

LIGHTING+SOUND *International*



THE BRIDGE AT ARNHEM - BACKDROP TO THE WORLD LIBERTY CONCERT

PHOTO: GIOVANI DE SCHAMPHELEIRE

- VE Day: L+SI Special Feature from Hyde Park and Arnhem
- Specialist Solutions from Electrosonic
- RHWL: a profile of the leading theatre architectural design partnership
- Flashlight: further expansion for the Dutch conglomerate
- Sound and lighting for the New Amphi, Swindon
- Funding culture: Salford's Lowry Centre

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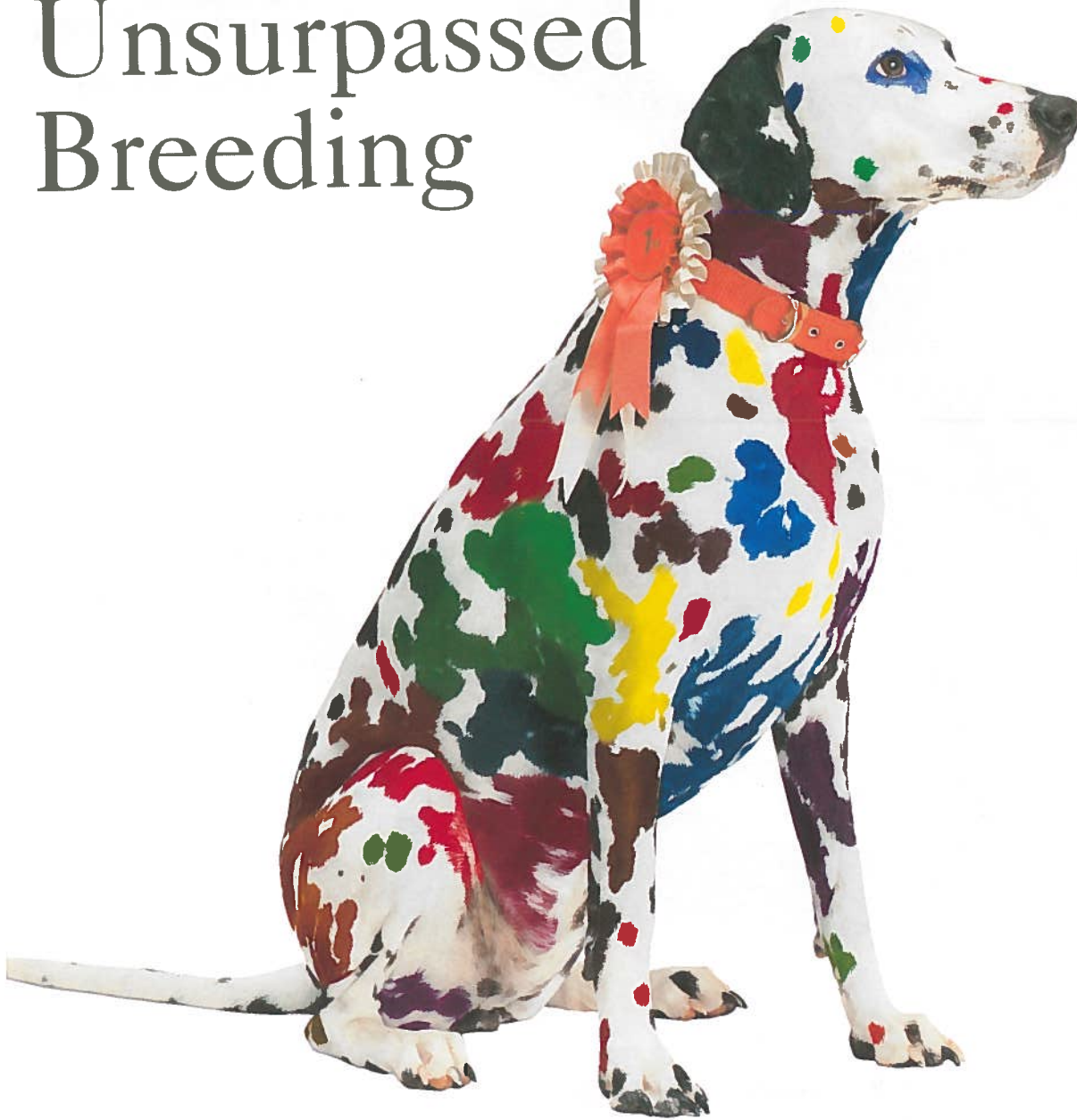


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●For further information, call or write to:

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JUNE 1995

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Editor: John Offord
Assistant Editor: Ruth Rossington
Associate Editor: Tony Cottelier
Editorial: Lee Baldock
Advertisement Manager: Barry Howse
Production/subscriptions: Sheila Bartholomew
Advertising assistant: Jane Cockburn

Published from the PLASA Office: 7 Highlight House, St Leonards Road, Eastbourne, East Sussex BN21 3UH England
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Editorial Advisors: Peter Brooks, Wyatt Enever, Mike Gerrish, Derek Gilbert, David Hopkins, Matthew Griffiths, John Lethbridge, Ian de le Vingne, Ian Price-Smith, Neil Rice, Jackie Staines, Mike Wood.

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Luck of the Draw

Theatres across the country are the latest beneficiaries of the Arts Council's National Lottery Fund. The grants, totalling nearly £15 million, have been awarded to a number of theatres to fund a series of new and redevelopment projects.

Amongst the many beneficiaries are Sadlers Wells, awarded £1.5 million towards a major new stage, as part of a redevelopment programme costing £30 million. The Cambridge Arts Theatre was given over £6 million to redevelop its two theatres and cinema, whilst the Norwich Playhouse picked up £400,000 and Manchester's The Green Room collected £750,000.

The Scarborough Theatre Development Trust has received £1.48 million towards the development of their new Stephen Joseph Theatre at the former Odeon cinema and this triggered a further award of a £495,000 EC grant. Alan Ayckbourn told L+SI: "This is wonderful news. It means we can now commence Phase Two of our scheme and that Scarborough will have its new theatre/cinema complex up and running by the middle of next year. It's been a 40-year dream and it's fitting that it should be named after Stephen Joseph, the man who inspired that dream."

Lord Gowrie, chairman of the Arts Council, has promised to continue to fund new theatre building alongside a range of projects linked to the Arts, the benefits of which will have a highly positive knock-on effect on the lighting, sound and stage engineering industries.

PLASA Internet

All PLASA members are now listed on the Internet. The information - 40 pages in total - includes the contact details and a short company profile of all 360 PLASA members.

Soon to follow onto the Web pages will be information on the PLASA Show, now only three months away, full manufacturers, suppliers and services indices, details on PLASA's membership services, standards information (available to members only), and news on both PLASA magazines.

Since first going on the Internet, PLASA now has a new Internet location and a new E-Mail address. You can reach us on:

Internet - <http://www.plasa.org.uk/plasa>
E-Mail - info@plasa.org.uk

The Association will be offering its members a full range of services on the WWW in the near future.

PLASA Show Rush

Companies are hurrying to secure a stand at this year's PLASA Show (September 10-13th, EC2). Over the last few years the exhibition has become the international stage for the launch of products in the lighting and sound arena.

Commenting on the excellent indicators for this year's exhibition, James Brooks-Ward, show director, told L+SI: "The message to exhibitors is clear: PLASA allows you to sell your products to a sophisticated buying audience. Likewise, visitors who want to view the latest product have the chance to see them first at PLASA."

Matthew Griffiths, PLASA's treasurer, believes "PLASA 95 is at the vanguard of the entertainments industry. The show is establishing new levels of professionalism. We have recently appointed leading PR firm Harvard PR to ensure PLASA leads the industry into the next millennium."

Tony Awards

The Tony Awards took place on June 4th at the Minskoff Theatre in New York. Among the many accolades handed to the Broadway shows, professionals within the lighting and sound industry also earned recognition for their work.



Lighting designer Andrew Bridge (pictured), known for his work on a range of successful West End and Broadway productions, picked up Best Lighting Design for his work on Sunset Boulevard, whilst Best Scenic Design went to John Napier, for the same show. In fact, the night belonged to the Andrew Lloyd-Webber production which scooped no less than seven awards.

Cosmic Perceptions at the Planetarium



The London Planetarium, owned by the Tussauds Group, re-opens on June 20th following a major refurbishment programme costing £4.5million. Chief among its main attractions is a new star show 'Cosmic Perceptions'. The 'virtual reality'

trip through distant galaxies will rely on the sophisticated Digistar 11 projector, the Planetarium's latest acquisition.

L+SI will bring you further details on the new-look Planetarium in the July issue.

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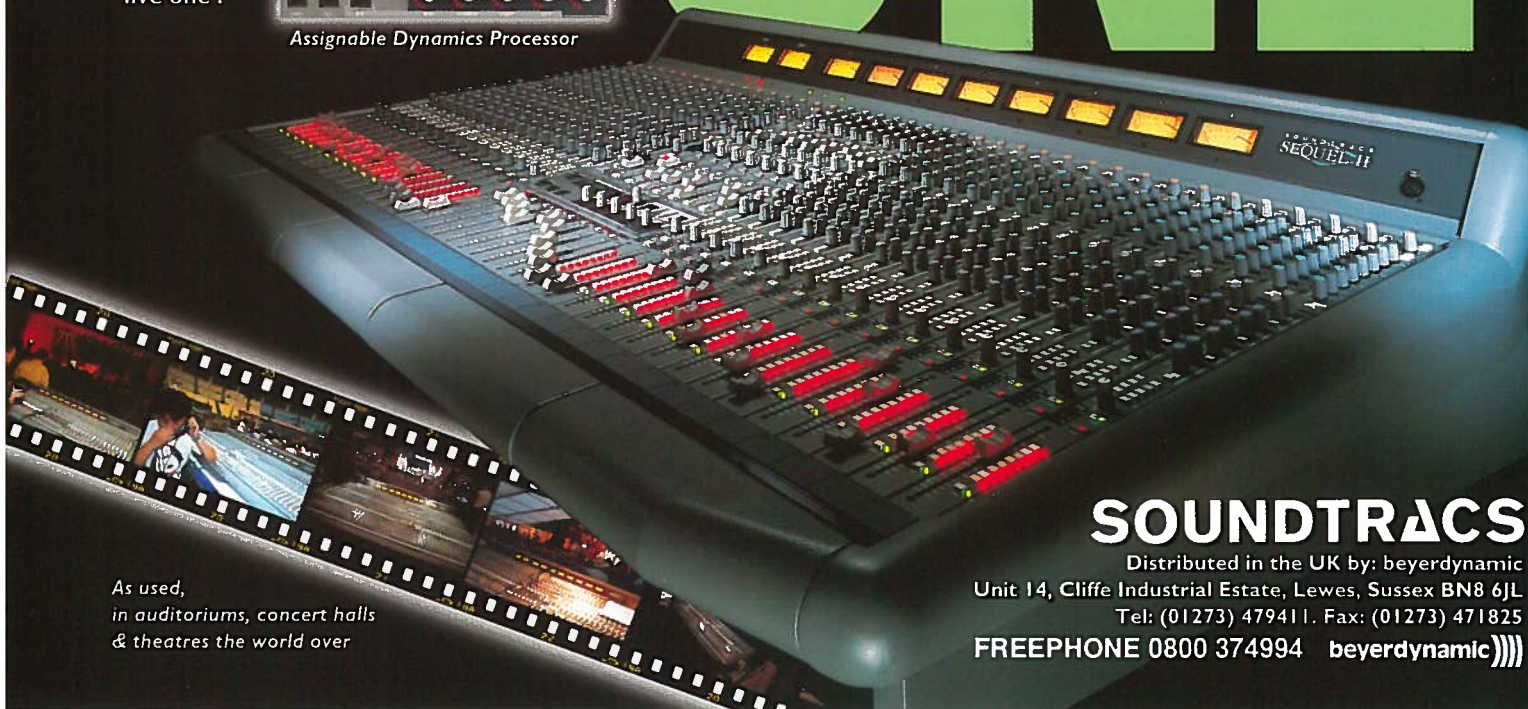
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Strand Invest £2m

Strand Lighting has announced a £2 million expansion programme, supported by the Invest in Life partnership. This will take place over a three to four year period and will create at least 70 new jobs at the company's Kirkcaldy factory, taking the total workforce to over 270 people. The majority of these will join in the first year.

The expansion follows on from recent major investments made by Strand in manufacturing and digital electronics technology, reinforcing the Kirkcaldy operation's position as the main production facility for Strand. The Fife operation will continue to work closely with the company's second production facility at Pomezia, near Rome, which specialises in studio and location luminaires.

To make room for additional manufacturing at its Mitchelston site in Kirkcaldy, the company is transferring certain electronics assembly functions to new 40,000sq.ft premises at Lochgelly, where new warehousing and distribution facilities are already being installed. The expansion will increase overall volume of production by almost 50 per cent.

BMF in July

The 1995 British Music Fair will take place at the National Hall at Olympia, from 23-25 July. BMF brings together many diverse strands of the music industry under one roof, and is organised specifically for the music retail trade. Last year's show attracted 6,516 visitors.

For more details contact British Music Fairs in Slough, telephone (01753) 511550.

Stardraw Upgrade

Starlite Systems Technology is offering all its Stardraw 3D customers a free upgrade to their existing software.

The upgrade features over 300 additional libraries, including TV lights, a faster response and the introduction of a toroid shape. As all objects in Stardraw 3D are created from basic shapes - a cylinder, sphere and an oblong, to date - the introduction of the toroid will prove extremely useful for producing curved trusses. Once created, these objects can be quickly selected and positioned in 3D space up to an accuracy of one thousandth of an inch, allowing a design to take shape rapidly. Stardraw 3D then allows the user to view his/her design from any angle or position, including inside, and enables specific areas to be focused upon. Perspective views are selectable from full colour solid fills or wireframe.

Further details from Starlite in London on 0171-511 4400.

Skill Search Success

The launch issue of the new publication *Skill Search* was a huge success with over 700 entries from over 500 freelancers in over job categories.

The publication is distributed free to over 5,000 television, film, theatre, video and radio production and post-production companies, independent producers, directors, production managers and researchers nationwide. Every entrant also receives a free copy.

For further details call Skill Search in London on 0181-567 9772.

New Light for Old Vic

White Light has secured the contract to supply a new lighting control system to The Old Vic. The order is for a system which includes two ETC Expression 2x consoles, four Arri Connexion output modules, and a PC offering off-line editing facilities.

The ETC Expression 2x, previously sold in Europe as the Arri Imagine 3, offers all the facilities of the Arri/ETC consoles with features such as two digital wheels which can be linked to pan and tilt of moving lights, 600 channels, 1536 dimmers, 24 submasters and two playbacks. The two consoles will be linked using ethernet to provide a fully supported and flexible system. In addition, a DMX512 distribution system using XTBA's Smart Merge and Smart Splitters is also being used. To support its sales of lighting control desks and as a result of recent changes at Arri GB, White Light has now acquired a large stock of spare parts for the complete range of Arri lighting control products.



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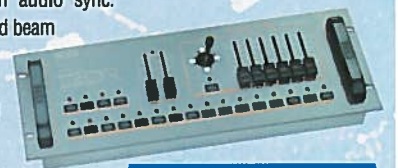
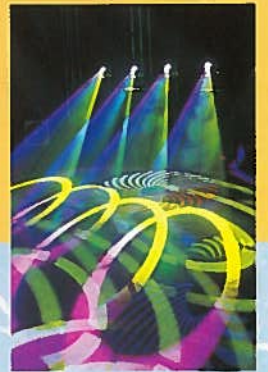
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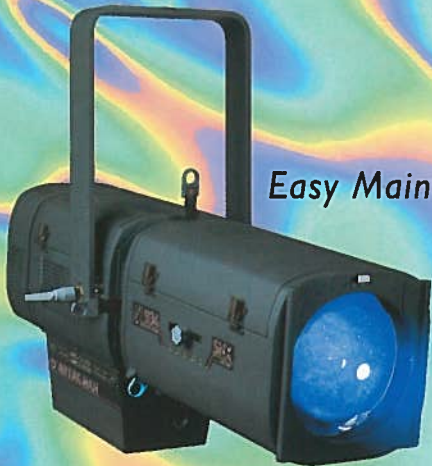
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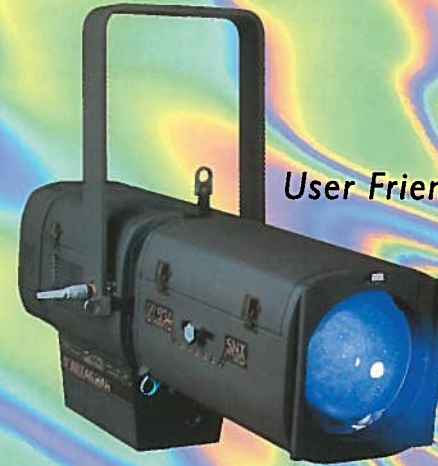
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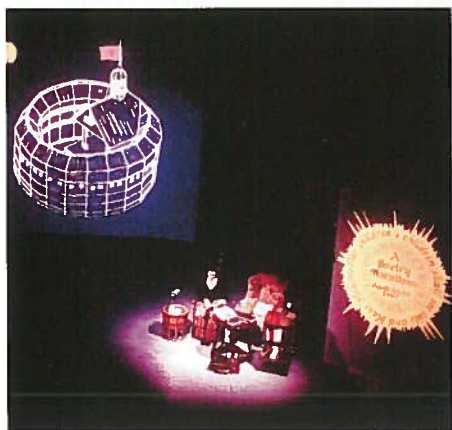
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DHA & Brambletye



The beautiful school of Brambletye in East Grinstead provided the setting for one of Globelink's continuing efforts to 'Raise the Heavens' of the Globe Theatre in the form of a 24-hour poetry reading marathon. Globelink, a fund-raising organisation for the reconstruction of Shakespeare's Globe Theatre, encourages schools to raise money with the promise of a Time Capsule for every £200 raised.

DHA's Wyatt Enever was approached to devise some form of 'visual encouragement to the boys' in their efforts, and was only too pleased to help. Drawing on the effects equipment available within the company and the artistic skills of Vicky Fairall, DHA's graphic manager, they came up with a scheme that was both visually effective and easy enough for young technicians to handle.

The stage was divided into two sections: one a cosy, close-lit study set where actress Lisa Vaughan-Hughes read poetry for 45 minutes in each hour, the second, an open wash of blue with gentle ripple effects where the pupils read poetry for the remaining 15 minutes. The ripple effect was created by two DHA AMU125 animation units mounted onto CCT Minuettes, gelled up blue with M903 gobos inside the lanterns and DC12 radial breakup effects discs on the front.

Glass gobos were projected onto panels on either side of the stage to frame the set. The gobos were projected by two Strand 1.2k Cantatas for two 12 hour sessions, and, despite being in hotter lamps than recommended, performed without mishap for the duration of the marathon.

The main feature, however, was the upstage cyclorama cloth, onto which two BP Pani slide projectors threw a series of 24 slides which gradually built up a complete image of the Globe Theatre over the two-days.

The final section of the marathon was a rendition of poems written specifically for the school by poets such as Roger McGough, Brian Moses and Charles Causley. Known as the 'Parchment Poems', these were hand-written by the poets themselves onto handmade paper to be incarcerated in the Time Capsules.

The Grand Finale was to 'fly' the Brambletye School flag from the flagpole of the now complete Globe projection. This was done with an 'M'-size glass gobo projected by a Minulette through another AMU125 ripple effect which created a very effective wind effect.

Hands-On Seminars

Lightfactor Sales have announced a further series of technical training seminars, to be held at the end of July. These will take a two-fold approach, offering those in attendance either in-depth technical appraisal of all High End products, or comprehensive programming sessions covering the whole range of fixtures and controllers.

Early booking is advised, as these courses are always over-subscribed. Anyone wishing to attend should call Lightfactor on 0181-575 5566.

Retail Design Service

A lighting design service for the retail market is to be offered by The Lighting Department Ltd, part of the M&M Group. The idea of Richard Rafter, lighting designer for Liberty's of Regent Street for the past five years, the service has been set up to offer clients all the benefits of an in-house lighting designer - but without the overheads.

The company aims to provide not just the skills of a highly experienced and creative lighting designer, but the hardware as well. In this way, says Rafter, clients can have a completely different image with each new display, without being involved in the purchase of equipment or the overheads of a full-time employee. Through the M&M Group, Rafter has access to top-quality theatrical, architectural and industrial lighting products, control consoles and special effects including smoke machines and UV.

The service includes Rafter's involvement with each scheme from the outset, in order to ensure complete understanding between him and the display team. Liberty of Regent Street is the first major client to retain the services of The Lighting Department, with several stores in London's West End also showing interest.

30 Years Service



Barbara Joynson recently celebrated 30 years with the Samuelson Group, having joined the company as an office clerk back in 1965. She is currently the administration manager and a member of the management group at Vari-Lite Europe Holdings. To mark the achievement, Sydney Samuelson CBE, the British Film Commissioner, now a non-executive director of Vari-Lite Europe Holdings Ltd, joined past and present colleagues for the celebrations. Pictured are (l-r): John Larkin of Michael Samuelsons, Steven Penbury of Samuelsons, Charlie Kail of Brilliant Stages, Alan Thomson of Theatre Projects, Barbara Joynson, Mike Goldberg of M&M, Sydney Samuelson, Brian Croft of Vari-Lite, Barbara's husband Bill Lavendar, and Peter Johns of Total Fabrications.



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Water Projection

Laser Creations International (LCI) have recently completed a Water Screen installation at The Mines Wonderland Theme Park in Kuala Lumpur, Malaysia. The new installation provides a stunning Water Screen spectacular, displaying a screen of water 25m wide and 14m high onto which video and lasers are projected.

The audience see images appearing out of the dark, apparently suspended in mid air, whilst fish appear to swim in front of their eyes. This particular installation, in The Mines Wonderland, is the first of its kind in the world.

For the next project, LCI will install another Water Screen show into Guangzhou Grand World Scenic Park, in Guangzhou, China. The installation, scheduled to open in August, will incorporate a Water Screen from LCI which will reach up to 35m in width and 18m in height, together with LCI's Laser Video Projector and fireworks.

MLC Preview PML

The Moving Light Company is currently working with a number of production companies to preview the Amptown ControlLite PML. If the trials are successful, the White Light subsidiary is expected to add a number of the units to its stock.

The ControlLite PML is a self-contained moving light and is manufactured to an extremely high standard. Each unit is DMX512 compatible, with 16 bit resolution. Standard features include 12 colour options from two colour wheels with six dichroic filters each, zoom optics, six rotatable and changeable gobos, and an HMI source.

Motor Rally

A fourth two-day training course for users of Columbus McKinnon Lodestar Chain Motors is being offered by the UK distributors PCM, a division of Pfaff Silverblue Mechanical Handling, and admission is, once again, completely free.

The Motor School, taking place on the 5th and 6th September, will include training in disassembly, repairs and trouble shooting on the CM Motors that are used extensively for rigging in entertainment applications. Instruction, manuals, materials and lunches are provided without obligation for those attending the course which will be limited to approximately 20 participants, with time for 'hands-on' workshops. The presentation will be carried out by Wally Blount of Columbus McKinnon, USA, supported by Denis Bramhall and John Jones of PCM, the UK distributors. Last year's course members are shown above.

Further details of the training course are available from PCM in Prenton, telephone 0151-609 0101.



ILDA Conference

Laser Production Network will host the 1995 International Laser Display Association Conference at the Deauville Hotel, Miami Beach, on November 12-15 1995. The conference will include a trade show, a general meeting of ILDA members, advanced technology workshops, sessions with major manufacturers and safety seminars, including a panel discussion on the latest FAA policies regarding outdoor laser displays.

The conference will precede the LDI show, which runs from November 17-20.

For information contact Laser Production Network in Miami, telephone (305) 754-6885.

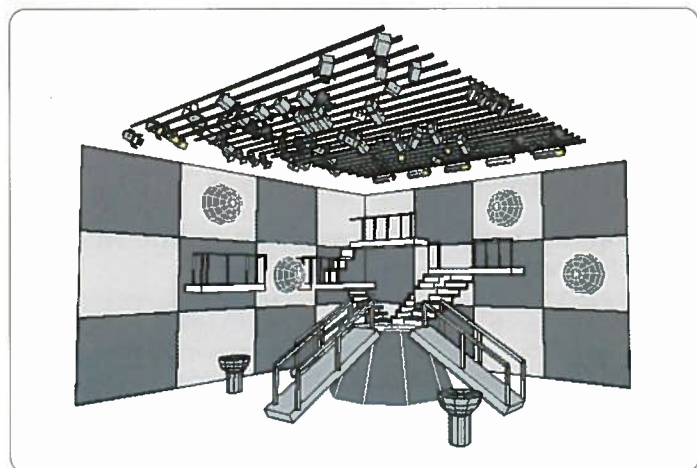
Fane and Fortune

B.K. Electronics of Southend-on-Sea is providing Fane equipped enclosures as part of the equipment it supplies to U.C.I. cinemas in the UK. Fane's Colossus drivers have already found favour in cinemas in the US, being specified in Smart Systems THX-approved equipment used in movie houses throughout America.

Fane's Soundsphere Q-12 fibreglass enclosures have been installed at the N.E.C. in Birmingham. Other successful installations include the Basilique Notre Dame in Montreal, Grayson Stadium, home to the Savannah Cardinals in Georgia; the St Louis Science Centre, and Coe College in Cedar Rapids, Iowa.

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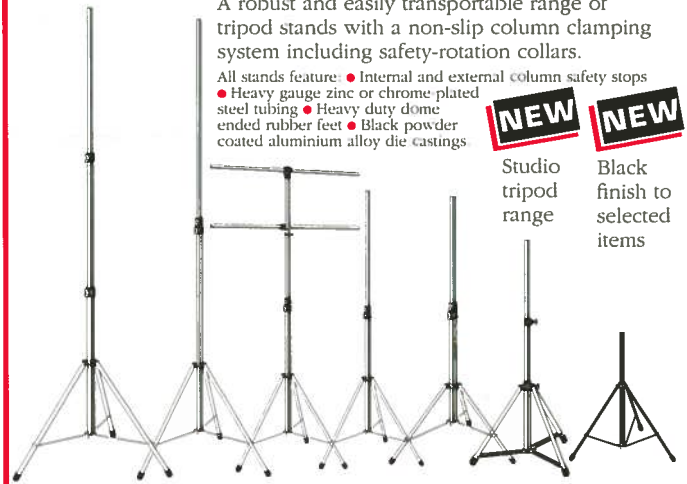
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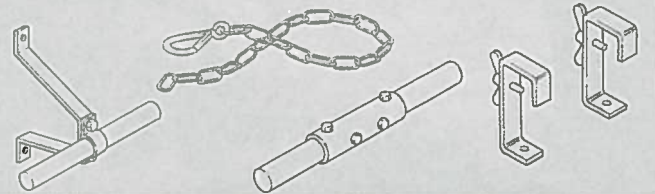
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C-Audio Power

The latest addition to C Audio's range of power amplifiers - the XR3801 - looks set to follow in the footsteps of the company's RA Series. Guildford Sound & Light have already made use of the XR3801's 1500W output to power the JBL system at West One in Welwyn Garden City and at the Students' Union at the West Sussex Institute of Art and Design.

Leicester Sound & Lighting also chose the XR3801 when they recently undertook the refurbishment of top-flight dance venue, The Emporium, in Coalville.

Going Live 7

Soundcraft's Going Live! sound engineering course is to be staged for the seventh time, on 11-13 August this year. To date, over 700 students have attended the course, and some of the leading lights of the professional engineering community have guested as lecturers and tutors.

The course will again take place at Manchester University, over Saturday and Sunday, with an optional pre-course session for beginners on the Friday. This will provide a basic introduction to signal path, console layout and system components for first-time students.

For the course, EMO Systems have supplied Soundcraft with a custom made 3-phase mains distribution system. Comprising a central 63A three phase distribution unit feeding several 32A and 16A custom distribution boards, the system was used for the first time at Manchester University supplying power to a 20kW Turbosound rig.

CIBSE Awards

The awards for the Chartered Institute of Building Service Engineers (CIBSE) Young Lighters of the Year 1995 were presented at the Lighting Division's Annual Lunch on 17th May at the Columbia Hotel in London. The Lighting Division Award, which is given for 'services to lighting', was presented to Ted Rowlands, Hon. Research Fellow at The Bartlett, University College, London.

The Walsh-Weston Award for lighting research papers went to Professor K H Ruddock and S R G Dakin, of Imperial College, for their paper 'Visual sensitivity to physiologically high frequency flicker', given at the CIBSE National Lighting Conference last year in Cambridge. The Leon Gaster Award for lighting application papers was presented to D L Loe, K P Mansfield and E Rowlands of the International Philips Centre for Lighting Education and Research, The Bartlett, University College London, for their paper 'Appearance of lit environment and its relevance in lighting design: experimental study'.

The Young Lighters of the year awards went to Sarah Hill - Modelling the influence of horizontal obstruction on working place illuminance; Alison James - Towards a new, natural dynamic environment: a comparative study of electric lighting systems and controls for working environment; Neil Skinner - The application of colour appearance technology for retail lighting design; Matthew Williams - The application of theatre lighting techniques to the night-time lighting of architecture.

Shaw Agenda

Kevan Shaw has been commissioned to provide lighting and set design for the forthcoming Ian Anderson 'Divinities' tour.

Equipment for the tour in Europe is being supplied by Meteorlites Ltd and in the USA by Bandit Lites Inc. The system incorporates vertical trusses supporting Par 64s and Cyberlights controlled by an Avolites Sapphire.

The company are also working on other projects including The Singapore Discovery Centre, Argyll's Lodging and Chapel Royal for Historic Scotland, street lighting for the Royal Mile in Edinburgh and 'Within the Middle East' gallery for the National Museums of Scotland.

Shermann Growth

Shermann, the UK-based speaker manufacturer, is expanding its operation to cope with increasing orders. This has meant taking on more staff, as well as moving the in-house woodwork facility to its own separate unit.

Shermann Commandos were used by GB Professional Audio for a recent gig by Hue and Cry in Glasgow, and the Scottish International Children's Festival has been covered by Sherman systems for the fifth time, again by GBPA.

Elsewhere, Sound Foundation of Reading have been working with Let Loose, Ultimate Chaos and Urban Cookie Collective using Sherman GX Colt/500 stage monitors.



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LETTERS

Dear Editor,

SAFETY ISSUES

James Eyengar's Viewpoint in the April issue of L+S particularly took my notice, due to a recent experience with a local night-club.

I was called in as a consultant to investigate both light and sound, neither of which were working properly. I, and a colleague, spent considerable time checking the systems and came to a number of conclusions, both to correct existing faults, and to advise the client of his responsibilities under Health and Safety and Electricity at Work Regulations.

Specifically, the electrical safety regulations were being ignored in several ways. The incoming three phase supply went direct to a fuse board that was hanging off the wall, supported only by its wires. The cover was held on with gaffer tape. All dimming packs, of which there were 12, had no covers fitted, and one had live wires hanging out.

One fluorescent luminaire had parted company with the trunking to which it was fitted, and was hanging by its wires. Heavy duty loudspeaker cables were taped across the stage, on both sides, forming a tripping hazard. These cables could easily have been located under the stage, access being straightforward. Finally, no PAT testing had been carried out anywhere in the building, so hazards abounded everywhere.

I duly put in a report on my findings and made a number of recommendations. After a couple of weeks, I discovered that the boss had read the report, uttered a rude word and consigned it to the waste paper bin!

Here is an accident waiting to happen. The club regularly packs in 900+ punters, so I felt morally bound to report the matter to the Health and Safety Executive. I would add that the company who installed the equipment and who were supposed to service it, were based in Manchester and had no engineers in the south. It appears that they issued the appropriate documents without ever performing the required test procedures.

Owners have got to be made to realise that they cannot get away with this kind of attitude. Lives are being put at risk and they must be made liable when things do go wrong.

Brian Davies
Surrey

Dear Editor,

PHASED OUT

I enjoyed the article by James Iyengar concerning safety in the industry, but would like to add my tuppenny' worth.

As a regional repertory theatre, we have long been involved in the joys of PAT testing in conjunction with the annual lantern maintenance period and would point like-minded organisations in the direction of Megger's 'Electricity In The Workplace Book Set', which provides useful and relevant information.

I agree with the point concerning the definition of 'a competent person', which has not been clarified in law, by requiring the person doing the testing to produce formal electrical qualifications (which is no bad thing for any of us in the industry). A small organisation with limited funding may find it difficult to swallow £2.50 an item charged by one of the new 'Portable Appliance Specialists' that have sprung up. The organisation must still have the equipment repaired and made safe, so the only alternative is for its own employees to perform this function, their 'competency' based primarily on experience and decent electrical safety knowledge.

The point in the article that concerns me most was the one on the '63A Ceeform Splitter'. I would normally expect a hire company to provide me with a properly MCB'd or fused distribution board, connected to the mains via tails, with the required number of Ceeforms of appropriate size. I am surprised none of the '20 authorities or companies' said that if the two ends of the splitter (possibly at different remote locations) were both to have 63A drawn, the supply connector would be overloaded. The presumably correctly rated cable would also be overloaded! How does James Eyengar envisage physically getting two 63A cables into his supply Ceeform? Supply diversity is based on downward current demands, i.e. 63A to 32A to 16A. Not 63A to 126A! The only time splitting like this is acceptable is 63A Three Phase to 3 x 63A Single Phase. I think I'll give Moonlite Productions a miss. I was also fascinated to discover that neon lamps now have a *filament*.

I would suggest talking to The National Inspection Council (NICEIC) who are very friendly and helpful when it comes to this sort of thing. After all, they do regulate the wider electrical industry, of which our sector is a small part.

Matt Savage
chief electrician, York Theatre Royal

Dear Editor,

COUNTER-VIEWPOINT

As PLASA's standards officer I was appalled by James Iyengar's ill-informed and misleading Viewpoint in April's issue.

By putting forward such an alarmist view, he gives the impression that equipment manufactured by PLASA members is unsafe. This can only be extremely damaging to the export potential of the vast majority of manufacturers who do their best to ensure the safety of their product. If Mr Iyengar had been to members' premises as I have, and seen the high standard to which the equipment is made, he might not have made the outrageous suggestion that it is time for self-regulation. In any case, he is too late, as the regulations are already there, as everyone in PLASA knows.

I have been writing for the last five years in *Standards News* about the effects which new legislation, both British and European, will have on members' products. I have dealt with the Electricity at Work Regulations, 1989, The Plugs and Sockets (Safety) Regulations 1994, and the Electrical Equipment (Safety) Regulations 1994, to name but a few.

I am unhappy about his thinking with regard to the Plugs and Sockets (Safety) Regulations. The Act is quite clear; plugs are required to be fitted if the appliance is ordinarily *intended* for domestic use. The Parliamentary draughtsman understand that the supplier has no knowledge of what the purchaser might do with the appliance: all that matters is the manufacturer's *intention* as to the final user. Since almost all PLASA equipment is intended for professional use, plugs need not be fitted and suppliers of professional equipment who do not fit them are quite properly within the law. When these regulations were first rumoured, many members rang me up to say that if they fitted them at source, their customers would immediately have to cut them off! I am also baffled by his reference to a neon lamp with a filament, but that's another issue.

Finally, I would assure Mr Iyengar that we are all seriously concerned about safety and no-one wants to be a party to any fatalities, but 'safety' is a relative term. 'BS 0, A Standard for Standards', bluntly states: "It is impossible to make any process or product absolutely safe".

G.C.Thompson
PLASA standards officer

Orange Aid

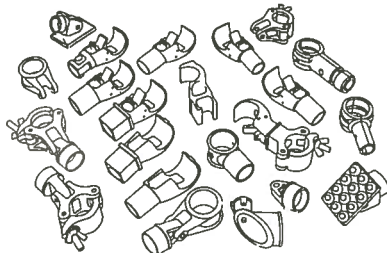
Acoustics firm Castle Group Ltd of Scarborough has saved New York music moguls EMI from a multi-million dollar law suit after complaints about music blasting out from studios at their New York headquarters.

The EMI group own several floors of the building at different levels along with various firms of lawyers, so when the music became too much, the law firms involved launched a court action, eventually avoided by Castle's experienced consultants and their Electronic Orange. This project completes a full circle for Castle, who designed the Electronic Orange to solve a now common problem more than 20 years ago after EMI took action due to noise coming from a ballroom operated by Mecca below one of their London cinemas.

The 'Electronic Orange', otherwise known as the GA904, gets its name because of an orange ball that acts as an early warning. It measures the noise in a room or area and cuts the power if the pre-determined level is exceeded. After careful negotiation, the lawyers and EMI agreed realistic working levels 'policed' by the Orange

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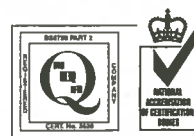
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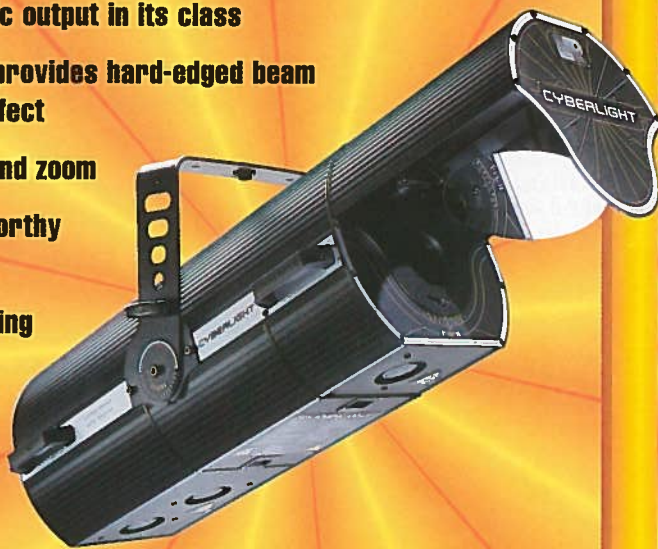
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World Events



Since its launch just 18 months ago, World Events has secured several major contracts. The latest project was for Iveco Ford - one of Europe's leading commercial vehicle manufacturers. Over two days in the first week of May, the company ran a series of events for 3,000 of Iveco Ford's UK customers at the ICC, Birmingham.

Designer James Grey created a multi-level, ground and cable supported structure which included 20 different platform levels, 12 large flown projection screens, and a 4x4 videowall on a computerised counterweight system designed supplied and installed by Vertigo Rigging. The multi-level steel set was built and welded into place under the watchful eye of production manager Adam Wildi, by Hangar Services, with speaker presentations made from flown 'bridges' fitted with discreet flat-screen Autocue systems.

Creative Technology's back projected multiple-screen AV set-up was flown in and out on the house counterweight system, and Delta Sound installed a surround-sound system used for the event's opening 'soundscape' - a review of the world, and the commercial vehicle industry over the past 20 years.

As the eight massive wind-machines came on for the finale, the set's ladders and platforms swarmed with dancers, and DHA's Jonathan Howard created a stunning final picture in collaboration with Patrick Murray and his Vari*Lite rig.

Apollo Lights

Scheduled for release in mid June, the Ron Howard/Imagine film *Apollo 13* boasts the first use of the Lightwave Research Cyberlight automated luminaire in a major motion picture. Towards 2000 of Hollywood provided the Cyberlight fixtures for a six week studio location shoot on Universal's Stage 16. The fixtures were employed to provide a sunrise/sunset terminator in the LEM Lander on Apollo 13's aborted moon trip. The Cyberlights operated six days a week in 34 degrees F temperatures - the stage being chilled so that the actors' breath could be seen in the damp and cold environment. Towards 2000 also provided training to director of photography Dean Cundy's Grip 3 effects light crew. The film opens in America on June 16th and stars Tom Hanks and Kevin Bacon.

Towards 2K also provided Cyberlight and Intellabeam automated luminaires for *Virtuosity*, a new Paramount release from Lawnmower Man producer Brett Leonard. The fixtures were used for an interactive nightclub scene and to light a huge hydraulic set piece during the battle climax. Programming was handled by Ernesto Corti and Towards 2000's Adam Burton. The company also used Cyberlights recently in a Nissan Altima commercial and a Steve Vai music video.

Audio-Technica UK/US Alliance

The Audio Technica Corporation Japan (ATJ) have taken a major step towards strengthening their international marketing strategy with Audio Technica US acquiring a majority interest in sister company Audio Technica UK. The two companies had operated independently of each other and the move was initiated so that a more closely co-ordinated international strategy could be followed.

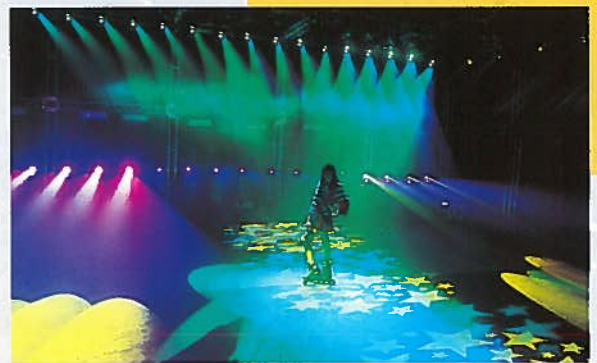
Audio Technica US (ATUS) distributes the group's products in the US, Canada, Central and South America and is the largest overseas operation of ATJ. Audio Technica (ATUK) sells its products through independent music retailers and pro-audio distributors. The UK operation also exports to Ireland, Greece, Portugal, Israel and Iceland. No staff changes are envisaged in the UK and Shig Harada will continue as managing director with Paul Maher as sales director.



REGIA 256/36

REGIA

TECHNOLOGY AND RELIABILITY



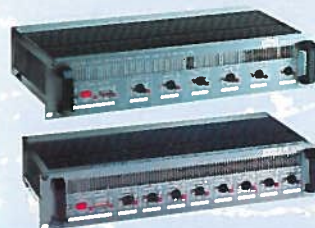
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- REGIA 256/36: 240 CHANNELS, 36 PRESETS, DMX 512, RS 232 and SGM 256 outputs.
- REGIA 24: 24 CHANNELS, 24 PRESETS, DMX 512 and SGM 256 outputs.
- REGIA 12: 12 CHANNELS, 12 PRESETS, DMX 512 and SGM 256 outputs.
- REGIA 8: 8 CHANNELS, 12 PRESETS, 0/10 V and SGM 256 outputs.

The ideal complements for SGM lighting control consoles are the compact, rack-mounting modular power packs, available in the following models:

- P 610/D, single phase/three phase, six 10A channels, inductive and resistive loads, 0/10V, DMX 512, RS 232 and SGM 256 inputs.
- P 810/D, single phase/three phase, eight 10A channels, inductive and resistive loads, 0/10 V, DMX 512, RS 232 and SGM 256 inputs.



P 610 / D

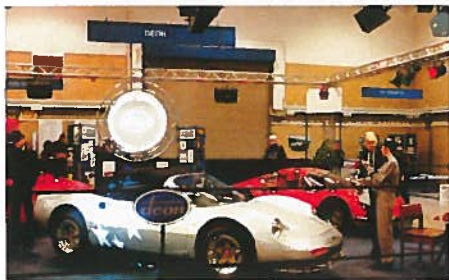
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Leamington Award



Leamington Sight and Sound were awarded 'Best Manufacturer's Stand' at the National Kit Car Show at Stoneleigh for their design of the Deon Motor Company exhibit for the launch of their new car - the 'Mirabeau'.

Using a 10X8 MTR four poster rig from Slick Trussing, Leamington dressed it with Par 56 cans, Optikinetics Solar 575s and a Solar system with custom gobos, which were projected onto a circular screen, together with Martin 1220 Roboscans. The company also supplied Jem smoke machines and a Bose sound system.

Exhibition organisers, Grosvenor Exhibitions, have contracted Leamington to do further shows, including the National Motor Show at the NEC.

Academy Sold

Brixton Academy, one of London's most popular live music venues, is to be sold off in January 1996. Recently reported to be undergoing extensive refurbishment, it is now rumoured that the Academy is to become a church. Further details as they emerge . . .

430/530 Moving Out

Strand Lighting report that the 430 and 530 mid-range consoles are shipping in volume. Based on PC technology, both offer a choice of software to run on common hardware platforms. Lightpalette and GeniusPlus application software is available to match the required capacity of the console, and a range of optional applications which add functionality to the lighting system. Inherent in the operating system is the advance control of moving light attributes, and Strand has created an architecture which does not deplete the control channel count of the console if scanners or scrollers are patched to DMX channels.

Strand has now added two other consoles to the range. The 450 has 48 submasters and six supermasters, for controlling a maximum of 350 channels and 250 attributes. The 550 is likewise fitted with 48 subs.

Donmar LIVE

The Mirror Group has commissioned Donmar to fit out the new LIVE TV studio at Canary Wharf in Docklands. The lighting control system supplied and installed includes an Arri Mirage 125 channel console, high resolution monitor, infra-red remote facilities, five Arri Smartracks and a Reflexion back-up console. Other equipment includes 60 spots from the Arri Junior range, 58 Thomas Par cans, 80 Birdies, Penn Fabrication trussing and black drapes. LIVE TV is scheduled to start transmission by cable TV in June.

Spot Co Strength

The Spot Co has recently purchased four Strong Gladiator followspots to complement their substantial rental inventory. The 3kW xenon Gladiators will initially be called to duty in Europe, but they should be available for UK rental in the summer. The company have also splashed out on new Space Cannon searchlights. These will operate as stand-alone units, but any DMX outputting console can control the pan, tilt and lamp on/off parameters of these 2kW xenon units.

Canford Expansion



During 1994 it became clear to Canford Audio that they needed to expand both their human resources and physical space, and over the past six months they have taken on a total of 20 new staff in technical support, manufacturing, sales and purchasing.

In November 1994, work began on an extension to their base, and April saw them add an extra 12,000sq.ft of warehousing space, 4,000sq.ft of office space with a further 4,000sq.ft devoted to the Canford Joinery. This expansion has released space in the existing building and has allowed the company to develop their production area.



Screenco is the world leader in the rental of giant video displays - our recent expansion and purchase of two additional Sony Jumbotron screens has created two vacancies at our Eastleigh headquarters.

OPERATIONS MANAGER

Responsible for the day-to-day management of the company's equipment and staff resources, the preferred candidate will possess a proven track record in the entertainments industry, with good knowledge of staging, rigging, logistics and in-depth video production experience.

The position will be primarily office based, although regular contact with clients and an involvement in projects from enquiry through to completion will necessitate a degree of travel in the UK and abroad. The successful applicant will be self-motivated and thrive working under pressure in a hire environment.

OPERATIONS ENGINEER

The successful applicant will be a young motivated individual with an electronics qualification, ideally to degree level and with experience within the entertainment or conference industries. Experience with computer systems would be an advantage as would familiarity with European languages. The position will involve working away regularly on events overseas, usually at weekends.

Both these positions command a competitive salary and benefits package including pension, life assurance and private health care.

Please write in confidence, enclosing CV and current remuneration details, to:

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SSE System Check

SSE Hire chose TC Electronic technology to provide accurate monitoring for the bands on Channel Four's new music show, *The White Room*.

Given that the studio floor has to be kept clear of obstruction for the audience and camera crews to move freely around, the siting of four monitor consoles anywhere in the studio where engineers could provide proper monitor mixes for the performing musicians is simply impossible. The system was specified by live sound engineer Chris Trimby of Initial Film and TV, who has worked extensively with the system and is familiar with the digitally-controlled EQs.

SSE have two other such complete TC 1128/6032 EQ systems, one currently on the road with *Faith No More* and the other having gone out with *Wet Wet Wet*.

TC Electronic are currently offering the 6032/1128 system at a special price, details of which are available from any TC dealer.

Apollo Lights

Scheduled for release in mid June, the Ron Howard/Imagine film *Apollo 13* boasts the first use of the Lightwave Research Cyberlight automated luminaire in a major motion picture. Towards 2000 of Hollywood provided the Cyberlight fixtures for a six week studio location shoot on Universal's Stage 16. The fixtures were employed to provide a sunrise/sunset terminator in the LEM Lander on *Apollo 13*'s aborted moon trip. The Cyberlights operated six days a week in 34 degrees F temperatures - the stage being chilled so that the actors' breath could be seen in the damp and cold environment. Towards 2000 also provided training to director of photography Dean Cundy's Grip 3 effects light crew. The film opens in America on June 16th and stars Tom Hanks and Kevin Bacon.

Towards 2000 also provided Cyberlight and Intellibeam automated luminaires for *Virtuosity*, a new Paramount release from *Lawnmower Man* producer Brett Leonard. The fixtures were used for an interactive nightclub scene and to light a huge hydraulic set piece during the battle climax. Programming was handled by Ernesto Corti and Towards 2000's Adam Burton.

Hot off Broadway



Hot Mikado, the new musical from Broadway, opened in London's West End on 21st May with sound designed by Rick Clarke and equipment supplied by T.P. Sound Services.

T.P. are supplying a brand new Yamaha PM4000 desk, which was purchased specifically for the production via Marquee Audio, together with 20 Sennheiser UHF radio-mics, Meyer UPA-1A and Community RS220 loudspeakers and Crown amplifiers.

Processing includes the new BSS FCS920 system, which enables the sound designer to EQ remotely from different places in the theatre via an RF link, without returning to the mixing position. Other processing includes BSS TCS 804 delays and Yamaha SPX 1000 reverb units. All processing and desk VCA functions are automated via an Apple Mac computer running the T.P. Sound 'Multi-Art' show control software.

**FAX YOUR NEWS TO
L+SI ON (01323) 646905**

Talk Radio

SystemBase has recently supplied a total of 48 C100xr digital audio codecs for the latest national radio station, Talk Radio UK, which went on air in mid February. The units were purchased earlier this year by BT Broadcast Services, to provide the entire national studio to transmitter distribution network over 64Kbps

digital data circuits (DPCN). The Talk Radio UK network is pioneering the use of 64Kbps DPCN technology with proprietary X21 compatible 7.5kHz audio codecs supplied by SystemBase. The C100xr is a versatile, 19" 1U rackmount codec, based on the fast apt-X100 compression/decompression system, and is suited to live applications either over permanent digital networks or over ISDN lines.



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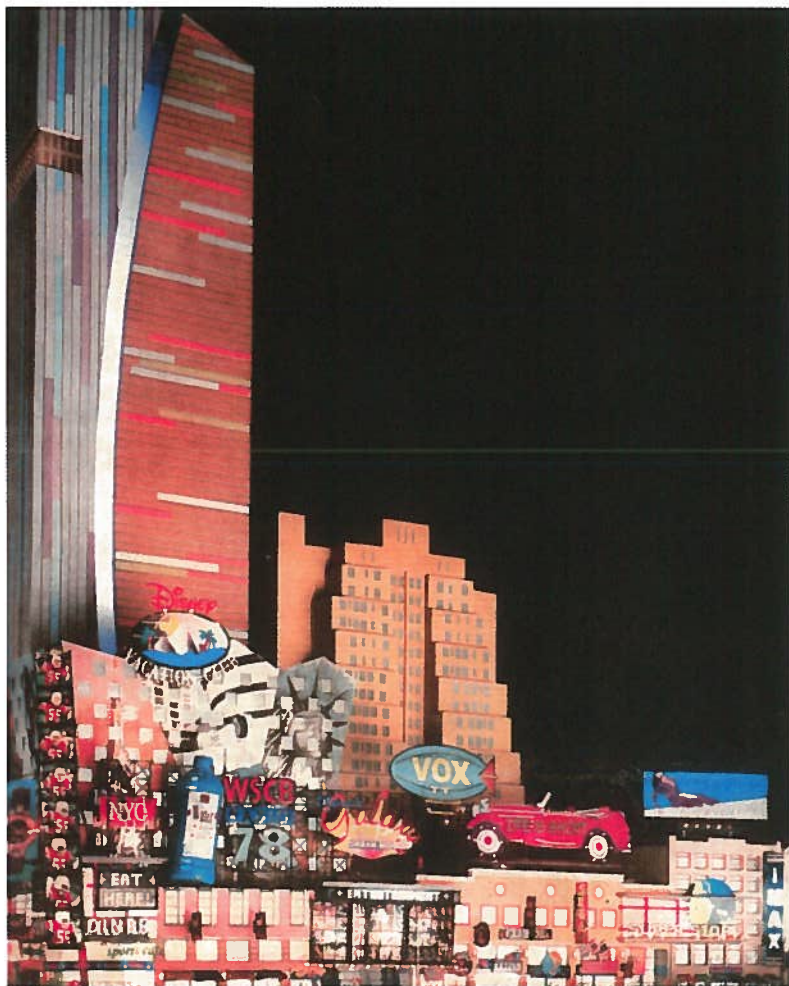
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 - Narrow/wide fresnel or PC optics
 - Silent cooling system, with thermal switch

FLY



Explosive Designs on 42nd St.

Miami-based architectural firm Arquitectonica have come up with the striking design (left) for the new convention hotel on the corner of New York's Eighth Avenue and 42nd Street, as part of a development project for Times Square. The 47-storey, 680-room hotel will represent the tail of a comet which has crashed and thrown up a bright, chaotic explosion of American culture.

Running along 42nd Street will be an entertainment and retail complex, designed by D'Agostino Izzo Quirk Architects, incorporating restaurants, shops, superstores and a theatre, while on the corner below the hotel will be a 10-storey Disney Vacation Club containing 100 time-share apartments. The designs for the development follow guidelines - which specified the use of lighting and signs - with 'supersigns' moving across the facade of the building, while a spectacular lightshow, designed by lighting designers Fisher Marantz, will regularly burst into life on the hotel tower itself. From the tail of the comet (the curving line of windows running down the length of the tower), high-powered beams of light will shoot into the sky, while clouds of 'pixie dust' explode at the base.

The bizarre, deliberately chaotic mix of facades along 42nd Street, with its blasting light, colour and imagery will, whether the style appeals to you or not, be an undeniable attraction for visitors to the city. If you do like it, however, you will still have to wait until January 2000 to see the finished explosion.

Galaxy Nova

Strand have announced that version C2 software has recently been released for the Galaxy Nova adding further functions to the base programme. There are now more options for system customisation and for setting default information. Improvements have also been made to the motion control and playback facilities. For situations where full tracking back-up systems are specified, Galaxy Nova can now operate with dual electronics.

The desk has many credits to its name with recent installations at Glyndebourne, The Royal National Theatre and Edinburgh Festival Theatre, with imminent installations at the Royal Opera House and the Bolshoi Theatre.

Northern Area Manager

Entertainment Lighting Sales

As a business within General Electric (USA), GE Lighting is the largest light source manufacturer in the world and remains at the forefront of an industry where we are experiencing technological revolution in our products and innovation in our customer service. Continued expansion across Europe and recent major acquisitions have enabled GE Lighting Europe to grow rapidly.

An opportunity has arisen for an experienced sales manager to be responsible for the sale of lighting products in the Midlands, Northern England and Scotland operating from home and based in our Leicester offices. The successful candidate will be accountable for maintaining existing business and for developing new business with distributors and industrial and commercial end users in the Entertainment Lighting Industry. Additionally, for the right candidate, there could be opportunities to broaden the scope of the role by participating in sales support and marketing activities in the London headquarters and on continental Europe.

We are seeking applications from candidates with technical qualifications, preferably, but not essentially, to degree level, who are self starting, able to work on their own initiative and effectively manage their own time. In addition to a comprehensive knowledge of specialist lighting products, we require a high level of professional selling and negotiating skills, an outstanding communicator who is committed to customer service and who can apply all of these attributes in effective account and territory management.

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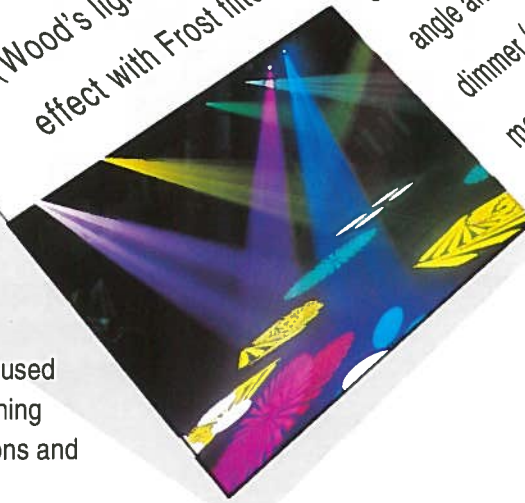
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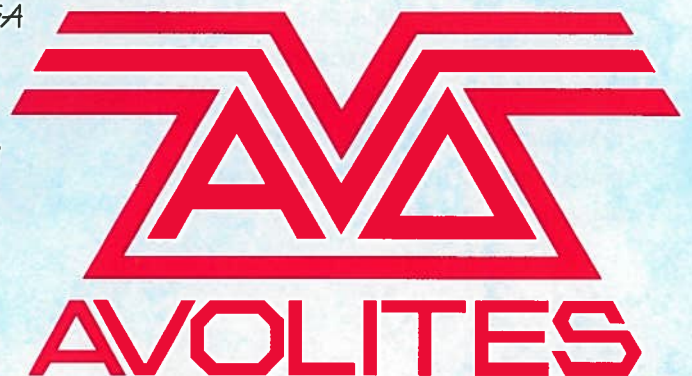
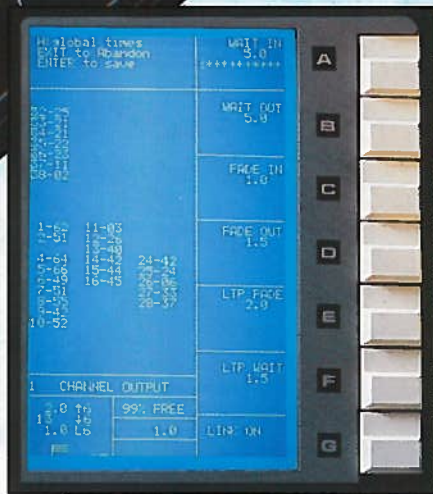
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1995 LIVE! AWARD WINNER FOR NEW LIGHTING CONSOLE

Theatre World

The advertising implied that Theatre World '95 was going to be the most important event of the year for anyone connected with any aspect of theatre. Held at Wembley Conference Centre, it was going to have it all.

The technical world was represented by stands from the **White Light Group**, **Theatre Projects Sound**, **Steeldeck**, **Lightfactor** (who supplied the Cyberlights used on the performance stage), **Flint Hire & Supply**, **Harkness Hall**, **Harlequin**, **Action Lighting**, **Arrow Rigging** and **Stagetec**. Theatre Crafts magazine and The Stage newspaper were also on hand, with other exhibitors including an assortment of drama colleges, computerised box-office suppliers, make-up companies and ticket agencies.

By trying to draw a huge audience, the exhibition didn't precisely target any one group. That, coupled with its location, meant that it never attracted the crowds it had hoped for. Because of this, on the last day it was obliged to close an hour early. In terms of its appeal to theatre technicians, the exhibition was probably hampered by following so closely on the heels of the ABTT Show.

Had Theatre World been a success, incorporating the ABTT show within it, it may have made an interesting option. Strangely, the people that the show would have had most appeal for - those involved in amateur theatre around the country - were not given incentives to attend. If the show is repeated with that lesson learnt, it might have a better chance of success. But on the evidence of this year, its not a show that technical suppliers should move heaven and earth to be seen at. Especially since between the PLASA and ABTT shows, they already have most of their potential audience covered.

Rob Halliday

Le Maitre Appoint Sangalli

Le Maitre have appointed Sangalli to represent their range of smoke products in Italy. The company's Rick Wilson told L+SI: "We worked together with Sangalli at this year's SIB show in Rimini, which was a tremendous success for both companies. Le Maitre introduced the new G300 to the Italian market through the company and the results have been very positive."

Pictured at SIB 95 is Dario Sangalli (left) with Rick and Maxine Wilson.



'Veles E Vents' Welsh Spectacular

Cardiff Castle was recently the setting for an unusual performance based on a fourteenth century poem about the dangers of the sea. 'Veles E Vents' (wind and sails) was a spectacular surround-pyro experience designed and performed by Spanish company Xarxa Theatre Productions and co-ordinated by Ceri James of Cardiff City Council.

The lighting equipment for the performance was supplied by Neg Earth Lights with the technical expertise provided by Paul McGuinness and his crew of four from Thistle Techniques of Cardiff. The main arena was lit by two Eight light audience blinders, 12 1kW floods, six 4x1kW ground rows, eight Death Star strobes, 12 Aero bars and 10 Par 64s, the combination of which created a stunning and colourful backdrop to the main action. Providing the control was an Avolites Rolacue Sapphire and two Avolites 48-way dimmer racks.

AB Acoustics of Mid Glamorgan were responsible for the sound system, the mainstay of which was the 10kW 'Black Box' system and a Soundcraft 200 mixing desk. Shure radiomics, Klark Teknik graphic equalisers, BSS crossovers and Amcrons also featured in the mix.

Anna Pillow

NoTT 1995 - Gothenburg

The NOTT show - an excellently-staged event - took place as part of the Oistat Scenography conference in Gothenburg.

My first call was to **Strand Lighting**, who were launching the SN100 Ethernet Networker, a cunning device which links terminals, screens and consoles via a co-axial cable and distributes the data wherever you want to run the aforesaid co-ax in your multi-stage entertainment complex. A more traditional approach to lighting control came from **Avolites**, with local agent Patrick Waage demonstrating the Diamond II console.

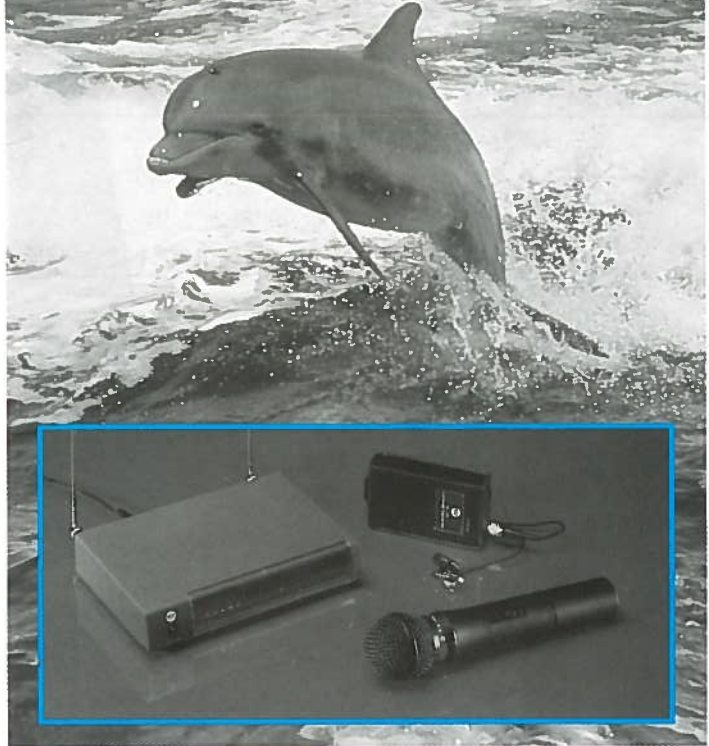
Dick Lindstrom of **Anderson & Co** showed me their Lead Microspot - a 20W 11-70 degrees PC spot only 60mm long. The light output is proportional to a 1kW PC to the scale of 1:25, so it is an ideal tool with which to illustrate lighting on set models. The company also offer the Pin-Up, a movable electric hoist capable of lifting 200kg to a height of seven metres.

G.E. Lighting had their new 'entertainment lighting' catalogue - a mine of information. Director Clive Salmon and sales manager Arto Rehumaki were demonstrating the new 1kW G38 base lamp, a low wattage version of the CP41. Currently called the HX270, it will soon, doubtless, have a CP number and ANSI code all of its own. **Jem UK** were at the show to bring support (and new kit) to Per Ekblad of Primetime, the company's distributors of mist and well-cued pyro over Iceland, Norway and Sweden. Jem were also launching the H.O.T Technology Hydrosonic range of haze machines in Scandinavia.

Altogether this was an impressive show in a dynamic little city. I certainly hope to return for NOTT 97.

Jim Laws

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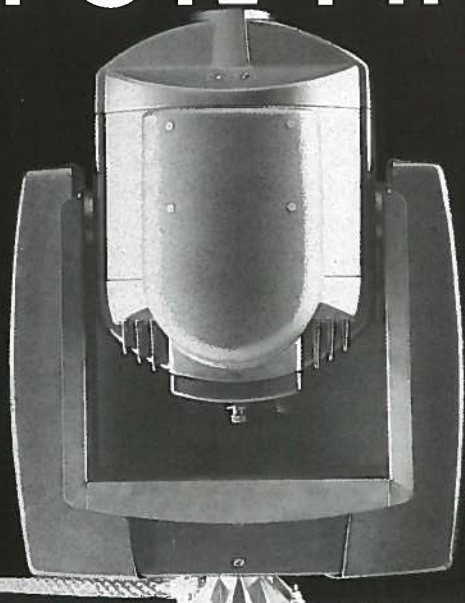
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Here's an invitation you can't afford to miss. On July 9th, 10th & 11th, Vari-Lite Europe Ltd hosts an OPEN HOUSE to unveil three exciting new products, in full hands-on interactive demo sessions. Take as much time as you want to check out the new trio...

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NL - on the Double

When Euro Trak went into receivership in August last year, during the refurbishment of De Montfort Hall in Leicester, the main contractors, Costain, turned to Northern Light for help. The specification for the electrical works associated with the stage machinery, including the site wiring for these services, was for the full design, manufacture, installation and commissioning, in conjunction with the mechanical engineers. Northern Light has just 11 weeks to complete the contract - the length of time it usually takes to agree the designs!

The work included 14 motorised hoists with variable speed controls, a comprehensive emergency stop system, two air blower systems for moving the seat blocks, which are on air pallets, and the controls for two large elevators. The elevators were required to have an accuracy of +/-1mm at all floor levels, a problem which Northern Light solved by using a programmable logic controller (PLC) in conjunction with a digital encoder to control the inverter driving the electric motor. Northern Light designed and manufactured all the necessary control cubicles and hand held controls.

Despite being unable to double up on the number of men on site because of the limited space - and many other problems - Northern Light completed at 10pm on the final day of the contract.

EMO Culture

MTC Japan have supplied and installed the PA equipment for the new Ebisu Garden complex. Regarded by many as the new cultural centre of Tokyo, the complex offers, alongside other facilities, two purpose-designed venues, intended for concert and exhibition use, built by Sapporo Brewery, Japan's largest beer manufacturer.

A total of 20 EMO Systems' inductor-based graphic equalisers (shown above) were chosen to control the various sound systems which include one of Japan's largest Turbosound Flashlight installations. A total of 16 GEQ30 single channel 30-band equalisers were installed in 'The Garden Hall', while four GEQ60 twin channel units control the smaller 'Garden Room' PA system.



SES Breakthrough

SES Film & Television have been trading for 14 months under the wing of parent company SES (Southern) Ltd. Over this period, the growth in the industry has led the company to achieve sufficient turnover to the point where it has now started trading as a separate operation to be known as SES (Entertainment Services) Ltd.

Specialising in the manufacture of electrical distribution equipment aimed at the film, television and entertainment industries, the company has made a significant impact within this industry. The product range includes flight cases, rubber, GRP and steel distribution units, BAC and Camlock connecting systems, BS 4343, earth leakage, rubber and arctic extension leads, studio panels and all associated electrical products.

SES can be reached in Colnbrook, telephone (01753) 680611.

Theatre Seminar

A British Council International Seminar titled 'Theatre Lighting: Design and Technology' will be held in London from 3rd to 14th September, 1995.

The seminar, which will be directed by Francis Reid, will cover the role of lighting in today's theatre, lighting design for every type of stage performance, lighting and new technologies, the economics of lighting, education and training for lighting personnel and backstage and performance visits.

Further details can be obtained from the Publicity Manager, International Seminars Dept, The British Council, 10 Spring Gardens, London SW1A 2BN, telephone 0171-389 4264. Please quote seminar number 9550.

Vp Venues

PSL Power Amplification have been involved in a series of major installations in London recently.

An 8kW system with Vp Series amplifiers was installed in Stringfellows by Tarsin Entertainment, who have also installed PSL Systems in both the LA clubs in Charing Cross Road.

Barry Dodd Design installed Vp Series amplifiers in both the Hard Rock Cafe at London's Hyde Park Corner, and Bill Wyman's Sticky Fingers in Kensington.



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same as the "5S" and are available in both low impedance and "100 volt line" models. These models have been specifically designed for use with the Sound Contracting market.

All of the Monitor range have carbon fibre drivers, this material helps to eliminate diaphragm break-up and increases the speed of the transient response. The constant directivity horn of the tweeter gives an angle coverage of 110° x 110° in the Monitor 8.

To further improve the already excellent performance of the Monitor speakers, RCF have designed the MR-HPF equaliser for emphasising low frequency sensitivity, and the MSW 8 sub woofer for extended low frequency down to 35Hz (± 3dB).



MSW 8



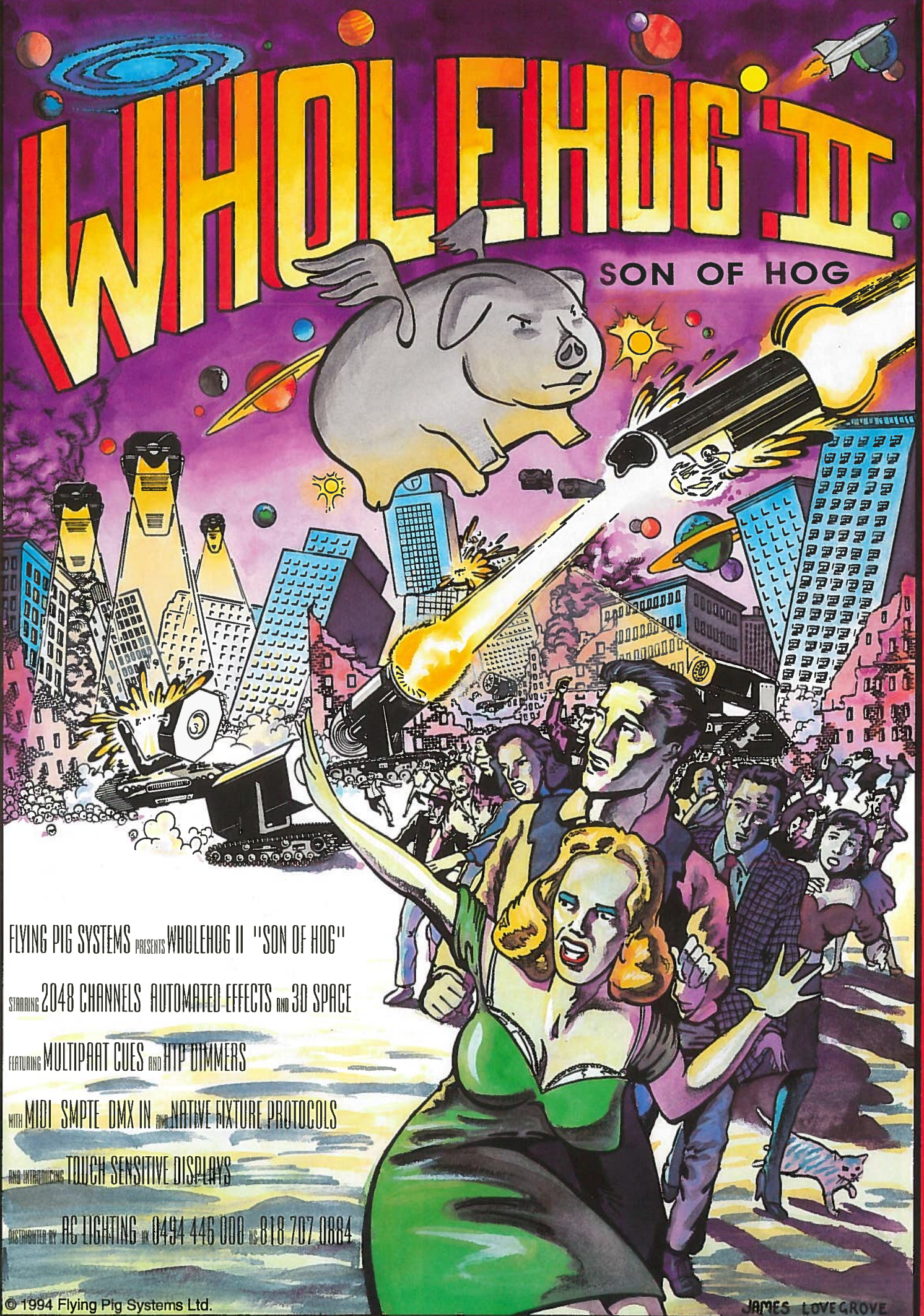
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Industry People on the Move

Steve King has moved across town to Dimension Audio. For years a leading light at Entec, he joins the Dimension Audio team as senior project manager. **Derrick Zieba**, general manager of Dimension Audio, has been appointed as a board director of the company by parent group Avesco plc.

Sean Turk and **Rod Short** have recently moved to Martin Audio. Turk will be responsible for national sales throughout the UK, allowing Martin Kelly to concentrate his efforts on the export market. Rod Short, previously with both Shuttlesound and Roadstar, has taken the position of applications engineer.

After nearly 15 years as a partner, and later a director of Ancient Lights (now Theatre Direct), **Peter Nesbitt** has left the company and is now offering a consultancy service. He can now be reached on (01953) 454332.

RCF Electronics (UK) Ltd have appointed **Linton Smeeton** as UK sales director. Smeeton, who has worked for RCF for the past three years, has a great deal of experience in the professional audio industry.

Fred Williams, formerly manager of the audio-visual department of Show Contracts, has joined Donmar to strengthen its expanding installation and sales team. The company's sales team is further strengthened by the addition of lighting designer **Zoe Castle**.

Mark Terry has been appointed president of JBL Professional. He brings with him more than 17 years' experience in the pro audio industry, including more than a decade in sales and marketing. Most recently, he was executive vice president of sales and marketing for JBL Professional, directing activities for the company's international division. Terry succeeds **Ronald Means**, who has been appointed president, Harman Sound Reinforcement Alliance.

Jim James, former marketing manager of AMS Neve, is to set up a new marketing agency, East-West Communications, based in Singapore, from June 1995. He can be reached in Singapore on (65) 226 5165.

Arri (GB) have appointed **Barrie Guy** as assistant lighting product manager. Formerly with Rosco, Guy will be working closely with product manager Randall Miles. Arri's international sales manager **Nick Shapley** has now taken on the additional responsibility of sales director, while **Sean Leone** becomes Group finance director.

Phil O'Donnell has taken over as President of Strand's Los Angeles office. He was previously managing director of Strand Lighting Asia, and **KK Mak** will now take over this role in Hong Kong.

Vari-Lite Europe has added to its customer operations team with the recent appointments of **Paul Weaver**, as a production assistant and **Laura Dodds** as executive assistant to the team. They join Peter Stutely, Lee Frankcom, Jim Douglas and David March.

VE Fever

The recent round of VE fever kept many people busy, including theatre sound specialist Autograph Sound, who provided the live sound component for 'Live for Peace' - a Royal Gala variety show staged at London's Coliseum. Autograph installed a sound system especially for the two-and-a-half hour spectacular, which was televised live on VE-Day, with the rig including four Meyer Sound MSL-2A loudspeakers and a 90-input Cadac E-type console.

Designed by Autograph's Bobby Aitken and Nick Gilpin, who both mixed the show, the system was augmented by the English National Opera's house equipment at the Coliseum, which included further Meyer speakers, and 30 radio microphones, with one act alone using 12 hand-held transmitters.

Autograph's build-up for the show was completed within 36 hours, allowing two days of rehearsals prior to the televised performance.

Full coverage of the events commemorating VE Day, start with our feature on the Hyde Park celebrations on page 41.

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Croydon Gallery of Light

Theatre Projects recently worked with lighting designers Jonathan Speirs & Associates and Croydon Council on a project to transform Croydon into a dynamic art gallery for the night of May 18.

As a result, Croydon's office buildings, unremarkable by day, were turned into a rich and colourful backcloth for the projection of creative images and lighting effects. Theatre Projects supplied equipment, services and logistics for this ambitious project, including the new Irideon AR500 architectural luminaires. Similar to Vari*Lite wash luminaires, they are specifically designed for exterior, all-weather use and made their debut in the UK on VE Day (see main feature this issue).



ETC's Source Four Light Solutions

When M&M Light Solutions takes on the exclusive distributorship for ETC from July, in addition to the specialist range of ETC lighting controls and fixtures, the company will be stocking the Source Four high performance ellipsoidal spotlight. Over 60,000 Source Fours have already been sold in the States and installations on this side of the Atlantic include the Lido de Paris (see L+SI - February, 1995) and the Royal Opera House.

The company will ensure that, in conjunction with the expertise and back-up supplied by dealers throughout the country, customers get good support, training and 24 hour back-up for operational and technical assistance.

Coe-Tech Creativity

Coe-Tech have been called on to undertake some unusual projects of late. In Dublin, Audio Tech's Frank Murray asked the company to design a violin-shaped lighting rig for Buck Mulligan's Club in Athboy, County Meath. The fully three-dimensional fiddle, measuring a colossal eight metres in length, was duly installed providing support for all the lighting, including Coemar Versatiles, TAS Dominators and Synchros.

Meanwhile, Coe-Tech's sound department were busy recently designed and installing a massive 1200W cinema-like JBL system for the Motion Master Virtual Reality ride at The Granada Studio Tour attraction in Manchester. The six-channel system is powered by JBL MPA amplifiers and includes sub bass enclosures for the special effects soundtracks. Although the ride has only 60 articulated seats, the sound system is of a size normally found in cinemas with a 1,000+ capacity.

ShowCo Mark Quarter Century

Dallas-based Showco Inc recently celebrated the 25th anniversary of the company. Founded in 1970, its first sound system was constructed by Jack Maxson, now chairman of the board, and partner Rusty Brutsché in Maxson's garage. At the time, almost all sound systems were locally obtained, but Maxson and Brutsché knew that real success would come by touring with the artistes, and tour they did. Within a matter of weeks Maxson was out with Three Dog Night and Brutsché was in the garage building system number two for Led Zeppelin. Along the way, the company have provided services and expertise to a whole roster of famous names including The Rolling Stones, Genesis, Paul McCartney and Wings, and The Who.

Late in 1980, ShowCo engineers assembled a variety of technologies into what would become the Vari*Lite automated lighting system, which led to the set-up of a 'sister' company Vari-Lite Inc with Brutsché as CEO. Today, under the guidance of Maxson and president Clay Powers, ShowCo concentrates solely on sound reinforcement services and has developed the highly successful Prism system.

Queen's Award for Allen & Heath

PLASA members Allen & Heath have picked up a Queen's Award for Export Achievement. Well known for their range of professional audio mixing consoles for broadcast and recording studios, the company exports 85% of production worldwide, and has grown an average of 30% a year since 1991. The company is currently in the midst of a major expansion programme to double its floorspace and create 40 new jobs. Last year Allen & Heath won a Business Challenge Award and also attained Investors in People.

A record 140 export awards were granted this year, along with 17 for technological achievements.

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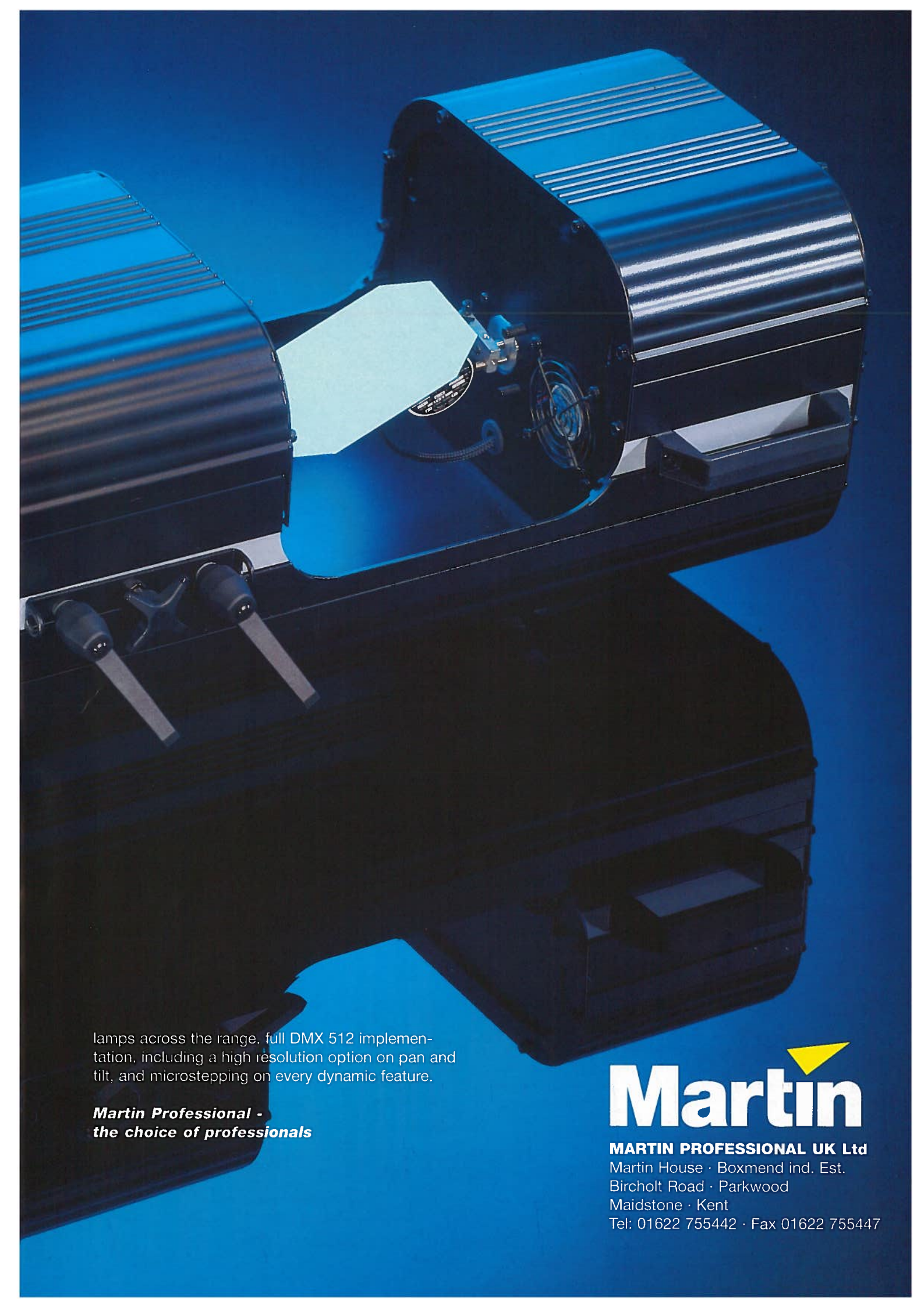
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ON TOUR

by STEVE MOLES
AND PRODUCTION NEWS

Janet Jackson

Sheffield Arena

LD: Peter Morse

SD: Steve Guest

Four years ago the 'Rhythm Nation' tour visited these shores. It had started in the US with a great deal of hype, accompanied by tales of extravagance, and epitomised by one of a live black panther peeing on stage from fright! It attracted a great deal of media hot air, but said little about the artiste. By the time the tour reached the UK, things had calmed down somewhat.

Under the assured guidance of Roger Davis (Tina Turner's manager) what we saw was a vigorous and exciting pop show. What it lacked in polish was more than compensated for by youthful enthusiasm. This time round a similarly overly ambitious project has again been brought under control, and radical adjustments imposed upon the production. Janet's performance, however, has grown immeasurably; this show is in a league of its own and could even teach her brother a thing or two about entertainment.

SOUND

The PA is the Prism system from ShowCo. Twenty-four of their tightly arrayed cabinets are hung each side of the stage with an assortment of the necessary near-fill and bass reinforcement speakers spread around the floor of each stage wing. The Prism system's home environment is in arenas. It's immediately noticeable that there is no delay cluster mid-way down the hall, and as the show progresses it's obvious that none is required. Steve Guest (more normally found at the helm of a Maryland Sound PA) runs the system out front from two Midas XL3s. One is the touring console handling the basic stage sends, whilst the second (which is a sub-hire in each continent the tour visits, courtesy of Cane Green) is used for effects. Each night just before the show starts with the house full, Steve tweaks the PA using a particularly bright and brittle sounding CD: "If I can make the system sound good to this then I know I'm well set for the show," he comments.

Beyond the obvious need for such action (I'm sure most engineers perform this ritual before each show) lies a specific justification for his choice of CD. Janet doesn't have the strongest vocal style. To compensate, Steve has to push the sensitivity



Above, two huge jack-in-the-box inflatables were augmented by festoon lighting to complete the carnival setting for 'I Miss You Much'. Below, pyrotechnics and video played a major part in the show.

of her microphone hard (usually a hand-held Beyer TGX480), and this, as he explains, "... can produce some weird ambience in her vocal channel; I even heard once what people at the front of the crowd were shouting." The upshot is that the rest of the mix is coloured by this characteristic, hence the selection of CD.

The show starts by sounding loud and stays that way. The band are raucous and full. Sometimes, with three keyboards playing, the result can be a little over textured. Janet's voice, whatever it may lack in power, sounds as sweet as a bird. Steve was modest about the four racks of effects he used: "There's the normal generic equipment you'd expect out here. I inherited this from Rob Colby (the tour's original house engineer) and there's everything I need." He did, however, go on to praise Randy 'Randbo' Bryant on monitors (mixing 52 inputs from two Harrison SM5s) for his contribution to the overall sound quality.

LIGHTING

Designed by Peter Morse, the lighting has gone through some changes since the tour began, most notably the axing of over a hundred colour

changers and all the Telescans, but despite that, there's still more than 400 Par 64s and 48 VL2Cs. The rig appears conventional in the extreme, with a front and rear truss cranked down at each end, and a central rectangle with cross spans. Similarly cranked are four Lycian truss spots, two high on the rear, two underhung from the rectangle, and in the house eight Strong Gladiators. What makes a difference is the operation of Eric 'Yoda' Dismuke on the Artisan and lighting director Michael Keller on the Avolites Sapphire.

A typical song will see Michael putting up perhaps some 40-50kW of wash on stage, from the rear a combination of blue and mauve, and then lighting from the sides in hot and cold colours. For example, a red/amber combo' stage left with two shades of green from the right. It's a rich confection that forces the Vari*Lites to work hard to compete, something that's reflected in the attitude of the two men in the way they work together: "Michael knows the Artisan and the show presets inside out," says Eric. "We'll be in mid show and he'll suddenly call 'Gimme A3 in that pink' and damn him, it'll look just right." Eric is equally demanding of Michael. When Michael asked for an audience ballyhoo whilst



programming at rehearsals Eric demanded, "Where? Which parts of the house? What colours do you want?"

Eric is also the arbiter of taste: the two men mix the show live. Although they have almost a thousand cues programmed, they take nothing for granted. When Michael calls for lights on the audience, Eric will ask: "Do they deserve it?" The Sapphire was Michael's choice: "It's light and small enough to travel as regular baggage on a plane." The desk, like Michael himself, is one of the few things to have stayed on this tour since it began over 15 months ago. He has used it to the hilt, and has to boot-up a second show disk mid evening during a weepy ballad with Janet covered solely by half a dozen VL2Cs.

The front of house spots are mainly taken up with area lighting across the front of stage to cover the seven person dance troupe that accompanies Janet for much of the show. The on-stage Lycians work backlight on Janet as you would expect. Floor lighting is limited: a few shin-busters either side at the front, and a few VLs dotted about the set. A description of the system would not be complete without Michael's final word on lighting effects: "We've also got 12 of those super bright 'whatever they're called this week' strobes."

A review of this show could not avoid mention of the rest of the production. The set is designed by John McGraw, and resembles the poop-deck of some fantasy three master from a musical like 'The Unsinkable Molly Brown'. The band are set above and around the main dance area, and a walkway encircles them from the rear. The set is mainly white with touches of gold and not only is it a nice change from the inevitable grey but it gives a tremendous lift to the whole performance area.

A range of mushroom explosions, air bombs and columns of flame are used to liven up some four songs. PyroPak, and particularly their operator Tom 'Hammer' Foster, are responsible for these. A utility truss is hung backstage which is used by Tom, among others, as a platform for much of his equipment which makes for nice accessible and discrete management of his trade as he changes charges during the show, and then hoists them in darkness back up above the rig.

Video is a big part of the production. A front projection screen hangs each side of stage with a linked pair of Sony 1271s on each. On stage are three Pioneer 2x2 videowalls along the front edge of the band. The camera team which hails from Australia is Big Picture TV who were taken on by director George Elizondo after they acquitted themselves so well on the Aussie' leg of the tour. Jerry McReynolds is tech' for the video system and is keen to extol the virtues of both the projectors and videowalls, none of which have given him any trouble in over 150 shows.

The audience are treated to a mixture of live stage shots, with cuts from video song releases, and footage of the crowd live and pre-show. From laser disk there is a remarkable selection of effect images, the never-ending descent into a fractal being just one. On stage the dancers and Janet went through several costume changes. Two were so spectacular as to set a precedent for others to aspire to.

The song 'I Miss You Much' was placed within a fantasy setting; two huge jack-in-the-box inflatables appeared from behind the set augmented by festoon lighting to complete the carnival setting. The troupe appeared in the most lavish and brilliantly coloured costumes, jesters, jugglers and acrobats, whilst Janet paraded as ring master. For 'All Right' a pastiche of the Dick Tracey movie was enacted. Spectacular costumes coupled with comic book colours from the lighting system contrived to bring the house down. Both these numbers were absolute show stoppers and such was their impact that the crowd's adulation was unrelenting. Only one other event raised a greater cheer, but you'll have to go and see the show to find out what that was.



The Hollies - one of the few bands from the sixties that have successfully translated to the nineties.

The Hollies

The Doncaster Dome

LD: Rod Shields

SD: Mike Dolling

There are several sixties package tours trawling their way around the UK this year. These usually consist of one band who charted regularly in the early part of that decade, and a couple of 'one hitters' whose names are recognisable even if their singular hit doesn't readily spring to mind. It's a thin nostalgic heart string to twang and more often than not, such tours just survive the one outing. The Hollies, in contrast, are out on their own for the second time in 12 months, carrying a big production, and packing them in everywhere.

A 17 week sell-out tour totally confined to the UK is no mean achievement. OK, so they only do four shows per week, but then how many bands currently on the road regularly do more than that?

The tour is playing mainly in the 1-3,000 seat theatre market, with occasional forays into new venues like the one featured here, the Doncaster Dome. For those who don't know it, the Dome is Britain's biggest indoor leisure complex - on the night of the Hollies' performance, punters could also visit the ice rink disco until 10.30pm, swim until 9.30pm, or just hang out in the fast food restaurants in and around the complex.

The concert took place in a multi-purpose sports hall fitted with a very comfortable fold-away tiered seating system (some 2,000 seats), whilst outside in the lobby area was a large, well-staffed bar that easily coped with serving everybody during the 20 minute mid-evening intermission.

Just to allay any fears that this was some school gymnasium, the hall did not reek of training shoes and gym slippers, had a very solid demountable stage, plenty of electrical power, and a substantial roof structure that allowed all PA and lighting gear to be flown. It's only fault was a slightly low roof, and lighting trusses ended trimming at around 17 feet to the bottom of the lamps.



Allan Clark - every inch the well-weathered pop star.

SOUND

Sound engineer Mike Dolling would appear to have a fairly easy time of it, but then nothing is ever as it seems. The Meyer system (four flown MSLS3s per side) is supplied by Wigwam and also carries four Meyer UPAs which are used as floor PA to cover the seats close to each side of the stage.

In what I thought was a nice touch, Mike has four of the tiny DNB E1 cabinets laid across the front edge of stage for the front few rows and he carried these extra cabinets for good reason: "This hall is unusual - very wide but not very deep - flying the PA gives me good coverage for the tiered seating, while these little fill cabinets at the front neatly cover the seats on the floor without blowing anyone's head off. This is the first time I've used the E1s and they are proving excellent."

There was, not surprisingly, a noticeable difference in the sound for the 300 people sat at floor level, but only in terms of physical pressure and with a show like this, stomach-turning bottom end was never going to be needed on the menu. There are no amplifiers on stage: everything is DI'd, and the monitor system, run by Ian Hopkinson from a Soundcraft SM12, is suitably modest.

With no voluble stage sound out front, Mike has to be especially careful not to overwhelm the monitor system - even vocalist and front man Allan Clark who wears a Garwood In Ear system is susceptible to PA breakthrough. For this reason there are a pair of smoked perspex screens shielding the cymbals of drummer Bobby Elliot from the rest of the band. Mike has the bare minimum of effects running from his PM3000: "It's not that kind of show, toys aren't what's required. The Hollies are very much a vocal band and need to sound that way naturally."

"The hardest job I have is controlling the dynamics. There is a great deal of swapping about from electric to acoustic and back again and they also do a fair number of covers - songs by the Doors and Prince's 'Purple Rain', for example. If the PA overwhelms the stage sound they will instinctively back off their vocal mic's which just complicates matters."

The Hollies like to remain faithful to their original sound, even if that grates with modern sound practice. For this reason, Mike has to exert considerable self control to keep Tony Hicks' guitar from becoming thick and rocky, but he does get to indulge towards the end of the set and, in this hack's humble opinion, the band sounded all the better for it. Some old sounds are best remembered, not recreated.

LIGHTING

There were some unexpected twists with the lighting too. The system is supplied by Concert Lighting UK Ltd and the show design is by company owner Harry Box. The lighting crew of Steve Crompton and Richie Flanagan put the rig up every day and do the focus, but the desk is run by production manager Rod Shields. The system comprises three trusses, a rear span of just 16 feet with a 30 degree cranked down 8 foot section at each end, the mid is the same but 24 feet in span, and the front is a straight 24 footer. The whole lot support some 140 Par 64s. On the floor are six upright sections of 12" Mini beam filled with Par 36 pin spots and festooned with Arcline and a couple of long nose Par 36s, each lit by a Par 64 upright.

The rear truss has three octagonal screens hung from it which are lit variously by Pars fitted with Rainbow Scrollers (18 in total), CCT Silhouettes

with gobo rotators, and for one song a trusty Patt 252 with flame effect projections onto the centre screen. A totally conventional rig that Rod chooses to run from an old Avolites 84 channel desk - a bit long in the tooth maybe, but a perfectly serviceable board with which Rod performed faultlessly.

Just to complete the image, Steve Crompton runs the colour changers from a Jands ESP 24. Rod lights the stage usually in a two-colour combo, with heavy saturates from the mid and rear trusses. His cues are un-fussy and in just the right places, and he relies mostly on his three front-of-house Pani followspots for picking out the principles and soloists. He does bring in some very sharp little effects from time to time (notably from the variety of lamps on the upright floor trusses), but is sparing with their use and they are all the more effective for that. The front truss lamps are gelled in warmer flesh tones which Rod restricts mainly to when the band indulge in some audience banter between songs - a bit of a waste really as the front band members would certainly have benefited from that bit of extra light.

Some of the band's banter is a bit kitsch: "Who remembers FAB 208 magazine?" Well, do we really want to be reminded? But their appearance is good: Allan Clark looks every bit the well weathered sixties pop star, grey hair and pony tail, whilst Tony Hicks appears to have stopped ageing around 1975. The show is neat and professional, the audience get two hours of music for their money and all from the band they actually paid to see. It's worth noting that the Hollies haven't had a chart record in many years now and these days earn their living from live performance. It says much about them and the respect they have for their audience that they don't skimp on their production costs.

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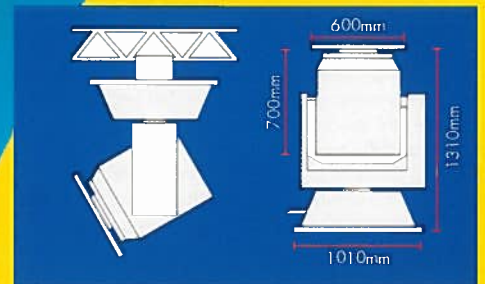
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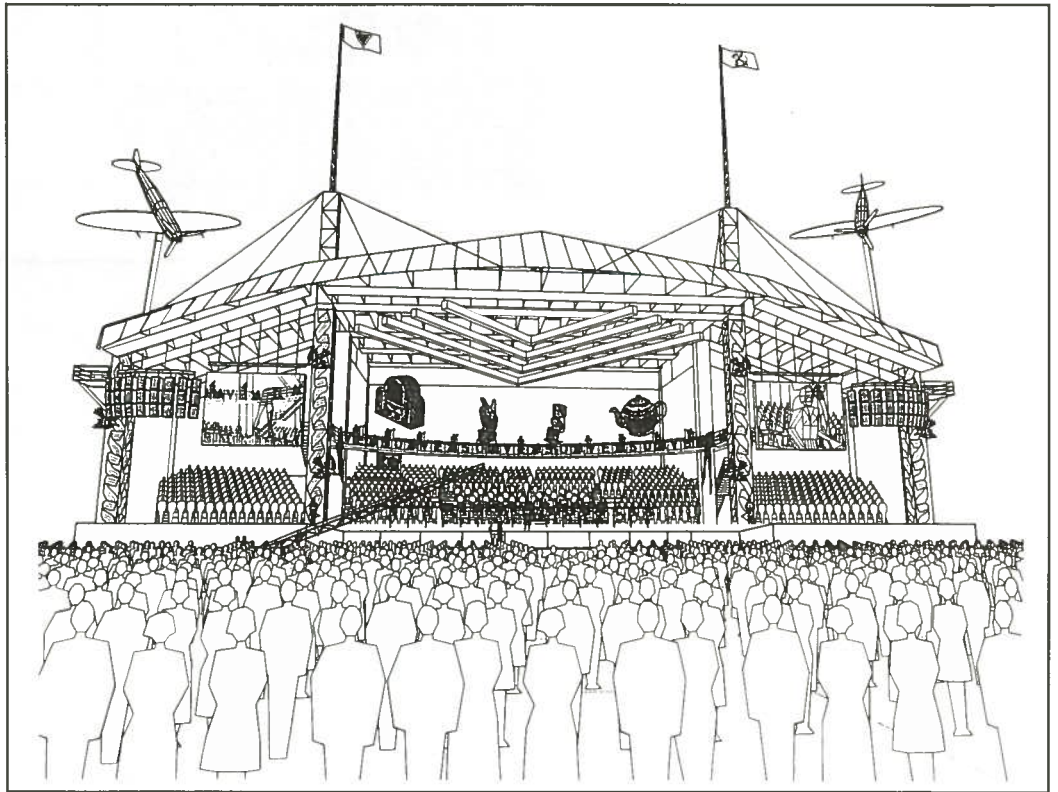
Steve Moles and Ruth Rossington take a global view of the VE Day Events in Hyde Park, London

Despite the fact that the anniversary of the end of the war in Europe takes place during what is often a wet and chilly month in the UK, the sun shone upon Hyde Park and all those assembled there for the recent VE Day Celebrations. They proved to be an unqualified success, not just in terms of the enjoyment of those attending, but also for the many thousands involved behind the scenes. Like the beaches of Dunkerque 54 years earlier, Hyde Park was witness to an armada (only this time an invasion, not an evacuation), a most unusual collection of suppliers, large and small, who found themselves swept up in an event of national proportions.

Unusual Services were responsible for overall co-ordination of the VE Day Celebrations, covering everything from ticketing to transport. Having established their credentials and ability with the event's executive producer, Major Michael Parker, over a number of years through their involvement in the Royal Tournaments at Earls Court, they were a natural choice. Managing director Alan Jacobi appointed Simon Garret, Unusual's marketing director, as production manager for the event.

Drawing an all-female team around him ("no discrimination, just the best people for the job"), he has cascaded not only responsibility down the line, but authority too, as the only sensible way to manage the 40-acre site and its myriad displays. Carol Spratts had overall control of the two shows being staged on the Saturday and Monday evenings, whilst to Henrietta Boxer fell the task of marshalling all the various marching bands, boys brigades, pipes and drums, and the many other participants who performed in the open areas.

Simon's second in command, Sue Banner, ran a huge stage management team of 27 (the minimum felt necessary to control the thousands of performers), and Sharon Ashley-Hoffman had what Simon described as "the nightmare job" of performer transport co-ordination. Some 11 cars and two mini-buses were loaned (as was so much of what was needed for this event) from Rover UK



Jonathan Park's CAD drawing of the Main Stage showing the suspended 'icons' from the war.

with a roster of drivers supplied by Bandwidth.

Fortunately for Sharon, most of the military bands and personnel involved arranged their own transport for security reasons. Having interviewed dozens from the many hundreds of sub-contractors involved, the general opinion was one of approval for Unusual's organisation, in fact there was an almost terrifying calm leading up to the opening day which, in the end, proved well founded. Old hands like Ian Bagshaw (lighting) and Jonathan Park (design), neither of whom are strangers to such major events, both remarked several times on how well controlled everything was, something Simon Garret attributes to Alan Jacobi's original ethos for the progenitor Unusual Rigging company 'Get it done, and be pleasant.'

The securing of this contract has had one very noticeable effect upon Unusual's infra-

structure. Their yard at Dalston Gardens has now finally been cleared of the paraphernalia of rigging (all now hence up to their out-of-town facility at Bugbrook). The contract has given just the impetus needed to complete Unusual's intended rationale of putting all rigging, engineering and manufacturing operations into this new home. The yard has now been filled by a village of porta-cabins: from here not only do Simon and his team operate, but also 20 phone lines were laid in for Sue Ewings to manage the entire ticketing operation. Sue normally deals with box office and marketing for Cameron Mackintosh, but was somehow persuaded to sacrifice her holidays and cover VE Day. How this was achieved remains a mystery. To give some idea of Sue's undertaking, the two fully-subscribed concerts hosted 250,000+ audiences with visitors to the



Part of the VE Day concert on the Main Stage.



A night-time view across the impressive 40-acre Hyde Park site (left) which attracted crowds of nearly two million over the three days.

Park exceeding 1.5million over the three days.

The concert stage structure was designed by Jonathan Park to create a strong architectural form presenting a tall and dramatic structure that could be seen from all over the Hyde Park site. The new Edwin Shirley tower system formed the basis of the huge 23m high roofing structure covering a 2.5m high stage, 60m wide and 30m deep. All the equipment came from hire stock, apart from the specially fabricated canopy or 'beak' cantilevered out an impressive 9m over the curved stage front. The two front towers continued through the roof to a height of nearly 30m and were topped off with two extending radio masts taking the overall height to 50m.

The rear of the main stage and the wings were terraced to a height of 4m to accommodate the choir, orchestra and bands - 2,000 people in all! The front performance area for 300 more performers was heavily raked to provide good sightlines.

Cheryll Park created the 'Mural of the Times' backdrop taking inspiration from iconographic posters of the war period. The 10m high, 80m long backdrop was expressively painted by Robert Adams and a team of eight painters. Suspended in front of the mural were icons from the home front: a wireless, a 'Brown Betty' teapot, a gas mask respirator, the utility mark, nylons, Dig for Victory and the Churchillian V-sign - all vital ingredients of war-time. These free-hand sketches were made in 50mm diameter alloy tube backed with expanded alloy mesh, by Met Scene, to produce invisible scenery that appeared and disappeared depending on the lighting.

A curved balcony suspended 6.5m above stage formed the next scenic layer and provided another level for performers, soloists and fanfare trumpeters. It was decorated with the VE Day lettering and peace doves, again made in alloy and expanded metal, or with the 56 flags of the visiting heads of state. As the final layer of dressing, the front towers were clad with supergraphic ribbons in red, white and blue.

Theatre Projects' Peter Marshall had a huge logistical job on his hands but as he commented: "It did start off a lot bigger. Lighting designer Robert Ornbo loves Par cans and there were originally over 4,000 in the design." In truth the total didn't shrink that much, although the Par 64 count ended below 2,000. The remainder seemed to have been replaced by every lamp imaginable, Fresnels and profiles of all types and a host of effects. The Main Stage had the highest concentration of equipment, 850 Pars, 50 VL2Cs, and assorted colour changers, oil crackers, and Strong followspots. Control was from the VL Artisan and Arri Imagine 500 (operated by Patrick Murray) and an MA Scan Commander was also used to control the six Sky Arts on stage.

Theatre Projects' brief increased as the days to the show diminished: as well as the Main Stage they also provided lighting to the Globe, the 1945 WWII Pavilion, the Performing Arts Centre, the Communications and Technology area and Arenas 2 and 6: by the time the event opened they were supplying equipment to every performance area in the park. Wisely, Peter Marshall followed Simon Garret's ethos of cascading responsibility, nominating a crew chief for each lighting area, who was not only responsible for installing and maintaining TP's gear, but was also company representative on site. Thus the crew chiefs were directly responsible to their own site production manager and their ever lengthening list of "things they'd like". These crew chiefs were, in many cases, also doubling as board operators.

Robert Ornbo and his assistant Ian Bagshaw



The main stage with the 'Mural of the Times' backdrop inspired by popular images of the war.



The British Telecom Tower gets special treatment for the grand finale to the day's celebrations.



Unusual Services' equipment and crew was in evidence all over Hyde Park on VE week-end.



The Peace Globe, seated on a 12m revolve, supported by a ring of curved lighting truss and 12 truss columns, was constructed by Unusual Services, and rotated every 10 minutes.



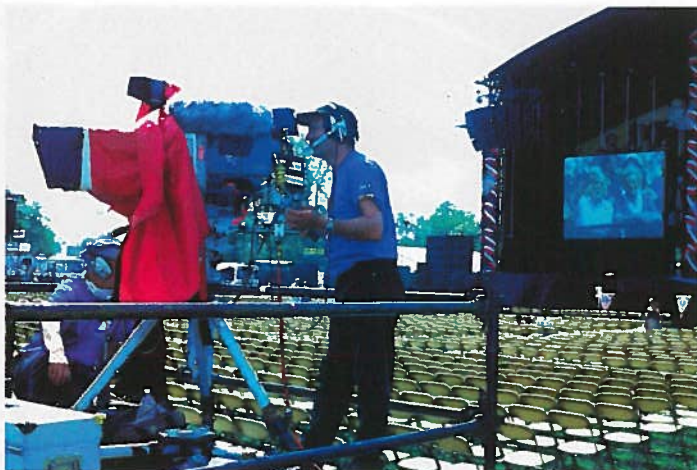
Sony Jumbotrons flank the main stage which was some 60m wide and designed to cater for upwards of 2,000 performers.

both have a well established rapport with executive producer Major Michael Parker, again through a long association with the annual Royal Tournament. With Robert's brief covering the lighting of all areas that can be construed as performance or theatrical, the scope was immense. Given three weeks for set-up he might have been able to cover the lot himself, but with such tight schedules (the main stage lighting system loaded in just six days before curtains), a division of labour was demanded, hence Ian's vital role as Robert's second set of eyes.

To give you some idea of scale, Ian, on Robert's behalf, initially put together a simple equipment list to provide public access lighting, just to cover the pathways and facilities of the site. Using basic low wattage festoon lighting strings would have required some 27km of cable and needed a 600A three-phase power supply. As it transpired Robert relinquished this role, which Templine willingly took up. With their generators already dotted all over the park, supplying power for all on-site contractors, they found it relatively easy to add on clusters of 1kW and 2kW floods to the ever-growing forest of information towers. Lighting for the Main Stage was, by Ian's own admission, "... all very basic, nothing unusual," but then this is not the Rolling Stones, even if it did attract a bigger audience. With so many performers on stage, the 800 or so Pars were there to wash the stage for TV, with the Vari*Lites mainly used to give the live audience a more visual dimension.

The thrust at the front of stage did present a slight problem as it allowed performers to stray a good 30 feet downstage of the front of the lighting system. Knowing they would certainly spend a great deal of time there, covering them with just followspots was not going to be enough as the performers would look just one-dimensional, and so another 100 Pars were strapped to each of the two followspot towers, just to cover the apron. There was nothing small about this stage - even the towers were some 180 feet away, so tight beam bulbs were required, even if this distance was just a short stroll for the Gladiator followspots.

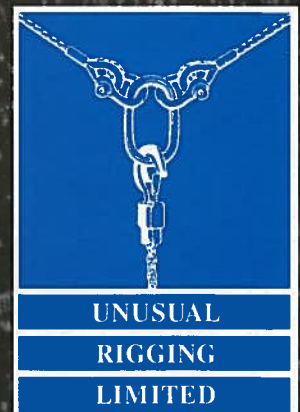
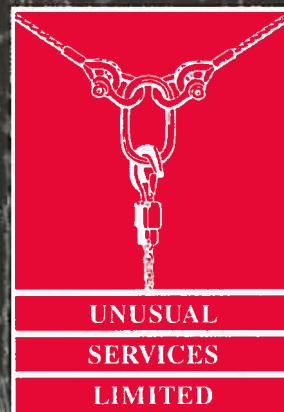
On the video front, six Sony Jumbotron screens placed strategically around the park ensured that those in the crush at the back didn't miss out on the main action. This was the largest number of Jumbotron screens that have ever been assembled for a single event. They were installed by ScreenCo as part of the stage set designed by Jonathan Park. Four screens were used on the stage: two at the back which were raised or lowered according to need, and two fixed either side. A further two were positioned alongside the Serpentine. One of these was later de-rigged and



The event was broadcast worldwide by the BBC who covered the entire VE Day Celebrations, from beginning to end.

**TO ALL WHO
WORKED WITH
US ON VE DAY...**

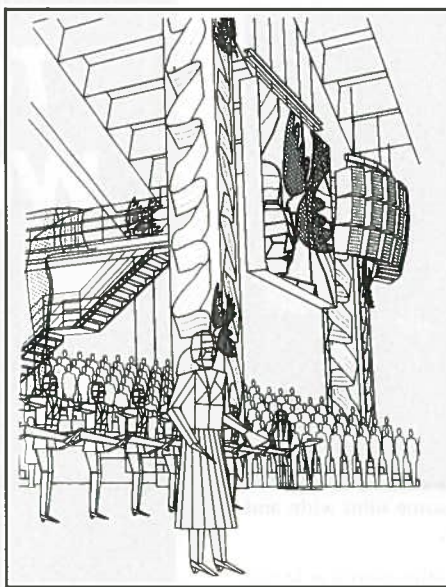
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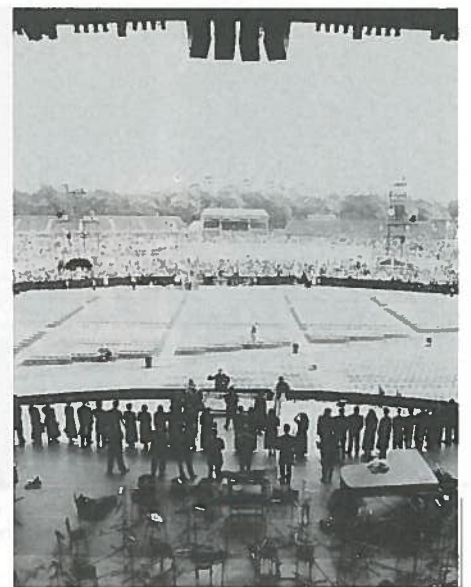
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The stadium-sized Turbosound rig.



Park's CAD close-up of Dame Vera Lynn(!) in front of the Sony screen and Flashlight cluster.



Looking out from the main stage across the vast expanses of the arena to the Royal Box.

used in the main arena to relay the finale - 'A Cavalcade of the British Musical - A Night of 100 Stars'. The video feeds for the screens were provided by ScreenCo's sister company Creative Technology and the BBC, with microwave links laid on by British Telecom. Additional facilities provided by CT included 12 27" Sony display monitors and a videowall in the Veterans Centre, plus a further 14 monitors in the Royal Box and 12 Sony 29" monitors for backstage relay.

Britannia Row, under the steady hand of Chris Hey, provided the sound system for the Main Stage and, as was typical with this event, a host of equipment for other parts of the exhibition. The Main Stage had a full stadium-sized rig of 48 stacks of Turbosound Flashlight with clusters of 24 TFS-780s flown left and right, with a centre cluster of eight further high boxes. Bass was provided by stacks of 24 TFS-780Ls each side. A trio of Midas XL3s were on stage for monitors and four Yamaha PM4000 desks were used out front. A total of 192 channels were all actively split to feed the BBC who broadcast the concerts live. The overall sound design was by Imagination's John Del Nero, aided by a small platoon of sound engineers - Roger Lindsay, Hugh Richards and Richard Sharret, with Alan Bradshaw and Rick Pope on monitors. It was not so much the bill-topping performers that justified the need for so much equipment (not that Cliff Richard, Elaine Page and Dame Vera Lynn are to be underestimated) but rather the 2,000 odd chorists and musicians who backed them. Delay towers

spaced around the different 'arenas' used a total of 24 Turbosound TMS-3s to deliver the concerts to the crowd.

Not surprisingly, Brit Row's store of microphones was augmented by a horde of Neumanns, Shelds, 2084s and many more from other sources. Technically, with such a big site, one of the thorniest problems was presented by the PA often being quite some distance from the performing area. In two locations, at the Globe (where the Heads of State were entertained) and at the VIP stage, the PA was 100 metres and 200 metres behind each stage respectively. Artists performed to playback tapes in real time through the monitor system on each stage, and Brit Row synchronised this to the PA so that the viewing audience heard what they appeared to see on stage. Similarly, the BBC lined things up time-wise for the TV broadcast.

Edwin Shirley managed to completely empty their yard of Quick Form for this show - no mean achievement in May (barely the start of the outdoor season for Europe) and they have no rock and roll tours currently out. The biggest chunk of equipment was for the Main Stage, but it was the nine delay towers, 60 information towers, and 30 entrance gates, as well as disabled platforms and the Heads of State stage that really soaked up the 30 truck loads of steel on site.

The Main Stage was claimed to be the largest fully-enclosed temporary stage ever assembled (though ES's project manager Tim Norman is wary of such assertions: "They are prone to over use," he said). Nevertheless, the major

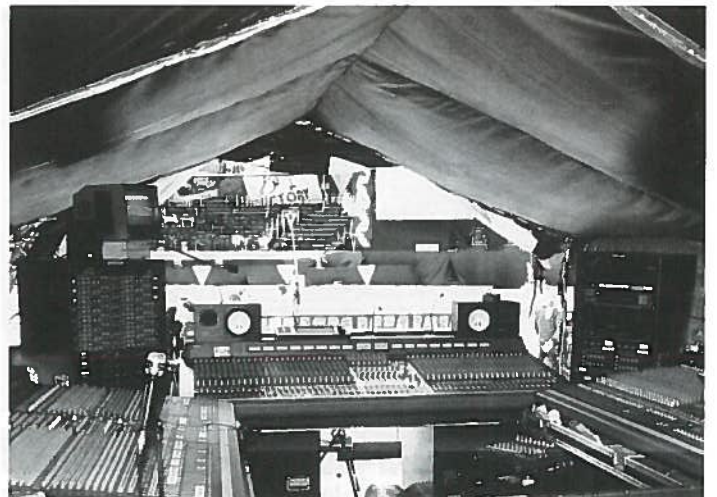
performance area, flanked by large wings was no postage stamp. Both PA arrays and Jumbotron video screens were flown from each side of the roof directly above the wing area, freeing the wings for performers: a total suspension of eight and a half tons per side, and all hung from a cantilever, as their respective positions are downstage of the roof's most forward support tower. Certainly for Edwin Shirley's splendid new tower supported roofing structure, this is their biggest span yet.

Structural Design Associates were responsible for six of the main exhibition pavilions - namely the 1945 WWII exhibit, the Environment, the United Nations, the Communications and Technology, the Performing Arts, and the Relief Agencies pavilions. Each was themed, as their names suggest, and it was the role of SDA to provide the presentational coherence to each. The contents of the pavilions came from a host of sources, many of which were voluntary, and initially a generic collection of ideas loosely strung together.

This presented lead designer Bill Harkin with a variety of headaches, chiefly the late arrival of much of the content, its nebulous quality, and the bringing together of a collection of ideas under what was a loosely formed brief. For example, the 1945 WWII pavilion was displayed as a walk-through experience, and exhibits included a sand-bagged fortified entrance, a London street scene, an air-raid shelter from the Blitz (here a line 200 feet long of 1,000 2kW Silhouette profile spots and



Part of the video screen specification, ready to assemble.



Three Yamaha PM4000 desks used front-of-house.

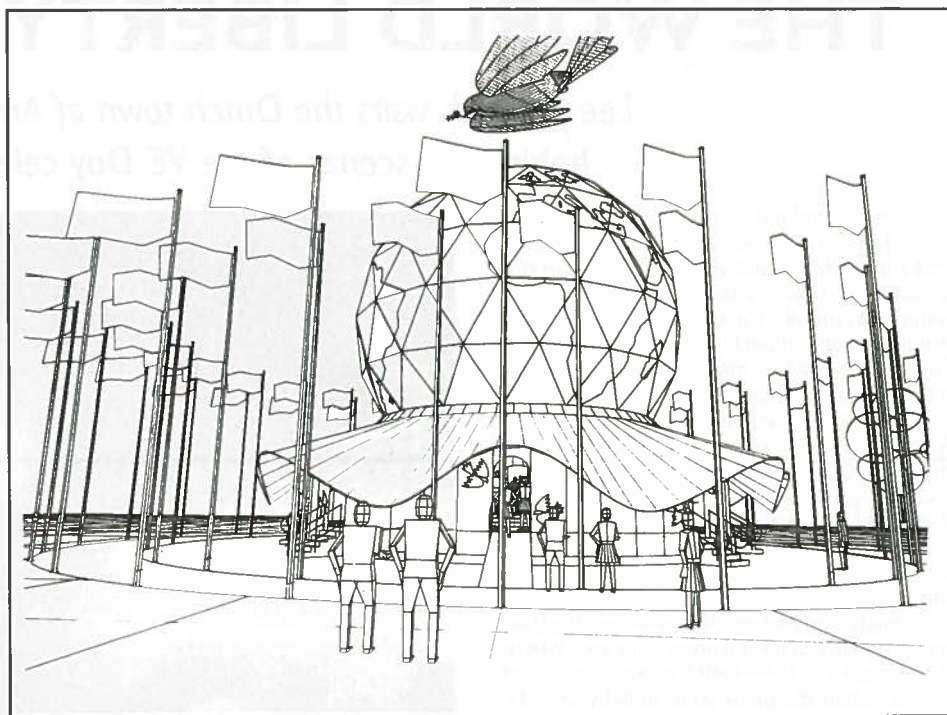
Starlite Fresnels from CCT lit the shelter), the Battle of the Atlantic, the Italy landings, and a Street Party celebrating victory. Although easy to link in an historical frame by time, bringing them to life and making them relevant was not so straightforward, as Bill explained: "The pressure was to be fast moving and informative. We anticipated 300,000+ visitors to the Park each day and we had to plan for all of them to want to visit each pavilion. To pass through the 1945 display we allowed one-and-a-half minutes at each part of the walk through." Each scene featured static displays on the walls, projected high resolution graphics (courtesy of 10 projectors kindly lent by Hasselblad) and live actors in costume. The actors came from local amateur drama groups, clubs and semi professionals, with the costumes begged, borrowed and stolen, as were the props, from private collectors, prop houses and museums, as well as the more usual TV and Theatre suppliers.

No feature of this event would be complete without further mention of one of its more flamboyant characters, Jonathan Park. His realisation of the Globe (from Major Parker's initial concept as a focal point for the event and central symbol of peace), provided one important challenge for his talents. The frame of the structure itself was based upon a geodetic dome (an off-the-shelf unit from Impact Structures) which was enlarged southward as it were, to create a three-quarter, flat bottomed globe. To give a reasonable rendition of the world Jonathan was obliged to shift Australia and New Zealand North and to re-draw much of the Northern Hemisphere to make it visible to viewers at ground level. Let's hope his ambitions for re-drawing the world map end here!

Scena were the main contractors for some of the more unusual constructions on site, most notably the Park-designed Globe. Scena's engineering department, led by Bob Jordan, built the 15 metre diameter globe's surface decor, providing the lattice framework for the floral exterior decoration, as well as most of the interior work: namely a dove of peace with a four-metre wing span rendered in neon, and Park's new interpretation of the map of the world and the raised dais which it rests upon. This was surrounded by 56 'olive leaves' of peace signed by the visiting Heads of State. Visitors to the globe were able to walk through and view a night sky scene within, an accurate depiction of the sky over Britain reproduced by a custom-made star cloth by Blackout drapes.

Around the globe were 56 flag poles representing the attending nations, whilst, above, the globe was surmounted by another, much larger dove, 1.5 tons in weight with a 10m wingspan, constructed from tube and expanded mesh and designed by Jonathan's daughter, Clare Park. In the words of Scena's project manager David Thompson the dove was "The most challenging thing to produce. The making of it has proved quite stressful." Part of the problem was Jonathan's original intention for the dove to rest upon the globe itself but this proved to be beyond the safe limits of the structure. It's not just Scena's engineering department that were involved, Alan Skidmore in the theatre scenic shop provided many of the elements for the WWII 1945 pavilion, most notably, the art work to the walls and interior decor.

Inevitably, with Scena's expertise in this department, they were also called upon to provide elements for many other areas - a cameo living room, bathroom and kitchen for the St John's Ambulance exhibit, and courtesy of Unusual Services, they were contracted



Beneath the globe, a green 'tu-tu' skirt enclosed an 18m diameter podium, whilst inside the surface was covered in a star map of the Northern hemisphere constructed by Blackout.

directly by the United Nations to fit out their exhibition. This latter may not sound significant until you discover that the UN flew in its own Expo' displays from offices in Copenhagen, Geneva and New York, barely 24 hours before the event commenced. Scena was responsible for delivering and installing these displays upon arrival.

Allied to the VE Celebrations in Hyde Park was a whole other production hung off the British Telecom Tower. Swathing the Tower in 2,530sq.m of white 'sticky back plastic' sounds like a Blue Peter parody, but Imagination persuaded its client to do just that for the culmination of the VE Day celebrations. Adhesive industrial vinyl was used to cover the glass windows within the main column, essential for maximising designer Steve Latham's lighting effects through the twilight.

As commemorative bonfires were lit across the country, the Queen fired a 40W Yag laser from Hyde Park to the top of the 620ft high BT Tower. Shellshock fireworks (over 18 shells per second and a total of 280 bursts during the 15-second display) set off the red, white and blue lighting sequence created by a combination of four lighting sites at the base of the Tower, vertical strips of arcline, and 16 Irideon AR500s (the first public outing for these Vari*Lite-based automated lights for the architectural market) situated on the body of the Tower itself.

The central core of the Tower was lit with a blue wash from the ground by 280 Par 64s, whilst the satellite station was illuminated in red from 20 floodlights, with the top tier of the Tower lit with a continuous red, white and blue sequence from the AR500s attached to the Tower itself. Four Sky-Arts, supplied by Theatre Projects, also provided a 'searchlight' effect, tracing paths through the night sky.

On the main column 18 strands of Mode Electronic's arcline created a strobe 'chase' effect. Each strand comprised 35 lengths of arcline, adding up to over 1200m in total. As a final touch, 24 Cyberlights projected moving images of the BT Piper. Control was split over two lighting desks, a 30-way Celco and a Wholehog. The Celco desk controlled the Par 64s, while the Hog controlled all moving lights. To control the lights at the top of the BT Tower,

three separate DMX cables were dropped down the outside of the building, each over 500m in length by the time it reached the last fitting.

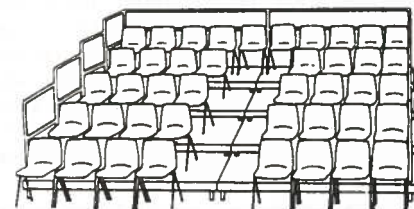
The logistics for this were obviously a major undertaking. Preparations began two weeks before VE Day with a team of four riggers working from 7am to 7pm to cover the Tower with the Arcline. Imagination's production manager Anton Jeffrey co-ordinated the build and the show itself, with Mike Halford responsible for the creative production link in Hyde Park. Steve Latham, meanwhile, spent three nights walking and driving round London looking at the Tower from every conceivable angle, with Richard Knight called in to programme the moving lights.

Many companies, too numerous to list here, were involved, and it's a testament to all the creative lighting and sound companies that the whole event went so well.

The main photographs to accompany this article were supplied by Jonathan Park and Julian Calverley.

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THE WORLD LIBERTY CONCERT

Lee Baldock visits the Dutch town of Arnhem to go behind the scenes of the VE Day celebrations

Arnhem, in Holland, is one of World War II's most famous battlegrounds. In September 1944, more than 2,000 allied troops died in and around the town, which was itself largely reduced to rubble. The famous bridge over the Rhine, later the subject of the film *A Bridge Too Far*, was finally lost after two bitter weeks of fighting and thousands of men were taken prisoner by the Germans. Last month, on the 50th anniversary of Victory in Europe, the bridge that now stands on the site became the focus for a celebration of the end of the war - the World Liberty Concert.

The scale of the celebrations, planned as a live television spectacular, was envisaged from the start as being very much on the large side. Amazingly, the end result was far *smaller* than had originally been intended. The area where the concert was to be held had been a wooded hollow when the plans were initially laid. To prepare the area for the show, the trees were removed, 200 truck-loads of sand were deposited to level the hollow and portable roll-up roads were laid by the Dutch army to allow access for vehicles.

The show was jointly produced by the Dutch TV company who were to broadcast it, and The Production Factory from Utrecht, who were featured in *L+SI* in January this year. The agenda for the celebration of World Liberty consisted of a rock concert with a line up that included Joe Cocker, Cyndi Lauper, Wet Wet Wet, Art Garfunkel (singing, of course, the very apt *Bridge Over Troubled Water*), UB40, John Farnham, Alan Parsons and Rene Froger (see *L+SI* January 1995), the Dutch superstar who began his career singing in Amsterdam bars, and is now famous enough to be named alongside Van Gogh and Cruyff. Accompanying these acts throughout the show an orchestra was positioned along the full length of the rear of the stage.

Aside from this, and by *aside* I mean that few of the 75,000 people watching the stage performance could actually see much else of the total spectacle, aimed as it was at a television audience of 700 million people across 24 countries, was a lighting show of huge proportions, centred on the bridge and extending along a 300m stretch of the Rhine.

Lighting designer Ignace D'Haese, from Belgian design company Arf & Yes (see *L+SI* November 1994, January 1995), always had the television aspect of the event at the forefront of his mind during the design process. He told me: "The people here see the concert, and some of the lights, but basically the whole show is made for the television. This is why the area we have covered is so large - it's all a spectacle for the TV audience."



The lights are tested during rehearsals.



The bridge is crowned with pyrotechnic plumes during the finale of the concert.

Combined with the lights and the music, to awesome effect, were a series of military manoeuvres - processions of tanks, trucks and troops across the bridge, fly-bys from military aircraft, outboard motor boats zipping in formation about the river, a helicopter hovering low over the water and, perhaps most spectacularly of all, a plane load of paratroopers released high above the crowd and falling slowly to earth, with their allied-flag parachutes picked out by sweeping searchlights, while Cyndi Lauper was singing the words "... if you fall I will catch you ..." from the song *Time After Time*.

All of this was peppered with a generous helping of shocking pyro explosions and rounded off with a fireworks display, courtesy of Pyrotechnics company JNS, which drew even more *oohs* and *aahs* from the crowd than the paratroopers had done. All in all, this show took some extraordinary planning and coordination: the fact that everything went

perfectly says a great deal about the technical expertise of the crews involved.

Much of that expertise came from Flashlight of Utrecht, part-owners of the Production Factory, who had around 40 crew members working on the site at the peak of activity, headed by Michiel van der Zijde, Flashlight's man in charge of technical planning. Most of the lighting equipment too came from Flashlight, who also had several other large jobs running concurrently with the Arnhem show, demonstrating the scale of their total capabilities.

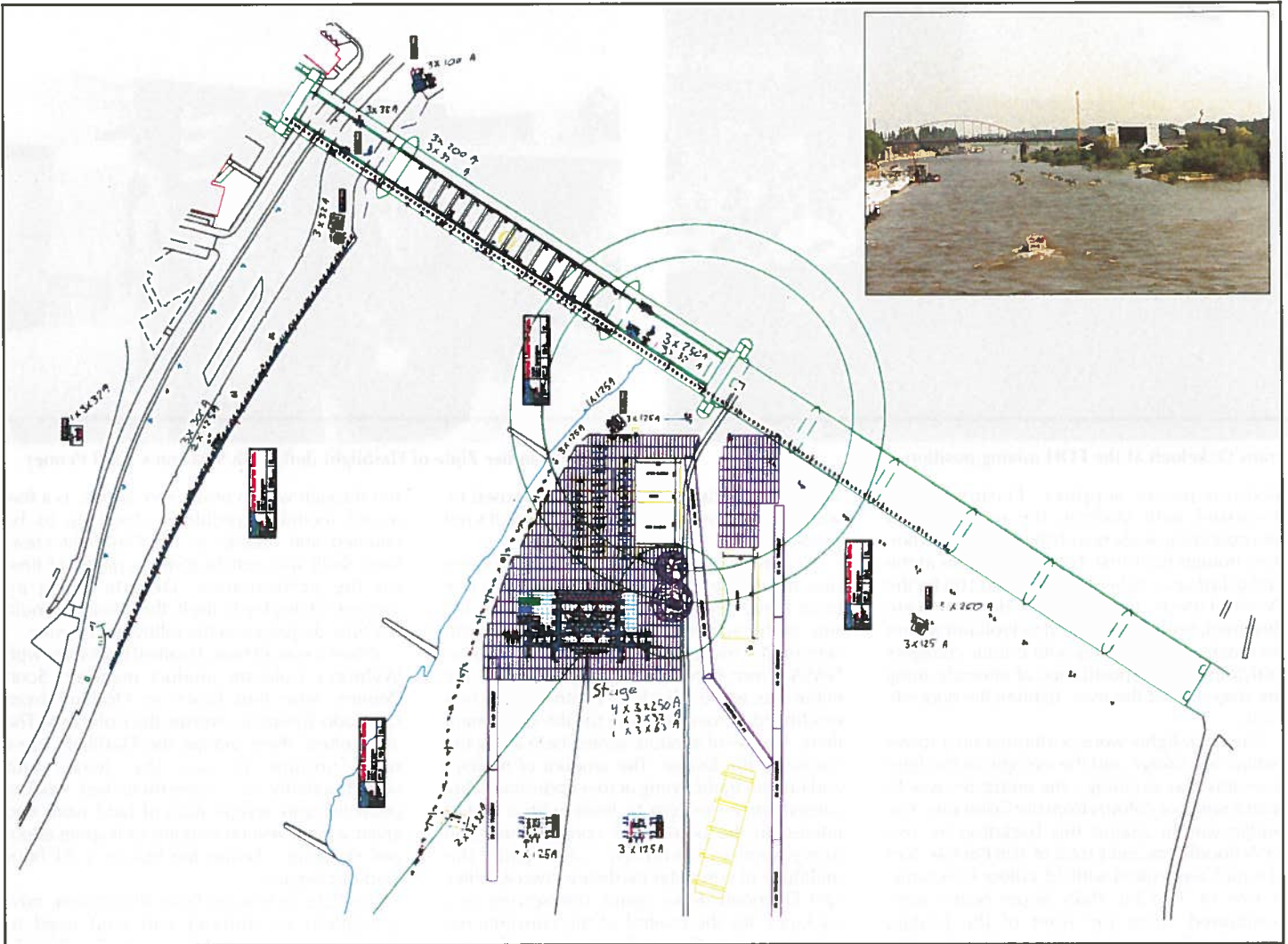
The stage itself is perhaps as good a place as any to begin a tour of the technicalities of this event. Built by StageCo, renowned for their work with the Rolling Stones and Pink Floyd last year, the stage consisted mainly of Slick and LSD trussing. Ignace's lighting featured 80 VL5s which provided a range of deep swirling washes from either side of stage - reds and ambers, blues and mauves - 21 VL2Cs, 12 of which were suspended beneath two 'eye' features that Ignace designed for the show. These consisted of an eye-shaped frame with central reflectors that sprayed out beams of



Fireworks erupt over the stage at the end of the show.



The stage with the backlit bridge behind.



Flashlight's plan drawing of the site demonstrates the size of the event. Inset: the site as seen from a bridge further up the Rhine.

light. The Vari*Lite's were operated by Alain Corthout on the Artisan desk, with a Mini Artisan as a back-up.

The stage-front was framed with 10 Intellabeams each side, 18 Molefays across the top and 16 DeSisti groundrow luminaires along the floor, while 28 Cyberlights were positioned above and behind the orchestra position. High along the back of the stage were 12 DHA Light Curtains, a product much favoured by Ignace. The stage rig also included a dozen six-bars of Par 64s, 16 5k Fresnels and four 1200W HMI followspots. Adding substance to all of this were two Jem heavy foggers and an F-100 smoke machine from High End Systems.

AmpCo were responsible for the PA, which was based around a 150kW Martin Audio F-2 system, with MX-4 crossovers also from Martin. The main rig was flown from AmpCo's custom-built master-grids, while for the delay positions Renkus Heinz CE-3 speakers were used, all of which were run through Crest Audio 7001 and 8001 amplifiers. Mixing front of

house, Frans Ockeloen was using two Midas consoles - an XL3 and an XL2. Among the boxes of tricks in the extensive effects racks were several BSS Varicurve units, Klark Teknik DN 360 graphic equalisers and XTA RT1 spectrum analysers, plus additional aid from TC Electronics, Lexicon, Yamaha, Roland and Drawmer. Henny van Dorp of AmpCo, who showed me around the system, explained why so much equipment was necessary: "We have the set-up that we want, and then we have back-ups, so we are covered if something goes wrong. Some of the artistes have their own sound engineers, who want to mix differently, so for them, we have equipment which we can switch to, entirely separate from our own pre-set mixes."

Monitors were again from Martin - LE700 wedges and VRS 1000s for sidefills, controlled by a Ramsa WR-S840 console with another for back-up: Rene Froger was using Garwood's Radio Station in-ear monitoring system. A range of microphones were in use, including Shure SM57s and SM58s, Neumann KM140s and

TLM175s, ElectroVoice RE20s, Sennheiser MD 421s and 409s and AKG D112s.

Atop each of the two front of house towers were three Super Trouper spotlights from Strong. The audience were lit from the towers performances by 10 six-bars of Par 64s. One level further down, projectors were trained on the white screens that hid the PA wings of the stage. From here, a live television broadcast, featuring footage of Operation Market Garden and the story of Arnhem's fate during the war, was shown, interspersed with live footage of the concert, as well as views of the bridge and surrounding area that were being seen by live audiences across Europe.

The bridge itself was back-lit by 24 Arena Visions with Wybron Coloram scrollers, which were equipped with two newly-developed innovations from Wybron: douser units and an Intelligent Diagnostic System (IDS). The douser units, which were developed especially for the Arnhem event, can be used either with the colour changers or independently and can be run from existing



The bridge's backlight tower: 24 Arena Visions with Wybron Colorams and doublers.



The Arena Visions on the tower and on the riverbank in action during the show.



Wybron's Scott Penner with two of the Colorams positioned on the bank of the Rhine.



Frans Ockeloen at the FOH mixing position.

Wybron power supplies. Flashlight had discussed with Wybron the possibility of incorporating dousers with the Colorams when they bought their first Autopilot system at the end of last year. When they ordered 100 for the World Liberty Concert, the dousers were designed, built and shipped to Holland within six weeks. More Arenas with colour changers and dousers were positioned at intervals along the stage side of the river, lighting the opposite bank.

The back-lights were positioned on a tower behind the bridge and the strength of the light from this was stunning - the entire sky was lit with a range of colours from the Colorams. The bridge was lit against this backdrop by 150 1kW floodlights and a total of 108 Par 64s, half of which were fitted with 32-colour Colorams. A row of 15 Clay Paky Super Scans were positioned along the front of the bridge, projecting beams of light forward and up the river. Three 50m towers, one positioned behind the stage with the others at either end of the bridge, were mounted with 30W Argon lasers from Laser Promotions, operated remotely from the control centre via a single cable, as well as Lightning Strikes and further Arena Visions with dousers.

Across the river from the stage, six water cannons threw a screen of spray into the air, onto which eight 1500W Xenon Multibeams were projected: underneath this deluge, on the very edge of the river and surprisingly

unaffected by the water they were exposed to, were a single row of 576 Par 64s, and that's not a misprint.

All of this - a total of five mega watts of power over the whole site - was controlled from one main nerve centre, a raised portacabin to the side of the audience area near the river, with seemingly more computer hardware than NASA. From here ran the DMX lines for the entire site, while a back-up control centre was positioned across the river for the equipment there, in case of a failure somewhere along the course of the bridge. The amount of military and human traffic going across understandably caused some concern to those with a vested interest in the power and control lines. The nerve centre contained - alongside the multitude of computer hardware - two Avolites QM Diamond desks (again, one serving as a back-up), for the control of the conventional lighting and a Compulite Animator for the intelligent lighting.

The show was given a full run-through the day before VE Day, complete with music, most of the performers (it was a rare treat to watch the likes of Art Garfunkel and Joe Cocker having a spot of practice), lights and military manoeuvres. One outstanding moment was the arrival of a fast and low-flying prop-driven aircraft that screamed over the stage at the exact moment that the last note of a song was played. The timing involved in this little cue was nothing less than extraordinary. The

run-through was to prove very useful, as a few minor technical problems stood up to be counted and, thanks to the Flashlight crew, were dealt with satisfactorily in plenty of time for the performance. Despite being an impressive display in itself, the rehearsal could not fully do justice to the following evening.

When it was all over, I walked backstage with Wybron's Coloram product manager, Scott Penner, who had flown to Holland from Colorado Springs to oversee the Colorams. The atmosphere there among the Flashlight crew was jubilant to say the least, and undeniably so - everything had worked perfectly, and several days of hard work had given way to several minutes of leaping about and shouting - before the task of a 24 hour load-out began!

Vari*Lite technician Brian Richardson, now a resident of Holland and well used to Flashlight projects, told me why he thought they were so successful: "The thing about these guys is that they all know exactly what they're up to. They know how everything here works. If a piece of equipment - any piece of equipment - fails, I don't think there's any one of them who couldn't fix it without having to think too hard."

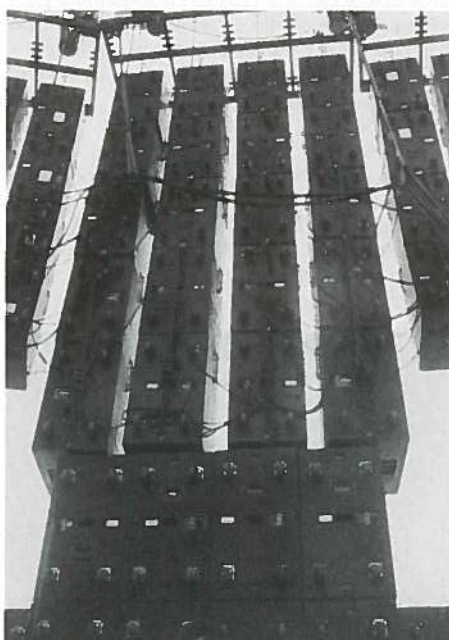
Finally, just in case anyone was worried, the trees that were removed from the site were, I am assured, replaced afterwards. Quite what they did with all that sand, though, I couldn't tell you.



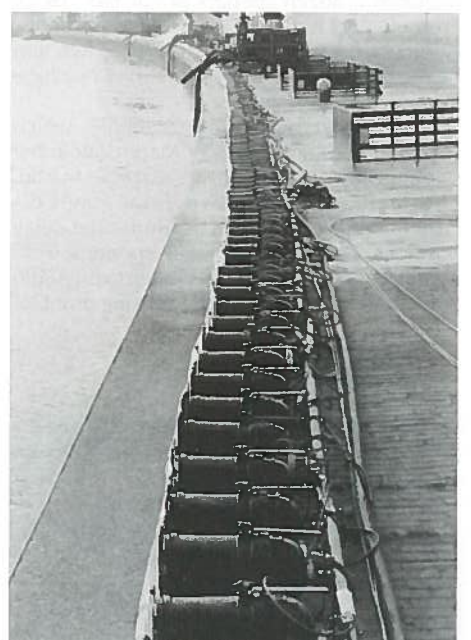
Michiel van der Zijde of Flashlight (left) with Wybron's Scott Penner.



Super Scans on the bridge at Arnhem, with one of the 50m tall towers in the background.



Part of the PA rig, stage right, featuring Martin Audio F-2 mid-high cabinets.



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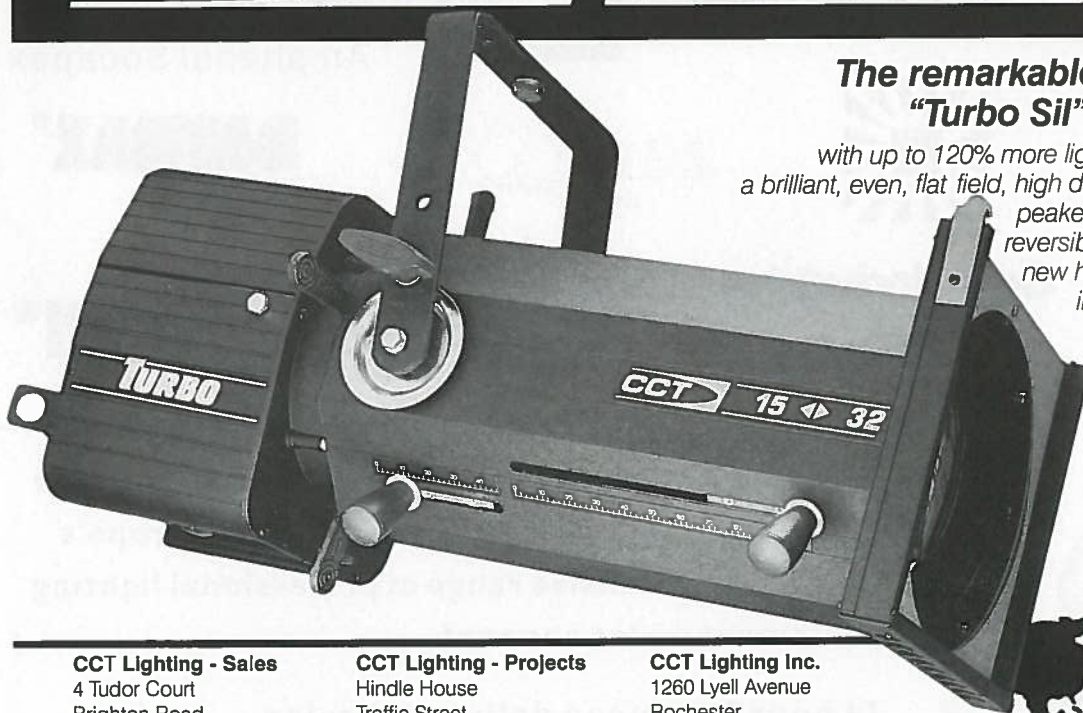
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EQUIPMENT NEWS

K3 for Theatre Sound



Soundcraft have introduced the K3 Theatre console, a professional eight bus live mixing desk which offers integrated mute scene setting and MIDI control over external equipment. With eight module options including five output configurations, the K3 Theatre is available in sizes from 16 to 48 inputs.

Semi-parametric EQ, discrete routing and in/output metering are incorporated to provide a high level of control. For foldback and effects systems, the K3's eight pre/post auxiliary outputs may be optionally fader-controlled with dedicated metering and output EQ or stereo returns. Using Soundcraft's 'C3' Console Control and Communications system, up to 128 scenes may be recorded, with in/output muting and MIDI programme changes. A linear DataFader allows the operator to benefit from real-time manipulation of external effects parameters.

The K3 Standard offers a wide choice of live music mixing facilities in the same compact frame. Standard and Theatre modules are interchangeable, allowing for future expansion.

For further information contact Soundcraft in Potters Bar, telephone (01707) 665000.

Crown's D-Amps



Crown has introduced the D-75A and D-45 power amplifiers, both 1U in size.

The D-75A is an update of the D-75, whilst the D-45 expands the versatility of the line and offers the same features as the D-75A at a lower power rating. Both feature detented front-panel controls. In addition, they offer barrier block outputs for solid, fail-safe connection and are backed by Crown's three year unconditional warranty.

The D-75A and D-45 feature Crown's IOC (Input/Output Comparator) indicator that provides an alert if distortion exceeds 0.05%. Each also incorporates Crown's advanced AB+B circuitry, assuring efficient operation and protecting against shorted, open mismatched or low impedance loads. The D-57A delivers an average power rating per channel of 40W into 8 ohms, and in bridged mode it offers 100W into 8 ohms (1kHz, 0.1% THD). The D-45 delivers 25W into 8 ohms, and in bridged mode supplies 70W into 8 ohms.

For details contact Fuzion in Walton-on-Thames, telephone (01932) 882222.

ESTA Tapeless Audio from Electrosonic

Electrosonic have introduced ESTA II, a new generation of tapeless audio products with a greater choice of multi-channel and control configurations, in a compact and flexible package.

The range of products includes stereo modules, four channel modules and a stereo playback module with integrated amplifier. Each module stores audio on a PCMCIA re-recordable flash memory card for simple handling and ease of use, with a range of sizes up to 64 Mbytes. Recording is carried out using the DES II audio editing package; and with MPEG audio compression, the use of valuable memory space is kept to a minimum.

Each replay module has eight control relays that can be programmed to respond at different times within a message. All replay modules can be synchronised to each other for the more complex multi-channel show, and with the use of an optional timecode control module, available in 1995, can also be slaved to EBU or SMPTE timecode to follow film and other mechanical sources.

ESTA II is easy to integrate into any control system, fitting in perfectly with the Electrosonic control architecture, or responding to videodisc player commands for use with other control products.

Further details are available from Electrosonic in Dartford, telephone (01322) 222211.

Strand Duo

Following the introduction last year of the new SuperNova dual wattage HMI Fresnels, Strand Lighting has launched the SuperQuasar 6000W HMI Parlight, featuring the new 6000W single-ended HMI lamp, which gives equivalent performance to an 18kW fresnel. Designed by Strand's local partner - Cinemills - SuperQuasar 60 has been developed to meet the needs of motion picture production.

Strand also launched a new 650W Fresnel at the recent NAB show in Las Vegas. The Bambino 650 is the latest addition to the company's range of Bambino compact fresnels which start at the 200W Mizar and go up to the 10kW Vega. Bambino 650 is designed around the largest lens in its class, and its compact size makes it suited to location work, while its performance will be invaluable in studios equipped with the latest CCD cameras.

For further details contact Strand in Isleworth, telephone 0181-560 3171.

Spirit Radio System

Spirit has introduced a new wireless mic and instrument system, available in three variants. All offer low cost, yet high audio fidelity, and are built to ensure reliability in all professional applications, according to the company.

Spirit wireless equipment is manufactured to official MPT1345 specifications, allowing legal operation in the UK without a licence and also offers true diversity operation for improved reception.

The range includes the Vocal Set - featuring a handheld dynamic mic with integral transmitter and aerial, the Guitar Set - with a belt-pack transmitter and jack cable for guitar or other instrument, and the Presenter Set - with belt-pack transmitter and a lavalier tie-clip microphone. All systems use the Spirit 01 true diversity receiver, containing two independent aerials and receiver circuits to minimise dropouts, and allowing complete freedom of movement within a range of 30 to 100m indoors, depending on conditions. Outdoors the system will transmit up to a maximum of 500m.

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

Event V3 Software

V3 software is now available for all Event and Event-Plus consoles. Any Event-Plus console can be upgraded by a simple pull-out, push-in Eprom swap taking 10 minutes. To upgrade Events the latest b1.5 CPU card must also be fitted. In addition to extra control channel capacity, V3 makes increased use of the Video Option to report back more information to the console operator, making Event an ideal choice for theatrical and TV-studio applications, say manufacturers Jands.

For further details contact A C Lighting in High Wycombe, telephone (01494) 446000.

Techies' Biancheri

Launched at the recent ABTT Show in London (see L+S, May 95), the Biancheri is an example of an innovative 'low tech' product in an increasingly 'high tech' world.

The Biancheri is essentially a wingbolt spanner, the design and construction of which makes tightening wingbolts easy, without stressing the wings, yet sufficiently tight for outrigging and over-rigging purposes. Undoing stubborn bolts, or bolts that have one wing already broken off, is also made simple and relatively effortless.

The metal head of the tool completely encloses the head of the bolt, protecting the user from sharp burrs, and preventing slipping. A slip-resistant grip covers a hollow handle, which can be extended if extra torque should be required.

For further details contact David McDade in London, telephone 0181-520 5572.

Furman C-128

Furman Sound Inc of Greenbrae, California, has released a new single-channel limiter/compressor designed for studio, sound reinforcement or concert applications.

The action of the C-128 can be varied from a compression ratio of 2:1 (gentle compression) to 50:1 (hard limiting). Attack time is adjustable from .05 to 50 milliseconds, while release time may be varied from 50 milliseconds to 1.1 seconds. A ten-segment LED meter indicates the amount of gain reduction. An input level control facilitates establishing a threshold for the onset of compression, while an output level control with up to 12dB of available gain enables the C-128's output to be restored to the system level.

For further information contact Furman in California, telephone +1 (415) 927 1255.

beyer's U600

The new U600 UHF wireless system from beyerdynamic features a synthesised true diversity receiver in a 1U half rack space format, enabling two receivers to be mounted side-by-side. Capable of operating 64 frequencies on one TV channel, grouped in four banks of 16 frequencies, the receiver includes an LCD display which enables the user to keep track of all parameters of transmitter and receiver, including channel and frequency, RF and audio output and low transmitter battery level.

For further information contact beyerdynamic in Lewes, telephone (01273) 479411.

New Lamps

A new development will be released onto the market by Philips Lighting this autumn. The TL5 is based on a thin fluorescent tube, only 16mm in diameter, and an electronic high-frequency ballast. Initial reactions from end-users, specifiers and manufacturers have been very positive, according to the company.

The new lamp will feature the benefits of Philips TLD Super 80 New Generation, including more uniform light output over lamp life, and an 80% lower mercury content.

Philips has also developed a new UHP (Ultra High Power) lamp system which, because of its extremely high light output, is expected to become a key component in fibre-optic lighting systems and LCD projectors for large-screen video and data display. A unique characteristic of the system is that at a relatively low power it produces a highly concentrated beam of light in an optical fibre, or through a small LCD panel. Another feature of the short-arc lamp system is the 8,000 hour life of the lamp.

For more details contact Philips Lighting in London, telephone 0181-665 6655.

Studio Style



British Harlequin plc has recently launched Television Tiles, an established product from their US subsidiary, American Harlequin Corporation.

Measuring a full 36"x36"x1/8" thick, the TV Tiles are, according to Harlequin, the largest vinyl tiles available in the world. They instantly lay flat and stay flat to transform a doubtful surface into a smooth studio base with almost imperceptible joints, on which the camera crew can roll vibration-sensitive dollies. Cut geometrically square to engineering standards, the tiles can be laid to cover large areas in minutes without running out of square.

Harlequin TV Tiles handle abuse by equipment, trolleys, scenery, lighting trusses and other hazards by resisting surface damage such as marking, pitting and scarring and tolerating extreme point loadings. After use, the TV Tiles can simply be picked up and stacked to take up very little storage space. The tiles are available in black and 60:40 tonal unpigmented grey.

For further details contact British Harlequin in Farningham, telephone Freefone (0800) 289932.

Fender Debut ELC

Fender has created a new line of European-built professional loudspeaker systems in co-operation with Celestion.

Fender engineers have developed systems components especially for the new ELC Series. The speakers are of trapezoidal shape, giving array flexibility for larger system applications.

For applications with reverberant acoustics, the ELC loudspeaker's controlled dispersion directs sound energy to the audience, reducing unwanted reverberant energy and improving sound quality.

Designed for touring use, the rugged ELC cabinets have a tough, metal protective grille, plus metal corners and a carrying handle.

For further details contact Arbiter in London, telephone 0181-202 1199.

BBM Headline

BBM Electronics has introduced a new range of Trantec headband microphones. The range, which is compatible with any one of Trantec's pocket receivers, includes the TS33 and TS44 headband microphones.

Top of the range is the TS44 water-resistant headband microphone. A key feature of these mics is the complete water-proofing of each unit to prevent damage from perspiration. The TS44 also features an adjustable microphone for correct positioning, as well as an adjustable headband.

The TS33 headband microphone is a lower cost unit and is designed for the less active user, such as presenters and demonstrators.

For further details contact BBM Electronics in Mitcham, telephone 0181-640 1225.

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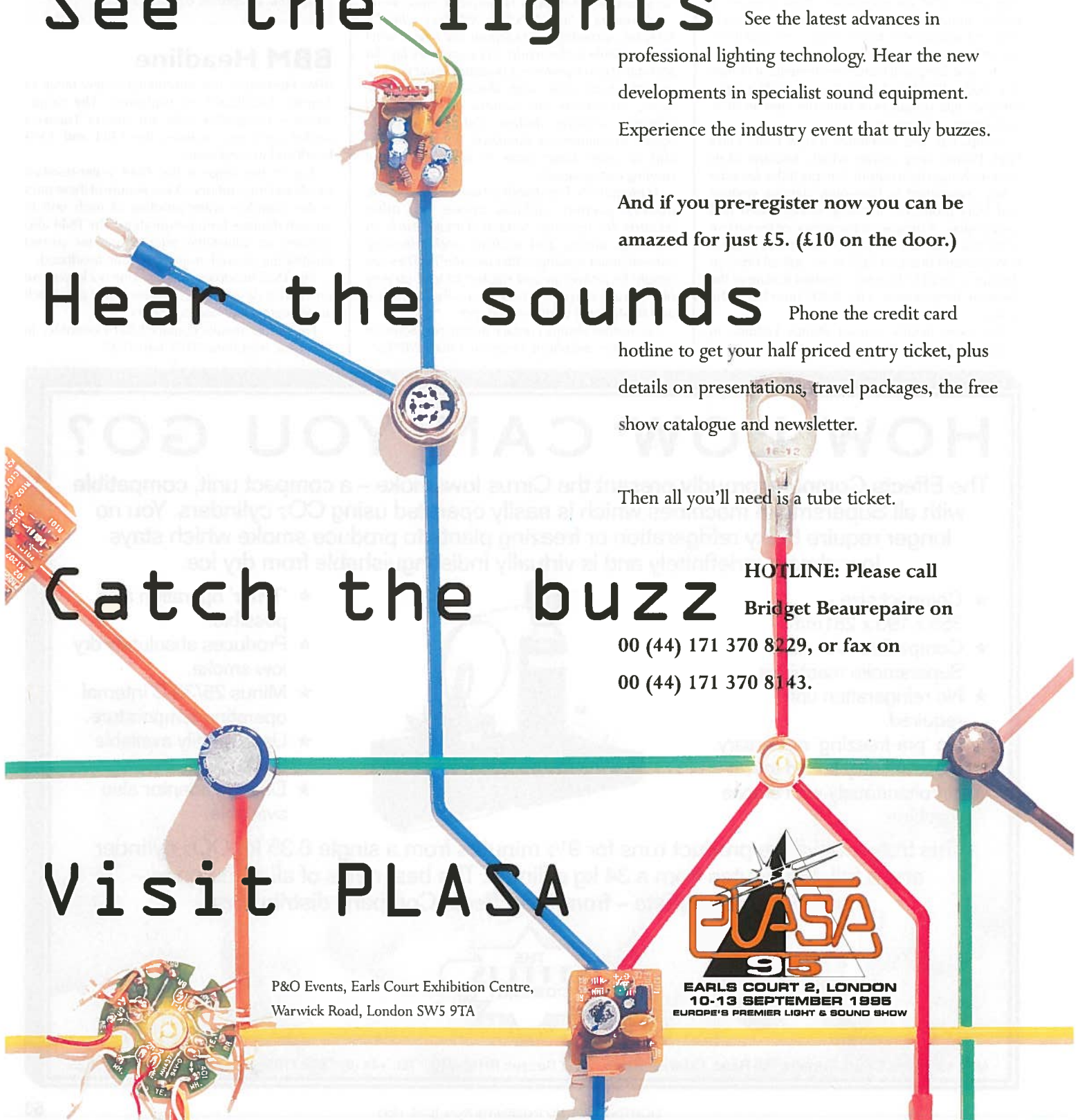
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RAVING AND DROOLING

Inside The New Amphi, Swindon: Mark Cunningham talks to the people behind the audio and lighting installation at Swindon's hottest new nightclub

Discos as we know them today were still in their infancy back in 1973, when Bill Reid opened The Brunel Rooms in Swindon and artistes such as The O'Jays and Detroit Spinners were essential to the DJ's repertoire. 22 years on, business is still booming with the addition of the venue's new club-within-a-club, The New Amphi, which has the town's nightbirds buzzing with its cult image and policy of enhancing its House playlist with the highest quality audio and light systems.

From the moment one passes through the brass door entrance, one is greeted with an almost absurd world of colour, with large expanses of purple, green and red, and even a mustard cash register at reception. Influenced by rebel architects, FAT (Fashion - Architecture - Taste), the alarming decor would make Philip Starck feel at home.

A key figure behind the technical development of this new club was Jerry Denning from Bristol-based audio hire and installation company, M32. In April 1994, M32 was booked by House night promoters, One Love, to provide an 8kW Turbosound rig at The Brunel Rooms as the resident sound system was, he says, "not quite up to the job". The success of the night was largely due to the quality of the hired system and it was obvious to the club's management that they should look at investing in similar equipment of their own.

Denning comments: "They invited me back to do a system demo on a commercial night which had a big impact on the crowd. The owners had noticed that the dance-floor hadn't been filled, but it changed dramatically when we put in a new sound system. Few people realise the quality of the sound, but it certainly has a subconscious effect that makes them want to dance. Consequently, we were asked to install our 8kW system and eventually took it up to 16kW. The value of the sound system in the main arena now exceeds £100,000. The crowd figures instantly doubled and a year on from that installation, I think the increase has risen to 300%. It's actually becoming a problem now!"

Bill Reid's attention quickly turned to the building of a downstairs satellite club, the 350-capacity New Amphi, with a £50,000 budget reserved for the sound system alone. "The atmosphere that they are trying to create in The New Amphi is similar to The Ministry Of Sound - a high quality sound base, with the DJ booth designed exactly the way that DJs want it," says Denning. "It has been built expressly with a dance club in mind, and therefore everything has to be right. The type of high volume music that is played here means that the emphasis is on frequency extremes, but the system copes very well with it.



Amidst The New Amphi's strange world of colour are four of Turbosound's ceiling-flown TFL-760H skeleton Floodlights in a custom-designed horizontal format.

"The first time I heard Turbosound was when I saw Level 42 at Glastonbury with a TMS-3 rig. I was immediately sold and I had to build a system which sounded just like that! All I knew was that the clean sound which appealed to me most was provided by the Turbosound system. It took me about a year to convince the bank manager to give me a considerable loan. I went out, bought my first hire rig and took it from there. We established a relationship with Turbosound as a result of our demos at The Brunel Rooms."

The New Amphi's audio installation

The New Amphi has the town's nightbirds buzzing with its cult image and policy of enhancing its House playlist with the highest quality audio and light systems.

comprises four TSW-718 bass enclosures and four ceiling-flown TFL-760H skeleton Floodlights in a custom-designed horizontal format. With some appropriate, contemporary dance music pumped through the system, I am allowed to judge for myself the efficacy of the bass bins. As expected, I can physically feel an impressive, rounded bottom end thud in my chest, although I am pleasantly surprised by the crisp clarity of response. (I wouldn't have minded listening to Led Zeppelin III on this system but, strangely, the DJ didn't have it in his collection).

Meanwhile, the mechanical design of the boxless TFL-760Hs is arranged to allow complete visibility of the horn flares and supporting metalwork. But Denning's choice was influenced by practical factors, not

cosmetic, as the speaker's modern, industrial appearance would suggest.

"The restraints of a low ceiling presented difficulties with the positioning of the loudspeakers," explained Denning. "Our first idea was to use TMS-5s, in which the horn arrangement allows you to fly the cabinet horizontally rather than vertically. That gave us the same advantages as using the Floodlight, but it was old technology and we wanted to move forward. Then we started to look at the vertical skeletal Floodlight. It was only later when we came down and inspected the club that we realised there would be air-conditioning ducts to consider, as well as various elements of lighting. If we were to fly below that with the Floodlight loudspeakers, we were going to hit upon a problem with the Environmental Health people, as well as dancers over six feet tall!

"That's when I discovered the split version of the skeletal Floodlight. I was told by

Turbosound that I could have the low/mid and mid/high as a split component, but the owners were worried that it would push up costs. It was possible to position them side by side, but they still had to fly from one point because of the complex arrangement in the roof. So Turbosound came back with a horizontal answer at an acceptable price. It's been a great success and we don't have a problem with head height, apart from a few places where we would have experienced difficulty with any speaker arrangement, and we have covered those with discreet foam barriers."

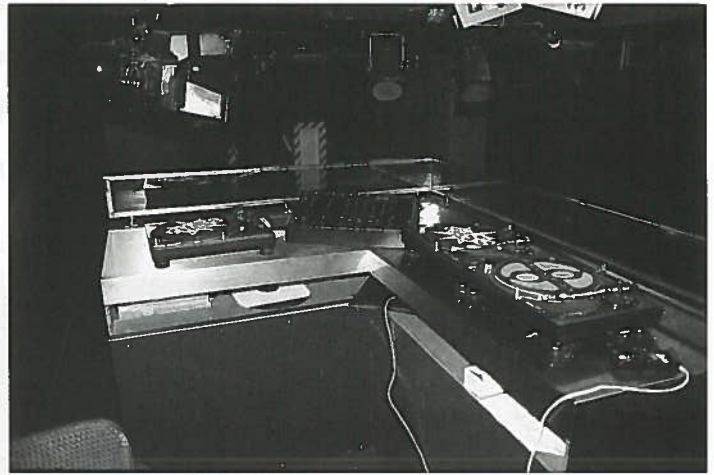
With long cable runs, Denning and M32 electrical engineer, Lee McGill noted a requirement for a high strand, oxygen-free cable. A new 2.5mm, rubber-insulated cable type was sourced from LMC and Denning insists no expense was spared. "We even used 2.5mm cable for the TXD-100

satellite speakers which are only 100W RMS each. I think it is unusual for an installation company to go to the trouble of providing a three-zone delay in a club of this size. But we wanted everything to sound right in all areas, including the bar. It is always annoying to me whenever I go to the gents and I hear a slapback delay effect, but you won't experience that here! There are also TXD-100 speakers in the chill-out bar. They are not linked to the main system because they run separate jazz or soul music."

Recommended by Turbosound, M32 used a previously unfamiliar power amp supplier, Lab Gruppen, for the New Amphi installation. It was worth the risk, says Denning. "We ordered seven amps and found that they were a great improvement on the ones we'd used



Technical engineer Adrian Fisher (left) with Jerry Denning of M32.



Inside the DJ console.

previously. Their amps are comparatively lightweight and sound clinically clean. Being a switch mode power amplifier, I was a little concerned about the bottom end frequencies prior to our order, but I needn't have been because they sound fantastic."

In the Brunel Rooms' main arena, extra forced air cooling is used to regulate the temperature of the audio amp rack. The inherent noise associated with such a system, however, would have caused a dilemma in the much smaller New Amphi, especially as its amp rack is located in the club's office area.

But with a rack loaded with copious amounts of equipment - including SCV 231SPR, Rane ME15 and Peavey MIDI Autograph graphic equalisers, Turbosound LMS 660s and Lab Gruppen 1300C and 2000C power amps - Denning had to find a practical solution. "We were forced to put grilles in the sides of the rack and front cover. This allowed the whole thing to breathe while providing security."

Sub-bass feedback and DJs are not the best of friends - a relationship made worse when, as a result of the former, needles leap aimlessly from vinyl. This phenomenon was so annoying to Jerry Denning that he looked into a solution. "In my first design which went into operation upstairs in the Brunel Rooms' main arena, we used studding and springs which were reasonably adequate. But some of the bass and subs were still being transported through the deck and pick-up arm, then out through the speakers. It still wasn't as good as I thought it needed to be in The New Amphi. In the new club we have three stone plinths between the record decks and the concrete floor, which prevent any vibration being transmitted to the needle. There is a cosmetic surface around the outside of the console and a 3mm gap between that and the main working surface which eliminate the transference of feedback from the bass enclosures to the pick-up arms."

The console features a Motivator 2R monitor, three Technics decks equipped with Denning's favoured Stanton D680EM Mark II cartridges, and a Formula Sound PM-90 mixer. "I've spent the last five years trying to find a DJ mixer that DJs get on with, is reliable and doesn't overload when the DJs push it. Then I found the PM-90 which we first installed upstairs and was well-received by the users because it's simple and has all the quality that is required."

Although Jonathan Gottelier of Wynne Willson Gottelier was originally responsible for the Axon ShowCAD-controlled lighting design in The New Amphi, JL Contracting of Hitchin was nominated as sub-contractor for the lighting installation. Now in business for over 10 years and long-term associates of M32, JL's partners Adrian Fisher and Jonathan Carey also

worked alongside Jerry Denning on the main arena installation last year.

"The brief was to keep the lighting fairly simple," Fisher explained. "My background is in theatre and stage lighting, so I appreciated the mood and theme we had to create. We desperately tried to avoid the time-honoured concept of throwing a lot of devices into the roof and hope they would suffice. It is an incredibly difficult room to light and we did change a few things on the original design. I wanted to see some lighting from the floor, although it was impossible to do anything along the long stage, so we had to do what we could in terms of getting lighting beneath the stage. We have two Optikinetics strobes underneath the stage which may be primitive, but still very effective in transforming the area into the focal hot point of the room and bringing the DJ alive. That's important because DJs don't have much verbal contact with audiences these days, so what he or she plays has to speak volumes for them, just as the lighting has to speak volumes for the room."

"We didn't want to go over the top with the scanners. They're a very useful tool but they can't be applied to their best advantage here because the angles are very shallow. I like that in some ways because as a dancer on the floor you're actually looking into or away from an effect. The idea of having light coming very steep in most of the venues that I've seen doesn't seem to work, because the people on the dancefloor don't get the benefit of the effect. It was the same story with lasers in discos and high-tech venues. Unless the laser was at the right height and in a long route so that the angle was less, you weren't seeing the effect of it. It's very important that everything is in the right place."

Although TAS Mini Ultrascans are currently employed, Fisher is hoping to replace these

with Mini Ultrascan 2s. "I like the idea of using rotating gobos; it goes well with the House/Garage theme and adds a little more psychedelia to it. We're still looking at how the nights work and how the crowd responds to what we're doing. The music policy is not a problem and the lighting is developing slowly around it. It's a really different environment and we're learning all the time."

Above the dancefloor are two half mirror balls, a throwback to the seventies which makes Fisher grimace at their very mention. "They're going soon," he insists. "Pin spots destroyed any credibility mirror balls had because the light source colour temperature is wrong. Firstly, it's red and towards the orange end of the spectrum, it's a very weak 36W lamp, and vaguely focused in one direction. That's rendered useless when you put a 200W discharge luminaire in front of it."

In Fisher's and WWG's favour is their perfection of UV dimming, achieved without the usual starting problems associated with a discharge lamp of that kind. "We are using three ultra-violet red batons which were specified by Jonathan Gottelier and work incredibly well. The good thing about UV flashing is that you don't see the source but you see the effect. If anybody is wearing anything which vaguely fluoresces, they glow. In a chase sequence, it is particularly effective."

Despite such effects, Fisher believes that the human atmosphere-driven New Amphi could survive without a lighting design. "By 11pm, when I've been operating the lighting here, it has often been advantageous to leave the lighting off and just have spots scattering fine stabs of coloured light in the four corners of the room. It's ironic that just when you think people want outlandish lighting effects as a matter of course, you find that they are more than happy with the simple approach."



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LEGAL PUBLICATION

By the judgement of February 20, 1995, the Tribunal de Grande Instance
(High Court) of Strasbourg (France):

- found that SARL NOVALIGHT filed on July 21 1992 the trade mark JEM registered under no: 92 427 930 in fraud of the rights of JEM SMOKE MACHINE CO LTD;
- accepted the claim of ownership of the said trade mark made by JEM SMOKE MACHINE CO LTD and ordered the transfer of the same to that company;
- ordered SARL NOVALIGHT to pay JEM SMOKE MACHINE CO LTD the sum of one hundred and fifty thousand French francs (150 000FF) as damages for the fraudulent filing of the trade mark;
- authorised JEM SMOKE MACHINE CO LTD to publish relevant abstracts of the judgement in 3 newspapers or magazines as they think fit at the cost of SARL NOVALIGHT up to fifteen thousand French francs (15 000 FF);
- ordered SARL NOVALIGHT to pay JEM SMOKE MACHINE CO LTD the sum of fifteen thousand French francs (15 000 FF) for the cost of the proceedings ;
- ordered the enforcement of the judgement notwithstanding appeal as regards the transfer of the ownership of the trade mark and the publication of the judgement.

PUBLICATION JUDICIAIRE

Par jugement en date du 02/02/1995 le Tribunal de Grande Instance
de STRASBOURG a

- dit que la SARL NOVALIGHT a déposé le 21/07/1992 la marque JEM enregistrée sous le numéro 92/427 930 en fraude des droits de la société JEM SMOKE MACHINE CO. LTD;
- déclaré la société JEM SMOKE MACHINE CO. LTD en conséquence fondée à réclamer la propriété de cette marque et à ordonné son transfert au profit de cette dernière;
- condamné la SARL NOVALIGHT à payer à la demanderesse la somme de cent cinquante mille francs (150 000 FF) à titre de dommages et intérêts en réparation du préjudice résultant du dépôt frauduleux de la marque;
- autorisé la société JEM SMOKE MACHINE CO. LTD à faire publier le jugement par extrait ou en son dispositif dans trois journaux ou magazines de son choix, aux frais de la SARL NOVALIGHT, sans que le coût global ne puisse excéder la somme de quinze mille francs (15 000 FF);
- condamné la SARL NOVALIGHT à payer à la société JEM SMOKE MACHINE LTD la somme de quinze mille francs (15 000 FF) en application de l'article 700 du NCPC;
- ordonné l'exécution provisoire de jugement limité au transfert de propriété de la marque et aux mesures de publication.

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SECOND TAKE

John Watt's View from beside the Camera

I guess one of the attractions of lighting for entertainment is its transient nature. Studios and theatres are designed for adaptable rigs, not only to allow the lighting designer full rein when positioning equipment, but also to allow them to put right all the mistakes in the original design, or to alter it as the show evolves. Elements of this freedom to change one's mind can also be built into location shoots, in the form of extra trusses, pipes or lamps, not to mention a truck parked down the street loaded with 'iffers' and 'maybes' - a belt and braces approach.



Perhaps it is this factor that separates us from lighting engineers whose training and skills enable them to plan a scheme entirely on the drawing board and be confident that the result will be right. Mind you, even the best-laid plans can go awry. Sitting in a hotel in Leeds last week over my eggs and bacon (you need energy for a 14 hour game show day - to hell with healthy eating fads; like the man said - "if I knew I was going to live this long I'd have taken better care of myself"), I noticed that the maintenance man had re-angled all the carefully-positioned wall washers to give a highly disturbing slash where the designer had intended a subtle lift to the £30 per roll wallpaper. But I digress.

I have recently been asked to advise on lighting some rugby pitches (and you thought what you were lighting wasn't exactly art?). Perhaps I shouldn't have been as surprised as I was that there's a whole world of know-how out there. Perhaps equally, I shouldn't have been surprised that 95% of it is to do with illumination and not picture making. I am not exactly the country's number one sports viewer, but I have noticed with some admiration the regular shadows on soccer pitches and have often thought that the guy with the light meter has done rather better than I do, even when all I have to do is to get one small studio area to 'takeover' from the next.

The designers of these installations usually have the lighting positions chosen for them, dictated as they are by everything from the geography of the ground to the local planning restrictions on mast height. Unfortunately for those of us concerned with TV coverage, a lot of calculations seem to be based on horizontal measurements, i.e. with the meter looking up. Thus, in general, a number of lighting units contribute to the reading, even though they may be 'back lights' from the camera's point of view. In fact, at the touchline of many football pitches there is virtually no frontal light at all. Once you start to specify vertical illumination levels (meter to camera or touch line), especially at the extremities, the rot definitely begins to set in - particularly on the cost front.

"... I am taking a sudden interest in seagulls as they make determined efforts to diffuse that clean, hard light source which is only due to be cleaned once a year."

Interestingly, some very sophisticated computer programmes exist to help out, starting with the specification and available lighting positions and then calculating the number of lamps, beam angles, mast heights etc. Then, with a gun-sight on each lamp and a graticule laid out by a surveyor on the pitch, it's an engineering process to get those four symmetrical shadows. The computer can not only calculate for the correct illuminance even when the 'glancing angle' (drop this phrase into your next training talk) is very acute, but also a glare factor (does it allow for the average age of the spectator, I wonder? the spots I get before my eyes when lamp-setting take longer to disappear as each year passes), and it also calculates illuminance gradients say at every five metre datum points, i.e. in my language, you can tolerate level changes and there are bound to be some hefty ones, providing they are gradual. Those players do shift don't they - a bit like the sparks at opening time - so a stop difference every few yards is not a good idea.

Like all lighting tasks, this one leads down unexpected paths, at least to a simple soul like me. Up till now my interest in ornithology has been limited - I'm a twitcher in other ways - but now, faced with 120 floods screwed to the tops of four 200ft masts, I am taking a sudden interest in the bodily functions of seagulls as they make determined efforts to diffuse that clean, hard light source which is only due to be cleaned once a year. The computer allows a few percent for the activities of our feathered friends, as it does for local pollution - Mr ICI's chemical plant upwind of the mast represents another few hundred pounds to a client on Teeside, compared with one in Wiltshire.

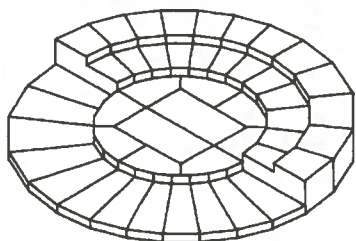
As I have said, none of this has much to do with lighting - it's more 'illumination', but almost accidentally a 'mast at each corner' approach can provide a decent amount of key and backlight which would be recognised by most television lighting designers. Unfortunately, as the trend progresses towards bigger and better stands for seated spectators, these long roofs provide a convenient site for lights, without the need for dedicated lighting towers. The lighting then becomes more of a wash than a point source, which in my view is a pity, but then I've lost a few Viddessence arguments and no doubt will lose a few of these on much the same grounds.

A couple of issues ago I outlined some misgivings about the structure and as I saw it the status of the Lighting Department at the BBC. I have since received a very thoughtful letter from Jim Hart, the head of operations there, which resulted in a very pleasant lunch with him and John Mersh, the manager of studio operations, who together are responsible for lighting in the Beeb.

I don't intend getting into the debate which ranges far and wide, but I guess it's fair to say I found them a concerned and thoughtful pair of managers and they found me a belligerent sod!

A good basis for further dialogue, maybe.

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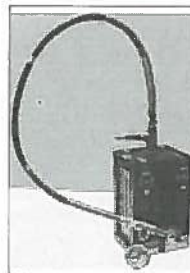
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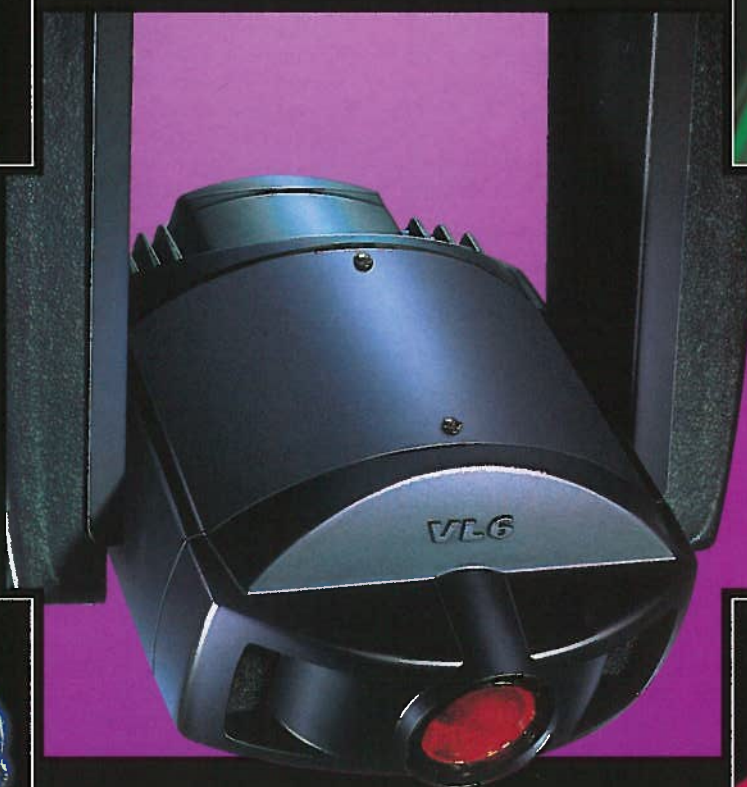
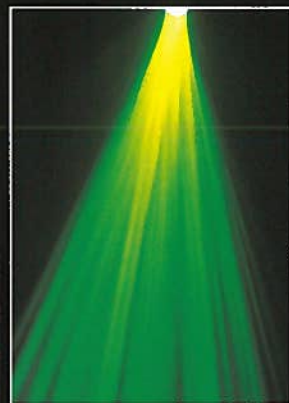
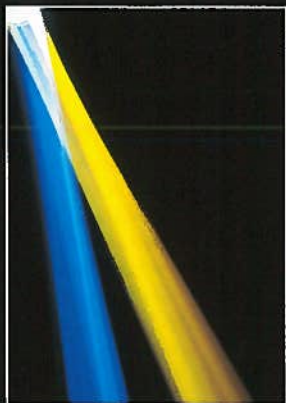


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THE FEEL-GOOD FACTOR

Graham Walne interviews Nicholas Thompson of RHWL
- one of the world's leading theatrical architectural practices

There are, I suggest, aspects of our life which are unlikely ever to reach the standard that we desire. Some years ago, for example, I recall a James Burke television documentary which concluded that the National Health Service could never enjoy sufficient subsidy for it to properly achieve what we require of it. Whether or not this is true, I submit that the same argument could be equally applied to subsidy for the arts.

One aspect of this, the popular theory goes, is the demise of theatre building, partially through the cessation of the Arts Council's 'Housing The Arts' project which successfully contributed to the building or refurbishing of many theatres in the sixties and seventies. Since then, the popular view is that we haven't built any new theatres and the West Yorkshire Playhouse is frequently referred to as the last regional theatre to be built this century. Under these circumstances one could be forgiven for thinking that theatre architects would be a gloomy lot, and it was this which led me to talk with Nick Thompson of RHWL (Renton, Howard, Wood, Levin), whose project list perhaps gives a lie to the supposed perilous health of theatre building.

The variety of that list in particular is notable, as Thompson agreed: "The range of our work has thrilled us, we've had different sizes of projects and an even spread between new and refurbishment work which is always an interesting challenge. We did have a period of perhaps too many restorations and not enough new building, but that's now swung the other way, which is most stimulating."

So what does the RHWL practice actually do? "Entertainment buildings are about a quarter of our total work, but a number of the other



The transparent foyer with the solid form of the auditorium beyond at the new Manchester Concert Hall.

projects, such as city offices, shopping complexes and restaurants we get because people want a theatrical aspect to the design."

In particular, I asked Thompson for his perceptions of the health of the market and, unlike many armchair pundits, he at least should know: "Despite the gloom, there's been a considerable amount of theatre building over the last 30 years, and even today there's still quite a reasonable level of disposable income. People have more free time and are willing to spend more and more on having a good evening out. In the past it was very much that you just went to a show - now people expect much more. They want an auditorium which feels good and is well ventilated - particularly true of the regional touring theatres which are more successful today than when we began. We're also doing more work in small ways with West End managements. This is really a challenge because the sites are so restricted, and they don't spend much money! But we are

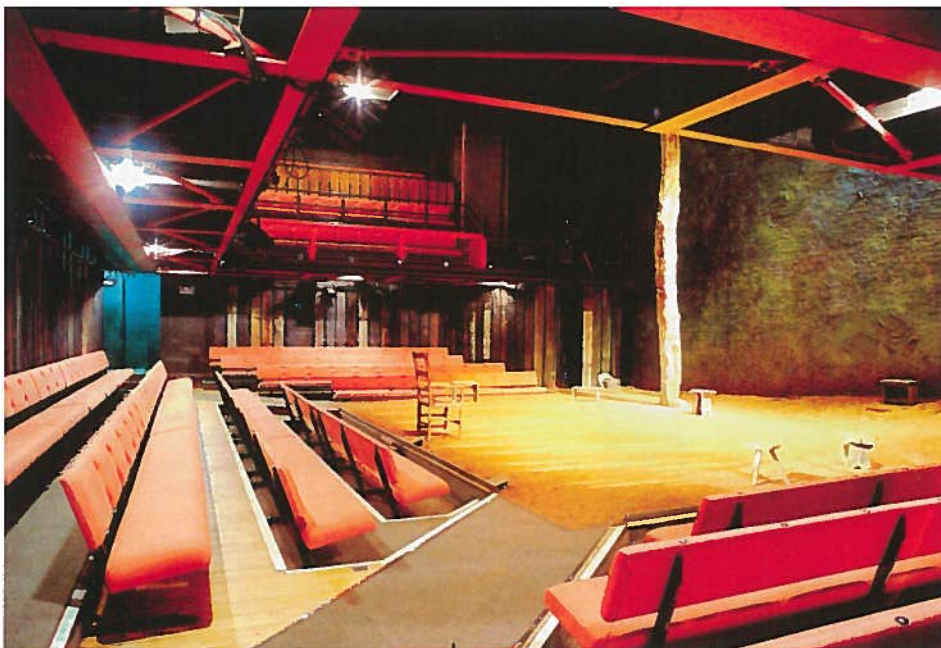
helping to improve life for both audiences and managements, for example, by putting in more seats and improving sightlines."

So is theatre architecture today less about just bricks and mortar than ever? "We're commercial about understanding clients' requirements, and the regions have taught us a lot about economics. A considerable part of our current work is consultancy. We have a separate small group integrated within RHWL, called RHWL Arts Consultancy with Jack Phipps, Lynn Burton and others. We're fascinated by aspects of management and how to make buildings function effectively, rather than being seen as architects in the very narrow field of designing auditoria."

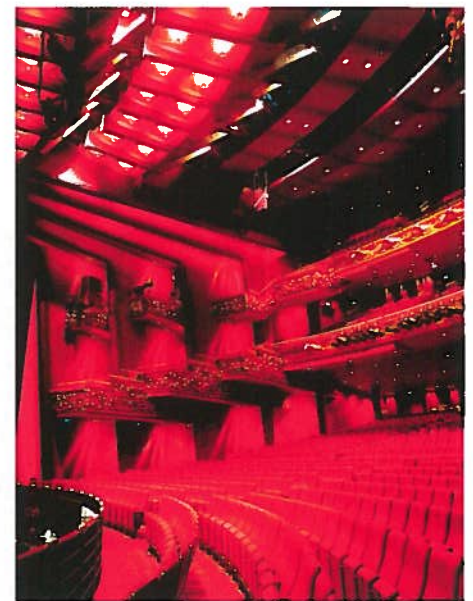
Any discussion about the economic health of the arts and its buildings cannot avoid the National Lottery and, as both a consultant to many projects, and one of the 200 or so assessors for the Arts sector, I have some knowledge of the hive of activity this has created. So where does RHWL fit into this?

"The Lottery is creating more work both large and small, and I hope the money goes back proportionately to the regions, otherwise it's immoral. Overall, it will enable people who thought they'd never do anything to suddenly have a go at obtaining unimaginable levels of cash to achieve their dreams."

Readers may not be aware that among the criteria for Arts Lottery applications are design competitions and in the light of the arguments over the Cardiff Bay Opera House Competition I asked Thompson what RHWL's views were on design competitions, notably for the Lottery. "Professionally it's quite difficult, with many of us being asked to provide studies and applications for virtually nothing. The whole



A 'Translations' auditorium floor dominates with inset bench seating at London's Donmar Warehouse.



In Stuttgart, RHWL's audience enclosure is created by stepped boxes, profiled walls, colour and lighting.

idea is proving unworkable - very few experienced practices are able to enter more than a couple of competitions properly each year, so the standard of results may become disappointing. Equally, we prefer not to be restricted by a competition brief, as designing buildings is an assessable art, not a definable one. In a strict brief, rules would apply and we want to be more inventive. Good buildings come about by talking: it's the fascinating conversations which make a project good, and we rarely find a client who doesn't want us to widen the original concept." So what's the answer? "It has been suggested by the chairman of the RIBA Competitions Committee that a competitive interview would be preferable to a pure competition, otherwise we would spend unreasonable time and money on competitions and we don't want to concentrate solely on the large jobs in any case."

This reply suggests that the architects have a large degree of freedom to develop an idea in any direction, and I'm not suggesting that RHWL, or anyone else, doesn't discharge professionally the responsibility which goes with such freedom. But, in order for theatre buildings to do what we want them to do, what parameters are usually present?

"Site selection and the role of the theatre within the urban context is critical because the audience must feel the growing sense of anticipation as they approach the building and get towards the first moment of the production. Likewise, it is important that the audience are left with the impression that this is a well run, interesting place and the management have to be as good as the production and the building. Our successful buildings have usually been the ones with a good management at all levels; the quality of people in the box office is extremely important. Good phone manner, reception, on the ball, everything ready; you expect that when you go to a hotel, why not a theatre? People must be made to want to come back, because it all works to create a great night out."

As with many aspects of our modern life, practitioners seem to need philosophies to be successful and even fashionable. One criticism of contemporary architects is that they are all philosophy and don't show enough concern for the people who have to work inside their buildings. Some famous cases are even proud of the friction their work causes, although I'm not sure I would go as far as placing them with child molesters on the social scale. Surely an effective philosophy needs not only a sense of direction, but also to be informed by past experience. How effective is RHWL's feedback?

"We go back to our older theatres (such as Sheffield Crucible and Warwick Arts Centre which we're upgrading at the moment) to learn from the building in use and see how the public



The Chicken Shed in Enfield: a steel framed auditoria contrasted with load-bearing brick supports.

attitude has changed and what their standards are now. The basic arts centre is not enough anymore; the black box and the municipal foyer are no longer adequate - but it's not red flock wallpaper that the public wants either."

This is encouraging, because it indicates that audiences are developing and that each generation doesn't necessarily want the buildings, and possibly the theatre, which its predecessors did. I asked Thompson if RHWL felt some sea changes: "Certainly our own design work is currently in an interesting period, partly because of the Millennium, partly through working with Martin McCullum and Cameron Mackintosh in Germany developing different ideas about the form and visual character of theatres. I think there have been very few visually successful auditoria since the Edwardian period, but success is concerned with good organisation of the audience in relation to the performer, not with the decorative treatment of the auditorium."

"At this point in time we feel we understand the relationship of the performer: Peacocks at Woking and the Donmar Warehouse, for example, are beginning to be accepted as very good auditoria. We're quite interested in developing what John Earl calls the new decorative tradition. In Germany, for example, we're using colour and texture in enormous barns of buildings which Cameron insisted that Clare Ferraby (RHWL's interior consultant) and I redesign before he would let his show be put on. We're developing new concepts with the lighting design partnership, Graham Phoenix."

The problems of modern theatre decoration are not new and ABTT members may recall Rod Ham many years ago explaining that modern theatre architecture did not enjoy the same

vocabulary as did earlier examples. His use of the word 'vocabulary' seemed to me particularly apposite in this situation since it carried with it all the appropriate meaning of articulation, range and relevance. Architects must surely also be somewhat constrained by theatre buildings' vast history and the dilemma of trying to find something genuinely new, whilst not rejecting the past simply because it is in the past. Thompson explained how RHWL had solved this particular difficulty.

"In Germany the auditoria are lined with gauzes (in metal) so that the whole spirit echoes the Victorian theatre in which the sense of space was governed by the tier fronts and the lit faces. We want to achieve this magic again, but not with cherubs and rosebuds. I am interested in creating an auditorium which can change with types of productions, presenting an apparent colour, apparent dimensions, but which becomes a changing experience."

"We're looking to see how we can fuse the production into the space it's taking place in, so that actors are the dominant element as a whole." A flexible space then? "I do think that flexibility should only be offered where it's essential, rather than following trends; it must provide value for money in programming potential rather than catering for possible artistic whims. The Anvil in Basingstoke was conceived to meet a demand for symphonic music in North Hampshire, but that amounted to only 25 concerts per annum, therefore its flexibility was developed to meet a range of other compatible uses."

OK, but this isn't especially radical and I sensed, even through the clear and enthusiastic vision, still a frustration that more could be developed. "I would like to be more radical in the next phase of our work - we've not really tackled accessibility yet in this country. I want to make it easier for people to come and go to performances, perhaps to have a glimpse of a production rather than to stay for the whole, and we're developing a concept on these lines in Glasgow for the Millennium. It will be a new form of performance space with enormously changing capacities, coupled with electronic images and sound."

Watch this space then. Certainly for my part, whilst all theatres have their technical niggles, I have enjoyed lighting in many buildings designed by RHWL and have felt that both new and refurbished ones did have an identity of their own, rather than a spring clean of an old theme. Thompson and his team are clearly excited and positive about the future, and since they are the experts, maybe we should be too.

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C l o t h s

ASLEEP IN THE STALLS

It's time to talk crystal balls. The Arts Council has stirred from its slumber and produced a Green Paper on Publicly Funded Drama in England, and we should be studying - and responding to - its implications if we want a say in how our jobs in theatre are to be secured for the future. Blessedly free, for an Arts Council document, of either waffle or jargon, the Green Paper is also readably short (36 pages), and while it doesn't solve the present crisis in theatre, it does go a good way towards defining it, even pointing to quite a few particular areas where solutions, or at least sensible improvements, might be found. It sets out, not a shopping list of grant requirements, but a series of points for open discussion from which enlightened funding requests and decisions can, hopefully, be made. Over the coming months there will be a series of public meetings and private responses to the document, and if the technical world wants to make its views heard this is our golden opportunity to stand up and shout.

The paper starts by defining a few principles, like the need for diversity, the need for wide access to drama and the acknowledgement that the funding system cannot escape making value judgements: "It cannot guarantee support for everyone who aspires to be an artist." Above all, "The future health of drama can only be assured by adequate investment in all the artistic, craft, technical and administrative skills it requires."

The arrival of 'national companies', the RNT and RSC, represents the biggest change in public funding policy of the last decades. Since 1985, they have accounted for around 50% of the total Arts Council drama hand-out. The paper asks whether the number of productions we get for this money is right, and seems to suggest that the RSC should consider less of a presence in London and perhaps more regional seasons on the model of their Newcastle residency. Another good question is how much these relatively wealthy companies should be offering in the way of training for all - their contribution to craft training for the profession is something we should certainly be asking about.

The central part of the paper is devoted to the central part of today's theatre crisis - building-based theatre in the regions. It points out that the existing outdated facilities are likely to be improved by lottery money: what goes on in the theatres remains a problem. The big houses are now much more than playhouses; they are educational and social centres playing a large part in the local community - or as large a part as diminishing funds will permit. The paper admits that morale is low and must be raised if these theatres are to properly fulfil their important role. Lack of cash has reduced permanent acting and technical staff, and wage levels for key people will have to be hiked to compete with TV and other lures. But there are warnings about the ruts into which contract employees can sink, and a suggestion that producing theatres, as with any other artistic activity, have life-cycles that shouldn't be artificially extended. One way of reviving regional fortunes without too much extra expense, the paper suggests, is more collaboration between them, like the initiatives we've seen recently from Leeds and Hammersmith, or Birmingham and Bristol. Shared productions with a longer life can set higher standards. It may mean fewer shows too - but could be balanced by more innovative work in the studios. The paper makes the sensible point that any such collaborative work will require a longer view, and talks of five-year plans - a little odd when even three-year planning has been swept quietly under the carpet by the Arts Council, or perhaps the Treasury.

The section on independent and touring theatre notes the decline in large-scale touring product (having pointed a possible way to finding more, in its recommendation of stronger regional theatre collaboration) - and implies that fewer regional productions will probably mean more middle-scale touring. There's tons of small-scale work about, but the paper accepts the damage that has been done by the huge cuts in project funding. It wants to see the small groups linked more to venues - and the number of under-used studio theatres certainly points that way. If you read my last column, you'll know that I'll be supporting another couple

of suggestions: that there should be more secure funding for small venues, and that those venues should network more.

Under the heading of 'Development', the paper talks about special needs, in Black and Asian Theatre, education, training, and in theatre for the young. The funding bodies must be involved here, not as 'shadow artistic directors', but in ensuring that artistes - and audiences - can grow. There's some positive thinking about technical training, too: "Theatre designers, musicians, lighting directors and technicians receive few opportunities that are more than 'on the job' training." The call is for theatres "to make more provision for training their own personnel and for being a resource for others, perhaps by agreeing to take lead roles in particular areas of training." Sabbaticals for senior personnel are another good notion - though the idea that some of those senior personnel should be encouraged to stay away afterwards is not put forward.

The Lottery gets a section of its own, and it's here that the funders do have a chance of achieving their more expensive aims if they can use creative thinking to extend the Lottery's remit. (I hope you all followed my advice on how to re-equip your theatre or recording studio through the Lottery - I gather there's enough money in the kitty to meet all present applications, unless you want to build a full-scale replica of Covent Garden in your own garden. If you do, why not talk to Jeremy Isaacs? He might be willing to sell you the bricks and mortar from the real thing). Surprisingly, the paper doesn't talk about endowments, which are the most cunning way to tack on some future support for your running costs when building your new Millennium Hall, but it does suggest that R&D

"R&D could cover all sorts of interesting activities, from building a new software suite to creating a performance that is not intended for an audience."

is a suitable area for capital, i.e. Lottery investment. And R&D could cover all sorts of interesting activities, from building a new software suite to creating a performance that is not intended for an audience - on this basis the NT Studio could say it's doing R&D . . . hmmm.

The final section, on Funding Strategy, looks at the crucial issue of what changes

there should be to the way our taxpayer money is being spent at present by the funding gurus. It's equivocal about what seems to me a very basic improvement, that cash for overheads should be separated from cash for artistic activity (aha, endowment again), but it does go on quite a lot about the need for priorities to be established and agreed. That's where a lot of the discussions will surely centre. A special concern of the paper is the idea of 'development funding' - money to make new things happen. The implication is that even companies getting a steady grant should be able to put in for extra, competing with the project-only companies, if they want to try something risky. A further implication, spelt out by the paper, is that to administer this more selective system the funders will have to know much more about what's new and good.

After all this gung-ho appetite-whetting and horizon-broadening, comes the reckoning. "If the new ways of operating are to revitalise the whole of English theatre, it is essential to find additional resources that enable pessimism to be replaced by positive and optimistic response to the opportunities identified. All the suggested changes to the funding system outlined will require substantial investment to make them work effectively." What if they're not found? There's the rub. A terse paragraph follows, which concludes that "funding would have to be withdrawn from some existing programmes."

It's great that the Green Paper hasn't come out as a 'backs-against-the-wall' list of what theatres should be cut to make do with standstill funding - we had enough panic about that when the last drama director tried to wipe out half the regional theatres - but I do hope the paper's authors have reason for their confidence in putting forward ideas that will inevitably cost a lot of public money. Their success in getting these ideas across - and getting them paid for - will make a lot of difference to the profession's perception of the Arts Council and the Regional Arts Boards, both of them recently reorganised and both having a lot to prove to us, their constituency. It says much for them that they are thinking positive. They have yet to prove that they can also act positive, and carry a bruised and sceptical theatre community along with their actions.

Ian Herbert

Ian Herbert is the editor and publisher of the critical journal, Theatre Record.



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FLASHLIGHT ON FILM

John Offord takes the editorial camera to Amsterdam

The saga continues: Flashlight of Utrecht expand again.

It may well prove wise for us to mark down on L+S's editorial calendar a regular slot to cover the activities of a company that keeps on growing and widening the scope of its operations. And with the capital of Dutch Television (NOB) behind it, coupled with the long-standing expertise of managing director Gerard Jongerius, who would doubt this show won't just run and run?

I first met Jongerius (following a tip-off from Cerebrum/Celco) in late 1986. They had an inkling something interesting was afoot in Holland, in the interests of good editorial, of course. "Go to the Escape discotheque in Amsterdam" - where they had quite naturally sold a Celco lighting console - "and meet up with the people from Flashlight who installed the board," they suggested.

The other interesting point about the visit and our coverage of it in December 1986 was that The Escape was the first venue to take moving mirror luminaires seriously - in the form of a full stage-wide line-up of the new Robots from Coemar of Italy.

Parallel with the growth of the waggly mirrors, and just as fast, but in no way connected, has been the growth of the Flashlight operation. The next highlight was fully reported in our July 1991 issue when the company opened its Central Studios in Utrecht with a splendid bash of a party and some equally meaty presentation and show technology.

Over the past few years the growth has continued and two further massive premises have been acquired on the same industrial estate on the outskirts of Utrecht, one taking care of sales, the other a huge rental and production facility. To illustrate the expertise that goes with all this, you only have to refer to



Flashlight managing director Gerard Jongerius (left) with film rental manager Allard Bouman and part of the new operation's vehicle line-up.

another feature in this issue: the World Liberty Concert in Arnhem on VE Day where Flashlight

"The Amsterdam office is only the beginning for Flashlight in the film lighting field. We expect to expand to other European cities soon."

were the lighting control and equipment providers.

Late last year Gerard Jongerius warned me there was another development in the offing. And when he put his hand on my shoulder at the recent Frankfurt Music Fair to say "there'll be something interesting in Amsterdam on April 21st" the mental diary took immediate note. So the latest bit of business to report involved a return trip to Amsterdam - for the official

opening of the company's new film lighting equipment rental centre, and a party, of course.

You will have figured by now that Jongerius is an inspirational character, but when I wanted to sit him down for a few minutes to note a few facts, it was Henk van der Lely (account manager for Flashlight Rental) he directed me to. "It was all his idea," he said.

"The company started in theatre, developed into rock and roll and then into television - but never film," said van der Lely. "We've always missed out on the last element. There was no culture in the business for this area, and despite the fact that we have a great deal of HMI and MSR lighting equipment in Utrecht there was no experience or the necessary gadgetry to go with it as far as the film sector was concerned.

"The original concept was formulated back in 1992 when we discussed the idea of



Henk van der Lely (right) with gaffer Daaf van der Veen and one of the fully equipped mobile film production support vehicles.



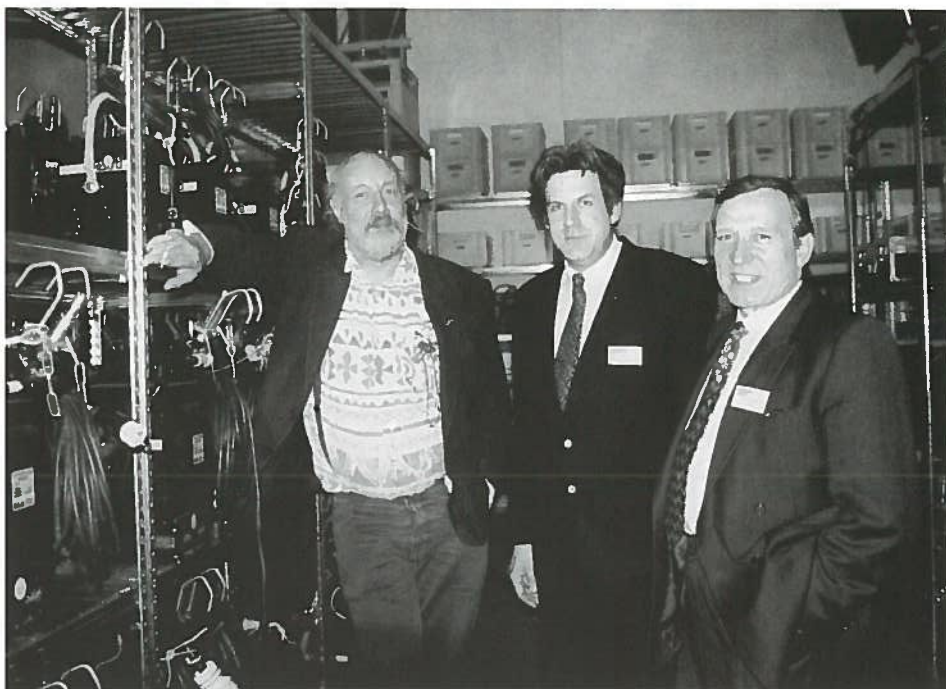
The opening night reception in progress.

equipping a truck for film lighting use so that we could widen our field of clients. It didn't fit the scheme of things at that time, but last autumn we received an enquiry from one of our regular clients who was due to work on a major documentary series which meant touring to various locations across Europe. They needed film lighting, so we began investing in the necessary equipment, even though we didn't understand all the items on the list! However, it provided an excellent reason for us to bring our original ideas forward again, and we put our plans for the equipping of a truck and trailer unit on the table for Gerard to consider. His comment was: 'We'll go for it!'

Things moved forward in a logical progression. Clients started to arrive. The trailer needed a garage. The equipment needed to be properly stored. Henk began to look around his native Amsterdam. Surprisingly, although Utrecht is only 30 minutes or so by road from Amsterdam, ninety per cent of the Dutch film industry is based in the capital, and that's where you have to be!

Luckily, Henk van der Lely came across a small business in the field who wanted to sell. "We bought the company and it also gave us the nucleus and the knowledge which we badly needed. By the start of this year we had the keys to the building and started to 'do it up'. We were very fortunate that the right kind of business started coming our way too."

So what have they got? Premises-wise, over 1,000 square metres of flat floor space with room for plenty of mezzanine if they need it, coupled with decent offices and a fair-sized meeting/social room for design work and discussion. Equipment-wise the stock is almost all DeSisti - the vast majority came from a single major order that must have sent the Italian



Flashlight's purchasing manager Fons de Vreede (centre) pictured in the new warehouse with Mario DeSisti (right) and NOB lighting designer Marcel Pruyt.

company's cash register into ecstasy mode.

"What we hope to achieve," said van der Lely "is to spread the disciplines and ideas we have passed on from theatre to rock and roll and television, on into the film industry."

Having committed the equivalent of just over £1m to this new project, Gerard Jongerius won't be running out of stories for us. "The Amsterdam office is only the beginning for Flashlight in the film lighting field. We expect to expand to other European cities soon," he

told me. With concert rental and production operations already expanded to include Germany, Flashlight obviously see the wider European perspective.

And right on cue, just as we were going to press, a call came through from Amsterdam to note that the new operation has earned its first spurs with the supply of all the lighting and rigging equipment for the 'Unplugged' video shoot of the new Rolling Stones video for MTV. Enough said.

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ATW-003

POINTS OF LAW

The third in a series of articles in which Alex Carter-Silk explains the law surrounding Trade Marks and their use

Limitations in the common law system of protection and distinctions between the unregistered and registered systems of protection which have been highlighted in previous articles, have been addressed by the 1994 Trades Marks Act (the Act). For those involved in the 'branding' of their products, there is no substitute for registration of the identifying marks as Trade Marks. The substantial extension to the system of registration given life by the Act has provided much greater scope, not only to obtain the extended protection afforded to a registered mark, but also to register features which hitherto have been excluded from registration. The failure to register a Mark may result in the loss of the right to use it in all, or some, of the European jurisdictions.

Having read the previous articles, the reader might be forgiven for losing interest, confirmed in the belief that the law was so uncertain and expensive as to offer no remedy at all to the ordinary businessman. The 1994 Trades Marks Act comes like the cavalry to the rescue. Those who distribute their products throughout the European Union should be entitled to assume that the laws in each of the countries in which they trade are similar, if not identical.

If the EU is to achieve anything, it should be to make life easier in this regard. The Benelux countries have taken the lead in developing the law in this area. The Act was introduced as a result of a European Directive on the subject, which was itself formed around the development of the Benelux law. The Act should prove to be a valuable enactment, both in the UK and in the broader context of the Europe-wide adoption of the principles of harmonisation of rights.

Unlike common law protection, the registration of a Trade Mark gives the owner of that registration a monopoly right to trade using that Mark. In any action for infringement, the owner need not prove that he has goodwill in the mark, nor must he prove that the misuse of the mark is likely to cause damage to his business.

The owner is entitled to protection, 'as of right'. In actions based on a registered Mark it is unlikely that expensive 'market survey evidence' would be required since such evidence is normally associated with proving public recognition or association. Similarly, there is no need to prove association with the proprietor - registration is proof enough.

The misuse of a registered Trade Mark is often seen in the context of counterfeit goods, but this is not the end of the story. Unlike the common law remedies available in relation to unregistered marks, misuse or 'infringement' of registered Trade Marks is a criminal offence and one which the Trading Standards Authorities have an obligation to enforce. The owner of the registered mark has the full support of the criminal law at his disposal.

Under the earlier registration regimes, what could be registered was limited to representations which were capable of distinguishing the goods which they were applied to. The international nature of trade and the increasing importance of the 'Trade-dress' or 'the look of the goods' has required more sophisticated support. The Act redefines the basic requirement for registration, requiring only that it is "capable of being represented graphically, which is capable of distinguishing goods or services of one undertaking from those of another." This definition therefore permits the registration of sounds (represented as musical notation) and smells (capable of being represented as chromatographies). In addition, the three-dimensional shape of packaging may also now be subject to protection.

A new regime for registration has been introduced. Under the previous scheme, detailed rules provided for what was registerable. Under the new system, a short list of those matters which are not registerable is provided and the applicant becomes responsible for satisfying himself that his application does not conflict with those requirements. Seen perhaps as a method of reducing the bureaucracy of registration, it is going to be interesting to see whether the leopard can really change its spots and adapt to the apparent liberalisation of the new scheme.

The Act also brings into the English Law elements of unfair competition familiar to those who trade in France, but previously not part of the UK experience. Anything which 'takes advantage of, or is detrimental to, the distinctive character or repute of the mark' is prohibited by the Act. This is reinforced by the restriction on the use of any sign or Mark which includes the likelihood of association. Under the previous law protection

afforded protection only against those whose product or Mark caused the purchaser to become confused and to believe the infringing product to be that of the originator.

Appearance of 'badged' products has had an inverse effect when similar 'Trade Dress or get-up' is adopted by a competitor. This practice has often led to complaints that purchasers associate products which bear similar characteristics or appearance to those of another. The purchaser is invited to infer that the product is similar in genre to the originators and drawn to it. The salient feature of this is that the purchaser does not believe the product to be that of the originator, he merely associated the product as being of a similar kind. The producer of the lookalike would not infringe under the old scheme, but no-one would deny that he was gaining an advantage in the market by utilising the perceptions created by the originator or brand leader.

New restrictions recognise that 'lookalike' products may not be confused for the originator's product, but are so similar that they detract from the value of the originator's Mark. The Act bites on badged goods which seek to mimic the colours or Trade Dress of a registered Mark and which seek to trade on the 'association'.

Removal of restriction on the sale or assignment of registered goods recognises the intrinsic value attached to badges or labels themselves, independently of the product to which they relate. Registered Marks may now be transferred without any sale of the underlying business to which the Mark relates. The previous restriction known as 'trafficking' is abolished and the owner of an established mark may now sell it as a 'commodity' like any other. For those who have had success establishing a portfolio of brands this may prove to be a valuable

source of revenue and may result in revisiting the balance sheet valuation of Trade Marks altogether.

Even the old system of registration provided significant benefit beyond that which was available to the unregistered mark, but the new system provides significant scope for the creative use of Marks to enhance and protect existing business and to develop valuable intellectual property rights. The rights are, however, only available to those who seek registration! The common law remedy of passing off may be redundant following the passing of the Act II section 10(3) TMA 1994.

"The Act bites on badged goods which seek to mimic the colours or Trade Dress of a registered Mark and which seek to trade on the 'association'."

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ENTERTAINING SOLUTIONS

Ruth Rossington visits the Dartford HQ of Electrosonic

In my English lectures at university, I often used to sit behind a girl called Sadie, and spent the better part of each tutorial throwing screwed up bits of paper at the back of her head. Little did I know that I was messing with the hairstyle of the daughter of Bob Simpson, chairman of Electrosonic, one of the leading companies in the specialist supply of electronic control systems to the entertainment industry.

Of course, in those days it hadn't occurred to me that there was a lighting and sound industry; somehow I just took the myriad of technology around me for granted. When I joined L+SI a couple of years later, all that was to alter and I was to become part of this multi-million pound industry, and eventually to learn the importance of what Sadie's dad did.

It was with some trepidation then that I recently entered the world of Electrosonic in Dartford for a meeting with Bob Simpson and a chance to find out more about the nineties version of the company.

Bob Simpson is a man with a mission - to inform. Part of his current thinking is to communicate to the industry the full scope of Electrosonic's operations. "People's perceptions of Electrosonic vary enormously because we've been around a long time and we're old stagers in a comparatively young business. There are those, for example, who think we only do dimmers and then there is a whole constituency who only buy lighting controls and who are very surprised to learn that we do other things. Equally, there's another group who think all we do is slide projection, whereas, I doubt whether that represents 1% of our business these days." It was a theme that was to re-emerge several times throughout my visit, and it is clearly part of Bob Simpson's agenda to ensure that the industry as a whole recognises that Electrosonic has many strings to its bow, all fired with equal accuracy.

The company has just glided past its thirtieth anniversary, as effortlessly as it chalked up its 10 and 20 year birthdays and seems set to reach its fortieth, with equal equanimity. Since its formation in 1964, it has grown to be one of the leading companies in the design, development and manufacture of specialised electronic control systems. It seems a far cry from its early days when Bob Simpson, Mike Ray and Dennis Nesbitt made a base for a fledgeling Electrosonic in two rooms in Greenwich vegetable market, before these gave way to a disused pub, and ultimately to a factory unit.

It wasn't too long though before the work of the trio caught the attention of '3i' who came in as a financial partner, an arrangement which was to last several years. The next stop was Woolwich Road in Charlton, where the company stayed for 18 years. By the end of the seventies, it became clear that further manufacturing capacity was needed, so additional space was obtained in Maidstone.

In the mid eighties Electrosonic were approached by Finnish Group Helvar who were interested in taking an equity stake in the business. The partnership was symbiotic: both companies shared an international view, relying on exports to yield 80% of their business, and where Helvar had carved a niche in dimmers and lighting components, Electrosonic by now had built an enviable reputation in the architectural dimming market.



The impressive Hawley Mill headquarters of Electrosonic.



Bob Simpson, chairman of Electrosonic (left) with managing director Philip Aminoff.

For Electrosonic, the capital injection would allow them to develop their design and manufacturing expertise, whilst for Helvar the merger was an opportunity to gain a firm foothold in a new market. So the two companies embarked on a three-year trial period (with Helvar as minority shareholder) which went so well that the relationship was formally cemented in 1990 when Helvar transferred to the majority shareholding and Electrosonic became a subsidiary of Helvar.

As was hoped, the partnership was a catalyst for further development, particularly for Electrosonic. The company was turning its attention to new markets where expectations ran high and there were technological stakes to match. The lease on the Woolwich site was running out, so it seemed only natural that they should look for a new base, hence the move to the imposing purpose-built corporate headquarters in Hawley Mill. If you have any doubts about the scale of Electrosonic's operation, a quick trip to Dartford will set that right - the building tells you everything you need to know.

The company's major markets are in videowalls, audio-visual presentation systems and lighting controls. In these areas the company fulfils a specialised role with more than two thirds of revenue arising from outside

the UK. The company has five business units - architectural lighting control, entertainment lighting control, video display, systems integration and special venue movie systems. At the Dartford site, product development and a substantial systems engineering facility are housed, whilst the manufacture of most standard products, which form a major part of the systems supplied by both Electrosonic and its distributors, is carried out at the company's Maidstone factory which is equipped with the latest surface-mount production machinery and approved to BS and International Standards.

Overseas, the picture widens. American operations are controlled from the Minneapolis office. Sales and engineering facilities are also available from offices in Burbank and Toronto, the former being responsible for the Group's Special Venue Movie Systems, and there is a representative office in Hong Kong serving the Pacific Rim and Australasian markets.

The company now employs over 300 people in five countries and it wasn't too long into the interview before Bob Simpson was guiding me to the company's corporate brochure. "In it you'll see that the Helvar Electrosonic Group has a combined turnover of £70million - actually it's a bit more than that, probably nearer £80million. What it doesn't say in the corporate brochure is that the ultimate ownership is private - the majority shareholding being in the hands of the Aminoff family, who have business interests with a combined turnover of about £400 million per year. So, we have a fairly strong structure behind us."

One of the more tangible aspects of the merger comes in the form of managing director Philip Aminoff, who has been with the company for two-and-a-half years. Aminoff's presence helped free up time for Bob Simpson, so that between them they were able to better assess their market position and in the last two years, Electrosonic's priority has been to cut away any 'dead wood' and concentrate on their



Electrosonic's C-Through software is used to control videowall displays.



The giant videowall intended for the Jupiter II project under test at Electrosonic's Hawley Mill site.

strengths. "What emerged was that we we're good at architectural lighting control - that was our 'birthright' if you like, our first product was an authentic dimmer - and we now have a pretty solid range of products in that area which we are developing all the time," explained Simpson. But the big plus was that the company could now offer ballasts, dimming and control systems as one package and it is here that they have found favour with consultants.

This is the only partnership activity that Helvar Electrosonic present as a group. The Electrosonic part otherwise operates completely independently. All activities are controlled from Dartford, and all products are designed there and manufactured in Maidstone, with the exception of one projection unit which is assembled in the USA. The intention is that all dimming and control products will eventually be manufactured in Maidstone.

The Helvar side of the business, which is based in Helsinki, probably has the most advanced production lines for conventional ballasts in Europe, possibly in the world, and the company are currently investing £1.5 million in new automatic machinery for producing more electronic ballasts - not that they haven't got it already - they've been making them for years, but new products are coming on-line and the automation is being stepped up to ensure that the company has the production edge. The Helvar Electrosonic brand is now increasingly seen as a combined package of lighting components and lighting controls, and particularly so throughout Europe, the Far East, the Pacific Rim and the Middle East.

The main product line at the moment is the 230v market, although most of the dimmers are also designed to run on 110v. "It's our declared aim that as the new approvals come in - for example, the European Directive - we're not going to duck and dive, we will meet these specifications, and Electrosonic will be one of the few companies which can rightly claim that its EEC mark is for real - and not one produced on a John Bull Printing outfit! Our products are 'World Products'."

And Simpson does mean 'world'. Over the years, the company's expertise has been called on to deal with some weird and wonderful projects in just about every continent. For instance, Electrosonic had a major presence at Expo 92 with an involvement in a staggering 35 of the 95 Pavilions. In fact, the company have played a part in just about every World Expo. Their know-how in systems technology has taken them all over the globe from work on the I Corsari dark ride in Italy to the Time Machine

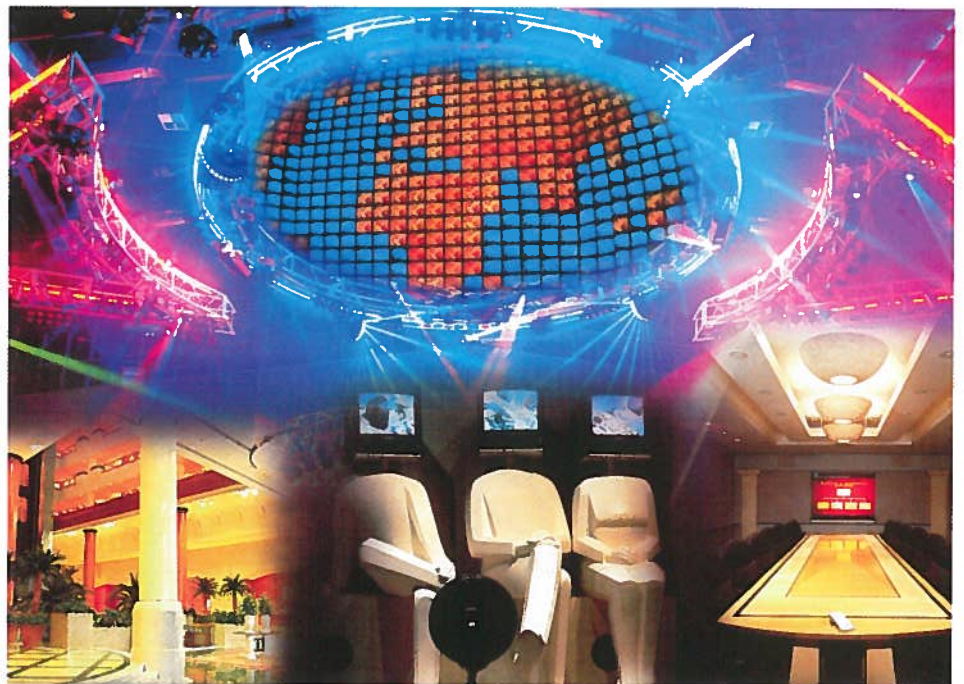
of Dreams in Japan (to highlight just two out of a list of hundreds) and a hand in just about every audio-visual project the length and breadth of the United Kingdom. Not surprisingly, across its 30-year history, it has also notched up some remarkable firsts, perhaps the most notable coming at the above mentioned Seville Expo where the company installed the world's largest videowall for the Telecommunications Pavilion. A massive 850 video monitors were used for the display which has been reinstalled at the Futuroscope theme park in France.

Those who read John Offord's profile of Celco in the February issue will be familiar with how Electrosonic and Celco came to share the same address: Electrosonic bought the company in 1991 and transplanted the Celco operation lock, stock and barrel into its high-tech complex in Kent. Four years on, things are going well with Celco having continued its independent profile in the market, but enjoying too the benefits that result from being part of a larger organisation. The merger has been product-led and at PLASA last year Celco launched an installation dimmer employing Electrosonic technology, and uniquely for the company, found it marching into installation projects hand-in-hand with the Aviator. The most notable development of recent months has been the launch of Celco's

M9 video controller. "We see Celco as being strategically very important," explained Simpson, "because we are looking to build a presence for our strong, well-engineered products in the traditional entertainment market. We are very excited by Celco's products, and their concept that video products can be looked on as lighting instruments."

The line of Celco's development tallies with Electrosonic's long-held interest in the AV markets, and indeed, it is probably the work they are best known for. "The strongest identity we hold is in AV programming. Following our analysis of where business was generated, which highlighted the fact that a lot of it was systems-based, we decided to fold our AV business into our systems division. In order not to confuse the market, we're using the Systems Division as the sales outlet for our video and AV products." The company's systems expertise resides very much in the museum, theme park, exhibition and presentation markets and it is these areas that Bob Simpson and his team intend to develop.

This focused approach is paying dividends for the company and while Simpson will readily admit that they have on occasion played away from home, he is now keen that they stick to their own turf and concentrate on what they're good at. This is no vague boast - visit any



A mix of the wide variety of projects undertaken by the company, ranging from control systems for discotheque and touring applications through the Celco link, hotel, conference and boardroom presentation work, massive videowall displays and interactive A-V exhibits.



The Maidstone manufacturing base with the latest surface-mount production machinery and approved to BS and International Standards.



Ruth Rossington (right) gets a close-up look at a PCB from production manager Steve Whiffen (left), whilst Bob Simpson and Yvonne Hegarty, Group promotions manager, look on.

attraction and the chances are that Electrosonic equipment will be behind it, whether it be at the Tower of London or the Museum of the Holocaust in Washington. "I don't think it's unreasonable to assert that Electrosonic are the leading company in this area. In our systems division we concentrate on projects which exploit our expertise and our products. A side-line on the systems side is that we have some special expertise in Los Angeles where we're able to do non-standard movie systems - a further off-shoot of our capability."

Incidentally, Simpson did manage to slip into the conversation that the company are planning to unleash onto the market a whole host of new products this year, led off by generation two of the ESTA Tapeless Audio package, covered in more detail in our Equipment News this month.

Linked to this theme is the video display work which is now the biggest business activity in the Electrosonic part of the group. "Until comparatively recently the main market was indeed video, but now the demands have moved much more into graphics - a completely different game. It's much more challenging, but we can see that there is going to be a very significant growth of business in this area resulting in some exciting new products, which we'll happily sell to other systems integrators, but which will also give our systems integration department food for thought."

Underpinning this forward momentum is a stable management structure. "We have a matrix in terms of management between the business units, which represent the various activities, such as video and lighting systems, and then regional management, responsible for getting the products and systems to the market. For example, our American operations

constitute about 50% of our business, so we have a North American headquarters in Minneapolis, with offices in Toronto and Los Angeles. The business product management sits in Dartford, but distribution is handled by the North American operation. Similarly, our systems side in the UK is headed by Kevin Murphy, but he has a counterpart in the States - Doug Hunt in Los Angeles - and they work together to represent our systems business unit. In Hong Kong we have a representative office because we do a lot of business in the Far East, and you simply can't do that business unless you are in the same time zone - that office literally acts as an extension of Hawley Mill. It isn't actually a trading company - you can't get invoiced by them - but there are service and technical staff who can offer advice, and that supports quite a lot of business in the Far East, mainly in our lighting and video products."

Bob Simpson is much more concerned with what the company represents today than with how it got there. "We like to think we've got a tightly-focused business and our aspirations in terms of product quality, professionalism and how we do business, are high."

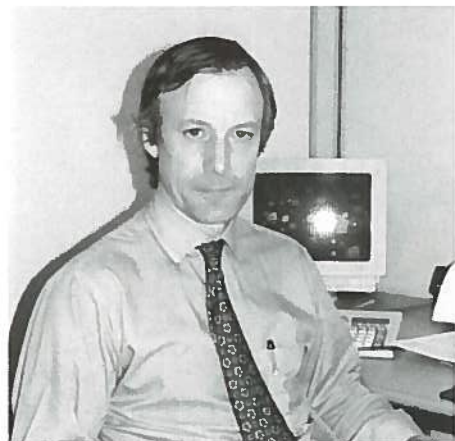
Perhaps Electrosonic's philosophy of sticking to what one knows is best demonstrated by a recent project involving the shipping of a giant videowall to French Guyana. It is to be installed in the new launch control room currently being built for the Ariane 5 launchers under the Jupiter II programme. The display is nearly 7m wide and 4m high, and is required to work in normal ambient light, to occupy a comparatively shallow depth and to provide clear visibility of critical launch information to the launch control staff who are seated at control consoles which may be up to 12 metres

away. During my visit to Electrosonic, this videowall was fully assembled and being put through rigorous tests.

The specification was for a display which can change format during the countdown process. To meet this changing requirement, Electrosonic have supplied an 8 x 6 videowall based on their Procube projectors and Picbloc 3 image processing. The combination gives a highly economical and flexible big-image display. It can show many different images simultaneously, culminating in a 6x6 image of the launch itself (still accompanied by data on the other screens).

The display is configured for eight VGA inputs and eight video inputs, and in true Electrosonic style, there is provision to upgrade the display so that it can also show workstation images of 1280 x 1024 resolution, a requirement that would actually only be called into service for very large single graphic images. Individual data images need only be of VGA resolution because these are presented at a maximum 2 x 2 magnification, and the viewing distances are too great to benefit from higher resolution. The screens of the videowall are slightly faceted to ensure that all staff see an evenly illuminated image - the control staff are arranged in a fan-shaped layout, and without this feature those at the extreme edges would be aware of some fall-off in image brightness on the screens furthest from them. Electrosonic's C-Through computer programming will be used to control the display. It will automatically re-configure the layout as the countdown progresses, working to serial data instructions fed to it by the Launch Control Computer.

Need I say more?



Keith Morris, European sales manager, AV display division



Alan Wilkinson, leisure division manager and Peter Barrett, systems engineering manager.



Audio visual and boardroom divisional manager, Colin Lemmings.

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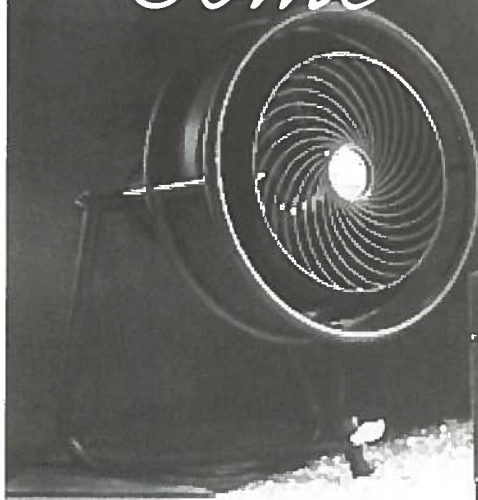
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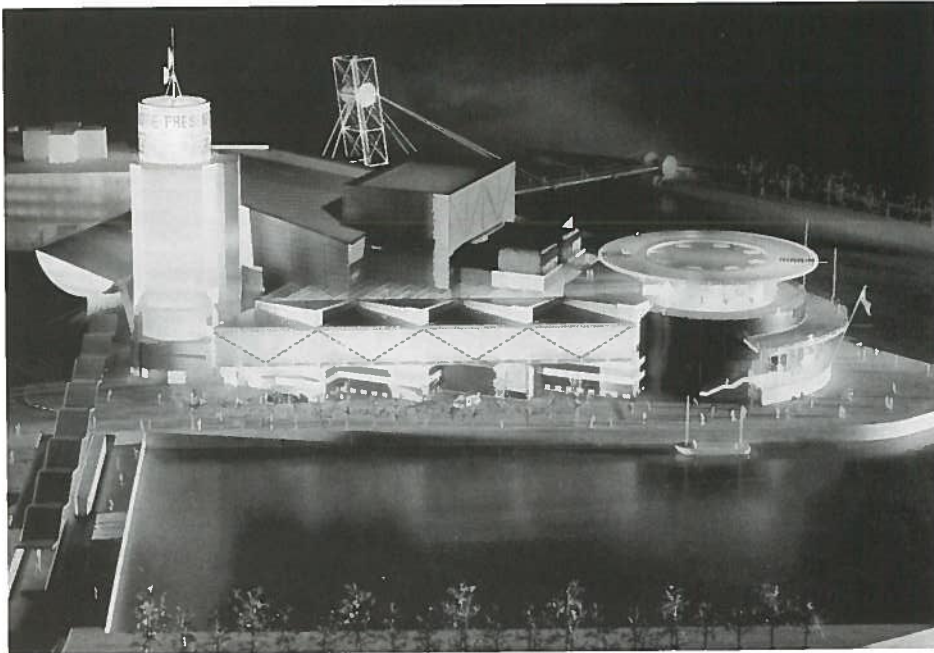


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FUNDING CULTURE

L+SI looks at Salford's Millennium Fund application for the Lowry Centre, Britain's first purpose-built cultural centre



The Lowry Centre: Planned - at an estimated cost of £75m - to be built on the quayside at Salford, Greater Manchester.

Funding from the National Lottery has been much on people's minds of late, with the announcements made of the first wave of lucky recipients (see news, page 6) and the furore over the Churchill papers. Among the many arts-based projects still awaiting approval from the mighty Millennium Commission is the Lowry Centre, a proposed arts complex to be constructed on the waterfront at Salford Quays, which aims to transform both the culture and the economy of the north-west.

The Lowry Centre, which it is estimated will cost £75m to build, has been designed by the late Sir James Stirling and Michael Wilford and Partners, already known for projects such as the Sackler Museum at Harvard University and the Clore Gallery at the Tate in London, among others. Theatre Projects Consultants will be taking on the role of theatre consultants for the centre, which will be at the western end of Pier 8, facing a new public Plaza. The Plaza is the focus of the plan and will be a sheltered venue for a range of activities. A hotel and parking/retail building, both with colonnades containing restaurants, bars and arts-related

facilities, will enclose the remaining sides of the Plaza, which will have a removable canopy to cover large outdoor events in poor weather. Routes to the Lowry Centre will pass through a new public park and extended waterside promenade. The jump in the sky-line will be mediated by seven four-storey commercial buildings of varying sizes.

The Lowry will be the first purpose-built cultural centre in the UK, and will contain facilities for both the visual and performing arts. Chief among its features will be the 1,650 seat Lyric Theatre, situated at the heart of the building, which will have stairs and access balconies to its three seating levels situated within its outer enclosure. A Children's Gallery, containing a sequence of interactive exhibits and audio-visual displays will be sited to the left of the Lyric. To the right, escalators will rise over a rehearsal studio to a balcony housing a permanent exhibition of the life and work of LS Lowry - with over 350 of his works, the largest collection in the world.

In addition to the Lyric Theatre, a 400-seat flexible theatre will be built, including

extensive resident company facilities. This venue will take the form of a courtyard, which can be adjusted to suit proscenium, thrust or in-the-round performances.

Another major feature of the centre will be the National Industrial Virtual Reality Centre, backed by industrial giants such as Rolls Royce, ICI, Sainsburys and Huntings Engineering. This will include the world's latest VR technology: already initiatives have been taken to include a jet engine prototype, a simulation to test the ergonomics of submarines, an interactive model of a High Street and a module for surgeons training in minimal invasion techniques.

While the Millennium Commission have hinted that the Lowry Centre bid seems to satisfy the criteria for eligibility, the success of the project may depend upon the 'regional spread' of applications - the Commission must ensure that no one region receives more than its fair share of funding. The few other projects in the north-east that the Lowry applicants know of so far do not seem to clash with their interests, but time will tell. During mid-June, the Millennium Commission will assess applications for funding, and narrow the short-list down to around 200. After that, Salford fingers must be kept crossed through a series of similar assessment stages, until the final word is given.

The project is receiving patronage from stars such as Albert Finney, Robert Powell and Ben Kingsley. Robert Powell said of the project: "The Lowry Centre is a remarkable idea in a remarkable setting. Salford never fails to amaze - first the Canal, then the Quays, now this superb auditorium which will inspire generations to come."

The project is expected to create 4,000 jobs over the next 10 years through a mix of office, retail, tourism and leisure sectors. When completed, it is estimated that it will attract around 700,000 visitors a year, as well as generating over £100m in private investment and giving an important boost to the local area.

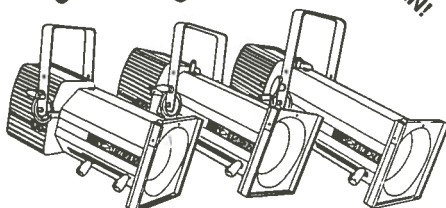
The Lowry Centre project will, without doubt, fulfill a whole host of valuable functions, not just within the arts, but in education and industry, as well as the important positive effects that are likely to be felt by the region's economy. Without wishing to appear too optimistic about the outcome, L+SI looks forward to visiting the centre when completed.

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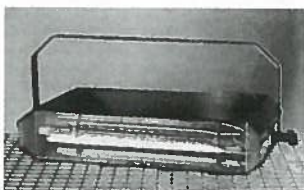
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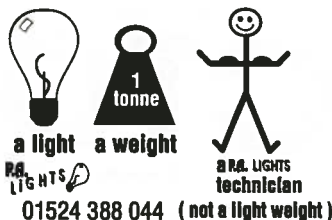
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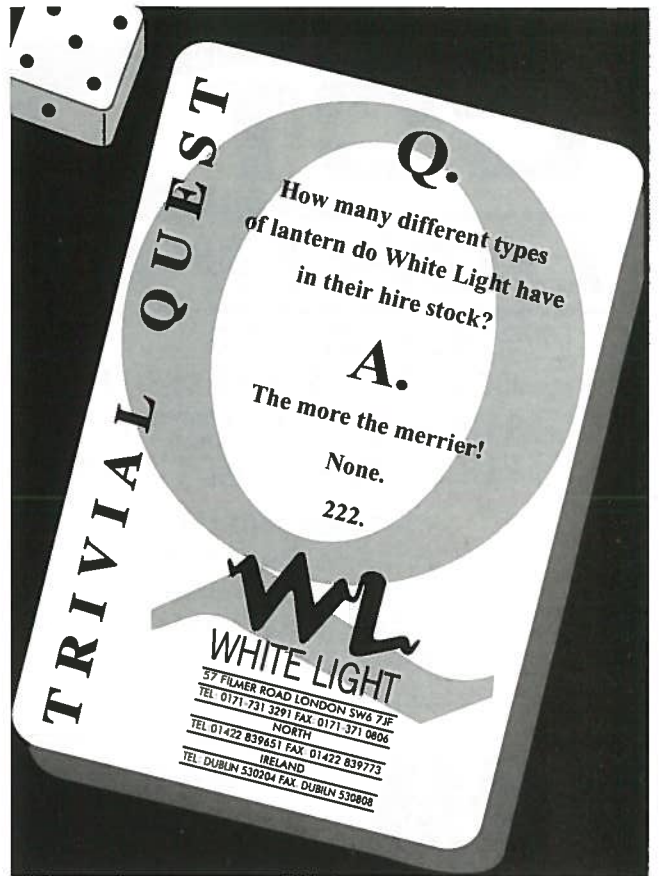


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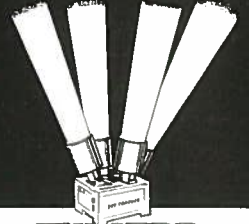
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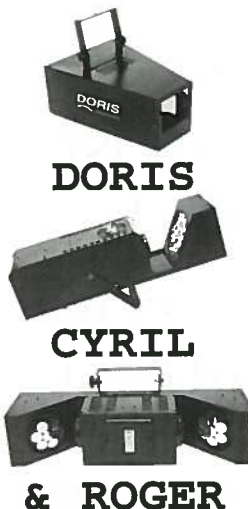
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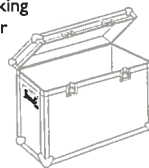
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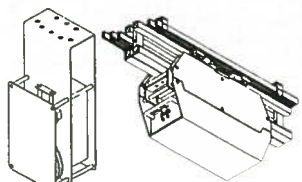
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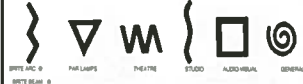


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VIEWPOINT

Quality Not Quantity

Graham Walne discusses Francis Reid's latest book*

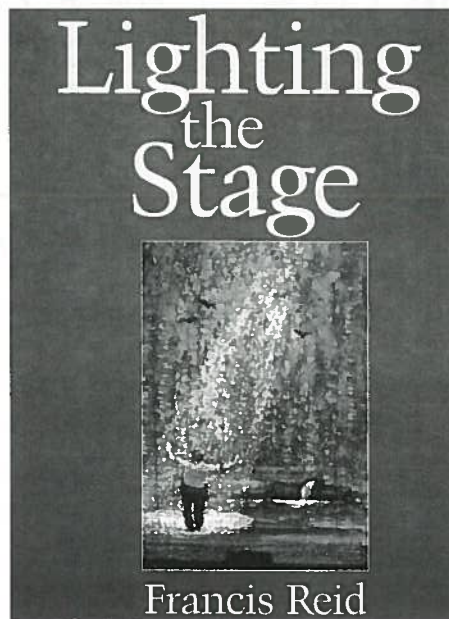
"Studied for the theatre by reading psychology at Edinburgh University." That was how Francis Reid's CV began some years ago. The experience was obviously valuable to him. Consider this quotation from his new book on lighting . . . "directing was once a much simpler matter. Many of the directors of my youth were really just traffic police. They spent little time discussing motivation and they would have been somewhat baffled by the philosophers and psychotherapists who inhabit today's rehearsal rooms." Directors today he says are 'deconstructors', whilst, in the past, plays were performed at their face value. Thus the book provides the academics, both in classroom and bar, with aeons of subjects for (perhaps) irresolvable debate.

This kind of overview seems to emanate more frequently from a lighting person than from any of the other disciplines. What is it about lighting designers that turns them into (for example) consultants? (Reid has often eschewed the use of the word - but let us say he has been consulted often). Is it, as he has often mused, that they spend large amounts of time at the production desk, in forced observation of others' work? Sound people do that as well and they do not feature large in the CVs of consultancy.

Some years ago an article in *Theatre Crafts* inspired me to propose, unsuccessfully, a book on the way lighting designers think, rather than about the nuts and bolts of what they do. The article, by Tharon Musser, was about the design for 'Ballroom' on Broadway, and explained her thought processes as she matched pattern and circles of light and colour to the patterns and circles of the dancers' movements. The book was perhaps too expensive for publishers to consider it, relying as it would have had to do, on extensive photographs and illustrations. Francis Reid has, however, managed to write a book about a visual medium without a single illustration. And it works.

The book contains many truisms which should be made into samplers and hung wherever theatre people gather. Typical is this one: "time is not only expensive, it is often in such short supply that it cannot be bought," and this: "the actual lighting boards do not matter much. What really matters is whether operators like their board." No college tutor of lighting could have written that. A lighting man wrote it and this illustrates the nub of the book's value - it is a priceless (and perhaps unique) perspective not on the technology, but on its relation to the development and success of the end product. The nuts and bolts of lighting can be taught, but the process can only be experienced for it to be fully appreciated. Reid provides nudges for the inexperienced, back onto the wiser, safer, quicker, path. Time wasted in procedural matters is time lost for creation and experiment.

I particularly liked his classification of the boards as 'organ loft' or 'mission control', dependent upon whether it was the playing, or the



numbering, that was critical. No contest to those of us with grey hair. This chapter should also be required reading for all those who design control boards. Reid also solves the old argument about recording the timing of cues, saying it is the position, not the timing, which varies by much, and he is right, but only a musician could have appreciated that. In the chapter on lighting instruments, position takes precedence over facilities. Reid has long advocated an approach which is anything but bland, 'mud' is one of his favourite criticisms, and hence his love for the Par can which he says can really make a 'positive statement'. Thus he talks of light quality and, in this, the book ought to help those budding designers who are derailed by their innocent confusion about which instrument to choose.

The chapter on control boards is perhaps the most equipment-oriented in the book, although that is not saying much. But it certainly provides a layman's guide to this area and as such would be helpful to those with whom the lighting designer has to work, such as directors and

designers. Helpfully Reid accurately predicts "computer simulation will eventually offer visualisation of lit scenes on a video screen . . . as a dynamically changing cue sequence."

Reid has considerable experience in education and his tenets put him (not for the first time) on collision course with the policies of today's governing educators. He rightly wants an environment 'structured for learning', but Government policy is to move towards teaching - it's cheaper.

Having known Francis Reid for nearly 30 years, I can testify to his ability to stand outside the immediate and, by relating contemporary experience to another field, provide a perspective which enables the task in hand to assume more helpful proportions and approaches. It is his use of words which often does this. For example, the flashing of lights in pop music, he says, is not a fashion, it is a doctrine. The choice of this one word says it all. Thus Reid's writing style has become more concise the wiser and more prolific he has become. Not for his publishers the vast tome, but slim readable bites of experience. So full is this book that certainly the space allowed for this review cannot do it justice.

Cara Lancaster of the Book Bazaar, doyenne of theatre booksellers the world over, actually knows the books, the authors, the theatre, and the needs of her customers. She has told me that lighting books always sell. At face value this book wouldn't seem to have an obvious readership (it doesn't detail equipment), but, by exploring and analysing the process, it might just move the lighting debate closer to concentrating on light. In that, its readership should be universal.

In any case this is a companion volume to Reid's other works (he is the world's most prolific technical theatre author), so read this to find out about theatre and read his others to find out about the nuts and bolts. As an overview of the realisation process at this point in the century, it should be required reading for everyone entering the business, as well as for many already in it.

***Lighting the Stage by Francis Reid is published by Focal Press at £12.99, and is available through PLASA's Technical Book Service. Telephone Sheila Bartholomew on (01323) 642639.**

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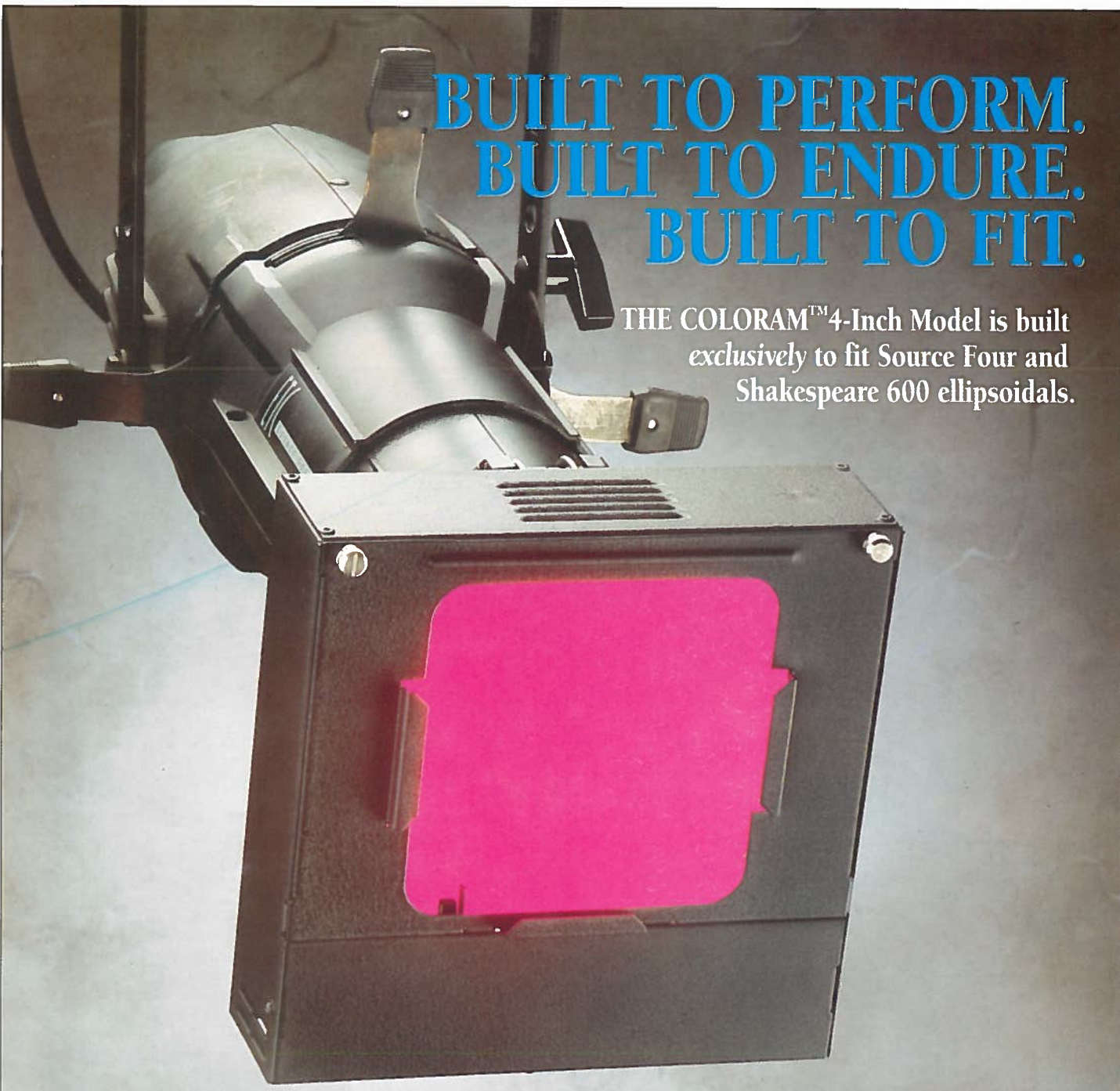
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