned to replace old steel board-support structures with their Masterlite system at three of Rank Leisure's Bingo halls whilst overseas, they continue to experience growth, especially in the USA, where they are supplying structures for ACE Music Stores.

## Viper Room Upgrade

Upgrade and downsize was the brief to Hollywood-based A-1 Audio, charged with designing and installing a new sound system in Johnny Depp's famous Viper Room. The company chose a Mark IV-dominated mix of Midas, Klark Teknik and Electro-Voice products to yield a high-impact, dance-club sound system, a high-SPL house system for live bands and to maximise unrestricted viewing for the audience.

EV MTH-1 speakers hang in arrays of two on each side of the stage and although the boxes have only 20" frontal dimensions, the new system is capable of SPLs approaching 130dB. The system also includes three EV MTL-1 subwoofers, each loaded with two DL18MT. On-stage floor monitors were custom designed by A-1 Audio and loaded with EV components. The front end includes a Midas XL200 console, Klark Tekniks DN3600 digital parametrics and DN800 crossovers, and EV Precision Series amps. Also installed is a centre cluster of EV Sx200 self powered, two-way speakers.

## HELL Trio

Howard Eaton Lighting Ltd has started off the new year with a diverse range of sales - to the Swedish Royal Opera, Cats and Yorkshire Water.

For the Swedish Royal Opera, the company supplied a 12-way radio control system including PWM low voltage dimmers, while for Cats, a custom-designed smoke effect was installed to create a curtain of smoke in the finale of the show. Yorkshire Water, meanwhile, purchased a Miniature Ripple lighting effect which has recently been updated to improve cooling and to accept both incandescent and discharge lamps.

## ARRI Technology On Location



ARRI rental companies Bell Lighting and ARRI Media have provided lighting and camera equipment to a number of film and screen projects being filmed on location in the UK. Both companies jointly serviced the film adaptation of Nick Hornby's *Fever Pitch* and the big screen version of Henry James' *Wings of the Dove*, filmed in London (and Venice), whilst Bell supplied lighting for *The Woodlanders*, the latest adaptation of a Thomas Hardy novel filmed in and around Salisbury and the BBC production of Anne Bronte's *The Tenant of Wildfell Hall*. Further afield, Jürgen Egger's sci-fi romance *Harald* was filmed on location in Germany with camera equipment supplied by ARRI Rental in Munich. Pictured above is part of the technical team behind *Harald* - gaffer Lee Walters, DoP Seamus McGarvey, clapper loader Natalie Wiedemann and focus puller Carlos de Carvalho.

## Cerebrum Light DKNY

Cerebrum were chosen by electrical contractor Inner City Electrical to supply Strand Minifloods and barn doors, in a custom paint finish, to the Donna Karan fashion store DKNY in Manchester. The store required 50 of the units, which all had to be stripped, painted, re-assembled, shipped to site and installed within a tight time frame.

In a separate project, Cerebrum completed a large-scale effects lighting scheme for the main atrium of the Eldon Gardens shopping centre in Newcastle. The company designed a modular, multi-zoned DMX system which will be controlled by a real-time show control system from Maris Ltd.

Phase Two will incorporate fixtures from Optikinetics, Clay Paky and Mad Lighting, with tensile fabric structures being supplied and installed by Architen to provide the projection media for the effects lighting throughout.

## Spark Ignites

Compulite's UK distributor Stagetec report an excellent start to 1997 with Spark moving light control systems being delivered to PCM Sound & Light in Reading, primarily for rental to the television light entertainment market, to London Studios at LWT complete with a DMX distribution system and two systems to Playlight in London.

Following the CompuCAD seminar late last year, an order was received from the Queen's Theatre, Hornchurch for the new Ovation 4D system complete with radio riggers control which will replace their existing 15 year old Compulite system. Stagetec have also supplied a Meyer system for the Nottingham Playhouse consisting of four UPA1-C mid/high boxes, two UPA2-C long throw mid/high boxes and two USW-1 sub woofers, complete with stereo Meyer controllers.

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## Audio on Cue



Cue Pro Audio Services have recently completed a move to new, expanded premises in Central London. Now benefiting from three times the previous amount of space, the company has already landed service contracts to supply technical support for Crest Audio products, Hartke (Sampson) amplifiers, Carver amplifiers and the Sony range.

Continuing its commitment to installation, Cue was responsible for the lighting and sound system at Lillies, a members-only bar in London's Covent Garden and upgrading the audio system at Bad Bob's restaurant, also in Covent Garden. At Lillies, the system is divided between day-time and evening use: the main PA system consists of four EV SX200 and two S818 sub-bass cabinets, driven by two Carver Mastermixes, whilst Canon V100s form the backbone of the background music set-up. The lighting system includes four MAD colour changers and four MAD star effects, all controlled through a Pulsar Masterpiece 108.

For Bad Bob's, the main PA system is based on four EV S818 sub-bass cabinets, driven by two Carver PM1800 amplifiers, whilst six RCF Event 3000 monitors (also driven by Carver) are individually equalised by AB 231 graphic equalisers with a Mackie SR-32/4/2 console at the helm. The background music system is a mixture of Ohm speakers, again driven by Carver amplifiers.

## TOA FOH at QEII

London's South Bank Centre has completed the installation of a new TOA front-of-house system in the Queen Elizabeth Hall. Following a demonstration at PLASA 96, the SBC's chief engineer Nigel March commissioned a Z-Drive system from TOA, which was installed prior to Christmas.

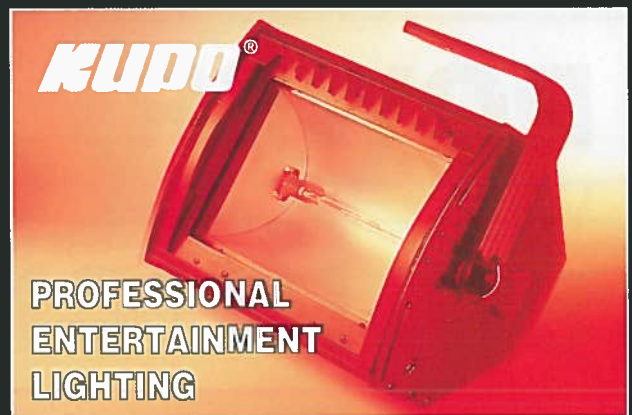
The system consists of a pair of TOA's trapezoidal ES-F1UK mid-high cabinets flown either side of the stage, with bass provided by a pair of ES-L1UK two-way bass reflex units at stage level. The company was also commissioned to install call boy systems backstage in the Queen Elizabeth Hall and the Purcell Room, to match the facilities of the Royal Festival Hall.

## Soccer Double for Jumbotron

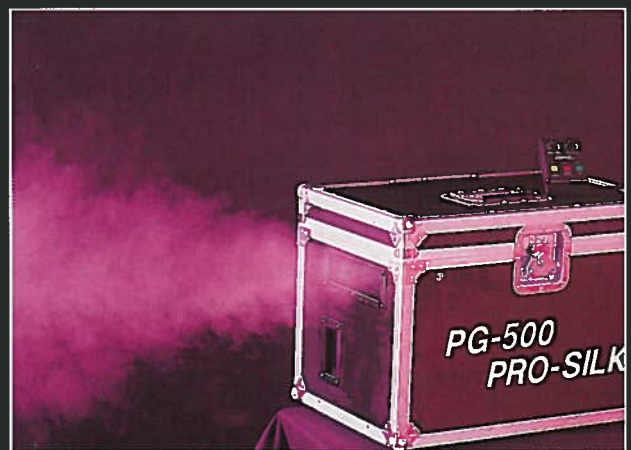
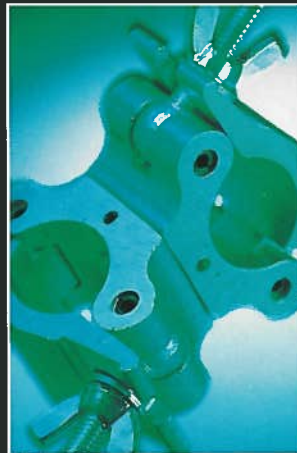
1997 kicked off to a good start for Sony Jumbotron Europe with the confirmation of two orders for JTS35 giant video display systems (totalling in excess of £4 million) from Tottenham Hotspur and Glasgow Rangers.

The new Spurs North Stand installation at White Hart Lane, which is scheduled for completion early in 1998, is an identical system to that installed in the South Stand in 1995 - consisting of 578 Sony JTS-35 units configured to provide an outdoor video screen measuring 68sq.m with additional dot matrix display boards showing time and score, revolving advertising boards and Spurs' logos to complete a 25 metre wide scoreboard. Both screens are capable of showing computer generated graphics and textural information and, if required, each can simultaneously display different material.

The Rangers deal at Glasgow's Ibrox Park represents another coup for Jumbotron Europe, as it is the first video screen system to be installed at a Scottish football club ground. The £2.5 million order for two 52sq.m Jumbotron JTS35s comes after lengthy discussion with Sony and other manufacturers. Each screen will contain 450 Jumbotron units and the installation will be complete in April.



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### FEATURES

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- MIDI control
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- Set-up options

### OPTIONS

- Analogue output (soft patched)
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# JANDS

## DEALERS

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#### LDDE Vertriebs Ges.m.b.H.

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Tel: 01748 1811 Fax: 01769 1761

### Belgium

#### Stagelight NV

Contact: Jan Franck  
Tel: 053 831726 Fax: 053 834054

### Denmark

#### Anderson & Co

Contact: Peter Plesner  
Tel: 35 37 19 40 Fax: 35 37 18 38

### Finland

#### RMC Showservice

Contact: Rabbe Hjelt  
Tel: 905 063010 Fax: 905 51220

#### TFP Markkinointi Oy

Contact: Fikret Saadetin  
Tel: 9312 143933 Fax: 9312 133077

### France

#### ESL

Contact: Alain Comevaux  
Tel: 467 692717 Fax: 467 691142

### Germany

#### Multilite Lichttechnik GmbH

Contact: Wolfgang Massow  
Tel: 040 6706154 Fax: 040 6706156

### Greece

#### Alpha Sound

Contact: Costas Constantinopolis  
Tel: 01 363 8317 Fax: 01 360 6459

### Holland

#### Jansen Jansen

Contact: Rob Berg  
Tel: 020 6821 821 Fax: 020 6828 326

### Italy

#### Spotlight Srl

Contact: Augusto Andraghetti  
Tel: 02 714078 Fax: 02 744721

### Norway

#### CP Norway AS

Contact: Arne Grønsdal  
Tel: 55 297170 Fax: 55 296950  
Tel: 22 683010 Fax: 22 683040

### Portugal

#### Frei Audio

Contact: Fernando Frei  
Tel: 01 9416870 Fax: 01 9419976

#### Access All Areas

Contact: Jose Henriques  
Tel: 01 478 3826 Fax: 01 478 1939

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#### SST

Contact: Jernej Podbevsek  
Tel: 61 301434 Fax: 61 301404

### South Africa

#### Lighting Unlimited

Contact: Ofer Lapid  
Tel: 011 618 2105 Fax: 011 618 2195

### Spain

#### Spotlight SA

Contact: Hector Vidal  
Tel: 93 4908117 Fax: 93 4903934

### Sweden

#### Teaterteknik AB

Contact: Peter Hallin  
Tel: 086 409394 Fax: 086 409290

### Switzerland

#### TDS

Contact: Jean Jacques Schenk  
Tel: 021 3236300 Fax: 021 3233982

#### Powerlight

Contact: Nicolas DeCourten  
Tel: 061 701 8228 Fax: 061 701 8338

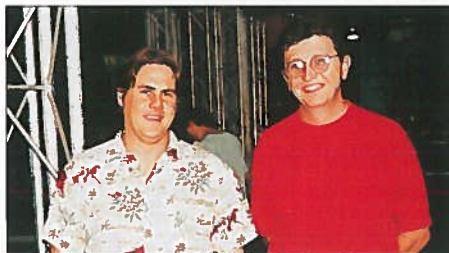
### United Kingdom

#### AC Lighting Ltd

Contact: Mike Falconer  
Tel: 01494 446000 Fax: 01494 461024

## NEWS IN L+SI

### Karma Chameleon



It's summer down under: Chameleon Lighting's boss Tony Davies (left) with Mike Tanner who handles the company's sales and marketing.

Having spent 14 years in the lighting and production industry, Tony Davies is now the proprietor of Chameleon Lighting (formed out of Starlight Lighting in 1988), a company that in its nine-year history has won best lighting hire and production company awards at EnTech for the past two years. Technical production management is a major feature of the company's work, and as Tony emphasised, "one of our major strengths is the respect we have from lighting designers."

Chameleon lighting systems are involved in the Australian productions of *Miss Saigon*, *Peter Pan* and the forthcoming tour of *Phantom of the Opera*, yet theatrical productions represent only a small sector of the company's client base with film and television, industrial theatre and exhibitions making up the rest. Equipment in stock includes Clay Paky and Martin projectors, Rainbow and Showcraft scrollers, CCT, Strand, Altman, Quartzcolour, DeSisti and Selecon luminaires, Jands and Bycraft dimmers and ETC, Strand and MA desks. Two new Celco Ventura desks were ordered at PLASA when Tony Davies visited the show as part of the PLASA/DTI supported mission.

Part of the huge space occupied by Chameleon is used by associated company Advanced Lighting Equipment who manufacture trussing and undertake the general metal fabrication work essential for an all-round production service outfit.

For Tony Davies, things have moved a long way forward from the days when he had two pub lighting rigs using Zero 88 Eclipse desks. And it was appropriate too to meet up again with lighting designer Jason Waide (pictured below), who had just returned to Australia following his Roger Barrett lighting scholarship sponsored visit to the UK (with help from PLASA members), organised by Julius Grafton of Connections magazine. (The late Roger Barrett had worked closely with Tony Davies for many years, taking care of the theatre, whilst Davies handled the rock aspects of the business).

John Offord



### Martin Highlight

Martin Professional of Denmark has purchased the exclusive worldwide distribution rights for the Highlight lighting design software package.

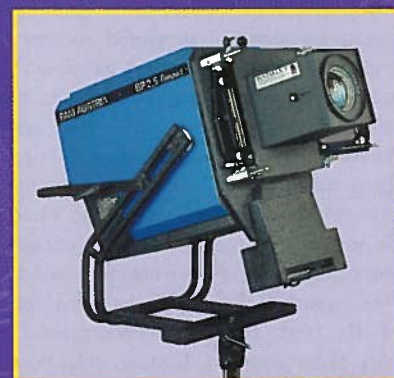
Developed in Holland by Lighthouse software BV, the system is a virtual reality tool, allowing lighting designers to create, test and modify their designs in vivid 3D computer graphics. Lighthouse will continue to carry out research and development on Highlight, whilst Martin will handle all sales and marketing of the product.

LIGHTING+ SOUND INTERNATIONAL FEBRUARY 1997

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## The Television Show

This year's Television Show takes place on 12th-14th March at the Business Design Centre in London. For the first time the show is organised by the publishers of several magazines in the industry.

Thousands of production professionals visit the 100-plus stand exhibition every year and the show's conference programme features an impressive line-up of guest speakers, sessions on the future of television, film and corporate video, a three-day series of commissioning editor panels, a distribution day concentrating on programme rights and overseas sales, alongside hands-on workshops on everything from Hi-8 and DVC to low budget lighting.

For further details and ticket information telephone 0181-390 0203.

## Tomcat Hoist School

Tomcat US recently completed another Hoist School. The event covered hands-on hoist maintenance and trouble-shooting instruction from Wally Blount and Jim Krull from Columbus McKinnon, along with a day and a half of safety, rigging materials and techniques presented by Rocky Paulson from Stage Rigging Inc. There were also presentations by Knut Skjonberg of Skjonberg Controls and Tomcat's own engineer, Jay Edwards.

Next year's School will run from February 4th-7th, 1998. For further information contact Garry Solmonson at Tomcat, telephone +1 915-694-7070.

## EAW at Palas Arena



The arena at the new Palas Indoor Sports Complex in Pesaro, Italy includes a sound reinforcement system featuring EAW speakers. Eight EAW KF695 full-range speakers, hung in pairs, provide reinforcement to a complete side of seating.

In addition, 10 EAW JF260 full-range systems are mounted under the scoreboard. Processing is supplied by EAW MX800 close coupled electronic processors, whilst 12 Crown Macro-tech MA-2400 amps drive the system, with Rane AD22 delays and equalisation courtesy of ARX EQ60s. EAW SB1000e subwoofers are also making their mark as they debut in the UK on the current tour of the Prodigy. Manchester-based hire company Concert Systems Ltd supplied the units.

## JEM Focus on Customer Support

As part of the reorganisation of JEM Smoke Machine since its takeover by Martin Professional, the company is concentrating on strengthening its customer support base. Over the past year it has focused its attention on UK sales, establishing a new network of dealers, culminating in the appointment of sales manager, Ian Latham.

Further customer support comes in the form of technical support manager Andy Wilkinson, who has returned from Denmark following the completion of the development of the new Hydrosonic 2000 machine. He is now using his knowledge of JEM technology to act as a customer interface. Since its launch at PLASA, the Hydrosonic 2000 has been selling as fast as it can be manufactured and the 300th Hydrosonic machine has now rolled off the production line.

## Stage's Services

Stage Electrics has introduced a number of new initiatives designed to improve their service to customers. A 24 hour, 365 day emergency telephone number has been set-up giving customers round-the-clock access to an engineer, whilst an e-mail facility has also been opened, allowing customers to place hire bookings by computer. For traditionalists, the 1997 Hire Catalogue is now available.

# Communicate 1

## Simply The Best

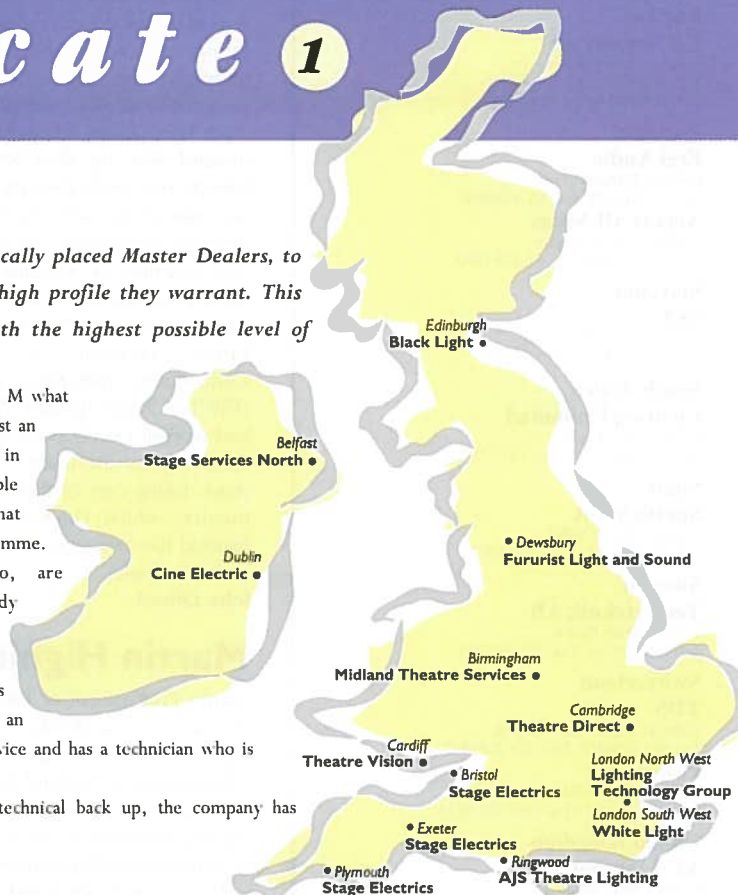
M & M has appointed a nationwide network of 12 strategically placed Master Dealers, to take ETC products out into the regions and give them the high profile they warrant. This network of Master Dealers will also provide customers with the highest possible level of service and technical back up.

Communicate asked Michael Goldberg, managing director of M & M what it takes to be an ETC Master Dealer. "A Master Dealer is more than just an outlet which takes orders. Each one must be actively involved in promoting and demonstrating the product and must employ staff capable

**"Each Master Dealer offers a 24 hour back-up service"**

wants to have to wait for new equipment and we recently implemented an investment programme to enable us to carry a higher level of stock of ETC products than ever before. This way our dealers should always be able to deliver equipment immediately, however fast an order is required. Each Master Dealer also offers a 24 hour back-up service and has a technician who is fully trained to repair, service and maintain all ETC products."

Michael Goldberg also told Communicate that, as part of the technical back up, the company has appointed Andrew Hurst as in-house technical sales and client contact.



For more information on your ETC Master Dealer please contact M&M at Studio 12 · Cameron House · 12 Castlehaven Rd · London NW1 8QW · Tel +44 171 284 2504 · Fax + 44 171 284 2503 · www.mandm.co.uk



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*We are very sorry...*

**professional tools from robert juliat**



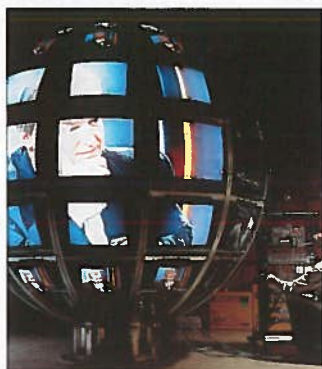
## Thai Geosphere

Electrosonic has supplied a Geosphere to Thai Inova in Bangkok. The Geosphere consists of a custom-designed spherical aluminium framework containing 76 various sized video monitors. These are arranged in 12 vertical sections, similar to the segments of an orange.

The sphere is configured such that around its centre there is a ring of four 3 x 3 videowalls, made from the 21 and 28 inch monitors, with all the other monitors displaying single images via local video distribution amplifiers and a matrix in the control room.

Electrosonic Imagemag processors are located inside the sphere itself but the control system and source racks are located in a separate control room. The source routing is performed using an Autopatch matrix, and the whole system is controlled from an AMX system with custom scheduling software.

The Electrosonic written scheduling software allows a playlist of shows to run continuously all day, playing VHS tape, laser disc, video camera or computer shows, the content and duration of which can be altered from the touch panel by the user. The result is a system that allows the user to change the source material without having to reprogramme the AMX system or the Electrosonic Show Controller that controls the Imagemag processors.



The Geosphere under test at Electrosonic's premises before shipping to Bangkok.

## Safety Courses

London-based Safe Working Ltd are offering two new safety training courses - in Rigging and Ropework and Safety.

The ropework and safety course is designed to instruct personnel in the safe methods of working at height in common situations found at live entertainment venues. The two day course can be held in almost any venue that has flying facilities, three-phase power and a quiet room for lecturing purposes. A 'Certificate of Attendance' is issued on completion and after six months, the trainee is eligible to be assessed by the company's chief instructor. The trainee can then gain a 'Certificate of Competence' providing they demonstrate the required level of knowledge and awareness of the safety procedures.

The rigging course follows the same format, but comprises four levels of instruction, each covering common topics with increasing levels of detail and theory.

For further information, contact Safe Working Ltd in London, telephone 0181-674 5645.

## IPS in Concert

Rosco Entertainment Technology's Intelligent Power System (IPS) dimming and control equipment has been selected for use in two concert hall facilities.

The first, Chicago's Orchestra Hall, is undergoing a major renovation and the new lighting control systems were designed by Fisher/Dachs Associates of New York, while Kirkegaard Associates of Illinois was the project acoustical consultant. The second, Seattle's Benaroya Concert Hall, is under construction, with lighting control systems designed by Theatre Projects Consultants of Connecticut with Cyril M Harris of New York as the project acoustical consultant.

## LSD Developments

Light & Sound Design have taken over as the general contractor for Chris Evans' TFI Friday show on Channel Four. LSD have provided a full Icon system and control for the current series, but decided to keep the existing conventional rig in place as a sub-contract. Dave Hill operated the system until TFI's automated lighting operator Andy Watson completed the Icon training course.

Back in LSD's more traditional market, the company are currently out on tour with Kula Shaker. LD Pete Barnes is using 22 Icons, 12 VL5s, Golden Scan HPEs and conventionals on a rig of finger trusses. Meanwhile, LSD have been confirmed as general lighting contractor for the forthcoming U2 tour. And finally, the Durham Marengi-designed Classical Spectacular show is heading for Newcastle this month, with the central trussing design supplied by LSD.

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## Martin in Banks

The growth of young persons' venues being rolled out by Wolverhampton-based Banks' Brewery is being ably assisted by sound, lighting and video installers, Leamington Sight & Sound - and a wide range of Martin Audio sound reinforcement products. Two recent projects that



Leamington worked on simultaneously to achieve Christmas openings were The Works, a pub with a 2am licence in Redditch, and Fast Eddie's in Telford - a 'roll-out' concept, with island bar, bowling alley, pool tables and video monitors.

In appraising The Works, Leamington's Ian Potter decided a different audio treatment was required for all three ground floor areas. In the cafe bar at the front, which looks out over a precinct area, he has installed eight of the new EM26s, with EM150 sub bass, while the central raised area has become home to the new ICT 500s, run full range, whilst the dancefloor at the rear is serviced by ICT 300s underpinned by ICS 300 bass. The entire system was run through Martin's M1, M2 and EMX1A processors.

At Fast Eddie's - the third in a growing chain of video-led, DJ free venues that use a multiple CD source - Leamington specified eight Martin EM76s for playback, with four EM150 subs Ian Potter "defies anyone to find."

## PCM and Summit Combine for Phil Collins tour

PCM have supplied 32 Lodestar motors to Jon Bray's company Summit Steel for use on the forthcoming Phil Collins tour.

Summit are supplying specialist rigging to the tour for the mother grid at the aorta of the show which forms the 'articulated scenic truss'. Consisting of a centrepiece with eight outwardly radiating trussing 'fingers', this is suspended using the 32 half-ton hoists. Summit are responsible for all the moving effects that take place over the stage, whilst motion control will be from a custom designed computer controlled console that receives signals from sensors located on each motor.

## Capital Sound

Capital Sound Hire are busy with a number of tours during the first months of 1997. These include the Black Crowes' European tour, ZZ Top's European tour, Vanessa Mae's UK tour, several dates for Ocean Colour Scene in Ireland and the UK, and the European tour of Worlds Apart. The company's recently acquired Martin Audio Wavefront 8C system is in use with the Vanessa Mae, Ocean Colour Scene and Worlds Apart, while ZZ Top and the Black Crowes are using the company's Martin Audio F2 system.

Capital also report that they have added to their stock with a 40-channel Midas XL200 and eight Martin Audio LE400 floor monitors, all of which will be accompanying ZZ Top, a 24-channel Allen & Heath GL3000 mixer for small and corporate shows and two Denon DR990-R cart machines.

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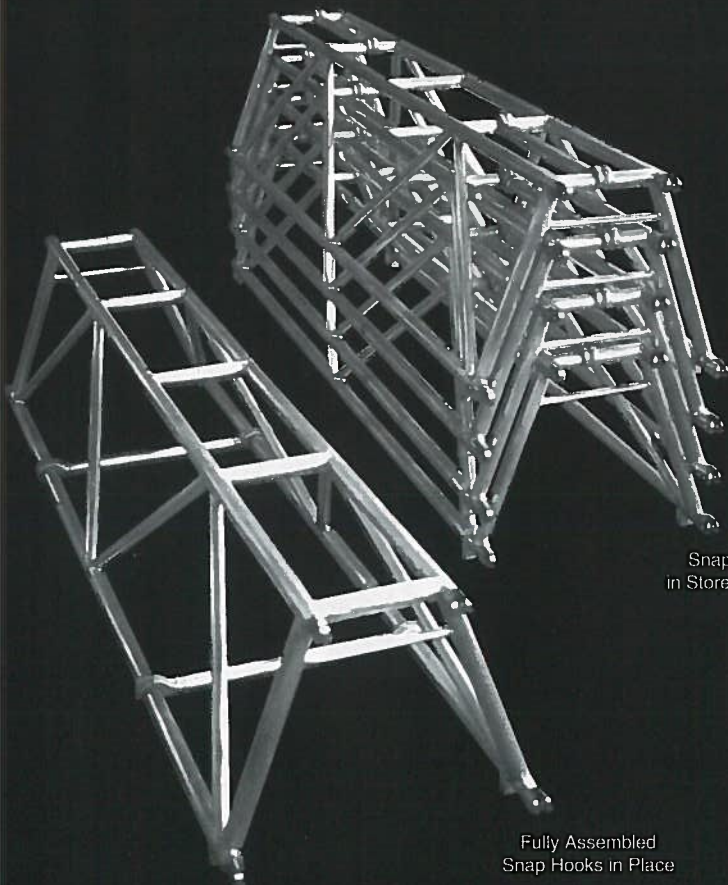
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# Second Take . . . John Watt's view from beside the camera

Things have come to a pretty pass when I have to get out the text books, not because I know most of what is in them, but because I don't. Reading the stuff doesn't always help either unless you are a fully paid-up physicist. Alan Bermingham's little gem on 'Colour Temperature' is an exception, being short, to the point and understandable. I turned to it for solace and comfort this week as I became snared in a no-win situation, viz, having lit a pilot for a panel game show (company and names withheld to protect the guilty).

The comment came back that our pictures were 'too cold', which was surprising given the clever and colourful set by Colin Piggot. I asked who thought so and where they viewed the offending material and under what conditions, as I was confident that the pictures were up to standard. I would hardly have sat through a rehearsal and recording without doing something about it if I hadn't. Anyway, the critics didn't materialise in person from their ivory towers, but instructed the director to fix the 'problem'. (Do you remember the days when lighting was part of the production team and debate took place over cups of tea or something stronger?). So, having had the colour balance taken out of vision control's and my hands ('do it or else') we produced a warmer, distorted line-up and, more as a joke, a very orangey one, expecting a 'No, no, not that far!' response from His Nibs. Tactical error, he liked it! Needless to say, the artists don't appear for rehearsals, don't bring alternatives to their strobe shirts and will only accept minimal make-up, so life is even more full of surprises than it needs to be. What would you do? Principles can be expensive for freelancers.

On the other hand, once in a while someone shows up with a half reasonable budget (although, naturally, it is never enough) and restores your faith in human nature, especially if they make you feel a part of the team. Unless you were up the Amazon at the time, you will have seen and heard some of the hype surrounding the monarchy debate 'The Nation Decides', staged at the NEC Arena in Birmingham by Carlton in early January. This venue, well known in the concert world, is essentially a huge four-waller which can be adapted for everything from *Heathcliff* to James Last to the Fancy Goods Fair. The in-house technical team can supply almost any facility from their unbustable supply, be it large doses of powder, cherry pickers or trussing - you name it, they've got it at a price.

Surprisingly, the NEC has been up and running for 20 years now and the original designers certainly got it right in their

efforts to supply services in a very logical and practical way. The system of tunnels and ducts enabling you to access power, water drains and gas at almost any point throughout the complex is impressive. Power is also available at high level.

Anyway, we had three happy days and nights rigging about 450kW of lighting, supplied and crewed by Playlight and, at least in retrospect, it seemed to happen quite smoothly. The brief was interesting in that 3,000 people had been invited to take part and the requirement was to light the lot, in addition to the main interview set which comprised a 50ft diameter crown sitting around a 44ft diameter truss surrounded by a number of pennants made of steel and expanded metal, each about 80ft long. The designer, Richard Plumb (a lateral thinker if ever there was one) topped the whole thing off with a lion and unicorn about 25ft tall.

So far so good - the tough bit of the brief was that the whole thing was backed by three screens, each 24ft wide. I have a rule of thumb that says that any projection device is too dim, but in an attempt to remove the sullen scowl from my face at the pre-production meeting, they suggested putting two projectors on each screen. Who was I to say that the registration problems of that looked impossible? And a good job too, because they did it. Nevertheless, on screens that size (a tall order) it was still a bit dim. However, we lit the set in front at about 70/80 FC and just about got the exposure and balance.

The interview areas were lit entirely with profiles to keep scatter off the screens, everything was a long way off anyway and the set was lit with 5ks plus some extra razzmatazz via some 40 Clay Paky Golden Scans and High End Studio Colors, while the 3,000 audience, a complete admission of defeat on my part, were lit with 10ks, Par cans and eight-lamp minibrutes. The roving radio cameras and their accompanying interviewer were thus given endless opportunities to cast shadows over

interviewees, a challenge which they took up with much enthusiasm. At least this matched the shots of Trevor MacDonald, who hit his marks every time. Unfortunately, the crane didn't, and a large arm shadow across the nation's favourite newsreader's face didn't bring out the best in me. I guess with two cameras on cherrypickers, two on cranes, two radio remotes, and assorted peds, all shooting 360 degrees with minimal rehearsal, there were plenty of opportunities for cock-ups (to use a technical term) largely unrealised.

None of the above will impress some of the luminaries going to Ghent for Showlight in April (see page 61), who do jobs like this before breakfast. Ian Dow, who lit the Channel Tunnel (the opening ceremony, not the fire) for the BBC, for instance, or Bill Klages, the doyen of the American events that haven't been covered by Jim Tetlow. Hidden in the list of speakers are a few coarse lighters and one or two new names, and if you haven't heard of the Bradford dentist turned lighting designer then register soon to hear part two. The strange chemistry of Showlight needs to be *experienced*.

Lastly, I see a new product has arrived on the market: the Martin Lighting Director. So now my worst fears have been realised; a computer system has replaced us mere mortals made of flesh and blood. I note the blurb says it "adds a new dimension to live performance, actually using technology to provide spontaneity, excitement and real drama." A pick axe through the main cable does all of these. I presume in its quest to have "moving lights act as followspots" it knows when the star is fidgety and not actually going to move, and can decide who to go with when the double act unexpectedly splits. Maybe the Society of Television Lighting Directors should be re-named the Society of Martin Electronic Lighting Directors, or SMELD for short.

## SHOWLIGHT 97: GHENT

Showlight 97, the fifth international conference about lighting for the performing arts, takes place at the Flemish Opera House in the Belgian city of Ghent from April 28th-April 30th. This year's event promises to be the best ever, bringing together professionals from all over the world in a stimulating and enjoyable environment.

In addition to the papers programme which features keynote speakers Jim Tetlow, Rick Fisher, Mike Southon and Harry Hollands, the event showcases lighting equipment manufacturers and service companies giving delegates the chance to see the latest products from 33 companies. If you would like more information on Showlight 97 further programme details appear in the news pages this issue and a registration form can be found on page 61.

Alternatively, you can contact Ruth Rossington in Eastbourne on +44 (1323) 642639.



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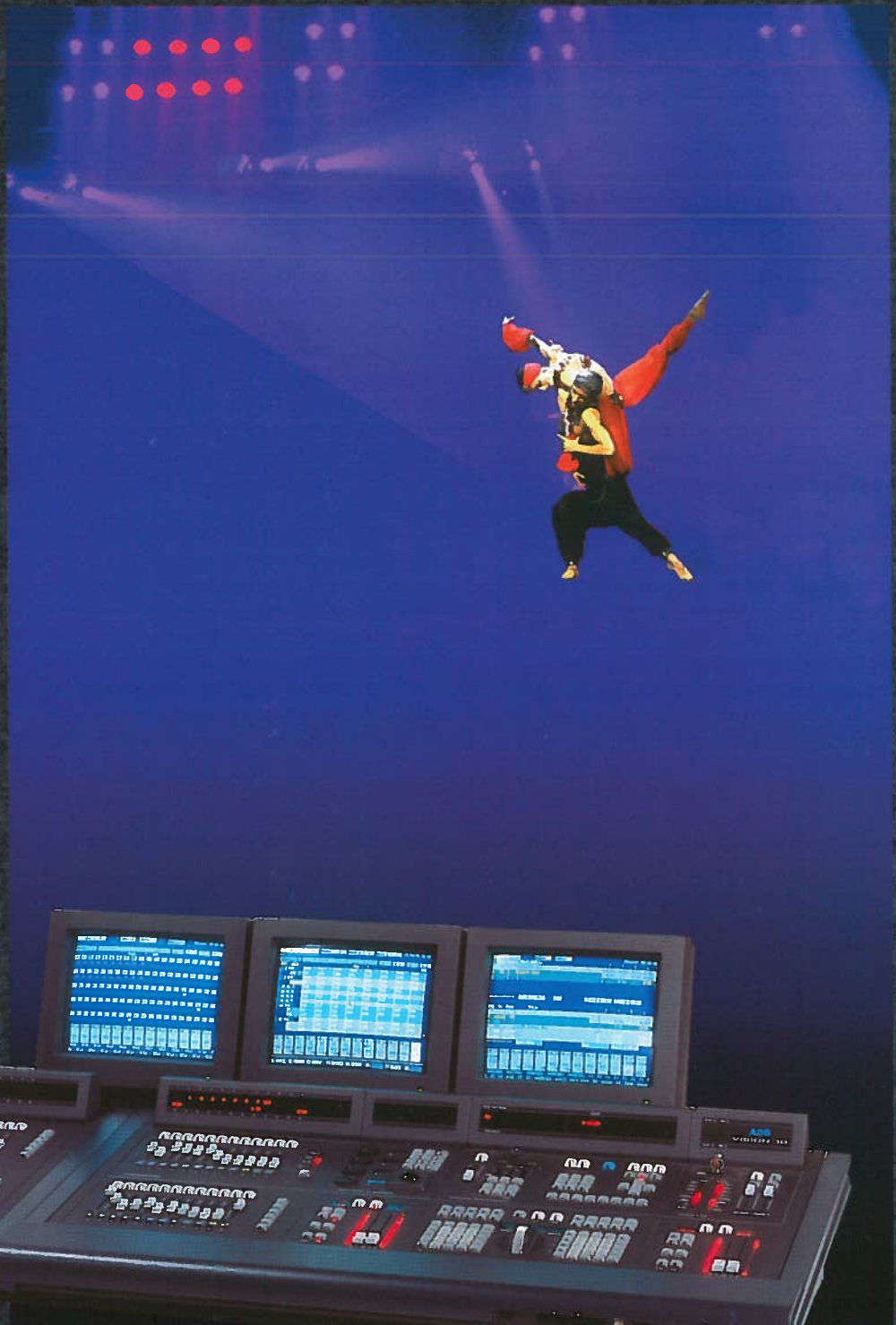
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# EAST 17 INSOMNIAX

Mark Cunningham visited the Brighton Centre to provide an exclusive report on how the latest developments in video technology have aided East 17's *Insomniac* tour



East 17 at the Brighton Centre, aided by video projection technology courtesy of PSL.

performance photos: Phil Dent

Just before I set off for Brighton for the East 17 concert, which I was assured by a young neighbour would signify my cultural epiphany, I was warned that owing to internal wrangles, this would be the last East 17 performance . . . ever. After drying my tears and speculating on the effect this tragedy this would have on the future welfare of modern music, I was informed upon arrival at this seaside venue that the reports were nothing but utter tosh. Events since then, namely Brian Harvey's ignominious expulsion from the band, may indicate that there was something in it after all. Ho hum . . .

After conducting various crew interviews in my normal nosey manner, I settled down with my L+SI accomplice Jo Boyd behind the lighting desk at the front of the tiered seats to watch the ensuing extravaganza. Sitting by the desk turned out to be a big mistake. I had been spoiled rotten by the glorious, cut glass sound of The Who at (yes) Earls Court only four days previously, which, by comparison, made East 17 sound positively horrendous. Everything sounded as if the high frequency pot on the front-of-house mixer had been lost in transit, and that the boys had zero microphone technique. I subsequently discovered that in no way should this reflect on the skills of FOH engineer Mike Dolling and hire company Wigwam, as I was informed several days later by a lead(ing) guitarist that the desk position was a notorious bass trap and that I should have parked my derriere elsewhere.

Was it this irritation that had my ears ringing for days or the insane screaming and whistling from the heaving, panting, fainting (OK, that's enough - Ed) and generally hormonally-charged girls (and, disturbingly, some boys) that had my ears ringing for days? Either way, I'll leave it some time before attending another of what's left of the Walthamstow boys' shows. This is, of course, in complete contrast to Jo, who arrived in Brighton without any feelings for East 17 and left a total fan (requiring counselling).

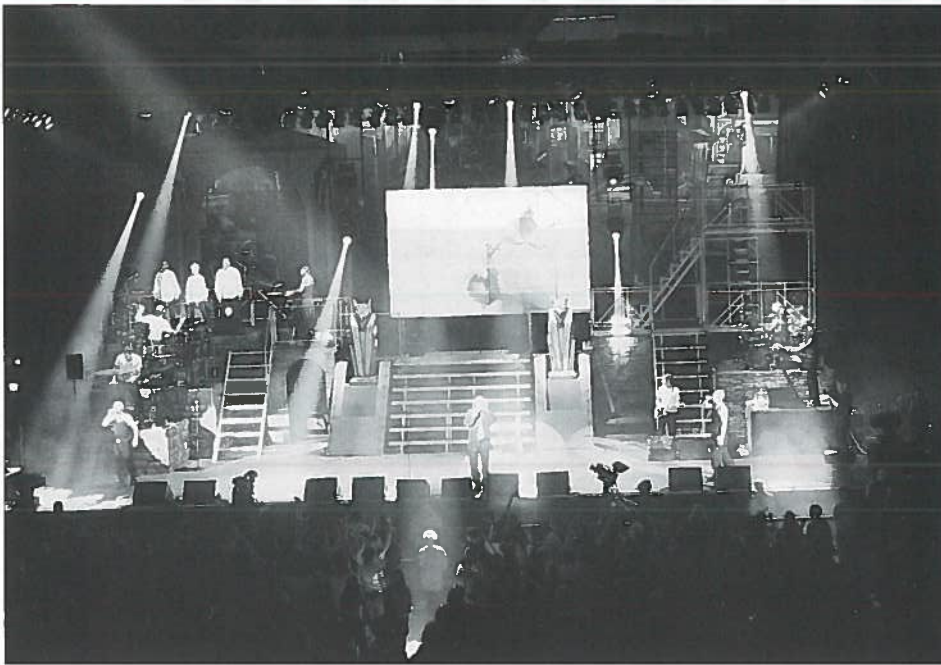
Responsible for the sound was a d&b 402 PA system, 32 boxes per side and fully integrated with its own amplification. Mike Dolling manned a Yamaha PM4000 desk at FOH with the addition of a Yamaha ProMix 01 sub-mixing the keyboards. On stage, Graham Blake mixed Bryan Olson wedges, d&b and Nexo fills on his Soundcraft SM24 console. He also sent mixes to headphones, including those belonging to (scream!) main man Tony Mortimer. Both he and Brian Harvey used the Garwood Radio Station in-ear monitoring system, but while Harvey wears bespoke ear moulds, Mortimer prefers to wear cans, slipping them on and off during the night as required.

Whereas sound quality was somewhat disappointing, the visual side of the production was nothing short of brilliant and relied almost wholly on a blend of live camera shots and uniquely shot video footage projected on to three video screens, courtesy of PSL (Presentation Services Limited). Pete Barnes'

lighting design was also noteworthy. His LSD-supplied rig consisted of 30 Icons, 12 VL5s, 20 Colourmags, 10 Molemags and 30 channels of generics, all controlled from a single Icon board. Few special lighting effects were needed, as most of the visual budget had been reserved for the giant Lorrymage digiwall above the band.

At the start of the show, an intro video inspired by the *Insomniac* theme of East 17's latest album was shown across all three screens: the central 4 x 4 digiwall and a 14ft by 10.5ft Screenworks soft screen at either side of the stage, with rear projection from Barco 8000s. It depicted a late night scene with an owl flying from the left, into the centre and out to the right, along with a sequence of the boys running through trees, and at different times focusing on one member mouthing the words to *Steam*, the opening number. At the end of the sequence, they came together in a graveyard on the centre screen, the image exploded, pyros fired off on the blacked-out stage before they stepped out from behind Gothic owl statues to a rather warm welcome. Stunning stuff!

Pete Barnes admitted that the Gothic owl concept was more than a little 'Spinal Tap-esque', but explained that given the theme, it was probably one of the only ways of successfully getting the four performers to the front of the stage in the blackout without the audience seeing them.



According to tour manager Phil Byrne: "The show was put together in January 1996 and we started in Europe in April. Pete has been involved in the design and construction of East 17's set over the last few years and after I became tour manager in December 1995, we came up with the concept of integrating some of the elements that we had before with some new pieces. Video was always going to be a big part of it and the intro video sequence was dreamed up by Pete and I. We set up the shoot in and around the graveyard at the back of Knebworth House between 8pm and midnight, and by 1am Pete had the whole thing edited. The band's record company loved us because we shot it remarkably cheaply, for about £12,000, so we are very proud of it!

The increased use of video on the current East 17 tour had much to do with Pete Barnes' feeling that young audiences have seen most of what can be achieved with moving lights. "It's very hard to do anything new with lighting using the tools that are available at the moment. In looking to create a new feel for the East 17 show, we concentrated on developing the video aspects further."

His way forward was to employ an ingenious MIDI system which, via musical director Simon Ellis's keyboard, cued video footage from two Sony CRV laser discs and two Sony Betacam 1200 machines, synchronised to the nine-piece backing band's music. The use of this new technology came together over four days during rehearsals at Elstree earlier in 1996.

In charge of the system was video systems technician Derek Burt: "The system was pre-programmed before I got involved, although I have since tailored and fine-tuned it to the current set under Pete's direction. Simon's keyboards send a MIDI signal on XLR line drivers to an Apple Macintosh computer with on-board specialist Dataton software. The signal is then translated into a cue that looks for a specific point on one of the two video disc and Betacam machines. Via a switcher, these clips are sent to the digiwall in certain sequences depending on the music being played at the time. Even if the band are busking a song and it isn't sequenced, they can repeat a verse or a middle eight section and the video clip will be cued again."

Barnes added: "Fortunately, the way in which this all works is very simple. As soon as the computer in the video racks receives this MIDI cue it knows which clip to run and it switches from live camera action to the video machine, then switches back to live output when that clip is finished. There is no separate keyboard for this purpose, but simply a separate MIDI output on Simon's sequencer. I just tell him in advance which note to hit on the keyboard and the computer does the rest. There is no added pressure on him unless he changes an arrangement. In which case, we just confer to make sure that the note he is going to hit corresponds with the cue I am expecting. It's not a fixed thing where they are locked to SMPTE.

"Any problems we initially had with the MIDI system in rehearsals have now been ironed out. There is a little window that you can open on the computer which shows the MIDI notes coming in and the system status. When that window is open it is one more thing for the computer to do and occasionally a note would be missed because of the drain on the memory."

Burt informed that the recall time from the point when Ellis hits a note to when the image appears on screen is slightly faster than one second, while the Betacam machine, which is used only for the intro and outro sequences, runs a little slower: "Having only learned to use this system from scratch a few weeks before the tour (in December), I am having no problems whatsoever in re-programming and changing timings. All I have to do is discuss things with Simon Ellis, and if the timings are not quite right on the incoming MIDI, he can trim it at his end. There are very tight timings in some places and sometimes there's a delay by the time the image hits the videowall. Inevitably, there is always some trimming to do in order to be in time with the music. It's just a case of pre-empting the clips."

The enabling software was, in fact, the third version of Dataton's package, which was brand new for this tour and incorporates extra multi-tasking to allow more equipment to be run simultaneously. "It's a beautiful piece of software to use," explained Burt. "Until I started this job I had never heard of cueing from a

keyboard. But really it is just a data stream that gets translated and this technology could be used in a number of different applications. You could actually run pyrotechnics, relays, motors and moving trusses from keyboard or desk cues, and I'm confident that its use will grow. In fact, we could get really carried away with it and have it doing a lot more than we are currently doing, but the art is discipline!"

Sat behind a battery of monitors and control equipment for the whole of the show was video director Blue Leach who, apart from overseeing the playback of laser disc sequences, was mixing source material provided by a total of eight cameras - three manned Sony 537s (one hand-held, two in the pit), and five Panasonic WVKS-152 minicams littered about the stage, fixed to the drums, keyboards, backing vocals, or wherever he pleased from gig to gig. When we spoke, Blue was looking forward to working on the last three dates of the tour with the new Barco 9100 projectors which he described as "quite outstanding".

In tandem with the tastes and techniques of some other contemporary video directors working in live situations, such as Dick Carruthers, Leach occasionally uses a strobing effect on the live output - removing one frame per second - to produce a cinematic effect: "On one of the songs in the middle of the set I have a close-up of Brian Harvey in black and white, and strobe it for a liquid result. I'm also using some digital video effects (DVEs) such as wipes, spins and different patterns from my Fora VSP-300 vision mixer, and I'll probably use more as the tour progresses. I'd like to use some sepia as well, but it's whatever suits the show - there's no point in introducing DVEs just because they are available to you. They have to be appropriate.

"Sepia would translate well to the digiwall but even better on the Barco projections. The Barcos are there more for the cameras, while the digiwall is essentially for the laser disc output. Some 40% of the show is camera work, so in between the laser disc clips I tend to feature mainly close-ups on the digiwall while the Barcos display wider shots from the cameras. It's definitely a case of mixing and matching images, although sometimes I have the same action appearing across all three screens."

Kaleidovision have created the mass of sound driven videographics which feature in the tour. Striking Gulf War imagery gives an apocalyptic feel to the song 'It's all Over' with the images strobing to create a sensation of chaos overlaid with key words to echo the lyrics. By contrast, the graphics used for 'House of Love' featured a myriad of psychedelic fractals rushing around a cartoon-style house.

As the lighting designer in a video-led show, Barnes attempts to light the stage in such a way that it will help the cameras, although he points out how difficult it is guarantee this to a video director in a live situation. At Brighton, Barnes, who was working on the Smash Hits tour immediately before going out on the road with the Walthamstow wonders, added: "This is only our second full show with the complete video production and the cues may not be as tight as they'll be by the time we play Wembley Arena on December 23rd. Being a live show, I'm running the lighting board with more of a live approach than I would if doing a TV show. If you have five million people watching at home





LD Pete Barnes with the Icon board.

on TV, then what you do with the lighting becomes much more important."

For many years, Chris Mounsor was the logistical backbone of audio rental giant Britannia Row Productions. The two-day Oasis concert epic at Knebworth last August, however, marked his last project with the company as he set off for fresh pastures in his new role at PSL's concert touring division.

"Moving from Brit Row has been very exciting," he explained. "As a sign-off, I couldn't have done anything bigger or better than Knebworth, so I left on a real high. I've now thrown myself into an industry that is incredibly vibrant and it's a great challenge."

Whereas video screens have been mainly linked with large venues over recent years, their use has widened as they have become less facilitating and more an integral part of shows. No longer do they exist to provide audiences at the back of a venue an enlarged view of the stage action. PSL currently supplies to seven UK tours (including Boyzone and the Manic Street Preachers) and four tours in America (including



Tour manager Phil Byrne, PSL's Chris Mounsor and production manager Jimmy Innes.

Alanis Morissette and the Smashing Pumpkins), and all of them feature creative footage that is a vital part of the production's overall look. The Manic Street Preachers show, for instance, is totally reliant on video clips shot specifically to add an extra dimension to five of their numbers.

"Video is increasingly required on tours, commented Mounsor," and it is becoming the norm rather than the exception. It has been a long haul, but many production managers now see video as vital as any other element of the touring package. We are in a very fortunate position at PSL. Instead of 30 companies chasing the same work, as in sound, there are only a couple of players in this market and we can pretty much stick to a standard hire price list. The investment in video equipment is so high that it precludes potential new companies from entering the game, although costs are beginning to drop and these savings are allowing more bands to include video in their budget.

"Concert touring video is really only about four or five years old and Depeche Mode were



Video systems engineer Derek Burt.

among the first wave of bands to be handled by PSL. Being a new industry, there are no pre-conceived ideas of how things are done and so every new job is a fresh challenge, unlike sound where you had a 25-year history to refer to and possibly be chained to."

His previous enviable record as an organisational wizard for Brit Row has prepared Mounsor for his future in video, and already some practical issues have raised their head. "Transportation is a subject we are currently looking at, paying attention to various practical and economic ways of packaging the screens for trucking - standards for lighting and sound. I think it is inevitable that my experience in sound has helped me look at that area more closely than others might have done."

Whatever the future holds for East 17 minus the ecstatic Mr. Harvey, one player in the touring scene that will never suffer the whims of outrageous fortune is, of course, the technology - guaranteed to be centre-stage long after the Spice Girls, East 17 and Boyzone have become distant memories.

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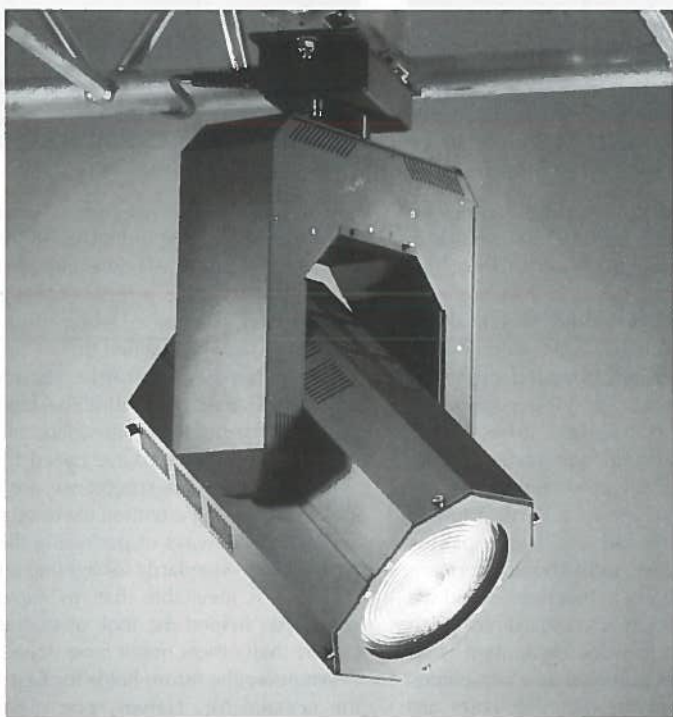
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# SOME **MOVING** FACTS...

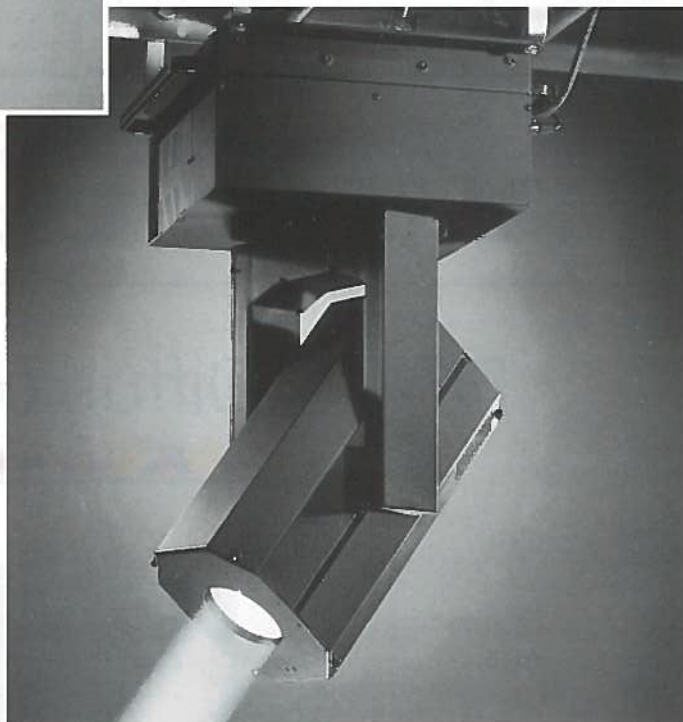


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# VIDEO DOME

*Steve Moles takes a look at some interesting additions to First Leisure's newly upgraded Dome II in Birmingham*

It's just two years since First Leisure made a considerable investment in a new lighting system for Dome II in Birmingham. For a large nightclub (it's licensed for 2,800) the size of spend was not out of the ordinary, but for an establishment that prides itself on the luxury of its facilities, it's safe to assume their margins are such that payback was not achieved in a matter of months.

It's also true that clubs, even flagship venues like the Dome II, need to re-invent themselves every five years or so, not just to sustain attendance, but also to maintain their reputation. The fact that an equally substantial sum has just been spent on replacing the PA system and installing a comprehensive video system bears this out, but there is another element to the equation that makes this installation a bit different.

## VIDEO

The moment you walk up from the foyer into the main room, you cannot avoid noticing the two videowalls suspended from the ceiling. Even when switched off, the two blocks, set each side of the dancefloor, are an imposing presence. The two 3 x 3 walls are made up of Pioneer RMV2500s specified by The Music Company (TMC's expertise was contracted by First Leisure to oversee every aspect of both the sound and video installation). When the idea of videowalls was first considered Music Co director Miles Marsden presented some artist's renditions of how they might be positioned: "First Leisure surprised us straight away," said Marsden, "with a request for the screens to rotate. And went on to add that if they were going to rotate, they should tilt as well!"

The approach Music Co brought to realising this - reputedly the first tilting, turning videowalls in the UK (though assuredly not the last) - says much about the relationship between the Bradford-based company and their client. The 50 inch square cubes produce a combined weight per wall of approximately one ton. By the time the armature from which they hang, the framework and tilting mechanism have been added to the equation, the total weight is nearly two tons. Shaun Hardcastle of TMC (who contract managed the whole installation) commissioned Stage Technologies to supply the frame and movement mechanisms. What makes the finished product special is its size and appearance: "The frame is barely half an inch bigger than the outline surface of the video cubes," explained Shaun, "even the tilt mechanism is buried within the casing."

Not so easily achieved when you consider the bulk of the RMVs and the inherent problems of squeezing in an actuating device that can smoothly shift two tons. I quizzed First



Above, the plush interior of Birmingham's top nightspot, Dome II, showing the two rotating, tilting 3 x 3 videowalls at either side of the stage. Below, Kaleidovision produced the club's graphic images.



Leisure's technical manager Martin Tasker (responsible for sound, light and video at all their venues) as to why such confines should be necessary. He summed it up in three words: "It looks sexy." And he's spot on.

With no external mechanisms (the easy solution) the pitfall of an industrial finish is gone and the effect is very high-tech instead. We all know there's gubbins in there, but the sleight of hand in concealing the machinery flatters our intelligence: it's a rather glib comparison but it's like a Braun razor - neatly designed, highly functional, but with no unnecessary distraction from the primary purpose.

All movement is controlled from a Maris Stinger. Chris Jay from TMC (who incidentally specified and installed the video and control set-up) has programmed in eight major sequence routines, but with a potential 3,000 steps per routine, the permutations are limitless. The key to control is simplicity: First Leisure want systems that can be learned by all main staff members so that in the event of sudden illness or other unexpected personnel

absence, anyone can step in and get things running. To this end, access to the pre-programmed routines, or just basic shift commands where a specific screen position is desired, is gained from a Maris Ideal. The Ideal was still in development as the installation was being made, so only a dummy panel was on display at the time of my visit, but in simple terms it's a remote for the Stinger with a small touch-sensitive screen that provides obvious and definite prompt buttons to what's possible.

There are other elements to the video system where Music Co have taken the initiative and pushed development along. It shows confidence in their relationship with established producers, and more importantly a willingness to engage in the very latest technology rather than take the proven route. Miles Marsden's assertion that they do this as the norm, and the fact that they have done so for the 10 years that TMC has existed, point to a defining quality that makes them more than just another installation company - something that might explain First Leisure's preference.

Image sources to put on screen are diverse, with three remote-controlled pan and tilt head cameras fixed to pillars encircling the dance-floor, a hand held Sony broadcast camera, a Sharp Viewcam (the domestic model you'll see wielded at any tourist attraction) and a Sanyo Digital Still camera. The remote cameras have x10 zoom lenses allowing for close-ups of virtually any target within their field of view - primarily members of the public dancing, the DJs, and professional dancers on the podiums around the main dance area.



The main control area awash with technology.

The two hand-helds are used to gather public image footage, parties gathering outside the entrance, celebrations within etc. "The purpose," as Martin Tasker explained, "is to involve the punters in the entertainment, to put them on screen and make them the stars." The Viewcam has proved especially useful for this; its commonplace persona makes it less intimidating, and the digital still camera has also produced some remarkable results - something made apparent as Chris Jay began to expound the control and effects side of the system. "Laserpoint control electronics and a Laserpoint sequencer provide simple control over screen effects, different cube configurations and triggering can be manual or from sound to light. Switching of image source is done from an Elca16 video matrix, which allows easy manipulation. For example, a video tape image with effects might run on one screen, while on the other you can bypass the main video mixer (a Panasonic WJMX 50) and show direct image from one of the cameras."

Incidentally, to minimise disturbance to the punters, the Dome has been laced up by Music Co with three video input panels around the room to allow for easy hand-held camera positioning without the need for lengthy umbilicals running all over the floor.

Needless to say, there are other image sources available; two Pace Satellite receivers, a Panasonic Super VHS hi-fi editing recorder and a pair of Mitsubishi HSM1000 SVHS players, but it's the Colour Kaleidovision system (Kaleidolight K20X), where the fun begins. A PC-based package, the K20X is a videographics tool that allows the club to run fully professional graphical shorts or promotions, and it will also generate astounding picture pattern images. Complex monochrome or colour geometric designs constantly mutating and reforming, or swirling coloured fractals are possible from what is basically an image generator with a major number crunching program running beneath it.

Where its power really comes into play is in the ease with which this system can support the 'punter as Star' ethos, allowing for simple insertion of text, ie 'Janice Fortensky's Hen

Party' and overlaying this on live footage of Janice dancing on a table while balancing 15 Malibus on the end of her nose. Pushing the bounds of the possible again, Music Co specially commissioned Kaleidolight to facilitate the use of the Digicam images which allows the camera's still images to be downloaded into the system and then distorted or otherwise generally messed around to produce some very unusual, yet fun imagery.

The K20X is controlled from a touch-sensitive screen, thus between screen effects, video mixing effects, and the special effects and image manipulation possible on the Kaleidolight system, the possibilities are endless. Because of the remote control nature of the touch screens and the fact that much of the actual programming control is actually submerged (i.e. not accessible from the surface controls) even a Luddite like me can operate the system without messing the whole thing up.

#### SOUND

The new PA is an altogether more subtle investment. Where the video is immediate and demands attention, the fact that most of the technology and effort put into the PA system goes unnoticed, underlines just how effective it really is. Like the video system, the PA was installed in an astonishingly short period of time. In fact, the time from the go-ahead to the commencement of the installation of both sound and video was just three weeks, and from then to completion just a further four, and this while the club continued to open six nights a week. "To define the goals of the new sound system didn't require much of a brief," said Marsden. "Martin Tasker is a knowledgeable client and First Leisure have a clear aim. They are looking for high level and high quality over the dancefloor with the same attention to quality throughout the rest of the venue. Peripheral speaker systems are of as much importance to First Leisure as the main system."

Ironically, the fidelity of sound in the dance area is so good that you aren't necessarily aware of the level: it feels comfortable and catches you unawares when you try to speak to someone next to you and can't even hear your

own voice. The main room is basically a rectangular box, two storeys high, with the loosely circular dancefloor confined in all directions by assorted bars and seating areas on several levels that provide a number of quite distinct, off-floor environments. The high ceiling sets the Dome II apart - the feeling of space is quite unusual. The concept of how to address the club was the work of Miles Marsden's co-director, Paul Smith, with some assistance from Simon Johnston of d&b audiotechnik.

Johnston, however, modestly ascribed the success of the installation entirely to Smith: "All my hands-on experience of audio has been in performance situations, starting with bands and ending up with things I'm not sure how to describe. Paul's approach is based on a diverse set of skills and criteria: a broad technical understanding of speaker systems, his abilities as a musician (he is an accomplished bass player), a great feel for the excitement of a show and what's needed to make a dance-floor jump. Dome II is stonking - the best effort to date."

Underlining Simon Johnston's reference to the diversity of skills, Miles Marsden went on to explain TMC's system choice: "We'd already selected d&b products as our preferred equipment for this project. Although we use other systems, d&b was chosen for their particular quality and ability to control delivery of sound. The system amplifiers for example - the P1200A mainframes - not only are they amps, but they also control the signal processing and component EQ."

A feature prominently borne out by the almost flat setting of the pair of twin-channel BSS graphics used for the two elements of the main system. The dance-floor system's two parts are a ring of six 402 mid-high speakers hung from the ceiling around the boundary of the Dome's characteristic lighting rig, with two further clusters of three mid-highs and two 402 bass speakers to either side of the DJ and lighting control area.

The purpose of the clusters is twofold: to produce a more conventional stereo mix for personal appearances and be part of the main audio focus on the dancefloor. There's also a B2 sub bass either side of the DJ booth with eight 402 bass speakers diagonally opposed across the floor concealed beneath two dance podiums. The system looks a bit curious - one pair of the mid-highs is pointed out over the top of the dance-floor at one of the raised bars for example - but the combination of positions seems to enhance the feeling of space.

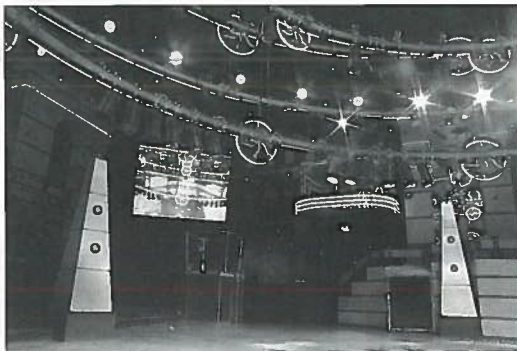
It's when you step out of the dancefloor area that you really become aware of the attention to detail with the peripheral systems. Although the bass from the main system permeates every corner of the building, it's the sustaining of the high end intelligibility that is so marked as you move around. In the immediate off-floor areas a pair of 1502s, two 902s, and three Mon15s in various strategic positions provide power and coverage that makes an apparently seamless transition between being right in the thick of it, out to the most immediate bar areas. The very large bar area behind the DJ booth for example has just a 1502 and a Mon15 rigged from the ceiling (a wedge in the ceiling? And why not?).

This is a very modest number of speakers for an area this size by most club conventions, and yet the audio continuity is maintained. In the

more remote bars at the uppermost levels, ceiling-mounted E3s are placed behind the line of the serving area putting the sound image in front with the punters, while not deafening the bar staff themselves. (They're the kind of speaker you'd like to have at home - small and powerful, but so clean you could easily upset the neighbours three streets away if you weren't paying attention.)

Careful positioning here has enabled compliance with the noise at work regulations for the bar staff, while not diminishing the punters' enjoyment. Further afield, an existing 100V line system of V100 Canons and Soundolier speakers (Music Co provide a special service of their own custom-wound transformers for such systems) has been re-used to continue mid-high level intelligibility to the most distant toilet, foyer and snack bar areas. Responsibility for level in these areas is in the hands of the staff working there, so although signal comes from the DJ source and his output level may vary wildly, the use of independent VCAs for the remote system keeps things even. (The DJ equipment is the one area of the sound system not to receive a re-vamp on this occasion, consisting as it does of a suitably up-to-date collection of Tascam DAT, Technics turntables and Denon CD players run through a Cloud CXM mixer.)

The finesse to this coherent sound is consistent application of time alignment, courtesy of two TOA D1103s, to the entire system, right down to the lowliest bathroom speaker. It's this attention to detail that underlines First Leisure's commitment to its



Stage Technologies were commissioned to supply the frame and movement mechanisms for the videowalls.

whole club environment and TMC's prowess in achieving it. In fact, I only detected one element in the entire system that may upset the overall balanced nature of the sound and that's the pair of d&b Max speakers used for monitors in the DJ booth. If enthusiasm overcomes common-sense, a not unknown symptom for DJs, then they can provide an unnecessary stab of power in a localised zone around the control area. That said, the overall sound is very musical, but with a remarkable speech intelligibility. The attempt to maintain the audio focus throughout the club certainly works.

#### NIGHT AND DAY

I said at the beginning that there was more to this installation than just a five yearly re-vamp. First Leisure intend to market the Dome II as a venue for daytime commercial presentation and conferencing, something they have done to a small degree in the past. The facility itself is well suited, in as much as the general decor is

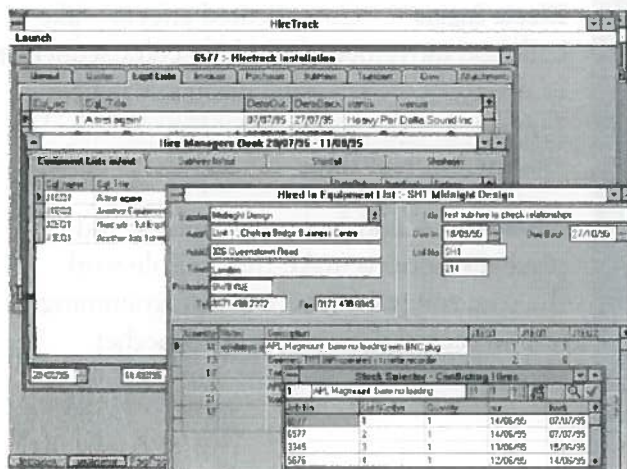
in excellent repair, even under the glare of house lights. The toilets, bars, and seating areas are easily on a par with any four star hotel, and the atmosphere is clean without the lingering odour of booze. Due to its main function, it also conforms to all necessary H&SE regulations for a sizeable audience. With regard to the new video and sound system, there are some obvious plusses. It's quick and easy to plumb-in virtually anything you want - laser disc, computer graphics, whatever - to the video system, and the existing camera set-up will work exceedingly well for any lectern-based presentations. The sound system, with its high level of speech intelligibility, is also well suited to covering a large audience. However, lighting may be a problem; the house rig doesn't lend itself to conferencing, and it could be here that First Leisure encounter their biggest hurdle in increasing daytime usage of the venue.

It's still very much a nightclub and that's a personality that will be hard to submerge when staging an industrial show. However, it is certainly the case that the more mainstream venues for such shows are just large rooms that have a temporary decor imposed upon them, so this problem is not insurmountable. Nonetheless, the premise of shows going in and out in a day will be hard to achieve.

On balance though, the idea is well worth consideration. The savings that can be made on equipment rental and the reduction in time for loading in and out should easily off-set the additional burden upon the stage set. It will be interesting to see how well a skilled commercial presentation specialist can exploit the facilities of the Dome II.

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# ALL ASIA BROADCAST

*Mark Ravenhill visits the world's largest digital broadcast facility, the All Asia Broadcast Centre in Kuala Lumpur, Malaysia*

Digital technology in the television production world, in various forms, has existed for some time now and has been put into operation in almost all of the major television production facilities around the world. But even so, these sometime giants of broadcasting pale into insignificance when compared to the new All Asia Broadcast Centre in Kuala Lumpur, Malaysia.

For an existing television station to convert completely to digital facilities is a very long, expensive and disruptive task when you still wish to keep the existing continuity of the station alive. The difference at the All Asia Broadcast Centre, however, is that it has the massive advantage of being built and specified as a completely digital facility all the way from the ground up, and to complement this the centre has also achieved the status of being the world's largest single digital broadcast and production complex in the world.

The centre was fully operational in all of its capacities by the end of 1996, but while the final work is being completed on the studio and production facilities, the centre has begun operation by relaying programmes from other commercial broadcasters to the Asia region for a number of months now. Currently, the centre has a staff of 1,000 people all working extremely hard on the preparations for when it begins in-house productions. The MEASAT network already has two satellites in orbit, with plans for a further two to be launched within the next 12 months. For statistics enthusiasts, the All Asia Broadcast Centre is located within a 29 acre site with a total floor area of 350,000sq.ft. The centre also boasts 2,000km of digital cabling, a 60,000-tape storage library, a 2.7 Megawatt battery uninterruptible power



An artist's impression of the All Asia Broadcast Centre, Kuala Lumpur.

supply (UPS), which, incidentally, is the largest in the world, and a 6 Megawatt power generator, in case of electrical power cuts, along with the numerous satellites, studios and production facilities. The whole centre was built at a cost of 500 million Malaysian Ringitt (approximately £125m), with plans for a further 1.5 billion Malaysian Ringitt (£375m) to be invested over the next three years.

For the current status of its re-transmission operations, the centre is equipped with 11 C-band down-link satellite dishes which are capable of receiving up to 20 television and eight radio channels, all in digital format of course. The signals from the commercial broadcasters are received by these down-link dishes, and are then transferred to the central server room within the main broadcast centre in Kuala Lumpur, where they are then compressed onto computer hard disks using the broadcast standard MPEG-2 compression technique.

Like many other Asian countries, Malaysia has strict censorship rules and so, after

compression, the signals are then run through on-line workstations to be edited according to the censorship laws. Each work station is manned by two people, 24 hours a day, with 20 workstations in total, all of which are overseen by a government official to ensure coherence to the law. The edited programmes are then transferred back to the main computer server room where they are expanded back to normal size and then transferred to the four massive Up-Link satellite dishes located on the other side of the centre where they are beamed up to the centre's own MEASAT satellites from where, in turn, the signals are transmitted down to the receiving homes around Asia. There is a one hour delay from the time that the centre initially receives the programmes to the time that the individual homes receive them, allowing the editing and censoring process to be completed, but this is quite an achievement in such a short amount of time, and can only be carried out so efficiently because of the digital technology that has been utilised.

To say that the centre is well equipped is an



The central technical facilities' format dubbing area.



The Media Pool - a video disc server system.

understatement: once fully running the centre will have at its disposal seven production studios, the largest studio of which totals 6,000sq.ft and has a capacity to accommodate an audience of 200 people. In addition, there are 17 video post-production rooms and four audio dubbing suites with integrated voice-over facilities. These suites will facilitate the broadcasting of a single program in a number of languages simultaneously, and the subscriber at home will then be able to select their chosen language from those available using their own decoder unit. These languages will be either subtitled or dubbed with the original programme. In the initial phases of the centre, these languages will include English, Bahasa, Malay, Cantonese, Mandarin and Tamil.

In addition to these television and video facilities, the centre is also equipped with a plethora of radio operations designed for a variety of uses, including live broadcast, news reading and audio production totalling 20 studios altogether.

Lighting director David Evans was headhunted from Central Television in England to take up his new position in Kuala Lumpur and had the luxurious task of being able to specify almost all of the lighting equipment himself from new, although he had to be sure that his specifications maintained the already high standard that the centre had achieved. Additionally, he had to be sure that all of the lighting within the centre was as portable and flexible as possible, due to the high output of the programmes that the centre will achieve when fully running. Evans has been working as a television lighting director for many years, and has drawn upon his long experience with many different fixtures to specify the best suited products for each area within the centre, combining the best products from a range of manufacturers.

The conventional lighting comprises a variety of fixtures from the major television lighting manufacturers - Strand and DeSisti - with ballast units from Power Gems, along with a



Lighting director David Evans outside the broadcast centre.

***"Digital technology is here to stay, and the sooner we can all convert to it, the sooner we take another step forward. Here's to the future, and to technology."***

custom-manufactured star cloth from Playlight. The intelligent lighting for the centre came exclusively from American manufacturer High End Systems, via their Singapore office, who supplied 16 Cyberlight SV (Studio Version) fixtures, along with 16 Studio Color luminaires, their new automated wash light.

Naturally, when specifying the intelligent lighting, Evans had to bear in mind the amount of noise that would be created by any fixtures when in use, as they are often run in very close proximity to presenters' microphones. After conducting comparison tests with a variety of fixtures, he found that the Cyberlight SV, was quieter than any other competitive fixture whilst still packing enough features, including the marvellous lithograph gobos, to be visually stunning again and again. The High End Studio Color is cooled entirely by convection currents, and so with no noisy fans to contend with, Evans found the units a natural choice.

Control of the lighting fixtures comes from a variety of sources: ETC and Strand consoles are

used for controlling the conventional lighting, whilst control of the intelligent lighting has been given over to the Flying Pig Systems WholeHog II console. Evans opted for the latter after seeing it demonstrated at the World Lighting Fair in Tokyo earlier this year, knowing it would give him the flexibility and hands-on control options that are necessary when working in a television environment. Because of the heavy recording scheduling of the centre, a second console is occasionally needed for the intelligent lighting and this task has fallen to the Strand 530 console, when not being used for controlling the conventional fixtures.

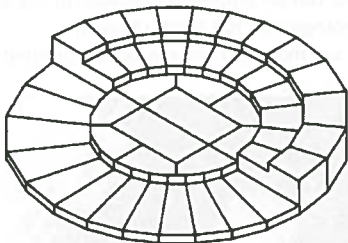
David Evans and his in-house team of four lighting designers know that with the heavy programming and recording schedules, lighting programming time is at an absolute minimum - does this sound familiar at all? Enter again Flying Pig Systems, with their WYSIWYG visualisation software. For those of you not familiar with this program, it is a PC-based software package that hooks up to your lighting control console and allows you to programme in real time and in a true 3D environment your whole lighting show. The package is programmed in Canada by Cast Lighting and allows the team to store in memory the layouts for all of the centre's studios. When it's time to programme a new show, he can simply re-hang his fixtures within his virtual studio, connect up a DMX 512 signal, and programme away, without actually needing to be there.

So, with such an amazing amount of technology and equipment, David Evans and the team at the All Asia Broadcast Centre are sure to be a hit when they blast onto the airwaves later this year. It is wonderful to see places such as this being built: a similar project is now also underway in Germany.

Digital technology is here to stay, and the sooner we can all convert to it, the sooner we take another step forward. Here's to the future, and to technology.

Mark Ravenhill is a technical product specialist in the industry.

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# Ambience in the Stalls . . . Ian Herbert

Shortly before Christmas, I spent a very happy evening in the best small theatre in London. I sat in very comfortable seating, saw two very professional large-cast shows and lounged in a most pleasant bar between - actually I lounged before and after too, but we're not here to discuss your correspondent's seasonal binges. The ridiculous thing is - I bet hardly any of you have heard of this amazing venue, let alone been there. It's not out of the way, either, just four stops from Covent Garden on the Piccadilly Line. Well, yes, it is a little out of the way, since the Underground stop you'll need is Caledonian Road, almost equidistant between Holloway Prison and Pentonville, so unless you come from a very criminal family, you may not know the area well. But North Road, home of Pleasance London, is a broad street of studios and trendy offices, with an excellent brasserie, Shillibeer's, on the ground floor of the spacious courtyard from which the theatre is reached by an outside staircase. This used to be where some of London's finest buses were built - the open-topped 'B' type; later it was the headquarters of Circus Space. Now Christopher Richardson and the team who run the chummiest of all Edinburgh Fringe venues, the Pleasance, have taken it on themselves to bring some of the spirit of Edinburgh to London.

What you get in Pleasance London is some of the clever use of space that has marked out Richardson's almost archaeological excavation of more and more playing spaces in the Edinburgh Students' Union complex, but allied here to the greater comfort that a year-round venue can be expected to offer. A big banner in the street in Pleasance's Edinburgh livery of black and yellow welcomes you into the courtyard, and once up the stairs you're in an airy foyer area with an open-plan box office at one end and a bar at the other, from which steps lead up to a mezzanine with its own pool table. This area is dedicated to Hamish Darlington, a tireless Edinburgh team member who died tragically early, of heart disease, in 1995.

Christopher Richardson is also a stage designer and theatre consultant - his work has included sets for Pleasance shows and theatres from Keswick to Jersey - which makes him a useful man to set up this new venue. The spacious 285-seater theatre, which can of course be adapted to almost any configuration, features his patent brand of demountable seating, also used in the refurbished Young Vic and Roedean School. Above the performing space, gantries offer easy access for hanging and refocusing lanterns and behind the scenes are spacious dressing rooms and even rehearsal spaces. A 120-seat studio is



The best small theatre in London' . . . the auditorium of the Pleasance.

planned for the not-too-distant future. Lottery money, a Sports and Art Fund grant and a big sum in donations have all helped with the conversion, but running costs are being met for the moment out of the profits made by the three week Edinburgh season. When you consider that not so many years ago that season was itself subsidised by Richardson selling his car, you can be optimistic for the London venture in the long run, but at this precise moment it is not exactly rolling in funds. So the chairs in the bar, for instance, are comfortable but tatty Edinburgh cast-offs rather than the custom-built numbers the management would have liked.

On the day of my visit, Pleasance London - in true Edinburgh fashion - staged five shows. By the time I arrived for the National Student Theatre Company's *Big Book for Girls*, the TV team of the *Fun Song Factory* had already played three shows to appreciative school parties and other visiting children. *Big Book for Girls* is an ambitious show which has become something of a favourite for the NSTC and their staff director Ian Ormsby-Knox. It features a cast of 14 girls and six boys, all of whom put in some very neat a capella singing to Nick Brace's music and show off the hall's very friendly acoustic. For this production, the company basked in half a dozen loaned Vari\*Lites, though I have to say that they weren't used with much flair - this was very much a white light show, even when the colour-changers were whirring away on the guest lanterns.

The second, late show was also a large-cast event, rejoicing in the unlikely title of *Oedipus the Panto*. Another student-based group, this time built round a nucleus of ex-Cambridge Footlights, produced a typically student piece. I'm not being disparaging when I say this - far from

it. 'Student show' may mean, as it did here, clever-clever undergraduate humour, of the kind you can hear in a string of Radio Four comedy shows (most of them written by recent graduates), but nowadays it also means near-professional standards of song and dance in some very niftily choreographed numbers that leave you calling out for more. The one senior professional actress in the *Oedipus* cast, with considerable West End musical experience, looked less at home on stage than some of her novice companions.

And the students know their technical side, too. Go to the Edinburgh Fringe and you'll find them operating sophisticated, if miniaturised, equipment and mastering get-ins and get-outs that would faze a few full-timers. (The gap between these two far from straightforward shows was perilously short, but involved no visible hitches). The permanent team at Pleasance London, too, is very much based on young folk who have won their spurs over the years in Edinburgh in box office, admin or production management. Now they have a possible year-round career ladder.

There remains the problem of actually getting people to take the ride to Caledonian Road and try out Pleasance London for themselves. So far, the programming hasn't been so sure-fire as to demand attendance, though it has included some Edinburgh favourites such as *Red Shift* and *Peepolykus*. Yet here is a space which is twice the size of Hampstead, has far better sightlines than the Almeida or the Donmar Warehouse, has as good an ambience as any of them and is more comfortable as an auditorium than them all. Once the small-scale touring companies have discovered it, I expect it to become a firm favourite with them and their audiences. Meanwhile, check it out - you can tell the world you saw it first.

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# PHOENIX RISES

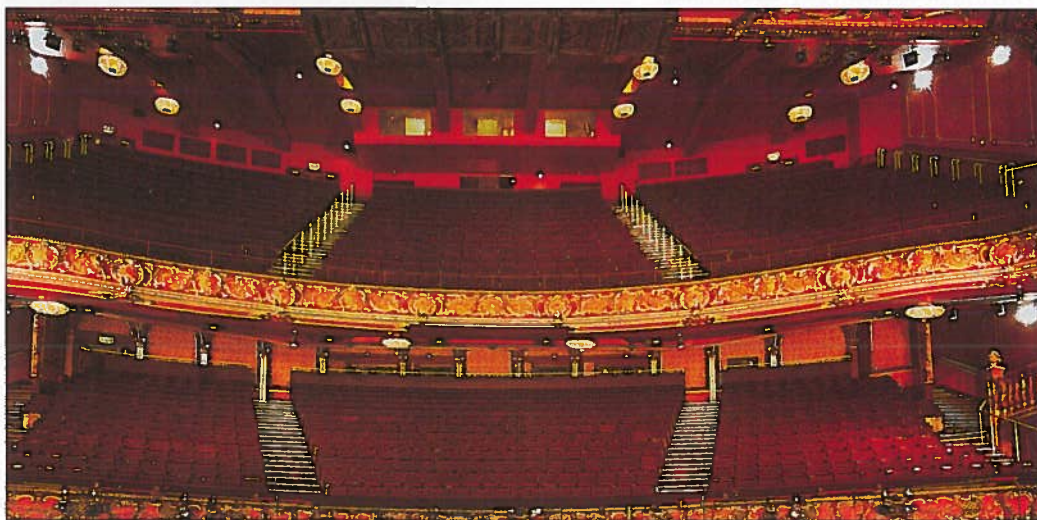
Rob Halliday charts the rise and fall and rise of the Lyceum Theatre

It's been horrible for theatre enthusiasts passing it by: the long, lingering death of the Lyceum Theatre, its splendid portico standing as a reminder of the slowly decaying auditorium inside. The lucky few who'd worked in there - the crew of the National Theatre's 1986 *Mystery* cycle, and the teams responsible for a couple of special events staged by Imagination - spoke regretfully of the mess inside, sad that nothing was being done to save the theatre. Especially since, from a purely commercial standpoint, it held enough people to make it a viable house for large-scale musicals, a size of theatre that London is acutely short of.

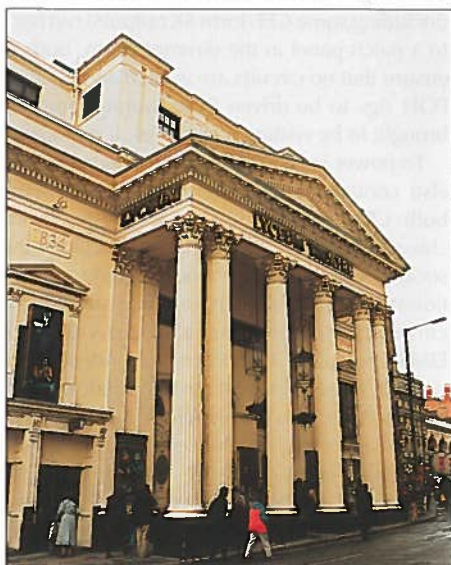
And that's leaving aside the history of the place. The first building opened in 1772, just a few hundred yards from the site of the present theatre, as 'Exhibition Rooms with Paintings and Sculptures', gaining its theatrical credentials when the nearby Theatre Royal in Drury Lane burnt down and the Drury Lane company moved to the Lyceum. When the company left, the Lyceum retained its theatre licence, and was rebuilt to the designs of Samuel Beazley in 1815. In 1817 it earned its place in stage lighting history by being the first theatre to have gas lighting over the stage as well as the auditorium. In 1830 it was destroyed by fire.

A replacement theatre, again designed by Beazley, opened just four years later. Part of that building remains to this day: the stunning portico that still marks the front of the theatre. In a curious precursor to the present day, where Apollo initially bought the Lyceum with the intention of offering it as a temporary home to the Royal Opera House, the second Lyceum played host to the opera company when Covent Garden burnt down in 1856. When that company returned home, the theatre was taken over by Hezekiah Bateman as a showcase for his daughters. While they are now not generally remembered, their leading man changed the theatre's fortunes dramatically. He was Henry Irving and he first achieved acclaim when he persuaded Bateman to mount a production of *The Bells*, and played the lead for over 150 performances. He followed this with 180 nights as Charles I, and then in 1874 played a highly acclaimed *Hamlet*. Four years later he was running the theatre and, with his leading lady Ellen Terry, turned it into "the most brilliant playhouse in London".

Another fire, this time in the scenery store, destroyed almost all of Irving's assets and he sold control of the theatre. He continued to perform there until 1902 but, after he left, the controlling syndicate tried and failed to sell the theatre, and then, with the London County Council pressing for many costly improvements, decided to construct a new auditorium behind the existing portico. That auditorium, designed by Bertie Crewe (also responsible for the Phoenix, Piccadilly and Shaftesbury Theatres) is the one that remains



Above, the auditorium fully restored to its former glory and below, the imposing portico main entrance.



today. This incarnation of the theatre presented a mixture of popular drama, melodramas and pantomime until 1926, when Dame Sybil Thorndike as St. Joan brought greater variety to the programme.

In 1939, the Lyceum was purchased by the London County Council, who wanted to demolish it to make way for a new traffic scheme. The final production was *Hamlet* directed by and starring John Gielgud. "Long live the Lyceum," Gielgud cried as the curtain fell for the final time. And it did, for war intervened and the scheme was abandoned. Mecca Ballrooms took over the theatre, transferring their dance floor, constructed from old Morrison air-raid shelters, from its war-time home, the Opera House.

The Lyceum became a popular ballroom dancing venue and this was followed by a spell housing television, rock and pop events, including concerts by Bob Marley, U2, the Eurythmics and others. In 1985, the National brought drama back to the theatre, transferring their acclaimed *Mysteries* cycle across the river after the closure of the Cottesloe Theatre; performed in promenade, the show used Mecca's dancefloor as its stage.

That was the last public performance for over 10 years, as the theatre became enmeshed in legal disputes. Its freehold had been handed down to the Greater London Council in 1972, and when the GLC was abolished control passed to the London Residuary Body. They awarded the freehold to the Theatres Trust, but a 125 year lease was granted to Brent Walker. With internal problems of their own, Brent Walker chose to let the theatre die; at one point the Trust themselves had to take over the insurance of the building. It was only after prolonged negotiations that the Trust were able to reach agreement to transfer the lease to Apollo Leisure.

That transfer was completed in 1994, with Apollo intending to offer the theatre to the Royal Opera during the imminent closure of the Opera House. The company realised that the building needed considerable work, and a decision was taken that while the auditorium would be restored to its former glory, it would be more economical to start from scratch with the stagehouse. Everything from the proscenium arch back was thus demolished and built anew, resulting in a 1996 stage joined to a 1904 auditorium, joined to an 1834 portico, the latter repaired by Priest Restoration. At the same time, the company acquired sites along the side of the theatre, allowing it to plan for a new wing to hold dressing rooms as well as bars, hospitality suites and a restaurant, appropriately named Irving's, to help balance the books - Apollo is, after all, a commercial company. That did not stop them applying for lottery funding but the application was turned down - perhaps as a result of being the first from a commercial organisation.

The project management and theatre consultancy for the project was largely kept in-house, with Steve Lavelle, Apollo's property and development director overseeing the project and Adrian Leggett, the company's director of productions, providing technical advice. The architect for the project was John Murphy of Holohan Architects; he had already been dreaming about the Lyceum for several years before being brought in on the project.

Work on the £14.5million project began with meetings in January 1994, and proceeded right up to the opening night of the theatre's eventual tenant, *Jesus Christ Superstar* (see L+SI, January 1997), in November 1996 - and beyond, since the scaffolding at the rear of the building was still up a month after the opening, and odd builders and painters could still be found wandering around the building. The construction team cite the two most challenging parts of the project as being co-ordinating everyone working on the new fly tower so that everything could be contained within the tiny city-centre space available, and matching the new extension in Exeter Street with the original building.

Inside, the auditorium is a thing of beauty. It is large, yet never appears so; visitors consistently guessed its capacity at 1000 seats or fewer; in fact it is up around the 2000 seat mark. Moving around the auditorium is, for the most part, easy, with wide aisles - though the upper circle is very steep! It compensates, though, by having unusual, high-backed seats which are very comfortable. There have been mixed opinions about the colour scheme, predominantly red, and about some of the fixtures and fittings and it is, in any case, quite hard to get an opinion of the auditorium as a whole at the moment because John Napier's set obscures the boxes and proscenium arch with their carefully restored mouldings and cherubs, and the spectacular ceiling paintings, and the rake of the stalls has been slightly altered to better suit the show's thrust stage. What can't be disputed is that it's in much, much, much better condition than two years ago, the construction team having cured damp, removed years of paint and grime, restored original features and even rebuilt complete boxes that were replaced with staircases in the ballroom days. Quibble about the colour if you like, but Apollo have undoubtedly saved a gorgeous theatre from ruin.

Technically, the building was pulled in several directions by differing demands. The need to impress the Royal Opera company imposed some early design decisions; when they pulled out, the theatre seemed likely to serve as the London house for Apollo's regional tours. Versatility and infrastructure thus became the names of the game. To provide the building blocks for this, Apollo have installed a new sub-station in the basement, to ensure that the building never runs short of power. They have also made provision for a scenery lift (since the dock door is at street level and stage level is about one floor below that) and an orchestra pit lift, though neither will now be installed until after *Superstar* finishes its run. The new fly tower was equipped with a conventional, 74-bar plus four side-bar single-purchase counterweight flying system by Unusual Rigging. Unusual's engineering division, led by Simon Tiernan, got the majority of the system installed in one hectic three-week burst during July, which saw two teams of six people working around the clock. The speed was possible because the entire system was prefabricated off site.

Responsibility for the lighting installation was assigned to Stage Electrics. Stage's Adrian



The new wing to hold dressing rooms as well as bars, hospitality suites and a restaurant, appropriately named Irving's.

Searle and Nick Ewins had long meetings with Adrian Leggett to pin down Apollo's requirements, and Ewins then designed the system which he and his team installed during September. The final system is based around Strand's LD90 dimmers, with 288 2.5K and 24 5K circuits feeding facilities panels around the building. All the front-of-house circuits (including some CEE-form 5K outputs) run back to a patch panel in the dimmer room, both to ensure that no circuits are wasted and to allow FOH rigs to be driven from touring dimmers brought in by visiting companies, if required.

To power such dimmers, the dimmer rooms also contains a large temporary supply with both CEE-form and Camlock outlets. Ewins chose to base the patch panel on 15A plugs and sockets and while this doesn't make for the tidiest of set-ups for long-running shows, it is certainly flexible. He also provided 24 DMX-controlled contactors for independent circuits, these based on custom modules built by Stage Electrics and installed in LD90 racks, as well as 24 ways of houselight dimming and 24 ways of worklight switching. The houselights can be controlled from the lighting desk, or they and the worklights can be set using the comprehensive state control panels provided on stage, at the Stage Electrics-built prompt desk and in the control room. Ewins also provided interconnections so that the standard dimmers driving houselights included as part of *Superstar*'s lighting rig would be forced on with the rest of the houselights in the event on an emergency.

Dimmer, worklight, independent, DMX and comms outlets are then scattered freely around the building. Front-of-house, facilities panels appear in the boxes on each side of the auditorium, sockets (including 5K outlets for TV users) run above the roof bar that runs above the upper circle, and DMX outlets also appear at each end of this bar. The upper circle front doesn't contain any lighting positions because of weight limitations, but the lower circle has a bar running its full width, and Socapex outlets are built into the circle front.

On stage, facilities panels appear all over the place at stage level, and on the two galleries at loading height above the stage - the intention is that trips will be run up to this level, leaving the fly-floor levels free for fly people. Further facilities panels appear in the substage area and in voids above the auditorium, to feed the advance trusses that will inevitably appear. The installation also includes temporary mains

CEE-form connectors down-stage left (these are currently diverted to feed *Superstar*'s extra sub-stage dimmers), as well as CEE-form patch connectors that run up to the auditorium roof to allow the chain hoists for those advance trusses to be powered easily and without messy dangling feed cables.

The system, for the moment, eschews high-tech lighting control; there is a socket labelled 'Ethernet' in the dimmer room, but the actual cable was cut on cost grounds. The DMX installation does not use any kind of DMX ring either - instead, it is a radial system where every outlet runs back to a patch panel in the dimmer room. Three DMX lines from the control room

go into a splitter which gives five outputs of each line; these can then be plugged through to any outlet. Sadly, for *Superstar*, more ways were needed, so the house splitters were supplemented with XTBA smart splitters. Apart from that, however, the installation has already met the needs of one big, complex production, and should easily meet the demands of any touring show lucky enough to play the Lyceum in the future.

In its other technical aspects, the building still has its fair share of oddities and problems. The grid and all of the fly floors, for example, are floored with a metal mesh that is one of the most uncomfortable surfaces ever for kneeling on. Though the front-of-house dimmer outlets and patch are excellent, some of the rigging positions are less than ideal. Little had been done to secure the side booms or the roof lighting bar, for example, so they rotated as lamps were focused; a session with a welder has now cured that.

Of course, things could always be improved if more time was available, and at the end of the day enough was achieved for *Superstar* to open on time - it was actually amazing to watch order appear out of chaos. We can just hope that refinement of the installation continues now that some calm has settled on the site, and that time is allowed to complete it properly when *Superstar* finishes its run. In the meantime, the new name signs clearly tell the world the theatre is back in business, the restored foyer floor leads the audience into the welcoming auditorium, while the new annex ensures that they never have to wait for a bar or a toilet.

Yes, perhaps Apollo could have done better in some of the detailing of their restoration. That they have done the restoration at all while others just talked about it, and at their own expense, and got so much of it right is cause for celebration - and they even seem to have triggered off a general redevelopment of the Aldwych area, with new restaurants springing up everywhere and the building opposite the Lyceum currently being re-constructed as a hotel. John Gielgud, who spoke the closing words from the stage in 1939, sent a message to celebrate its reopening. It ended "When I bid a regretful farewell to the theatre in 1939 I feared the site would be vandalised and even, perhaps, forgotten, by future generations. May it now prosper in its new contents and resume its proper place as an important landmark in theatrical history".

Amen to that.

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the DMX connectors to eliminate control problems, we made each unit separately DMX addressable to ease setup, and insisted that if the units temporarily lost power during a show, they would remember where they were without going through that embarrassing calibration sequence when power is restored. Servicing was a design priority too, the complete colour changer can be stripped in under a minute with the removal of just 4 screws.

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# DOWNTOWN RENT

On the eve of the Boston premiere of the Broadway hit musical, Mark Cunningham visited the Schubert Theatre to talk to the experts behind the impressive audio system

Currently showing at the Schubert Theatre in Boston is the rock musical *Rent*, the late Johnathan Larson's story of artistic struggle, drugs, AIDS and the homeless on Manhattan's Lower East Side in the late 1980s. Based on Puccini's famous opera *La Bohème*, *Rent* originally opened in February 1996 in downtown New York's Theatre Workshop before moving to Broadway last April where it garnered rave reviews as one of the most potent musicals of the decade.

Later in the year, a new cast was auditioned for a nationwide tour of the show, which began in Boston in November. The Schubert Theatre was a hive of activity when I arrived during rehearsals to talk to the people behind what is reportedly one of the most complex sound system designs in theatre today. *Rent* has seen the sound designing debut of Kurt Fischer, who began his career as an assistant to Otts Munderloh before mixing touring companies of *Les Cages Aux Folles*, *Big River* and *Dreamgirls*, among many hit shows. After time spent mixing *Les Mis*, he returned to New York where he became a production sound engineer, most recently on *Sunset Boulevard*.

Fischer's greatest challenge on *Rent* has been to deliver a highly intelligible sound at all times, whether it be in vocal, narrative or pure musical passages. "There are 15 characters telling their stories, mostly through song, and you have to hear every single word. You also need to feel the emotional impact of the music, so I've been extremely careful in my specification of every element of the audio system."

Driven by 45 Crest Audio amps, 101 loudspeakers are used at FOH, throughout the auditorium and on stage for monitoring. This PA system amounts to a blend of EAW, Meyer Sound and Apogee, although the main house system majors on EAW.

In the top cluster are EAW ASV-7562xs which deliver sound to the balcony. "We needed well-behaved cabinets and because of the way the EAWs are designed in terms of dispersion characteristics, they put sound exactly where I want it and have little effect on what the audience hears in the stalls. Off-axis, these speakers don't add a lot of coloration and if you compare two, the qualities are consistent and so they pair well."

In the wings at the front of the stage is the heart of this system for the mezzanine and stalls, namely the EAW MH-660ix mid/highs which are paired with BV-625 2 x 15" sub-woofers. SL-50s provide coverage to the front of the stalls, and the seats further back are catered for by Apogee AE5-NCs. At the bottom of the FOH stack are EAW MH-660ixs, for the audience at the rear of the stalls, while the top stack of MH-660ixs are directed at the mezzanine. Other EAW elements, all of which were supplied with rigging hardware, include two KF-300s and four UB12s.

Lew Mead, president of ProMix, the audio rental company behind *Rent*, became involved



Sound designer Kurt Fischer designed a bespoke microphone system for the cast of *Rent*.

in the show when it supplied a smaller system for the original performances. It was Mead who played matchmaker between the production team and Fischer to help take the show to Broadway.

"An increasing amount of designers are beginning to specify mixed systems," is how Mead explains the loudspeaker regime. "EAW has been helpful in developing new products not only for this show, but also *Whistle Down The Wind* in Washington for Martin Levan.

He wanted special speakers designed and he talked to EAW's Gary Hardesty who was very receptive. The same thing occurred when Kurt wanted to try different approaches other than the standard KF or JF models. EAW jumped in and produced something new.

One of the biggest audio industry stories of the year was October's fire in EAW's paint shop which public relations manager Keith Clark described to me as 'a media nightmare'. No less than 22 fire engines were required to extinguish the blaze, but amazingly, 24 hours later business was back to normal. "The incident," Mead says, "was pretty tough for all of us because they had all our speakers for *Whistle Down The Wind* and *Rent* in the shop at the time. I had also shipped back our KF 850 rig for repainting, so everything was lost. But within a week, they were able to turn it all around and get all the boxes to us which was a fantastic achievement on their part. EAW's Kenton Forsythe and Gary Hardesty have been here, and they are constantly looking to see if they can improve aspects of the boxes for the designers, and find out why certain boxes are preferred."

*"The musical Rent has reportedly one of the most complex sound system designs in theatre today."*

## FOH CONTROL

Controlling the FOH mix is new engineer Shane Cook who, on the day I arrived, was being guided through his tasks by Brian Ronan, the production sound man from the Broadway cast. Cook is using a 66-input Cadac J-Type console with 38 motorised faders, equipped with the latest incarnation of Cadac's unique Programmable Routing Modules (PRM) which were originally co-designed by sound designer Jon Weston for the current production of *Tommy*.

The standard PRM Mark II has four input sections and each can buss to any of the 16 sub-groups, 32 matrix outputs and auxiliaries available on the J-Type, and all settings may be programmed and stored in the IBM format computer for cueing during a show.

Adjacent to the Cadac is a Yamaha O2R digital mixing console which is currently doing big business on another rock musical, *Heathcliff*, in the UK. ProMix's Lew Mead comments: "The O2R is handling the orchestra mix, and it's not here for its automation facilities, but purely because to have so many features built in to such a small desk is fantastic. We've eliminated a rack of SPX processors and compressors because they're all available in the O2R. It's for that very reason that we have three O2Rs on *Whistle Down The Wind*."

There are two instances during the show when pre-recorded instrumental tracks are used, played in from two Denon DN-950FA CD cart machines which have been modified for remote cueing from the Cadac events controller. An Akai S3000 sampler also supplies sound effects, such as telephones, a

motorcycle and a car screech. At all other times, however, the music is performed live by a crack five-piece band.

#### DELAY SYSTEM

Many of the 43 EAW SL-50 speakers specified by Fischer are employed within the delay system to pick up at the back of the hall. There are two delay rings - the first at 48ms and the second at 64ms. To set up the delay, Fischer used the TOA DACsys II signal processing system. "I have 14 TOA DP-0204 DSPs on this show. Each has two inputs and four outputs, is configurable with software, and supplies more than 20 varieties of processing functions as well as level control. It's a sophisticated tool to have around and it's become a significant part of the system.

"Acoustically, the Schubert Theatre is just fine, but there are always certain characteristics that you can never change by attempting to EQ them out. You can't EQ a room, only the boxes and the boxes' interaction with one another. That's where the TOA DACsys comes in to play. Because it's computer-controlled, I can take a laptop anywhere in the theatre to tune the system. It offers such flexibility - I can instantly hear the results of my adjustments. Instead of having racks of delays and EQ units, we just have this TOA system which can even be stored backstage to save on space at the mix position and then be controlled remotely."

#### MONITORING AND MICS

Unusual for theatre, Rob Lindsay engineers a full monitor mix and uses a 52-channel Crest Audio Century LMx monitor desk. The system includes six Meyer UM-1As and three SL-50s across the front of the stage. The band's monitors are EAW SM-200iH and SM-260 speakers, plus three Galaxy Hot Spots without volume control.

Using established parts, Fischer has designed a bespoke microphone system for the cast. Forming the core of his specification were 48 Micron UHF lavalier transmitters and 24 receivers with cast members each wearing a left-sided Countryman head band with



Sennheiser MKE-2 mics threaded into them working on a single frequency. "Countryman produces a comfortable band for headworn mics and it's strong so it doesn't move around much. We're achieving a great sound because the MKE-2 is in a perfect position, such that it almost has a hand-held quality."

Additional mics include six Sennheiser SKM-5000 hand-held wireless mics with 2004 receivers as back-ups and 42 Sennheiser M-2 Red and Blue Dots with Micron connectors.

#### SYSTEM CALIBRATION

Steve Shull of Dallas consultancy Acoustic Dimensions has been working in the industry for 15 years, specialising in sound system calibration. He has 'opened' many shows at the Schubert, including *Les Miserables* and *Little Shop Of Horrors*, and rates the theatre among his favourites in the world. He is primarily concerned with equalisation and balance, and his most recent calibration tasks have been aided and abetted by the latest revision of JBL's SMAART software.

"We're trying to create as consistent a coverage from a frequency point of view as possible," explains Shull, "to give the entire space one sense of feel so that if the mixer is trying to EQ on the main floor, the relationship that he hears is going to be the same elsewhere in the auditorium. We look to ensure that on the sides we have a good image to the stage and image smear in nearby areas."

"The SMAART platform is basic and simple to operate, and gives you a tremendous amount of information. It could be configured for large, multi-microphone set-ups, but we have a three-way mic set-up that is our base. Like any DSP device, you have to learn how to interact with it. The biggest trick is to look at the device and its display, and continue to ask yourself 'Is this what I really hear? Is the data believable?' You have to remind yourself that the screen is not infallible, because someone might have put a chair in front of a speaker and changed the shape of the sound, but the DSP can't see that."

#### STATE OF SOUND

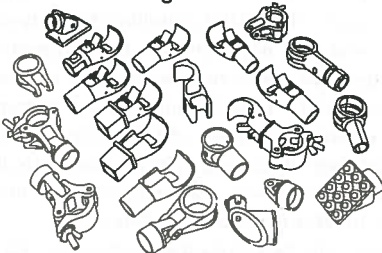
The growing focus on quality and intelligibility in theatre sound is one which will keep engineers, designers and equipment manufacturers busy for some years to come. Shows that have not lived up to audiences' expectations, as far as sound is concerned, have had to make significant investments to improve quality in order to be taken seriously and survive. Mead agrees: "There has been bad press about these poor-sounding shows, and a lot of pressure has been put on people like us to rectify the matter."

Shull adds: "Our services are required in theatres a lot more these days. Audiences continue to become more sophisticated because they are subjected to CD and surround-sound quality through domestic systems. It's a challenge which pushes us to improve all the time and demand better tools. There is very little willingness now from an audience's perspective to have to work to listen, so the development of software platforms, digital control, better wireless mic systems and improved speaker cabinets has led us to the point where we are on the cusp of a whole new generation of technology geared towards meeting expectations."

Following my visit, the next stop on the USA tour of *Rent* took in Minneapolis, while another production is due to open in La Jolla, California in the summer. Word has it that a West End version will be with us in the very near future, either at the Piccadilly Theatre or the Prince of Wales.

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# EQUIPMENT NEWS

## Win Commander Debut



### Lamba's Gareth Collyer with Win Commander.

Lamba will be releasing a new Windows 95-based computer-generated DMX controller at the European fairs in Frankfurt and Rimini this Spring.

Aptly named Win Commander, the programme has been developed by British software company HSL from the platform first devised for their Apollo DMX controller. The PC-based system features easy-to-learn access controls, aided by a device database. It includes effect patterns such as Circle, Scan, Fly Out and Par can chases built-in.

Win Commander can communicate with any lighting board supporting DMX and will control external boards via the PC's RS232 port. By the time the SIB Show gets underway a DMX input card will also be available allowing users to record programmes from, or run alongside, other DMX controllers such as the Pulsar Masterpiece.

For further details contact Lamba Plc in St Albans, telephone (01727) 840527.

## Selecon's Aurora Range

Selecon have launched the Aurora Range of 1.0/1.25kW cyc, flood and groundrow luminaires for the larger theatre and studio. Using the P2/7 and P2/12 lamps, the range includes single unit, four-way linear and four-way 'square' cycs, all with pole operation tilt option, a symmetrical flood light and a single and four-way batten groundrow. Modelled on Selecon's custom software, the cyc reflector provides an even illumination of backcloths and filter life is enhanced by the dual chamber and colour frame clamping system. A fitted safety glass is standard and dual micro switches isolate the mains supply.

For further information contact AJS in Ringwood, telephone (01425) 470888.

## Starlite 2D CAD

Starlite Systems Technology's latest version of the Stardraw 2D CAD package is now compatible with Navigator Systems' HireTrack and Vertical Data's ShuttleCAD 4 software programmes.

Compatibility with these external programmes enables Stardraw 2D users to have immediate access to the extensive libraries of information contained in HireTrack and ShuttleCAD 4, including those representing the world's leading professional audio manufacturers.

Connection to such software programmes also enables the user to instantly update information. When the external programmes are updated, the information contained in the Stardraw 2D document is updated automatically and, conversely, when the user changes the attribute information of a symbol in his/her Stardraw document, the external programmes will also be updated automatically. Starlite believes this feature will be particularly useful when specifying the purchase or rental price of a symbol.

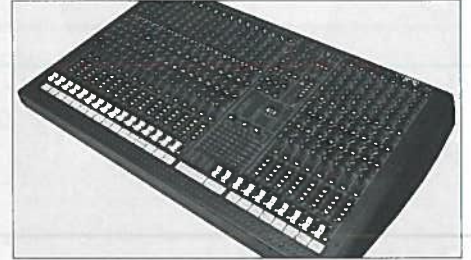
For further information contact Starlite Systems technology in London, telephone 0171-511 4400.

## British Optical Lenses

British Optical Ltd is one of the world's leading manufacturers and suppliers of glass lenses for the entertainment lighting industry, as well as producing glass products for industrial uses. Their product range includes ground and polished optics, fire-polished moulded components and also items manufactured using the pot moulding process.

For further information, contact British Optical, telephone (01922) 55566.

## Spirit XL7 Live



Spirit has launched the XL7 live sound console (pictured above). Housed in a 24-channel frame, it provides a maximum of 32 inputs - with no less than seven separate bus outputs including mix, four groups and a dedicated mono bus for centre speaker clusters, side or rear fills.

The XL7's 24-balanced mic inputs all use Spirit's patented Ultramic preamps, providing 60dB of gain range and 22dBu of headroom. Each input also includes Graham Blyth's acclaimed four-band EQ with two swept mid frequencies. In addition, EQ In/Out switch and steep 18dB/Octave High Pass Filter allow effective audio control in difficult venues, whilst the six auxiliary sends are pre/post switchable in pairs from each channel.

For further details contact Spirit in Potters Bar, telephone (01707) 665000.

## Kupo Haze

Lighting manufacturers Kupo have launched the PG-500 Pro Silk haze machine. It uses an air compressor system with a hi-speed nozzle to produce long and lasting haze effects.

For further information contact Kupo Co Ltd in Taipei, telephone +886 2 999 1906.

## Beyerdynamic Blueprint

beyerdynamic have introduced the Blueprint series of power amplifiers. The A75 is a new 1U stereo amplifier capable of delivering 50W per channel into an 8ohm load (75W into 4ohm) and is designed specifically for studio monitoring and high quality sound contracting installations. A generous heatsink for convection cooling, along with thermal integration of all the critical semiconductors ensures optimum performance is maintained at all output levels. Balanced and unbalanced inputs are catered for and the out is via a four pole Speakon connector. For sound contracting use, a VCA option is available for remote level control.

For more information contact beyerdynamic in Burgess Hill, telephone (01444) 258258.

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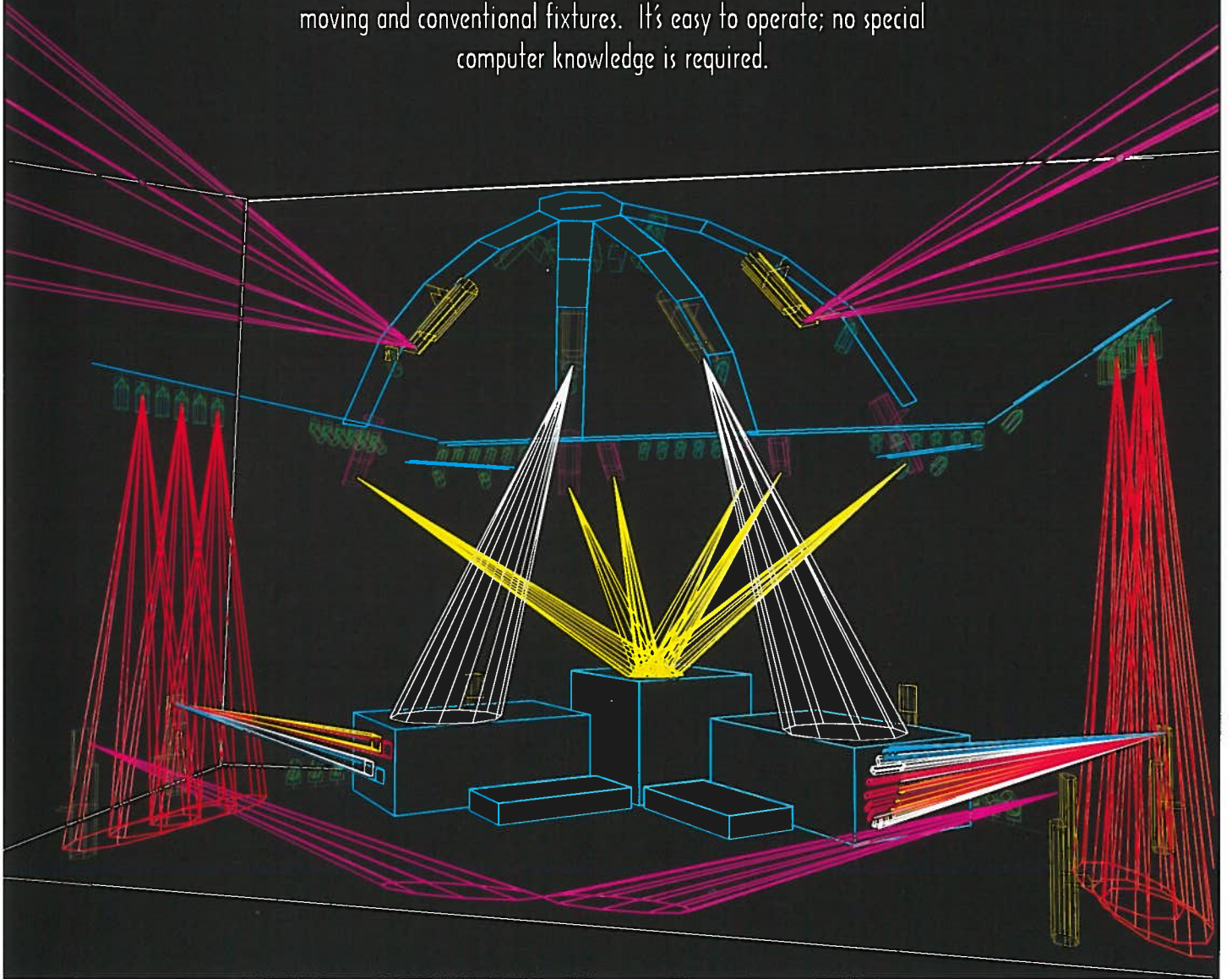
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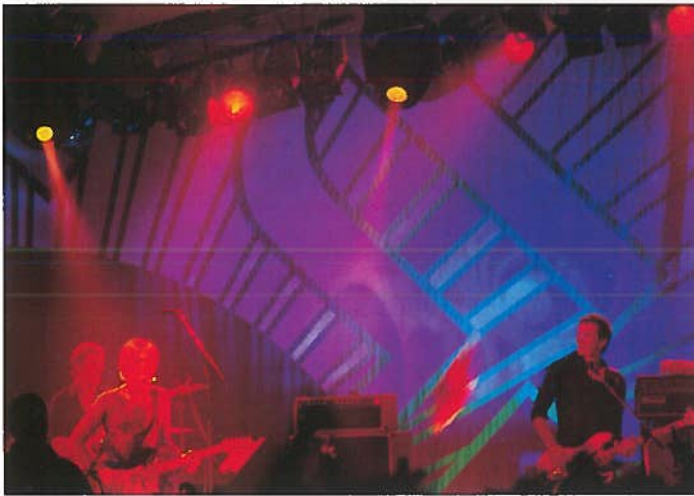
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# ON TOUR

by STEVE MOLES

## AND PRODUCTION NEWS



Kula Shaker - a capital 'T' for 'Talent'.

### Kula Shaker

Doncaster Dome

LD: Pete Barnes

SD: Graham Paterson

It's a mystery where it comes from, but there's no doubt about it, the Mills family has a gene marked with a capital 'T' for Talent. Although Crispian's mum, grandad and aunts are all thespians and he a pop star, he does seem to carry some of the weight of his forebears to the stage. It's a hard element to pin down, charisma - somehow he has that certain something. Despite a propensity to wobble his head in that "Gee, Mr Tracey" manner of a Thunderbirds puppet, all eyes are drawn inexorably to him. It also has to be said that in their 70 minute set this band don't play a bad song. A couple of them are covers, but all are fresh, poppy and engaging.

### LIGHTING

This is the first tour, apart from a brief outing in November, that the band have carried production themselves, and lighting-wise this is Pete Barnes' first stint with them. Barnes has a longer pedigree than his employers when it comes to lighting, but he was still one of several contenders, it being decided that the leap to production warranted an experienced hand on the faders. The rig is relatively simple, but a couple of small scenic elements make this a very strong visual show, one you might expect from a band that's been plying the theatre circuit a lot longer than Kula.

Supplied by LSD (out of their London office) the rig is five trusses splayed fan-like above the stage with loose flaps of white scrim hanging between them creating a webbed foot effect. The dominant element of the stage is the wide backdrop painted in a facsimile of the band's distinctive album motif, and framed by a montage of Indian deities rendered in dark blue. Hangman's Alan Chesters is responsible for all drapes and artwork and also produced the second scenic element, four large crystal forms hanging from mirror ball rotators.

They're made from dull metal, so their relatively large reflective surfaces produce quite discreet beams of light. Thus, they are largely ornamental and only occasionally allowed to become an effect, which is just as well, because at around four feet in length they would easily overwhelm the stage if brightly mirrored.

Pete Barnes has 22 Icons in his system, 12 VL5s and six Cyberlights, with eight Molemags and 72 Pars (18 with Mags) on the

conventional side. Barnes operates the Icon controller while Rob Gawler runs the Avolites Pearl. True to his ethos of "I like to put lamps in different places", he has them above and below the web, spread all over the trusses, around the back and all over the floor.

The looks he extracts are of the sumptuous variety with strong mixes of colour. There's rarely a less-than-saturated colour in sight for the first five numbers, and paler shades only intrude for brief spells during balladic interludes. Despite the plush coloration, Barnes manages to maintain a balance and never strays into a sickly combination.

### SOUND

The sound element differs from lighting in that the band have had dedicated FOH and monitor men for some time. Graham Paterson, who mixes front-of-house, has been with Kula since the beginning and also wears a second hat as tour manager. Equally, Martin Walker on monitors, although he's only been with the band since last July (still a long time relative to such a young band), also takes the production manager role.

It's a very family-style operation, as both men admit, and the closeness brings advantages. "Crispian's very aware of how the band look and what they want in terms of presentation," Walker explained. The sound system is supplied by Audiolease-Electrotec, their own proprietary A2 system in its four-way configuration with the twin 18" subs and the mid-high containing two 12", a 2" horn and a pair of tweeters. Eight of each stacked per side, with a row of six subs across the bottom, put plenty of power into the Doncaster Dome and the cabinets themselves are tall enough to allow the mid-highs to operate above head height and not decapitate those at the front. Paterson looks to create a vintage sixties sound, rather ironic when you view the PA and state-of-the-art technology like the Amek Recall desk out front, but that's the engineer's job and as Paterson himself said: "This equipment does give me lots of choices."

The only outboard EQ is a Neve 9098 used for Crispian's vocals. "It's just wonderful," said Paterson. "I compared it to straight through the

desk, neither with any processing, and it was much fuller and brighter." A factor he attributes to the Neve device's wide bandwidth stretching beyond audible limits. Reverb and delay feature strongly in the performance content. A Yamaha SPX 990 and 1000, a Roland SD330 (incidentally Graham Paterson is seeking a Roland SDE3000-A if anyone wants to sell) and an Ensonic DP4 for that 'great pitch and distortion'.

This show is about raising excitement from the first moment. At the low end the bass guitar, Hammond and drums are relatively restrained but never allowed to merge, vocals and backing come through consistently though not always intelligibly, but Crispian's Strat' is rarely less than sonic.

There's no menace, no malice no threatening posture from Kula, just lots of good vibes. This may be their weakness; I'd heard much of their material before, from the radio and TV, and never been particularly smitten by it, but live it was a different matter altogether. They might be great live performers, but do you want to carry it home with you in a box?

### Space

Leeds Town & Country

LD: Town Roberts

SD: Ian Slater

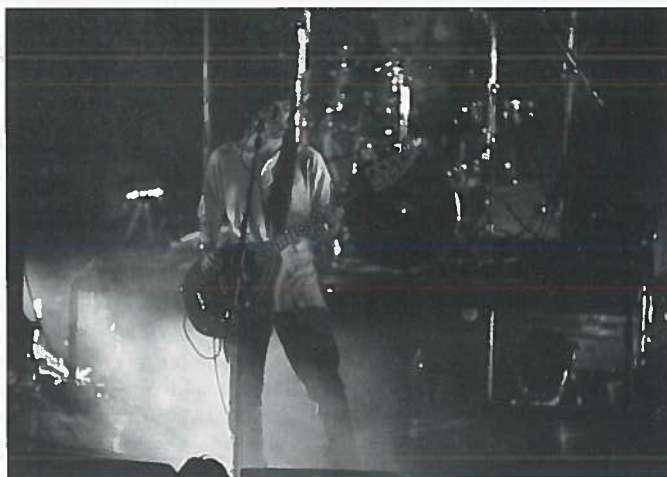
If you can still hear 'The Female of The Species (is more deadly than the male)' in your mind's ear, then you'll remember a quirky and quite charming little pop song, but the rather unusual vocal is not part of the current fashion to trawl the sixties for 'that sound'. Admitting a complete ignorance of the rest of their work, it was a revelation for me to discover they have a wealth of such original material. The song styles are remarkably varied, but the patina of irony, wry observation and an obtuse view on life made for a show that was never less than attention grabbing. If there is a weakness it's in the sheer variety of their material: it's difficult to categorise Space. Generally, if you're going to sustain a wider audience, then you need a distinctive and consistent sound that punters can identify with, and more critically, remember.

### LIGHTING

Like Kula, this is the band's first tour with production and this is reflected in the less frequently seen service company names. In fact, for lighting, it's the first time they've appeared in this hallowed journal. Mr Phantasy are a Liverpool-based lighting company with a background in club and local live venue lighting. They're not novices - the equipment for this tour is no different than that you'd expect from a better known source, and the crew, Billy Locke and Stuart Stalker, are capable of putting it up and making it work even if the truck is delayed two hours by a smash on the M1.

LD Town Roberts has only been with the band

since last May. A first tour with production and no rehearsals, with this just the second gig, finds him working from memory and lighting on the fly. His design is simple; a clutch of eight Thomas pre-rig sections stood on end in an arc around the band, loaded with just 12 six lamp bars between them. Dotted about are a dozen floor Pars and two Moles, a set of ACLs atop two trusses, a Mega and Death Star strobe, a DF50 and four Clay Paky Golden Scan 3s. What gives the stage some character is a 20ft square white backdrop shouldered each side by half-size white drapes upon which Roberts throws colour, gobos and a selection of images from two Kodak 2050 Carousels.



Space at Leeds Town & Country.

He attended the Liverpool School of Performing Arts for one year, which may give some insight into his penchant for projection, but the addition of the two smaller white drapes is pure imaginative thinking: they are both mildly unusual in appearance and simply very functional in making a small venue stage look much, much bigger. Using an Avolites Sapphire chosen purely for ease of use, Roberts runs the Pars very hard (the two downstage bars are fitted with CP62s for single lamp operation), extracting maximum looks from what is all horizontal back and side light. He has some unconventional colours in them, a dirty amber, pale blue and quite obviously his favourite, a very deep red. What is surprising is his restrained use of the Golden Scans. Despite a lack of followspots, the Scans are used exclusively for effect - gobos, sweep, strobe, even cyc light, but never key on the principles.

The chosen projection images (used sparingly, it must be said) provide another dimension in a limited environment and are generally well matched. The micro-photo of a bed louse that accompanied 'Female of The Species' I found particularly amusing. In truth, the Carousels struggled against the general light levels, but this is club touring and Roberts was squeezing all he could out of a modest budget.

#### SOUND

Adlib Audio have their own two box system, the DF (Dave Fletcher) series, on the tour. Three years old, the system comes in two incarnations, DF1 and DF2, both used for this show. The cabinets are mainly fitted with JBL speakers, especially the lows and low-mids with a few more exotic

neodymium components in the high end. Amcron DZ5000s drive the subs and 15's, C Audio's 4001s and 3001s taking honours on the mid and highs respectively. Run through the ubiquitous BSS Omnidrive, the system engineer carries two of these devices, the second for a flown system (not needed on this occasion) to allow for changes to the way the system performs when hung. FOH engineer Ian Slater fits the stereotypical profile of the taciturn sound man, but he did manage to volunteer that: "Every song is totally different," (agreed), "and they're great fun to mix because anything can happen."

The band have two strong vocalists, a tight rhythm section and a keyboard player who provides most of the musical coloration that sets Space apart from the current genre of guitar bands. Slater takes part of this material and adds a sprinkling of effects, from two Yamaha SPX900s, a Lexicon PCM70 and a Roland SDE3000a run through his Midas XL3. (Steve Beasley from Adlib runs monitors from a Soundcraft SM12). The keyboard input and the inserted effects apart, the strongest element of the mix is the lyrical content, which Slater allows to shine through, underpinned by the warmth of the drums and bass and a well rounded guitar sound. With six subs and nine mid-highs per side, there was no shortage of power available but he drove the system along on just the right side of comfortable. Nice.

Space will be opening for The Beautiful South this spring, an opportunity for them to reach a wider audience with their special wit.

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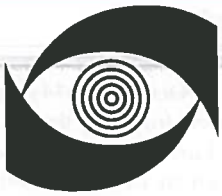
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# SHOWLIGHT -

## PROVISIONAL PROGRAMME

For further details see news on page 8

### Monday April 28th

- 10.30 Registration Opens
- 11.30 Exhibition Opens
- 12.30 Lunch
- 13.30 Welcome - Ken Ackerman, Chairman
- 13.45 History of the Opera House - Bart Doucet, Director
- 14.00 VIP Speaker - Jim Tetlow

**Lighting for Corporate Theatre:** Jim Tetlow is an award-winning American lighting designer with over 20 years experience lighting for theatre, television and architecture. His ever-expanding practice now includes credits for such diverse productions as Frank Zappa at the Palladium, a Luciano Pavarotti Special and the 1996 Republican National Convention. These he collectively calls 'Industrial Presentations' and will discuss why they require the greatest variety of lighting techniques.

- 14.30 How I Failed to Light The Channel Tunnel - Ian Dow
- 14.45 Lighting St George's Cathedral, Cape Town - Angus Clarke
- 15.30 Tea and time to see Exhibition
- 16.30 Why Bother? - Richard Thompson
- 16.45 The Next Generation of Lighting Designers - Nigel Morgan
- 17.00 To Move Forward, First Look Back - Francis Reid
- 17.15 Automated Lighting and Applications For The Theatre - Mary Tarantino
- 18.30 Civic Reception at the City Hall
- 20.00 Company Hosted Dinner

### Tuesday April 29th

- 08.30 Registration Opens
  - 09.00 VIP Speaker - Rick Fisher
- Lighting With Shadows:** Rick Fisher is a leading UK drama, opera and dance lighting designer, best known for his work on the award-winning Inspector Calls in London's West End.
- 09.30 Entertainment Lighting For The Cruise Industry - Derek Gilbert
  - 09.45 Son et Lumière: the way to make it work - Koert Vermeulen
  - 10.30 Coffee and time to see Exhibition
  - 11.30 A CAD's View of Lighting Design - Bill Klages
  - 11.45 New Control Approaches in Lighting - Louis-Phillippe Demers

- 12.00 Moving Lighting: Programming and Visualisation Tools - Steve Warren
- 12.15 Making Technology in Lighting Work For You - Glyn O'Donoghue
- 12.30 Intelligent Lights: How To Get The Better of Them - Phillip Nye
- 13.15 Lunch and time to see Exhibition
- 14.15 Studio and Theatre Visits
- 20.00 Conference Dinner

### Wednesday April 30th

- 08.30 Registration Opens
  - 09.00 VIP Speaker - Mike Southon, BSC
- The End of the 10K?:** Mike Southon is a Director of Photography with wide ranging credits for documentaries, feature films and commercials. He is also the winner of Prix Italia, BAFTA and many other prestigious international awards.
- 09.30 From Super 16 to Digital Cinematography, A Lighting Change? - Paul Wheeler
  - 09.45 Lighting The Way To Digital Movie Magic - Helen Arnold
  - 10.30 Coffee and time to see Exhibition
  - 11.30 The Eternal Triangle: The Interaction of Light, Electrical Control and Optics - Rocyn Williams
  - 11.45 Arcs, Fluorescents, Dedos - Duncan Brown
  - 12.00 Hot Developments In Colour And Image Projection - Michael Hall
  - 12.15 Touring With Distributed Dimming - Nigel Godfrey and Don Hindle
  - 13.00 Lunch and time to see Exhibition
  - 14.00 VIP Speaker - Harry Hollands
- Lighting the Pyramids:** Harry Hollands is a Lighting Designer and Architect who is a senior lighting designer for Phillips Projects at Eindhoven who were responsible for the spectacular relighting the Pyramids at Giza last year. He will describe the details of this award-winning project.
- 14.30 Shadow In Stage Lighting - Anthony Bowne
  - 14.45 Macbeth by Natural Light - David Taylor
  - 15.00 Hocus Focus - Dedo Welgert
  - 15.45 Farewell

All sessions will be scheduled to include time for discussion

✂

For further information and how to register fax your details to Ruth Rossington at Showlight on (01323) 646905

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# ASSOCIATION UPDATE

## ESTA Achieves ANSI Accreditation

The USA Entertainment Services and Technology Association's Technical Standards Committee has been granted accreditation by the American National Standards Institute.

ANSI has designated the TSC as Accredited Standards Committee E1 with ESTA as its Secretariat, and accepted the committee's descriptive title 'Safety and Compatibility of Entertainment Technical Equipment and Practices'. This accreditation means that the ESTA programme for standards-making has passed a detailed scrutiny by ANSI to ensure that it meets the most stringent requirements for fairness and proper public review of proposed ESTA standards.

The accreditation will allow ESTA to submit standards for the ANSI public review and comment process, and then publish them as ANSI standards. The ANSI logo on a standard is universally recognised as a sign of the highest level of technical accuracy and commercial impartiality.

This ANSI approval is especially important for ESTA standards involving products and work procedures that affect life safety, such as the recently published Standard for Construction and Use of Wire Rope Ladders (to be reviewed in a future issue of Lighting+Sound International) and the in-house progress standards for truss construction and manually powered theatre rigging systems. These standards will be submitted to ANSI for approval in the future.

ANSI accreditation for ESTA represents a major milestone for the entertainment industry. The ESTA Technical Standards Program is now the only ANSI-accredited standards-making programme dedicated to the needs of entertainment technology.

## Major Plans for PLASA Show

**In a move that will be welcomed by PLASA exhibitors and visitors alike, P&O Events have announced a major upgrade of facilities at Earls Court 1 prior to PLASA 1997.**

**In addition to the ongoing cosmetic improvements, major changes are planned for the second floor, which hosted the Presentation Technology and British Music Fair events which ran alongside PLASA last year. Whilst British Music Fair has rescheduled its show to the London Arena in June, Presentation Technology will continue to have a major presence on this floor, though the show will be re-named to PLASA AV to better reflect its integration into the main exhibition. The banks of seating at EC1 will be elevated to create clear sightlines across the main showfloor below, thus creating a more open feel. The seminar stage and Pavilion will also relocate to this area and Corradi's Bar will be upgraded to provide a main eatery on this level. There will also be a laser comparison area and additional product demonstration rooms, with further facilities for the installation sound sector.**

**Both internal escalators are due for a complete overhaul and refurbishment. Most of level 1 on the north side will also be upgraded - including lifts, stairways and the provision of four new meeting rooms - whilst much needed retail areas are to be built at the ground floor level on each side of the hall.**

## STLD Update

The Society of Television Lighting Directors (STLD) was formed in October 1974 and quickly attracted members from ITV, the BBC and companies in Europe. Today, the membership has grown to over 650, with members drawn from the UK and around the world. The Society also relies on the support of 45 Sponsor Companies and continues to encourage training and promote free exchange of ideas. Mark Kenyon has recently been appointed to the post of Chairman succeeding John Watt, whose regular column Second Take is well known to L+SI readers.

The society continues to provide a full range of meetings throughout the year, all accompanied by the thrice-yearly 'Television Lighting' magazine. The spring issue, due to go to press shortly, includes articles on the Independence Day Concert in Swansea, an American Football match in Dublin and a daily children's drama on location.

The Society also organises special events for members and the coming months will see Dinner aboard HMS Belfast (February), a demonstration of the latest automated lighting technology by BBC Outside Broadcasts at Kendal Avenue (March), Showlight in Ghent (April), behind the scenes tour of The National Theatre (May), The Virtual Studio Meeting (June), the Summer Ball (July), Proms In The Park (August), STLD at PLASA (September), West End backstage tour (October), Rugby School's new theatre (November) and a major European rock tour (December).

For more information on the STLD contact Mark Kenyon on telephone 0171-794 1665.

## PLASA Succeeds in First Round

*PLASA's initial bid in the Government's new Sector Challenge scheme has been successful and work is now progressing on preparing the documentation necessary for the full bid to be submitted by the mid-February deadline. Sector Challenge will, in future, be the route by which much trade mission funding will be placed. The overall purpose of the support is to work with partners to improve the competitiveness and long term profitability of business sectors by promoting a culture of business excellence and innovation.*

*PLASA's aim is to boost expansion and consolidate internationally the products of the fast-emerging and highly creative new British-led industry sector of Entertainment Technology, recently acknowledged by the Department of Trade and Industry as an industry in its own right.*

## VPLT on the Move

Verband Für Professionelle Licht und Tontechnik EV, the German association for lighting and sound, has moved and can now be contacted at the following address.

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# BRISTOL'S CREAM

*L+SI travels west to discover what lies behind Bristol's current leisure boom*

Every so often a major city awakens from its architectural slumbers to impose such a collective of simultaneous design ideas that it simply takes your breath away. And right now the Bristol magnet is drawing brewery retailers, eager to examine the potential of their portfolios, like bees round a honey pot.

Discotheque developers have followed suit. Both Rank Leisure and First Leisure famously failed with their objections to Allied Domecq's recent waterfront development proposals in a celebrated case, and right across the city theme restaurants and dance bars are now in various stages of gestation. Three that have recently opened bear the hand of Marquee Audio at the technology end.

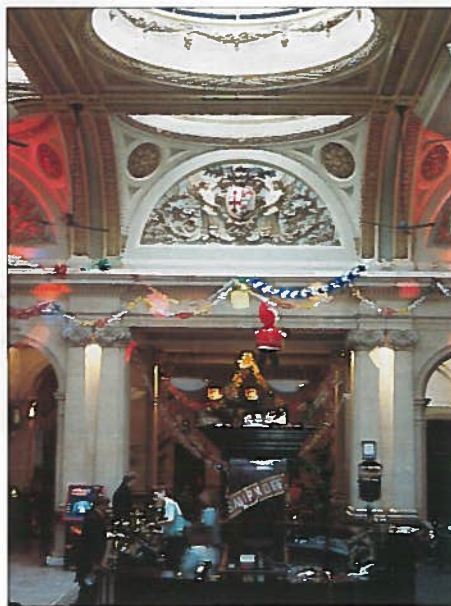
Two of them - the architecturally splendid 31 Corn Street and the Rat & Parrot in the fashion-conscious student 'village' of Clifton - were developed for Scottish & Newcastle. Both houses are arranged into sound zones which are served respectively by products from the RCF Event and Monitor series. Between the two venues sits another brand new, high-profile Marquee Audio install - the spacious Greenhouse (this time for Greenalls).

But this article focuses on the two S&N venues. Both bars are situated on recognised leisure strips, but 31 Corn Street, in the heart of the city's financial quarter, is a miraculous building - an austere old banking hall which carries a Grade II listing. It is as architecturally significant as London's old Criterion Brasserie, which had all that cladding ripped back in the mid-eighties to reveal a wonderful original mosaic.

The frontage of 31 Corn Street is deservedly bathed in colour after dark, making it glow spectacularly. First developed into a café bar eight years ago, Peter Lewis came in to manage the venue four years down the line. Its recent conversion was to enable it to attain a 1am licence and compete with the city's discotheques. Why? "Because I was fed up throwing 200 people out of the door at 11pm on a Saturday night," explained Peter. "The only way to increase business seemed to be to extend the hours."

So he and his wife put their necks on the line, and along with area manager Peter Hirst, presented a feasibility study to Scottish & Newcastle Retail. The provision of another fire exit has enabled them to increase capacity from 300 right up to 750 - and to date they have spent in excess of £200,000 on the development. But getting their licence was far from easy, as Peter Lewis explained. "We went to Crown Court, lost our application but won on appeal - all in all, it took us about 18 months."

Once the decision had been made to develop a vast island bar in the centre and add a dancefloor at the rear, their biggest decision was where to resite the existing 4 x 4 videowall. While some Coe-tech lighting effects (Synchro centrepieces, Versatiles, Ribaltas etc) dominate the new dancefloor from an octagonal Trilite structure at the far end, the off-floor visual stimulus is supplied by the wall, now fed by



**31 Corn Street, a former banking hall and Grade II listed building, now a café bar.**

Kaleidolight computer graphics, and the enhanced rococo ceiling which, along with the stone blockwork, was chemically cleaned by architects Murdoch Bowers.

The building which they came in to refurbish at the beginning of the year has an interesting history. It was originally owned by National & Provincial and then Nat West, following their take-over of the bank. In 1982, the bank moved out and in 1988 Courage acquired and developed the site. Then came first the Grand Met buyout followed by that of S&N. The venue, which formerly showed Ceefax on its videowall, was made for such escapades as it caught the tail end of the yuppie boom in the city.

Today it services a different clientele. "People are moving away from big night venues and into

this type of establishment," continues Lewis. Yet operationally he knows he has a tough task. Nicely geared for all-day trading, with sensibly-designed lunchtime, afternoon and evening menus which he is striving to establish, he is literally overlooking fierce competition in JD Wetherspoons and the Wig & Pen. Marquee Audio's task was to fulfil Peter Lewis's brief of giving people an entertainment environment within an attractive building that would justify the modest £1.50 admission charge levied after 9.00pm.

To do this, they re-used some of the existing equipment, contracted out the lighting to Coe-tech and issued their coup de grace - the AV installation - where custom pages can be generated from the Kaleidolight KX20 computer. It is also used for promotional purposes, plus, of course, they can show videos. Elca DVS10 video amplifiers and an SR4 matrix are also featured in the rack, and in addition to the videowall, other banks of individual monitors are sited strategically throughout the building. Three JVC video recorders are linked to the day-time management system as is a Pioneer multi-disc CD player.

Marquee are probably fortunate in that one of their installation technicians, Tim Hardiman, is also one of 31 Corn Street's weekend resident DJs and so the installation has 'matured' at his hands since the opening, to a point where the RCF boxes produce good clean hi-fi from the Monitor 8s in the bar area and Monitor 5s in the front dining section, both powered respectively by Yamaha P2500s and P1500s. Meanwhile, a punchy dance sound from the Event 3000s, underpinned by the MSW1018 18in subs that are designed into the building, is driven by Yamaha's H5000 power amplifier.

The dance sound is sourced from the existing



**The Rat & Parrot - housed in a former tool hire shop, all its elegance has had to be built in.**

Technics SL1200 turntables and KAM GMX5 mixer, supplemented by a Denon DN2000 twin CD player, which Hardiman, a DJ for the past nine years, now uses exclusively, eschewing vinyl entirely.

The DJ console has been purpose-built in keeping with the dark finish of the other furnishings. Marquee have supplied their own 24U rack, housing such modules as the power amps, the ubiquitous Cloud CX233 mixer/zoner, various locked graphic equalisers and Formula Sound's AVC2 automatic volume control. "The sound is split into three zones, with a nice control from the mixer/zoner operating at preset levels," explains Hardiman.

But just as the aural mood is set, and programmed for the time of the day, so is the lighting, via the Pulsar Masterpiece, programmed and relayed to 12 different buttons which control the various environments. Marquee Audio also supplied and installed the CCTV system, using Panasonic BP110 and 100 cameras, a Vista HVM2223 monitor and Baxall DVS2/4 switcher. Peter Lewis is certainly committed to making 31 Corn Street work and given the number of other bars and clubs in the area, he and the team can take nothing for granted.

The nearby Rat & Parrot provides an entirely different experience. Housed in a former tool hire shop, all its elegance has had to be built in. Open for just a month, it is sandwiched into Clifton's Whiteladies Road leisure strip, which is starting to resemble Birmingham's Broad Street for bar culture. Project managed by Jane Brockman, this roll-out chain is already 27 venues old and general manager Vince Ryan and his wife were moved across from the R&P in Newbury to superintend the opening.

"This concept offers absolutely everything, and this is the area the traditional pub is moving into," explains Ryan. Decor-wise it features tasteful paintings and kitsch parrot cages, and the most spacious island bar you've ever seen. Licensed for 550 people and designed by Pembroke Design, it is pioneering a speciality



**RCF Monitors in the Rat & Parrot.**

coffee and tea bar front-of-house and a line of premium wines from Waverley Vintners further up the shop.

The venue is also doing a huge trade in cakes and pastries - strangely enough on a Saturday night when the joint is jumping. It is also pioneering the idea of using a Databeat system played through the series of Monitor 5s on Zone 1 and Monitor 8s (designed into Zone 2) supplied and fitted by Marquee Audio. (The Marquee/Databeat combination is also working to great effect at the aforementioned Greenhouse).

A similar audio spec has been followed to that of 31 Corn Street, again zoning the sound through a Cloud CX233 and powering it with Yamaha P2500s, with 15-band graphic EQs. To create a good, even sound down the extraordinary length of the building, a couple of RCF PL80 ceiling speakers have also been installed.

But the success story is undoubtedly Databeat, and after its successful

test-marketing here, Vince Ryan now sees its presence as de rigueur on future openings. "This is the first Databeat in the Southern Inns division and I expect it will just roll on now. It has a 400-disc library and the system can be reprogrammed down the fax line via an ISDN link.

"They can simply change the programme around from the CDs available," he marvels - adding that he is shortly to be attending a Databeat training seminar. "It's all about creating an atmosphere and the moods and volume levels have all been pre-programmed to meet certain music requirements at certain times of the day, reaching high level in the evenings to satisfy the large student population.

"On top of that it's BPM-matched, so each track rolls seamlessly into the next, and it allows you to preview the next three tracks and change them around if required." He is unlikely to be tempted back to a pay/play juke box scenario in a hurry. If the unthinkable should happen, a Denon DRW580 cassette deck is on standby in the control room in the event of a Databeat system failure.

"After 10 seconds, it kicks in via the Cloud mixer," he explains. As at 31 Corn Street, bar staff have access to remote volume controls, but in any case Marquee Audio have set, and programmed in, peak volume values. The Rat & Parrot addresses both a student and affluent residential catchment and trades coffee, croissants and daily newspapers from 8am. On Sundays it opens at 10am to serve full English breakfast. "There are lots of small solicitors, accountants and architectural practices in this area, so it gets well used for breakfast meetings and business brunches," adds Ryan, who is also pioneering its use for conferences, offering overhead projection and flip charts. In fact, he has already had interest in a private let to the local Chamber of Commerce.

Bristol was formerly famous for slavery, Methodism and Harveys Bristol Cream. Now this beautiful Georgian city is on the verge of a leisure explosion.

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# VISUAL OPERA

Steve Moles plunders the mysteries of modern opera during a performance of Zimmerman's *Die Soldaten* at the London Coliseum



For most of us mere mortals, opera falls into one of two categories; either it's somewhat inaccessible but improving thanks to some deft popularisation by the likes of the Three Tenors, or it's downright impenetrable. Opera is reputedly the domain of the bourgeois elite, all fat cigars and tuxedos, so it came as something of a disappointment, when waiting in the lobby of the Coliseum (home of the English National Opera), that I counted dozens of ordinary folk, real people like you or I, walking in and purchasing tickets.

Nevertheless, with my shields on full, but my impulse drive now slightly weakened, I boldly went into the hallowed domain to plunder further the mysteries of modern opera. While I can't say I became an instant convert filled with zeal, I can bear witness that I was moved by what I found. However, more importantly, I discovered that in the case of this particular production (and I suspect many others) there is much that modern opera as a performance art can teach other disciplines. I'll explain . . .

Bernd Alois Zimmerman was an intriguing composer. Contrary to more traditional genres, in his opera he used short scenes to move narrative along in a dynamic way, not dissimilar from the assemblage of a modern movie. He's a man who painted vivid, fast moving tapestries. While entertainment of many sorts -

for example large audience events like the Royal Tournament, big rock concerts, or even something simpler like TV's *Gladiators* - are searching to find new and interesting ways to present themselves as multi-faceted events, Zimmerman had already thought of it 50 years before.

*Die Soldaten* might not be the kind of performance we've all heard of, or even contemplate attending if we had, but from the point of view of multi-media presentation, Mr Zimmerman had it nailed down decades ago. This is even more remarkable when you discover *Die Soldaten* was the composer's only piece of stage work.

To put you in the picture, this opera (written in the post WWII period), is loosely a study of human frailty, examining how quite ordinary people will perform extraordinary acts, even to the point of self-destruction, as forced by circumstance. The stage set, designed by Sally Jacobs, is a bombed-out building, the large, shattered blank walls finding a secondary use as surfaces for video projection.

Zimmerman presents simultaneous scenes on the same stage in different areas (as many as 12 at one time) which only points to the complexity of the sound score. The pit contains a full orchestra; in the first house box to stage left is a celeste, a harpsichord and guitar, while

on stage there are two organs tucked away up on the fly floor. As if this weren't enough, there's a huge battery of additional percussion. On stage there are three timpani positions, one each side and one behind a black drape immediately upstage of the set. An old drape store, way up above stage at the third balcony level, is used as a studio for a further nine percussionists. Couple this with the fact that Zimmerman wanted a host of sound effects, as well as musical instruments to appear, (metaphorically speaking), from different areas of the auditorium, and you begin to see the challenge.

To deal with these difficulties, conductor Elgar Howarth brought in Ian Dearden and David Shepherd of Intermedia, two men he'd worked with before and who he knew had the technical proficiency to match any challenge. "The composer determined exactly where the effects were to come from," explained Dearden, pointing to their role. "We created all the effects exactly as they are indicated by the score." This is not just the odd whistle of a train in the fog, but complex sequences of sound events woven into the fabric of the music. In fact, for one scene in the fourth act, live performance of the score is impossible and the whole sequence is recorded by Intermedia.

Being trained musicians themselves, Dearden and Shepherd also brought a more

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sensitive ethos to the way this material is worked and presented, as Dearden illustrated: "In a series of sessions at the ENO workshops in Pittfield Street we recorded the orchestra, percussion, woodwind, brass and strings simultaneously onto an Akai DR16. Then we added the three on-stage percussions, the tap dancers and all 16 soloists. We took each element in 2-4 bar chunks to click track and finally ended up with 40 stereo pre-mixed chunks.

"The Akai has a feature - Musical Time - which means it can generate a musical template, so that when the tempo changed we had a reference centre in the system which enabled us to lay in all our chunks over the orchestral tracks. During the performance we still play this back as a multi-track, not mixed down onto a stereo recording, because we believe that's the spirit of the piece. Between the two Akai S3000s (everything is transferred to hard disk), the three Yamaha O2R mixers, and the orchestra, nothing is nailed down. We can respond to any changes, in the PA, at the desks, or with the hard drives."

Dearden finished with a deceptively casual observation: "There's as much to muck about with as possible," which actually gives some insight to the genuine ardour both these men bring to their work. The lessons to be learned from Zimmerman alluded to in my introduction, become apparent when Dearden goes on to explain how their duties interface with the composer. "We like exploring montage. This score is exciting at many levels. For example, Bar 1 - bomb explodes, effect to emanate from the rear of the hall; Bar 2, third beat - scream of woman giving birth; fourth beat - cue video. Zimmerman actually scored all this in, the sounds of war, of pain and of people."

And at this point it's hard for Dearden to disguise the excitement in his voice, and hard not to be caught up in his enthusiasm. The complexity of the imagery that Zimmerman held in his mind, both musical and visual, is staggering. Couple this to the fact that at the time of composition, much of the sound technology necessary to reproduce the score as intended had not yet been developed and we begin to appreciate the scope of this man's vision.

At a more prosaic level there's the system. Dearden and Shepherd split responsibilities between them. "Although all playback material was recorded by us," explained Dearden, "for the show David does the mix, while I take care of effects. Engineering this way allows us to concentrate on our jobs."

Shepherd uses the three Yamaha O2Rs for the main mix and to control all the different sound zones, taking full advantage of the desks' automation, without which a much bigger control set-up would have been required: "Built primarily for the studio, these automated desks have much of their function buried within the software and little in the way of controls cluttering the top," added Shepherd. "It's something some engineers are uncomfortable with, but it just needs getting used to. The important thing to remember is that you have to look at the screen, that's where your mix is, not the controls below and around it."

The physical size of the control set-up is



important, as the ENO's head of sound Phil Ashley was eager to point out. "We are currently in rep, and this show has to go in and out six times in 21 days, so the more compact the control set-up, the better."

For the PA system, Phil's existing house rig of 12 Meyer UPA1s was never going to be enough for the widespread demands of this production. As this was the first time this opera has ever been attempted in the UK (and it's only rarely been staged elsewhere) Ashley brought in sound consultant Chris Coxhead to help determine solutions. To put the remotely located percussion sections in the pit, so to speak, Coxhead has adopted a rather unconventional approach: "I've placed four d&b 902s in stereo pairs on their backs in the pit, above the musicians' heads. They're hung face up beneath the mesh that partly covers the orchestra pit though not quite evenly spread, because the head-stocks of the double bass players forced a slight off-centre bias. I've chosen the 902s for several reasons - their efficiency at low level, their relatively low profile when laid on their backs (an important factor in a relatively shallow pit), and their dispersion characteristics.

"Their 90 degree angle of dispersion means that leaning them slightly toward the house, sound emanations rise vertically up in front of the proscenium, keeping the sound off stage, and out into the room almost down to stalls level. The other factor is the horns in the cabinets, which are angled down at 15 degrees towards what would normally be their base (if conventionally stood on end). By placing each pair of cabinets horn to horn, the high end is

pointed out towards the wall rather than directly at the front rows."

By positioning these speakers at the source point of the orchestra, and by close mic'ing all the musicians tucked away in the drape store, rather than using conventional overheads, Coxhead has kept the performance faithful to the composer's vision, but has also unintentionally created one rather disturbing effect. There are times when the percussion section in the pit is quite clearly at rest, and yet you'd swear you can hear someone playing, so faithful is the reproduction. It's a bit weird, but not really a distraction from the opera.

The rest of the system comprises four 602s hung vertically from a piece of upright truss, centrally above the proscenium with a 902 at the bottom pointed at the stalls. These are to cover the three balconies and are there primarily for vocals and also effects, as are a pair of UPAs rigged off pillars in the highest balcony and pointed into the dome of the auditorium. The rest of the house UPAs are rigged around the proscenium (two of which are dedicated for effects) with a pair of B1s at stage level.

Sitting on top of the netting across the pit are two stereo pairs of E3s mimicking the 902s for the benefit of the conductor (who is in video and comms link with a conductor in the drape store) and a further three E3s that carry the effects into the stalls' front rows. With such an array, it's hard at times to know where the hell anything you hear originates from, but that's part of the plan. For most of the time, source point is quite plain.

Between Coxhead's careful system placement and Intermedia's special expertise in engineering shows of this kind, they have approached sound from a more holistic angle. Each has their own special area, but each considered the way in which that contributed to the whole. Much of what they've done may defy convention, but it is logical, empirical, often experimental and always well thought out. And it works.

The overwhelming sensation I was left with on departing the Coliseum was that here is a medium, in some ways distanced from its peers, that is just as innovative, if not more so, than the relatives that chose to ignore it. I didn't necessarily like the music, but the application, particularly technically, was fascinating. The fact that the composer scored every effect, every video cue, each tiny part of this complex show, left me walking down St Martin's Lane open mouthed.

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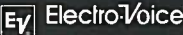

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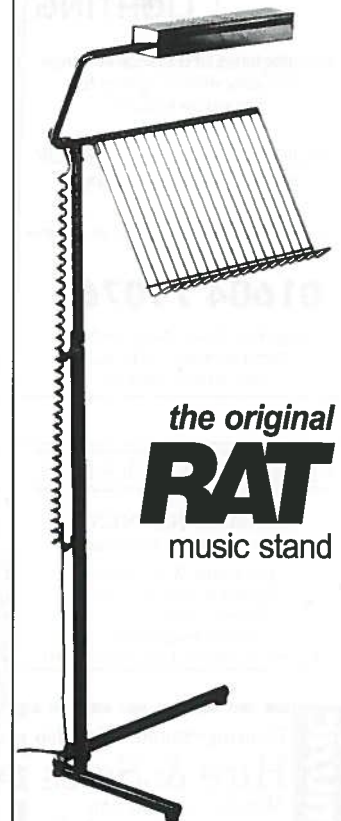
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## Rob Halliday talks to sound designer François Bergeron

The ideal ingredients for a successful showbiz career would probably include equal parts of talent, skill, location, experience, timing and contacts, mixed up with a large dose of luck. One man who has got the mixture just right is sound designer François Bergeron. His reward? A raft of work across the world, ranging from a permanent installation for Nike to the latest Cirque du Soleil show, *Quidam*. And, to cap it all, the award for Best Sound Designer at last year's LDI exhibition in Orlando.

As with so many other theatre practitioners, he discovered the technical world while at school through an interest in science and technology. Unlike many others, he wasn't then forced to take the 'sensible' route through university; instead, he decided to take a year off and have a go at working in the 'real' entertainment world, taking on any jobs that came along. "Unlike the States, where there are lots of people and you really have to choose something and then specialise in it, in Canada the more skills you have, the more work you get," he explains. "I even did a bit of lighting!" Sound work predominated, though, in many different capacities and on many different acts, from designing children's musicals to rigging or operating rock and roll gigs and industrial shows.

After a while he moved to the security of a regular job as the sound rental department manager for hire company Solotech in Montreal. It was while there that he first made contact with the circus group Cirque du Soleil, though that initial contact came in the form of a complaint. "They'd bought some sound equipment from us," Bergeron recalls, "and phoned to complain that it didn't sound very good. I couldn't understand this, and so went down to investigate." He ended up as sound designer for the show, and so impressed the company that they offered him the job of technical director for the North American tour of their next show, the original *Saltimbanco*. Bergeron took the job because of the new challenge it offered, but "I pointed out to them that I wouldn't be able to do the sound as well." The company brought in Jonathan Deans. "Jonathan and I got along immediately. And though the sound budget wasn't very big, the sound department perhaps got a little more help than the others..."

Deans certainly appreciated Bergeron's help,

and at the show's first night party suggested that if Bergeron wanted a change from Cirque, he would be welcome to come and work as Deans' assistant on other shows. "I certainly thought about calling him after that, but I figured he'd probably just had too much champagne and wouldn't even remember the offer," Bergeron explains modestly. Some time later, after Bergeron had left the tour, Deans returned to visit and asked after him. On hearing that he'd left, Deans tracked him down and asked if he'd like to be his associate on the *George Lucas Live Adventure* show in Japan, offering the show as a trial to see whether they could become full-time partners. Bergeron recalls the show as hard work but great fun and, having proved that they could work together, the partnership was formalised into the company Real Time Audio.

Since then, the pair have worked together on shows ranging from *Dreamgirls* at the Long Beach Civic Light Opera to the *Flintstones* show at Universal Studios and Disney's production of *Beauty and the Beast*, via the glorified excesses of *EFX* in Las Vegas (see L+SI, February 1996). They now freely discuss ideas, cover for each other on shows and sometimes even swap projects; while Deans was sound designer for the original production of *Saltimbanco*, Bergeron has designed the show's European incarnations.

Bergeron now frequently finds himself working in non-theatrical environments, in the themed corporate outlets that are starting to become commonplace. "Companies are looking at Disney and seeing that Disney is a merchandise company as well as an entertainment company - and realising that they could use entertainment to sell their merchandise." But to Bergeron the challenge of designing the sound for any show, whether it be for a theatre or a themed shop such as Niketown, is the same: to achieve something that hasn't been done before, and to impress an audience who are used to spectacular sound. "If you come to a theatre, the staging means that you still expect a different look to cinema. But not with sound - people are used to the quality of CDs and films, and to having



François Bergeron.

total control through their remotes. We now have to match that sound quality and those kinds of effects".

To this end, Bergeron is a big technology user - especially of the LCS computerised routing systems that allow sound to be steered around theatres with great ease. His greatest frustration is the speed with which technology becomes outdated, especially on

large-scale projects where equipment has to be specified months or even years in advance. But once a rig is in, he is not averse to hands-on experimentation to get the results he wants. "On *Saltimbanco* I took the horns out of the Apogee speakers and rigged them above the band while leaving the rest of the speaker below them. Everyone said 'you can't do that', but I just thought - why not?"

Though the technology is allowing him to create new tricks, he also knows that a critical factor in his design is having a good operator. "When we create a show, I'll talk to the operator about what we should be feeling. If I later come to visit the show and the settings have changed I'll ask why, and if the operator can then say 'well the act changed in this way and we had to go with it', then that's fine - it's much better than having someone who just wants to follow a set of numbers."

1997 seems to hold no respite for the busy Bergeron; he and the Real Time Audio team are currently working on projects for Nike and David Copperfield, as well as two new permanent Cirque shows - one based around a swimming pool. Though he doesn't yet know exactly how he's going to approach the shows, it seems likely he'll find new ways of giving the audiences the "good vibrations" that are his trademark.

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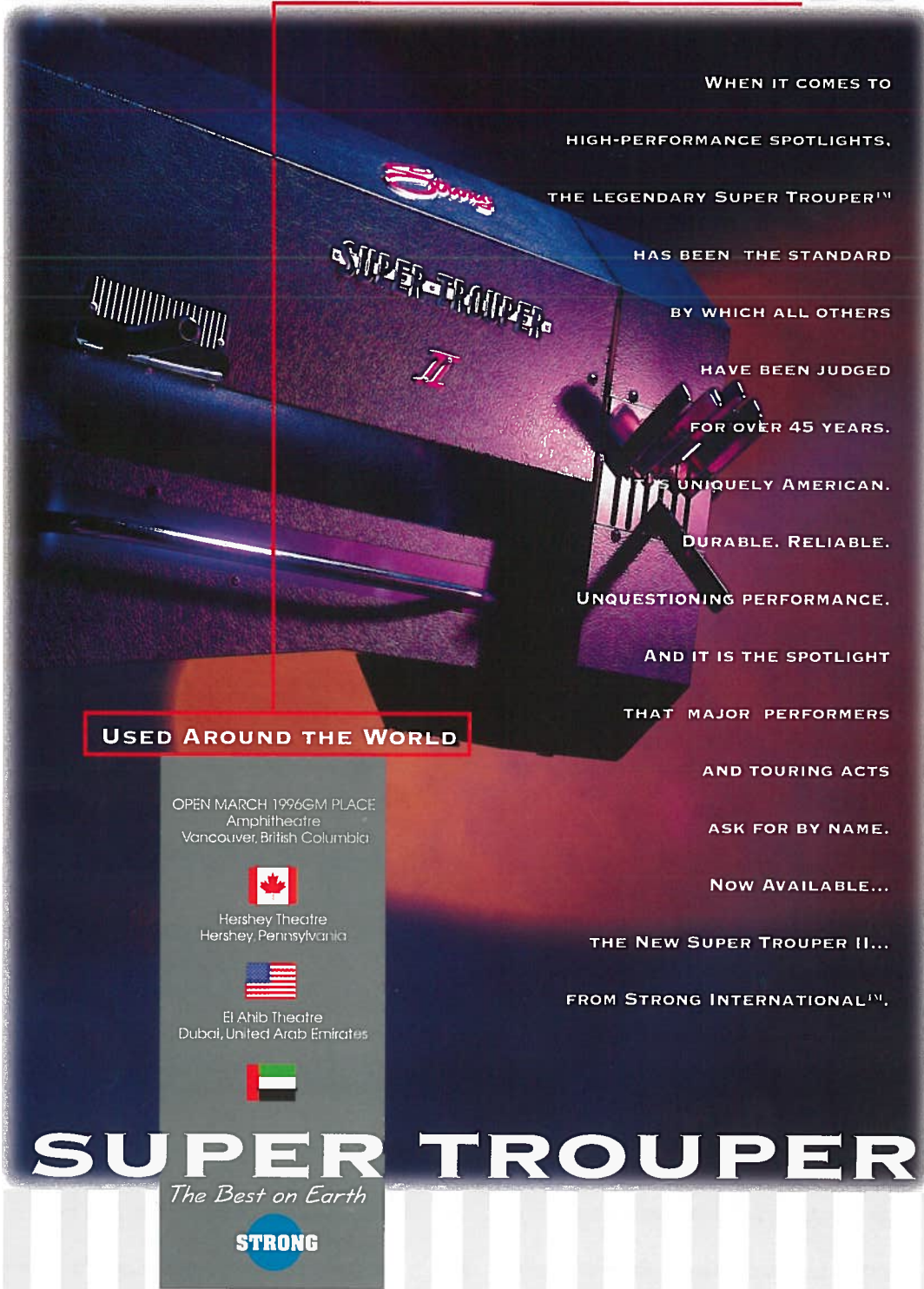


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