

LIGHTING+*SOUND*

International



JEFF RICHARD AS HEATHCLIFF


- In Rehearsal: Steve Moles joins the technical crew as Heathcliff prepared to storm off
- Lottery-funded upgrade for the Questors Theatre
- Metallica: Heavy Duty Rock and Roll
- On Tour with Lighthouse Family
- Refurbishing San Francisco's earthquake-damaged Geary Theatre
- Lighting Designer Michael Odam in Profile

PLASA

NOVEMBER 1996

Meanwhile backstage at the Gothic Theatre:

Oh... Sh*t!



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TELL ME YOU CAN'T EVEN
WIRE A 3-PIN PLUG!



QUIT CARPING WOMAN
AND JUST GET ME THE
GUYS AT FUTURIST...
FOR ONLY THEY CAN
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Remember when people laughed at the idea of interplanetary space commuting? Crazy, huh? Back in those days lighting and sound were just beginning to get into orbit - more sophisticated, infinite spectrum, computer controlled. But now and again someone bit off more than he could chew, and a promising production went down in flames. Fortunately, in around Y2400-430, just before the New

Millennium started, Futurist Light and Sound came into being. Saved a lot of doomed shows, projected corporate events onto distant planets, you know the kind of thing. They had the best equipment and the kind of experience that only comes by doing it. They were the guys who made the entertainment universe what it is today.

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Naturally control via DMX 512 for output level control is available.



JEM

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Size: Length = 875mm
 Height with wheels = 475mm
 Height without wheels = 415mm
 Width = 405mm
 Weight = Approx. 32Kg

Fluid Type: JEM Hydrosonic Fluid

Fluid Capacity: 9.5L (in removable bottle)

Approx. run time: Unlimited - subject to fluid capacity

Remote bottle option: 25L-250L

Atomizer Tank Evacuation System: Allows the Atomizer Tank to be emptied into the bottle before transportation.

Control Panel Features: Tuner
 Output Level Control
 Fluid Control
 Machine Status
 DMX Address settings

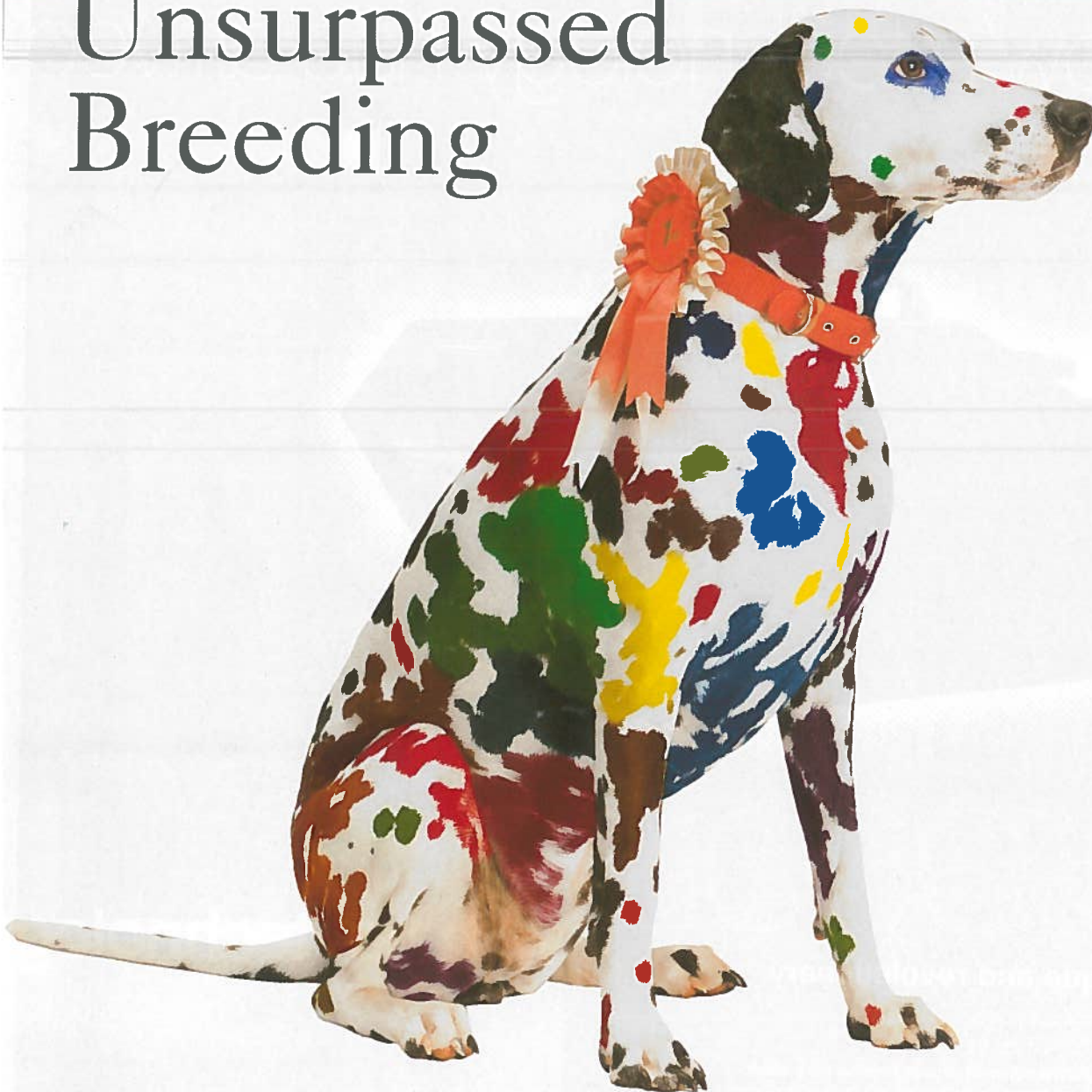
Display Type: 4 Digit, 7 Segment LED

Remote Control Options: DMX 512 for Output Level Control

Power Supply: Europe 220V to 240V
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Specification for JEM Hydrosonic 2000 Incorporating 'HOT Technology'

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LIGHTING+ SOUND *International*

NOVEMBER 1996

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The views expressed in Lighting and Sound International are not necessarily those of the editor or the Professional Lighting and Sound



LIGHTING+ SOUND *International*

published monthly by the Professional Lighting and Sound Association
© Copyright Professional Lighting and Sound Association ISSN 0268-7429

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Telephone: (01323) 642639 Fax: (01323) 646905 Internet: <http://www.plasa.org.uk/plasa/> E-mail: info@plasa.org.uk

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The magazine is available on annual subscription

UK £45.00 Europe/rest of world £60.00 (US \$90.00) Airmail £85.00 (US \$127.50) Single copy £3.50 plus postage

Editorial Advisors: Peter Brooks, Wyatt Enever, Mike Gerrish, Derek Gilbert, David Hopkins, Matthew Griffiths, John Lethbridge, Ian de la Vingne, Iain Price-Smith, Neil Rice.

Lighting + Sound International is published monthly for \$90.00 per year by The Professional Lighting and Sound Association, 7 Highlight House, St Leonards Road, Eastbourne, East Sussex BN213UH. Second class postage paid at Rahway, N.J. Postmaster: Send USA address corrections to Lighting & Sound International, c/o Mercury Airfreight International Inc, 2323 Randolph Avenue, Avenel, New Jersey N.J. 07001



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Survey Underlines Show's Pivotal Industry Role

A survey of this year's PLASA Light & Sound Show, commissioned by P&O Events and carried out by Exhibition Audience Audits, lends further weight to the growing stature of the Show, both as an international showcase for new technology and as a forum for business.

The report offers an insight into the current 'feelgood factor' that is widespread in the industry, with the great majority of visitors being positive about their organisation's business prospects for the coming year. Many believe that the industry is in a period of consolidation with the next 12 months offering yet further advances on previous years. The feedback to date from exhibitors has confirmed that PLASA 96 proved to be the most successful in terms of business, with many companies reporting their best Show ever. This sets the stage nicely for PLASA 97 which will return to Earls Court 1 from September 7-10th next year and is already shaping up to be yet another record-breaker.

As in previous years the retail/wholesale/rental/distribution sector provided the single largest sector of the PLASA audience, closely followed by the theatre, club and mobile markets. The key motivating factor for most visitors is the chance to view new technology, and of prime interest to the exhibitors, a large percentage of

"Lighting+Sound International is the most widely read magazine in the industry with 42% of visitors reading it regularly."

these are personally concerned with making or influencing specifying decisions and are likely to place orders as a result of their visit.

The survey also reveals that L+SI is the most widely read magazine in the industry with 42% of visitors reading it regularly. DJ Magazine (34%) was the second most widely read followed by Disco Mirror (25%) and Disco Club &

Leisure International (20%).

For further information on the Show, contact Bridget Beaurepaire at P&O Events in London on 0171-370 8229.

PLASA at Intermedia



Clive Bradbury (Celestion), Tad Trylski (DHA), Anna Pillow (PLASA), Jon Petts (JEM) and Saf Ali (Studiomaster) at the recent Intermedia Show in Poland. Further details next issue.

Young at Heart



Freddy Young OBE made a rare appearance in front of the camera when he was recently the subject of the BBC's This is Your Life. His long and distinguished career began in 1917 when he joined Gaumont Film Studios. In 1929 he joined forces with Herbert Wilcox as director of photography for the British and Dominions Film Corporation, before eventually going freelance in 1939. Having worked on over 120 films, he has been honoured with many awards and fellowships, most notably the Oscars he received for his work on Lawrence of Arabia, Doctor Zhivago and Ryan's Daughter. Last month he also received a Lifetime Achievement Award from BAFTA.

Geoff Hood Dies

Industry figure Geoff Hood died of a heart attack in October, aged 65. His long career in the industry was notable for his role as southern area sales representative for audio company Futuristic Aids Limited, and he later went on to work for both Le Maitre and Light & Sound Design before becoming freelance. He was the first treasurer to serve on the BADEM committee in 1976.

Friends and colleagues have paid tribute, including Derrick Saunders of Pulsar and Dave Winfield and Rick Wilson of Le Maitre. Citronic's Mike Gerrish told L+SI: "He was an extremely good salesman - an absolute gentleman and a pleasure to be with."

FREE WALLPLANNER WITH THIS ISSUE

PLASA Show Thefts

A number of instances have come to light of exhibitors having product stolen during the recent PLASA Show. Mark IV Pro Audio Group and Shuttlesound shared a stand at PLASA, along with some uninvited guests who helped themselves to a Fostex D80 multitrack recorder and a Tascam DA30 DAT machine, as well as stripping the chips out of the demo-room PC.

A large amount of Mark IV gear from LMC Audio's stand was also taken. Although the Midas XL200 desk subsequently turned up in nearby flat, several items of KT signal processing, plus other equipment is still missing.

Finally, Shuttlesound sales manager Bill Woods had his briefcase stolen on the last day of the show, together with contact lists, diaries and business cards collected during the show.

If anybody has information, call Jasper Whitaker at Shuttlesound (0181-646 7114) or John Ridley at LMC Audio (0181-743 4680) who has a full list of equipment serial numbers.

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Time and Again

When Wendall Harrington, the projection designer for the time-travel musical *Time and Again*, needed some unusual but convincing special effects, he turned to Production Arts, provider of the PIGI projection systems manufactured by ETC Audiovisual in France.

Time and Again, currently running in New York, is the story of a young man who unlocks the secrets of time travel, going back to the Dakota Hotel in New York City in 1882 to find out why his grandfather committed suicide. The PIGI projectors made the illusion of time travel possible, running montages of historical pictures in four directions, two horizontally and two vertically. One of the most impressive sequences featured a snow storm - an effect made possible by the double scroll's masking abilities - allowing the snow to fall in a random pattern on multi-layers of scrim, instead of moving across on a single plane.



photo: Sarah J. Rumens

Riverdance US Tour

Sound designer Mick O'Gorman has specified a massive Mark IV-led sound system for the US tour of the award-winning Irish dance and music production 'Riverdance: The Show'. Illinois rental company db Sound have been asked to provide Electro-Voice cabinets and electronic controllers, while sound mixing is through 40-channel DDA QII and 32-channel DDA CS3 consoles. Using the desks in Spatial Image System mode, the show's sound engineer Colin Ahearn can assign featured items, such as solo instruments, to the centre speaker cluster, to enhance their presence in the mix.

The system, sourced through Dublin-based contractors The Mikam Sound, employs EV DeltaMax speakers for front-of-house and EV Sx200s for foldback. The stage front fill-in and surround system speakers are Electro-Voice S40s.

EAW Fire

Loudspeaker manufacturers EAW suffered a fire at their factory in Massachusetts in early October. The blaze appears to have started in the component painting facility, although its exact cause remains unknown. Fortunately, there were no injuries and the fire will not have a significant impact on the company's production capabilities.

Pulsar Seminars

Pulsar have announced dates for their 1997 series of seminars. The Masterpiece Intensive one-day courses will be held on Jan 21st, Feb 18th, March 18th, April 29th, May 27th, June 24th, July 29th, Sept 30th, Oct 28th and Nov 25th. These courses will include everything from the basics through to advanced programming.

The series of Equipment Service seminars will be held on the following dates: Jan 22nd, March 19th, May 28th, July 30th, Oct 1st and Nov 26th.

For further information, contact Pulsar, telephone (01223) 366798.

Waldram Lecture

The 1996 Waldram Lecture, sponsored by Osram, will be given by well known theatre lighting designer, Richard Pilbrow. Set for Tuesday 26th November, the lecture will be held at Granada Studios in Manchester, one of the city's main tourist attractions. Admission to the lecture is free, but strictly by ticket only. Bookings should be directed to: Karl Pike at CIBSE Lighting Division, telephone: 0181-675 5211.

Martin Make Waves

Myrtle Beach in South Carolina has seen an explosion of new entertainment venues in the last three years. Taking a cue from Walt Disney's Pleasure Island in Orlando, developers in Myrtle Beach recently introduced Broadway at the Beach, a 1,000-acre entertainment district including restaurants, shops, bars and dance halls. Five of the seven clubs in Celebrity Square, Broadway's nightlife zone, have been designed by Carolina-based API, and a large stack of Martin Professional lighting is making the waves.

An illuminated shark bursting out of the wall with a jet-ski in its mouth welcomes clubbers to the high-capacity Malibu. The 15ft structure is indicative of an API design, as the organisation started as a movie special effects company. Before creating the rig, API's John Benedict researched various beach clubs and brought back the best of the surf bars. The building, with its 25ft ceiling and mezzanine level is one of the busiest spots on the strip. A 15ft square truss holds four Roboscan Pro 518s and four Pro 218s, all run from a 3032 controller.

API took a different turn with the installation in Revolutions. A Universal truss placed against the wall borders the venue's stage with 24 Martin Robocolor IIs and eight Robocolor Pro 400s illuminating the performance platform. Four Roboscan Pro 218s hang above the dance floor, again all run by a 3032 controller.

An off-Broadway API creation is Yesterday's Nightlife. Originally a three-screen movie theatre, its 25ft ceilings contain a full-size aeroplane, a Richard Petty racecar, four Roboscan Pro 218s, four Roboscan Pro 518s, 12 Starflashes, two Magic Moons, four Roboscan Pro 1220s, a Centrepiece and two PAL 1200s on elevators that ride up and down throughout the night. Benedict used a Universal silver square truss with a rectangle on each end that drops and enclose the dance floor.

Moving inland, API is in the design stages for a system in the Alabama Grill in Pidgeon Forge, Tennessee. The restaurant's custom-built media system will include Robocolor Pro 400s, Pro 518s and a 3032 controller. The new restaurant chain presents a multi-media presentation complete with Alabama sound bites and video clips for its diners. The hourly entertainment begins with Pro 518s scanning the room while the video screen drops automatically.

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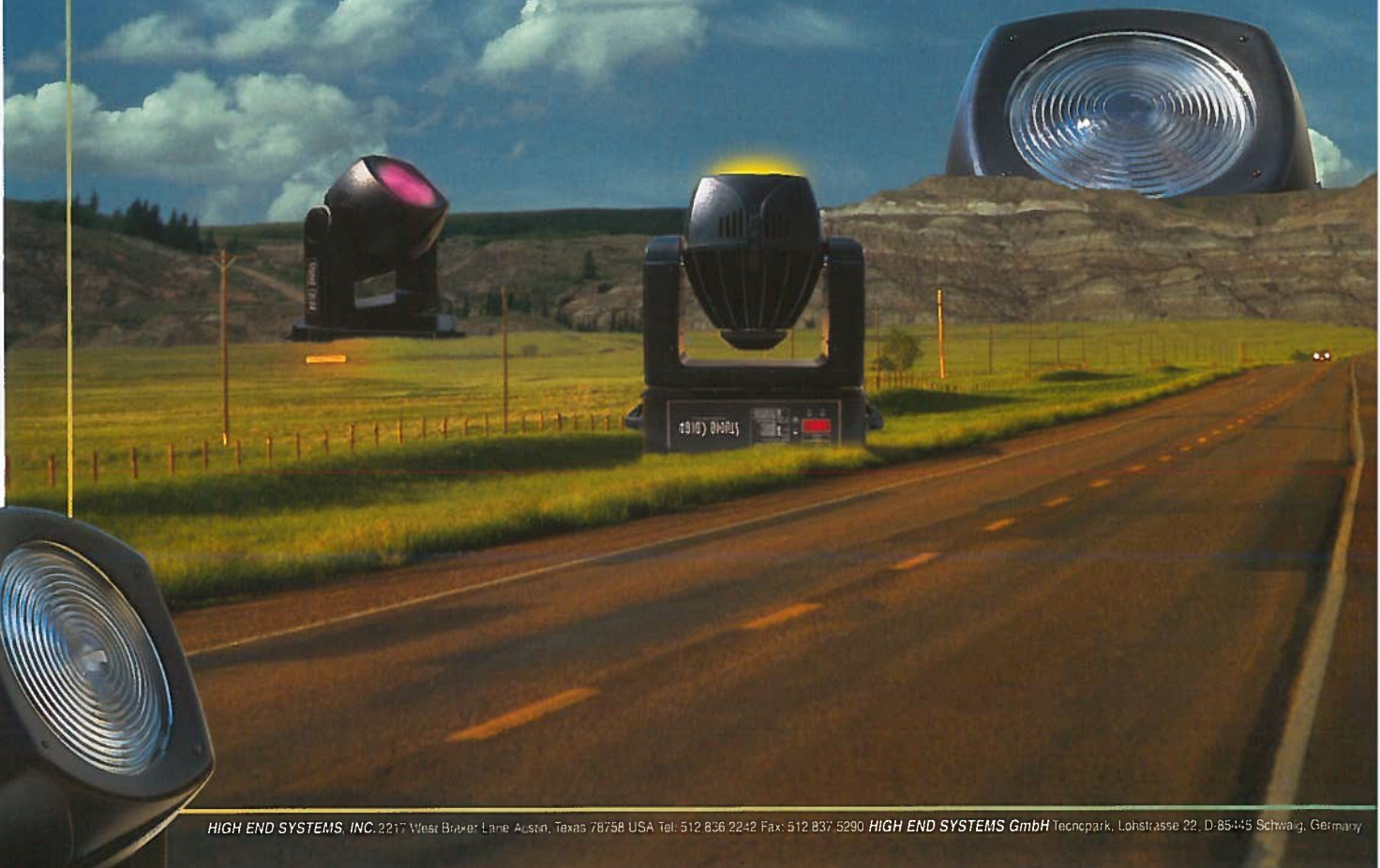
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LIGHTING WORLDWIDE

PSL Gear up for Record Autumn

Presentation Services Ltd, a division of Gearhouse Group Ltd, will offer video support on a record number of concert tours this Autumn. In the UK, November campaigns with East 17, SmashHits, The Boo Radleys and Kenny Rogers, and be followed in December by the Manic Street Preachers and Boyzone, while in Germany they are out with Eboman (supporting Prodigy) and Roger Whittaker.

PSL are also currently engaged on tours with the Smashing Pumpkins, Ozzy Osbourne and Tori Amos. At the end of November they will be servicing the prestigious V-tv Awards in India, while other domestic television contracts include the Channel 4 programmes, Wanted and Gamesmaster. They are also active in the theatre with cameras and video projection out on Chess in Scandinavia. The announcement of PSL's record work schedule comes at the end of a month which has seen them invest well over £4 million in BarcoData, Sony and Sharp projection equipment, and acquire companies in the UK and South Africa.

NATs into NATO



The dancefloor debut of the Coemar NAT MM variants came at the recent opening of Michael Craig's newest nightclub - NATO - in Leeds. Responding to the persuasive arguments of Coe-Tech, Coemar's UK distributor, the specification for the lighting rig, designed by Paul Craig of Showtec, was rewritten to incorporate 12 of the new units which are used to create a myriad of mid-air effects.

In the six months they have been trading together, Coe-tech and Showtec have forged a close relationship, having worked on several joint projects. Both companies were involved with Pals, a bar/brasserie in Hampton Court which features a number of TAS Mini Ultrascans and Apollo Equinoxes.

Fashion Statement

Theatre Projects/Concert Production Lighting (TP/CPL) supplied the lighting for London Fashion Week which took place in late September.

Designed by lighting designer Patrick Marks and assisted by Simon Chandler Honnor, TP/CPL provided all the conventional lights, rigging and moving lights, as well as power distribution backstage for the dressing rooms and production offices. The show, produced by SUPOTCO Productions, included world famous designers such as Ghost, Jean Muir and Nicol Farhi.

The pair are gaining a reputation in the fashion world and also recently put Chanel in the spotlight (with the help of lighting designer Sean Burke), for the Chanel sales conference at The Royal Garden Hotel and they were also involved in The Power Station showcase at The Hanover Grand for which they supplied both conventional lighting and Vari*Lites under direction from Tony Austin.

White Light Expands into East Anglia

White Light (Electrics) Ltd has teamed up with Norfolk-based commercial theatre lighting specialists, Electrolite Entertainment Lighting Services, in order to provide a comprehensive range of lighting and entertainment services to the East Anglian region.

Based in Great Yarmouth, Electrolite has recently been involved in top West End productions such as Tommy and Smokey Joe's Cafe, as well as working on the national UK tours of Grease and Crazy For You. The company is headed by Simon Needle, an experienced production electrician and his brother Chris Smalley, who has over 20 years experience in sales and marketing.

Aida Afloat

Strand Lighting has supplied the complete entertainment lighting package for the show lounge on Deutsche Seerederei's new cruise ship Aida. The entertainment lighting, as delivered by Strand's Finnish distributors, Studiotec, provides a flexible system which lends itself to the various uses of the show lounge. The LBX console, running Genius operating software, provides advanced playback for the running of complex shows and also a fader per channel for ease of operation when a show is put on at little notice.

The Act6+ dimmers provides straightforward dimming of the 111 theatre-style spotlights - 70 Quartets, 16 Cantatas and 25 Coda four compartment cyclorama lights. The package also includes two Solo 1,000W followspots.

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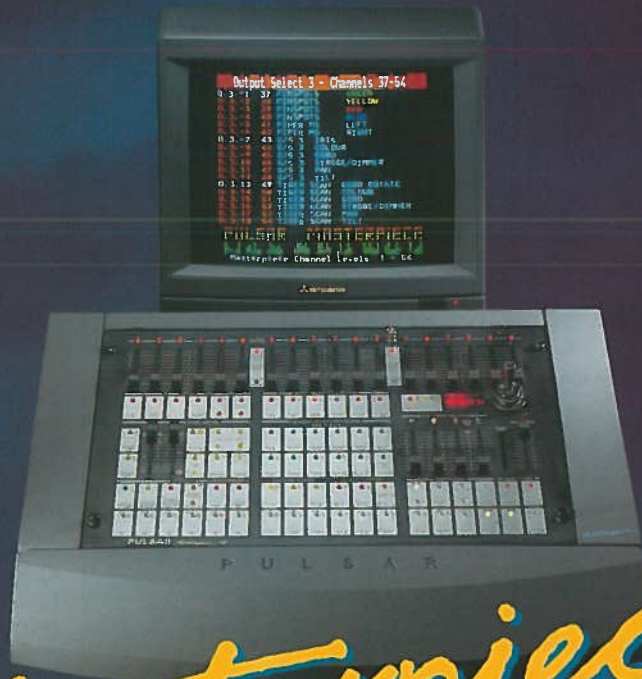
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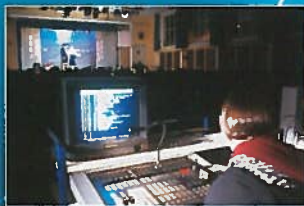
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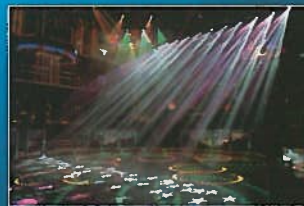
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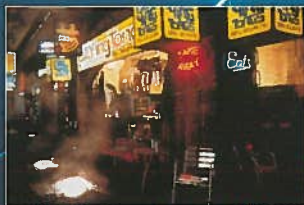
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LIVE MUSIC



PULSAR
LIGHTING FOR EFFECT

Spagna's CP Show

Italian pop star Ivana Spagna has just finished her first wholly self-produced tour. The show travelled the length and breadth of Italy where it was enthusiastically received in over 50 cities.

The tour was named after her latest album release, *Lupi Solitari* (Lone Wolf). Spagna wrote all the songs and personally arranged the artistic production and executive aspects of the tour.

To achieve the required lighting effects she collaborated with Clay Paky designer Renato Neri, who used 26 Golden Scan HPEs, racked around four sides on the superstructure above the stage, 28 floor-mounted Pin Scans providing razor sharp lighting effects, and two high power Shadow Spots for front lighting. For the discotheque repertoire, the designer pulled out all the stops to create a classic discotheque-style show, with the Pin Scans and Golden Scans delivering a crossfire of slicing blades of light, progressing to a dazzling stroboscopic finale. Spagna's Italian fans will be able to see her again next year, in an update of the tour which will again involve the collaboration of Clay Paky.



More Vibrations

Following the success of his best-selling book 'Good Vibrations - A History of Record Production', L+SI's Mark Cunningham is currently researching a follow-up project, 'Live & Kicking - A History of Concert Production' which will be published by Sanctuary Music Library in October 1997 with a foreword by Harvey Goldsmith CBE. He would welcome any anecdotal contributions from sound engineers, lighting and set designers, and relevant industry professionals, past and present. Contact Words On Music, telephone/fax (01708) 620967.

Pyro Award



Cerebrum's Graham Thomas was awarded a special certificate by Le Maitre Fireworks recently, after he successfully designed, rigged and fired his first ever display at LMP in Germany. Pictured above are Le Maitre's Andrew Harvey (left) and Rick Wilson (centre, left) with Graham Thomas (centre, right) and John Lethbridge of Cerebrum.

Numark Go Mad in the Far East

Numark Industries has announced the opening of a new office in Singapore, effective from November 1st 1996. The new operation will be headed by Michael Yeo, who has had many years experience in the lighting and sound industry throughout the region and is very familiar with the Numark line.

In a related move, it has also been announced that the Numark Singapore operation has been appointed as the exclusive distributor (for the same region) for the award-winning range of products manufactured by Mad Lighting of Leicester, England. Nick McGeachin, export director of Numark and Scott Callis, executive director of Mad Lighting, will both be visiting Singapore for the official opening of the office.

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LIVE 4²

THE NEW SPIRIT LIVE RANGE offers even more power than its predecessors, and more than many other mixers costing several times as much. The culmination of months spent talking to engineers and musicians about what they actually needed, Live 3² and Live 4² provide a host of professional features and optimum sound quality, in frame sizes that don't require a team of strongmen to lift them. For the full story read on:



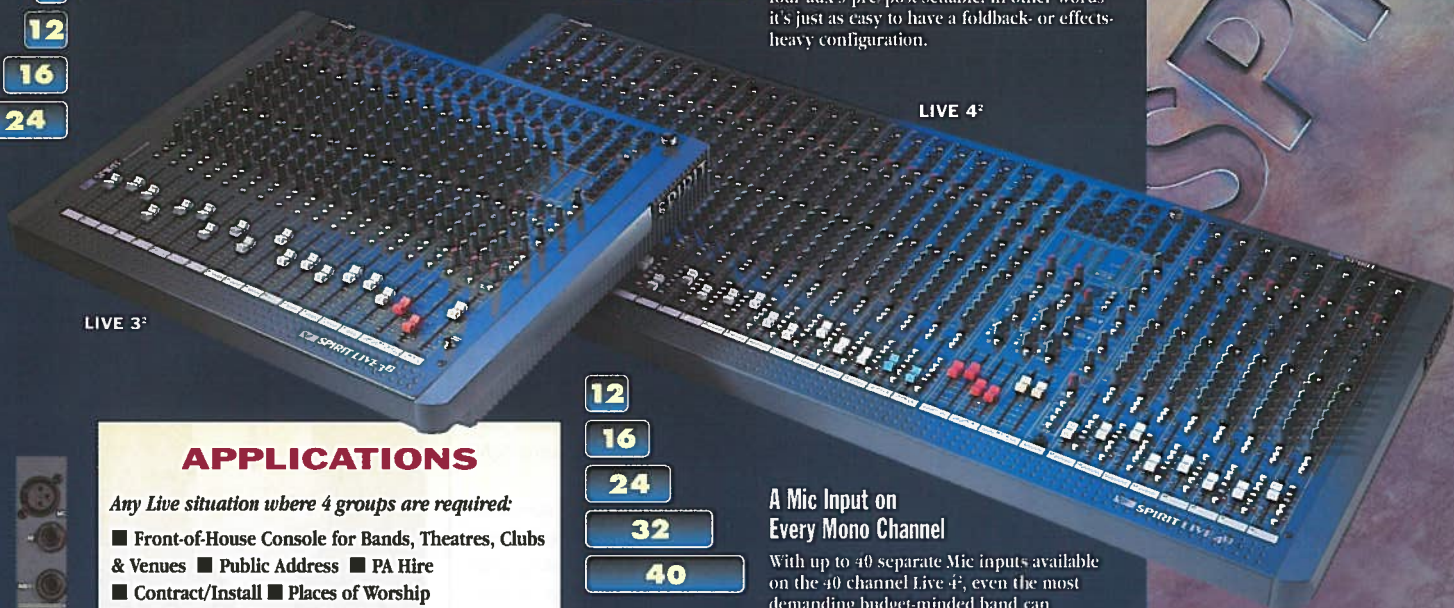
Quiet, High-Headroom Mic Preamps

"UltraMic Plus" is Spirit guru Graham Blyth's most transparent preamp ever, ensuring that Live 3² and Live 4² produce noise-free mixes. In addition, an incredible padless 66dB of gain range means you can plug in anything from line level electronics to the "hottest" of mics without running out of headroom or gain.

Flexible Auxiliary Switching

Four of Live 4²'s six auxiliaries can be set to pre- or post-fader, with three of Live 3²'s four aux's pre/post settable; in other words it's just as easy to have a foldback- or effects-heavy configuration.

- 8
- 12
- 16
- 24



LIVE 3²

LIVE 4²

APPLICATIONS

Any Live situation where 4 groups are required:

- Front-of-House Console for Bands, Theatres, Clubs & Venues
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- PA Hire
- Contract/Install
- Places of Worship
- Conferencing
- Recording (via Direct Outs)

12

16

24

32

40

LIVE 3²

MAIN FEATURES

- 3-Bus Mixer
- Four Frame sizes: 8, 12, 16 and 24 channel
- Separate Mono Bus
- 4 band EQ with two swept Mids
- EQ In/Out Switch
- 18dB/Octave High Pass Filter on every mono input
- 4 Aux's with 3 pre- or post-fader
- 2 Stereo Returns
- 2 Stereo Inputs
- Inserts on every channel
- New UltraMic⁺ Preamps
- 8 Channel Expander Option

PRICES FROM **£739** +VAT

LIVE 4²

MAIN FEATURES

- 4-Bus Mixer
- Five frame sizes: 12, 16, 24, 32 and 40 channel, with separate mic input on each mono channel
- 4 Stereo Inputs for Keyboards or Tape Returns in addition to the mono inputs (2 on 12 ch.)
- 4 Groups, with 4 additional Stereo Returns
- 6 Aux's with up to 4 pre- or post-fader
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- Direct Outs on every mono channel, for individual effects or multitrack tape sends
- 4 band EQ with two swept Mids
- EQ In/Out Switch
- 18dB/Octave High Pass Filter on every mono input
- End cheeks removable to reduce road case size
- 8 Channel Expander Option

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With up to 40 separate Mic inputs available on the 40 channel Live 4², even the most demanding budget-minded band can be satisfied.

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All inputs (even the stereo ones) are balanced on Live 3² and Live 4², keeping the noise floor to a minimum. In addition, both desks' outputs are impedance-balanced so that long interference-free cable runs are possible.

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Each channel on Live 3² and Live 4² has its own individual circuit board, making maintenance or replacement easy on the rare occasions that mishaps or drinks spillages cause a channel to go down.



Expandable

Both consoles offer the option of 8 channel expanders for the smaller frame sizes, and dust covers for protection. The 8 channel Live 3² is rackmountable.



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Chiquito Chooses Canon

As City Centre Restaurants continue to roll out their Chiquito Restaurant & Bar chain, so they are turning increasingly to Canon Audio's V-200 foreground loudspeakers for use in their Tex-Mex diners.

Birmingham-based Viewfax are installation contractors for the entire music package and the latest Chiquito restaurant in Birmingham features four clustered V-200s, using the UCM-200 mounting assembly, suspended on chains from the steel rafters. Four single V-200s are sited in the bar - three on a 3ft-4ft drop from the air conditioning on 10mm rods, using Viewfax's own brackets, and one fixed on the far wall.



RCF Across the UK

RCF speakers are featuring in a number of installations across the UK. Specialist audio design installation consultants Page One, from Maidstone, have specified RCF Event 1000 loudspeaker enclosures for FOH use at the Woodville Halls theatre in Gravesend, Kent. Meanwhile, Lancaster-based hire and installation company Hotwires have been hiring RCF Event series systems to Lancaster University Students Union for their night club/live music venue. The system comprises ESW 1018 sub-bass and Event 6000 enclosures driven from Crest CA12 amps and Event 1000 and 3000 enclosures driven from Crest CA9 amps using an RCF XEQ controller. Use of this system, particularly for the LUST dance night, has prompted the student union to invest in four ESW 1018s and four Event 1000s to supplement the Sugar House's existing system. As the existing system ages, the aim will be to increase the amount of RCF at the venue.

Aquarius Acoustics are installing a new system at Squires, a Unicorn Leisure venue in Preston. The system comprises four AQ18 bass bins loaded with RCF L18S800 drivers and four Event 1000 enclosures. Amplification is provided by a Crest CA12, a Crest CA9 and two Crest CA4s for DJ monitoring and the peripheral system.

Cerebrum at Eldon

Eldon Gardens shopping centre is arguably one of the largest retail developments in the North East and has enjoyed success since the late eighties. Capital and Regional, the operator of the site appointed Torres Design Associates to tailor the centre to appeal to new market sectors using light and image projection.

Cerebrum Lighting were appointed as specialist lighting consultants and proposed a phased effects scheme to work with the general lighting and videowall. As the installation was to be in four phases, the choice of control equipment that could accept real time and time code triggers led them to specify Maris products. 12 Clay Paky Combi colours provide the effects lighting by uplighting three groups of suspended 'sails'.

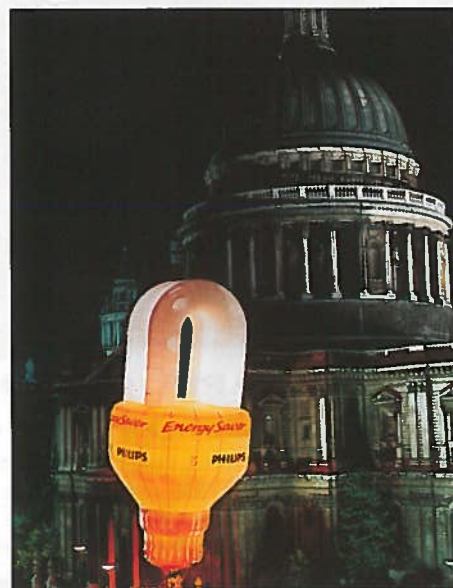
Cerebrum have also put together a package of lighting effects and hardware for Guildford University's Student Union. Equipment supplied includes Pulsar, Clay Paky and Martin effects, whilst the rigging for the disco area is provided by Trilite and Thomas trussing which is used over the stage area mounted on special rollers. Control is provided by Pulsar's Masterpiece via Datapacks, complementing their existing Avolites Pearl desk and touring dimmers.

Sound Control

Colin Pattenden of CP Sound won't admit that the job was a labour of love but he did agree that fitting a Formula Sound AVC2 sound level controller in the Gaslight Club in the West End of London was one of his more interesting contracts. The Gaslight Club is sited below a residential flat and complaints had been received about the high volume of the music from the club. CP Sound was called and Pattenden recommended an AVC2 which could be set to limit the volume to a level that the local EHO agreed was reasonable.

CP Sound were also called upon to set up a Formula Sound Sentry at The Porchester Centre in Bayswater which is used by a number of live bands and mobile discos.

Big is Beautiful



The world's largest light bulb, a 103ft working replica of an EnergySaver light bulb from Philips, put winter energy conservation clearly in the spotlight to mark the end of British Summer time on Sunday October 27th.

Standing tube by dome with St Pauls Cathedral, the giant bulb emerged on to the London skyline to highlight Britain's stepping out of time with 'Eurotime'. As the clocks go back, consumers on this side of the channel swallow up an extra 3000 Megawatts of evening energy every day, equivalent to the output of three large powerstations.

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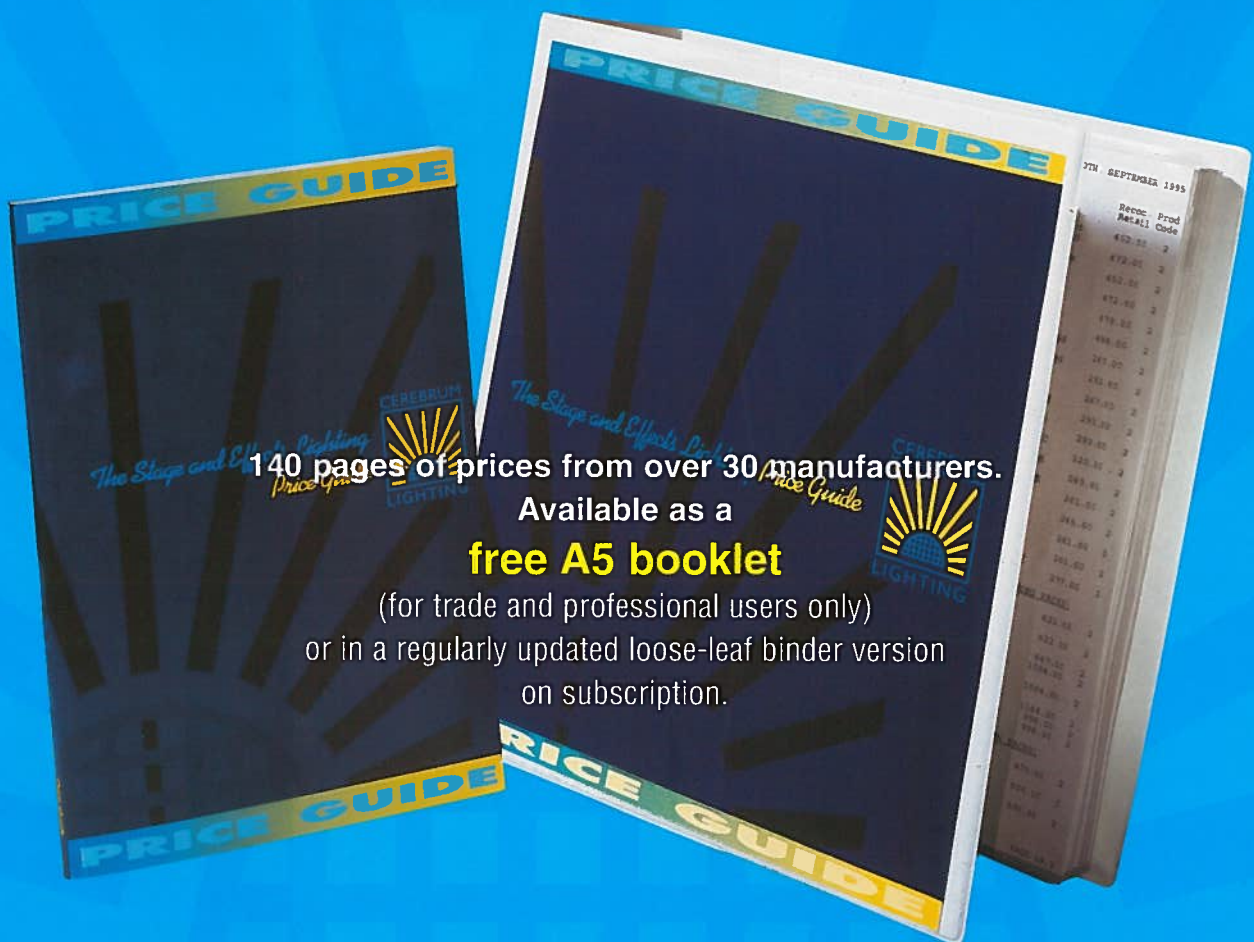
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Punk Efficiency from the Pistols



Punks they may be on stage, but behind the scenes the Sex Pistols and their crew have an extremely professional attitude, according to Chris Beale of SSE Hire. The Birmingham-based rental company supplied a massive Mark IV-dominated rig, using 24 EV MTH4 mid-high boxes and 24 MTL4 bass units plus MT2 and EV-loaded SSE 'BetaMax' monitors for the recent Pistols/Madness gig at London's Finsbury Park. Among 15 Klark Teknik signal processing units were the new DN3600 digital graphic EQs, while front-of-house mixing was via two Midas XL4 consoles, with two Midas XL3 40/16s plus a Midas XL3 Stretch on monitoring.

"The shows were very exciting and had to run like clockwork, with a minimum of down time between acts," reports Beale. "We supplied two FOH engineers to work with the bands' engineers so as to ensure trouble-free operation during performance. Behind the scenes we ran a rolling system with one rig in performance, one line checking pre-performance and another being built.

Concert Systems Tour with XTA

Cheshire-based rental company Concert Systems have specified an XTA Electronics RT1 real-time spectrum analyser on three tours this autumn - The Bluetones, The Prodigy and The Beautiful South.

Also using XTA equipment are Orbital, the London-based theatre and conference sound rental company, who have recently taken delivery of six DP 200 digital signal processors, together with a quantity of GQ 600 graphic equalisers. Orbital's first units have been deployed on the 1996 Lindsay Kemp Tour, as well being put to use on both the world launch of the Ford KA in Paris and the Birmingham Motor Show.

CyberLogic's High Profile in Australia

The CyberLogic range of high power multi-channel amps is winning a high profile in Australia, with local PA company System Sound Pty Ltd using the 8-channel NC-800 series power systems on a wide variety of major projects, including The Victoria State Opera's Puccini Spectacular in Melbourne and Sydney during the summer.

The Puccini Spectacular concert was staged in Melbourne Park and the Sydney Entertainment Centre and the system for the event included a 49-channel Sennheiser 1046 radio microphone system for the soloists and chorus, with a selection of Meyer Sound speakers. The large orchestra clusters comprised Meyer MSL-3A and DS-2 cabinets, powered by a single CyberLogic NC-807 power system and two NC-812s. The size and weight of the systems were a major factor for the show, as they had to be hoisted 60ft into the air!

Other recent events for the amps included Tina Arena's 'You asked for it' national tour of Australia which was cited at the 1996 Entech awards as the best concert touring sound. The entire system was driven by two NC-807 and two NC-812 CyberLogic Power Systems. Another production using the system is the Les Misérables Asia/Africa Non-Stop 96 Tour, which is being staged in Cape Town, South Africa, with a complement of just five Cyberlogic systems.

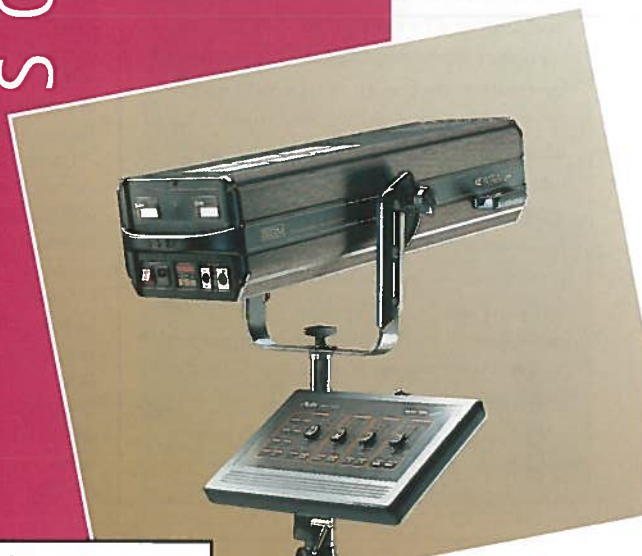
System Sound has a total of 10 CyberLogic NC-800 Series power systems and power modules, which are constantly out on the road, and there are plans to expand the number in the near future.

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M&M In Training

Following on from the popularity of the Scانcommander training courses which ran earlier this year, M&M has arranged a further three two-day workshops. MA Lighting demonstrator Coral Cooper has designed the course, which will provide participants with personalised tuition on the Scانcommander and an overview of active systems. The courses, which take place at the offices of M&M at Camden Lock in north London, are scheduled for November 21st and 22nd, November 28th and 29th and December 4th and 5th.

Further three-day courses are planned in conjunction with Vari-Lite Europe specifically for lighting designers who already have Scانcommander experience, but wish to augment those skills. The courses, run by Coral Cooper, together with Andy Voller of VL Europe, provide participants with the technical support and experience needed to understand both the Scانcommander and the Vari*Lite systems and include the Vari*Lite DMX installers course.

For further information contact M&M, telephone 0171-284 2504.

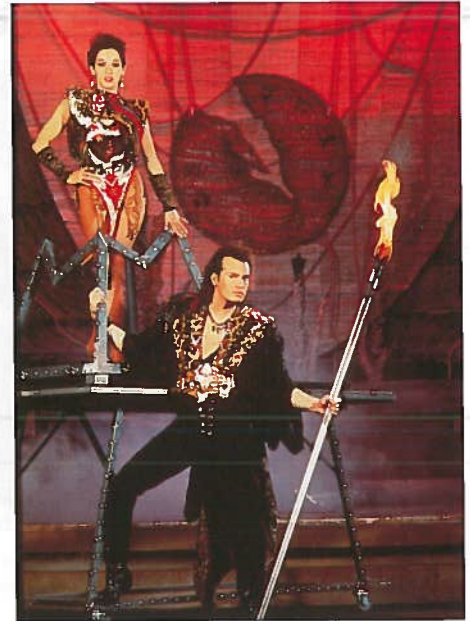
Garrett Caine Lights Mystique

US-based Garrett Caine, creative director of Thomas Gregor Associates, recently completed the lighting design for *Mystique*, a spectacular stage show by Dick Forster Productions. Originally staged at Harrah's Tahoe earlier this year, the show has just completed a successful three month run at Harrah's Atlantic City.

Mystique combines magic acts and circus performance into a single production. The overall look of the show, rather than its content, provides the unifying factor. Each act represents one of the major elements - earth, water and air. The lighting plays a key part in setting the mood. "In many ways, this was a great show to light," said Caine. "The show has an otherworld feeling to it, so there weren't any restrictions in terms of the lighting. We didn't have to duplicate any existing space, so that gave me a lot of freedom."

Caine used different colour combinations for each act - ambers and greens in the first act; blues and teals to symbolise water in the second; hard lavenders and purples to represent air in the final scene.

Mystique provided the lighting designer with a variety of challenges. In each venue, Caine had to rely heavily on the existing house lighting. A Clay Paky Golden Scan 3 moving light system was brought in to facilitate the lighting of the aerial acts and to add texture to the set. Followspots and floor lights were attached to the edge of the stage and moving Superscans mounted to flying trusses



Star magician Joaquin Ayala and Lilia Dick Foster in *Mystique*.

were added to light winged show girls who fly over the audience.

To Garrett Caine, the most interesting lighting challenge was the magic. "It's very difficult to dramatically light magic because that's the type of light that can be very revealing," says Caine. "There's a very specific technique you have to use. You have to know how to support the act without revealing the illusions."

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Standard lens	Electronic Zoom from 8° to 16°	24 and 15 degree	11°
Optional lenses	—	13 and 9 degree	16°-13°-11°-9°
Electronic focus	*	*	—
Wheel with 7 colours + white	—	*	*
Wheel with 7 special colours + white	*	*	—
Special light blue filter	—	*	—
Rainbow effect, two-colour beams	*	*	*
Colour temperature correction filters	2	2	2
RGB colour mixing systems	*	—	—
Max. No. of colours	Infinite	113	24
Rotating gobos in dichroic glass	Optional	2	Optional
Rotating M-size metal gobos	4	2	4
Fixed M-size metal gobos	4	4	—
Variable speed indexed two-directional rotation of gobos	*	*	*
10 additional gobos in metal	*	*	*
Fixed prisms	—	1 (5 facets)	1 (4 facets)
Rotating prisms	2 (4 facets, 3D)	4 (4 facets, 3D, wake, image doubling)	—
Frost filters	2	2	1
Iris	increased speed	increased speed	*
Dimmer 0-100% - Stop - High speed strobe	*	*	*
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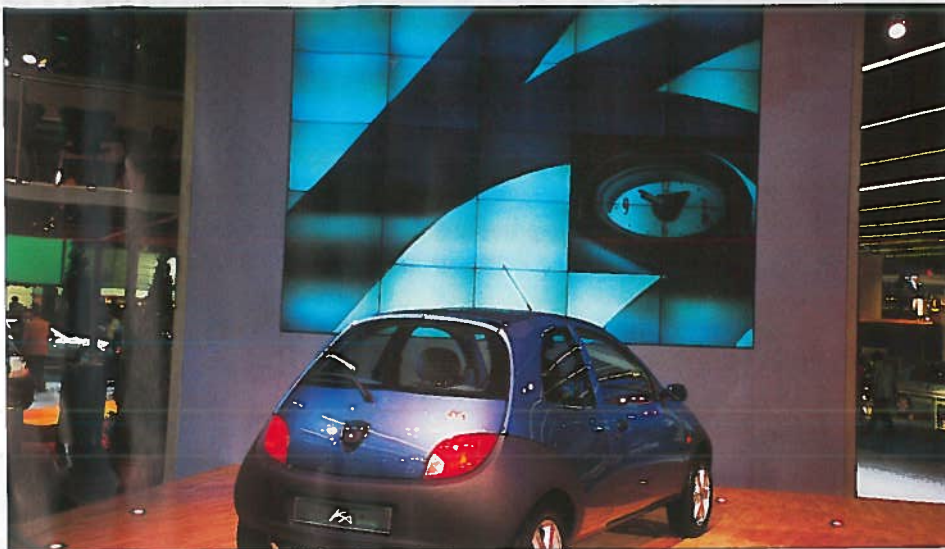
International Martin

Martin Audio dealers PSD Electronics are involved in a massive Belfast nightclub fit-out for operators Wine Inns. Manhattans, purpose-built by the company four years ago, is undergoing a £200,000 technology refurbishment.

Phil Soltys, who runs Newquay-based PSD Electronics, and who has been responsible for the sound and lighting installation, has specified four of the new Martin Audio Wavefront 8Cs with WSX bass enclosures on the first floor with a growing number of EM26s and EM15s (for balcony, staircase and off-floor sound-fills). The balcony now features a complete Martin system, whilst on the ground floor of the glass-fronted building, PSD have added Martin EM75s, EM150 subs and EM15s for rear fills as part of a surround system.

Martin's Russian dealers, A&T Trade Inc, have confirmed several installations using Martin Wavefronts, including the Mirage Club & Restaurant, the Taganka Theatre and Chuck Norris' Beverly Hills Nightclub, all in Moscow.

Several new venues in Cyprus including La Maba in Paphos and Makedonas in Avia Napa, have also been given the Martin Audio treatment - this time by their distributors V&M. Meanwhile, Italian company Audiosales srl has carried out a major Martin Audio install in Marina di Carrara. The venue, named Jammin', is part of a chain of live bars operated by Heineken Brewery and features four flown Wavefront 3s, with WS2s, a WX3, WX3S and four CTWs.



Wall to Wall Video

Montenegro, the independent republic within the new Federal Republic of Yugoslavia, is currently holding parliamentary elections in the capital, Podgorica, and a HiWall videowall system from Laserpoint is providing the visual excitement for the election campaign. The system comprises a 6 x 5 HiWall videowall processor and 30 Pioneer multisync cubes. On the other side of Yugoslavia, in Belgrade, Laserpoint's dual field processor, Q-Wall, will be installed in a new basketball arena.

Laserpoint also provided 65% of the videowall processors used at the Paris Motorshow this year,

highlights of which included a 6 x 6 multiple input HiWall using Toshiba cubes on the Citroën stand. The videowall was motorised to split top from bottom with the top section moving around the stand in a 10m arc and stopping at different feature points. This was mirrored by a 6 x 3 HiWall/Toshiba projection wall on the opposite side of the stand. HiWall's software package, No X-Cues, co-ordinated the movement of both walls.

Using mainly HiWall processors, Ecran Total installed a total of 13 videowalls for Citroën, Renault, Toyota and Ford Commercial. Creative Technology supplied two 5 x 5 multiple input videowalls using HiWalls.

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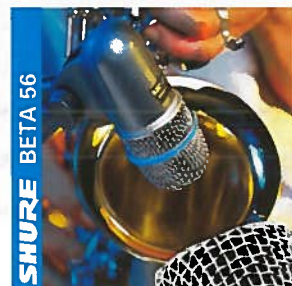
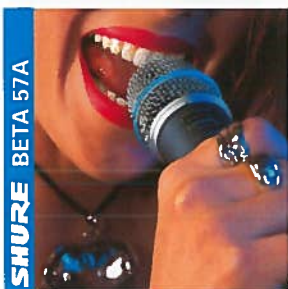
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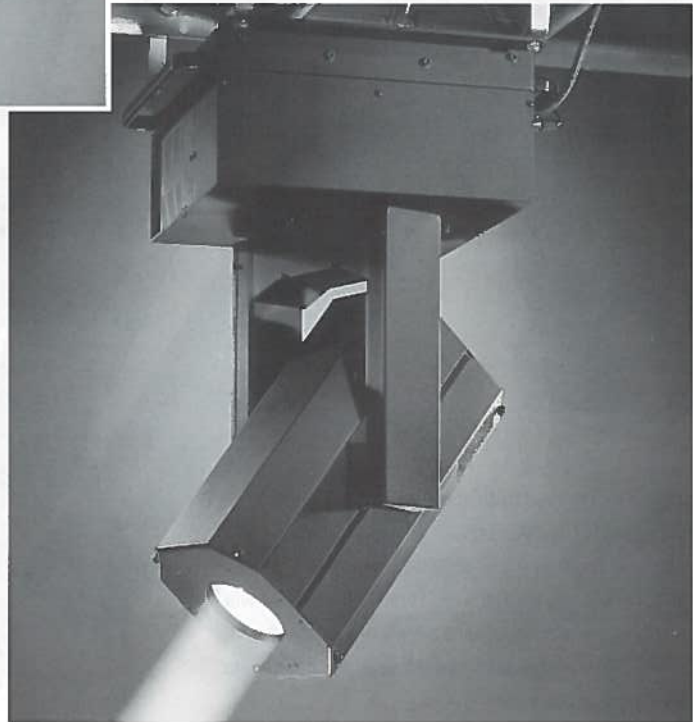


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Celco Rethink US



Celco's new American partnership: Colin Whittaker (left) and Keith Dale (right) flank Novatec's vice-president, John Bilyk.

Celco have taken on their own distribution in the United States, in a joint arrangement with their Canadian distributors, Novatec, who will shortly be setting up a marketing base in the US. The deal was confirmed by Celco business manager Keith Dale and Novatec president, Brock McGinnis, following the launch of the new Ventura 1000 lighting console at this year's PLASA Show. The move brings to an end a long exclusive relationship with Jack Kelly's Group One. Also appointed as a sub-distributor in the reshuffle are Californian-based TMB Associates, who have enjoyed a close relationship with Celco for more than 12 years.

Novatec's US marketing will be spearheaded by John Bilyk, the company's vice-president and a founding partner and the US operation will be officially launched at the Lighting Dimensions Show in Orlando this month.

Celco have also restructured their international distributor network. In Germany they have parted company with LMP Lichttechnik in favour of a joint arrangement. They are now represented in the entertainment sector by a new company, Focus Showtechnik, based in Lotte near Osnabruck.

There have also been distribution changes in the Far East, traditionally a strong market for Celco products. In Korea they have appointed Myung-Do Electric Co who are also the Clay Paky and Pulsar agents, as their exclusive representatives. In Singapore, Audio Visual Land Pte Ltd have also cemented their new status as Celco distributors by taking a range of demonstration stock, and are currently specifying Celco on several large projects.

PLASA Members Collect Export Award

Both Allen & Heath and Canford Audio have become regional winners of the NatWest/FT Export Excellence Awards. Now in their fifth year, the awards promote and reward excellence in all levels of exporting activity. Allen & Heath now has over 100 employees at its Penryn factory, which has been the company's base since 1983. The company produces professional audio mixing desks which are used in theatres, clubs and churches across the world. Canford Audio was established in 1978 and offers over 10,000 products, ranging from cables and connectors through to sophisticated broadcast software.

Both companies will now go forward with the other regional winners to the national award ceremony which will be held in London on November 20th.

Cadac takes Sunset Around the World

The highly successful Lloyd-Webber musical Sunset Boulevard is continuing to extend its international reach, with a long-running US Tour currently in progress and a new production recently opened in Australia. Cadac J-Type mixing consoles feature on the show in both instances, with sound design by Martin Levan.

In the US, Sunset Boulevard began its two-year tour at the end of June in Denver, Colorado. A total of 15 cities are currently included in the schedule, ranging from Chicago, San Francisco and Houston to Tampa, Dallas and Columbus - where the tour concludes in July 1998. The sound design for the tour involves Martin Levan's use of the Cadac J-Type's sophisticated motor fader system for the first time. Sound equipment for the show was supplied by New York-based ProMix Inc.

The Australian premiere of the show took place at the newly refurbished Regent Theatre in Melbourne. Local sound engineering company, System Sound, was responsible for supplying the 72-channel Cadac J-Type amongst the extensive equipment list.

Morpheus Metamorphosis

Morpheus Lights is officially handling the sales and support of the PanCommand range of products as part of its newly expanded marketing programme. All existing PanCommand products such as the family of color changers consisting of the ColourFader, ColorRanger, XL Ranger, and moving lights including the ProSpot, PC Spot, ProSoft and FaderBeam, will now be serviced and supported by the newly installed customer service department at Morpheus Lights Inc. The company is currently seeking new dealers for these products on a worldwide basis.

Morpheus expanded its international production network last month by placing its PanCommand lighting systems with Tour Services in Germany and The Moving Light Company in the UK.

GDA Presence Grows

Norfolk-based GDA have been involved in the entertainment industry for many years, and their expertise has led them to be consulted in a wide number of projects across theatre, television, film and live performance. The company also had a hand in the largest videowall ever built, containing a total of 960 monitors, at the recent Expo in Seville.

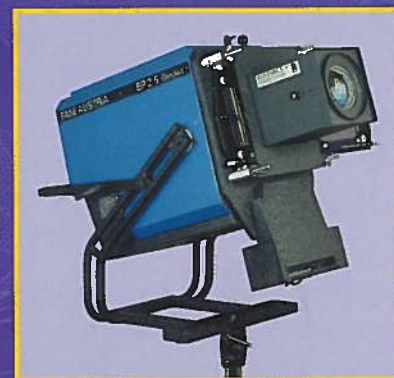
GDA produces a wide range of theatrical equipment from safety curtains and stage lifts, to purpose-built projection platforms, and, at present, is engaged in projects in Europe, the Middle East and Asia involving the supply of stage grids, counterweighting and control systems.

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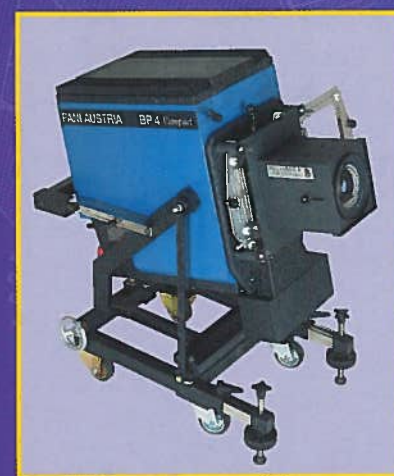
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"I won't do a show anymore unless I think it's going to be fun," Ken Billington says. "To me, that's when a team of people come together to produce something that makes the audience stand up and cheer."

According to Billington, that creative team goes beyond performers and directors - it also includes the innovators whose tools make certain effects possible. Take, for example, one of his long-running outdoor spectaculars that brings cartoon characters to life. The show's visual feast of fountains, fireworks and bold color effects was taking quite a toll on the equipment.

"The fountains were shorting out three or four color changers a night," Billington says. "I had two choices: lose some effects, or find a water-resistant color changer." He turned to Wybron, and we developed THE AQUARAM. "Two years later," Billington says, "we've only had to replace one unit."

Tools are an important part of the creative process," he says. "When I don't have to worry about the mechanicals of a show, the possibilities are almost without limit." At Wybron, we are proud to remove the barriers to imagination, so designers like Ken Billington can stay focused on the magic.



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TSC at Schlotzsky's Deli



Terry Sayer (left), TSC southern area engineering manager, Tamara Nourie (centre), Schlotzsky's manager - Oxford branch and Andrew Abdool (right), TSC Music division manager.

PLASA member TSC Music Systems was awarded the contract for the supply of a total entertainment system to the first of many 'Schlotzsky's Deli' outlets in the UK, which opened recently at the Plaza Centre in Oxford Street.

Schlotzsky's Deli is one of the fastest-growing restaurant chains in the US and part of its appeal lies in its use of high-tech audio-visual systems. TSC supplied and installed a complete entertainment package incorporating an eight-hour compact disc player, a satellite receiver, a video player linked to a number of TVs and a voice reinforcement system.

The company have something of a pedigree in the food market and already count McDonalds, Burger King and KFC among their clients. They have also recently achieved ISO 9001 accreditation.

Samuelson Get BBC Contract

Samuelson Communications Sales has recently supplied a video projection system for the new weather centre at the BBC. The new centre, described as the most technically advanced in the world, has been supplied with a Barco 701 video projector, a Draper rear projection screen and the latest Crestron control system.

The order from BBC Special Projects Department included the programming of the Creston control system with the requirements of each of the individual weather forecasters. This enables the self-adjusting camera and the studio lighting to automatically adapt to the needs of the BBC's team of nine men and five women before each of the 48 televised weather forecasts each day and the seven forecasts for radio.

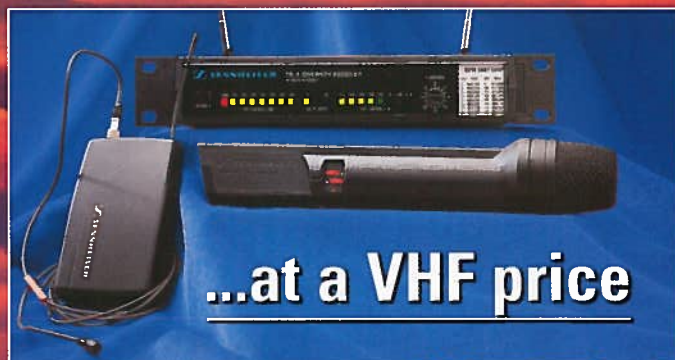
Tarsin Standardise

In view of installation company Tarsin's historical use of BSS FDS-360 crossovers and the FDS-388 Omnidrive loudspeaker management system for running their sound system installations, MD Peter Dyer has now upgraded his EQ specification to the FCS-960 dual mode graphic EQs - the latest application being at popular dance venue, The Void in Stoke.

BSS also report a number of recent sales to the television market, including a number of DPR-404 four-channel compressor de-essers. Top of the Pops has purchased DPR-404s and eight channels of MSR-604 II mic distribution system. Meanwhile, MTV Europe have recently purchased four DPR-404s for two of their studios to add to their existing stock - adopting the same principle of multi-compression as used on Top of the Pops. They have also added a Varicurve for foldback purposes in another studio, which is used to recall different EQ settings appropriate to the different types of artiste.

Another recent purchaser was broadcast television company Cinevideo Ltd who have added two further DPR-402 two-channel compressor/de-essers and a TCS-804 dual time corrector - first used for satellite time correction at the Wimbledon Tennis Championships.

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DLC Development

DLC (Definitive Lasers) Dubai have moved to new premises. They now occupy a 42,000sq.ft complex on the Abu Dhabi Road, Dubai, called 'The Production Village', which incorporates a group of related companies.

The company can now be contacted on tel: (9714) 470484 or fax: (9714) 470880.

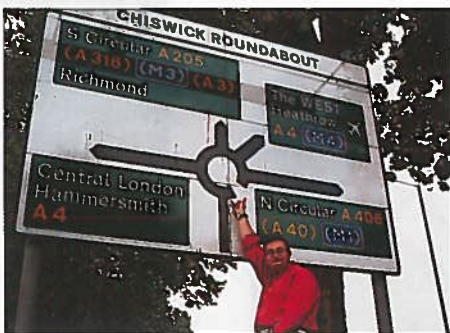
CPL Face the Music

Concert Production Lighting (CPL) has equipped a number of musical events including *Top of the Pops (TOTP)* at Wembley Arena, as well as tours for *Kula Shaker* and *The Scorpions*. CPL won the *TOTP* project, which was staged in aid of *Childline*, in a competitive tender, supplying all the conventional lighting for the two-day event.

LD Peter Barnes approved an equipment list which included an extensive range of over 50 *Vari*Lite* luminaires with a *mini-Artisan* console, a grid built of *Pre Rig Super Truss* and a conventional lighting and effects package controlled by a *Wholehog II* and a 56ft starcloth truss supplied by *Blackout*. CPL also supplied the audience lighting which included 30 *VL5* luminaires.

Subsequently CPL won the contract to supply all the conventional lighting for the *Kula Shaker UK* tour working with production manager *Martin Walker* and lighting designer *Rob Gauler*. The company is also supplying all the lighting, both conventional and automated (including more than 50 *Vari*Lite* luminaires), to *The Scorpions* world tour, which recently began its European leg.

New Production



A new company specialising in the supply of a wide range of broadcast and film production equipment has just opened near to the Chiswick Roundabout in London.

Known as The Production Kit Company, it is managed by Phil Barker, who has spent many years in the industry, notably with Samuelson Film Service, AKA, PAG, Optex and Visual Impact. The company can be reached on 0181-995 4664.

RCF China

RCF have set up a limited company in China. The announcement, which came at the recent PLASA Show, noted that the operation - RCF China Ltd - would be owned by the Italian parent company, but controlled from Hong Kong by Jeffrey Luk and Tommy Chow, both shareholders. Attracted by RCF's vast commercial audio-into-projection portfolio, Chow saw a huge market potential in developing China, and approached the company's Fausto Davoli and Fausto Incerti when they visited the Far East.

Explaining the rationale, Chow told L+SI: "To find a single distributor to service the whole area was impractical. RCF needed a sales staff that could serve the customer locally. The new company will provide that service. Three sales personnel will be based in Hong Kong bolstered by 10 sales representatives in China, where there will also be a servicing centre."

The immediate priority is to consolidate a service and spare parts inventory and establish warehousing.

Announcing Hi-Tech

Hi-Tech Audio is a newly-formed sales and distribution company. Based in the accessible Cheshire heartlands, the firm is headed by Darryl Thorpe, who has relinquished the post of sales director at Ohm Industries Ltd after seven years to concentrate on this new venture. The company has already secured exclusive distribution for the UK and Eire of AB products from California.

Hi-Tech Audio can be contacted on tel: (01625) 526345 fax: (01625) 530950.





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The Roundhouse at Ponds Forge



Notoriety will sometimes be a pre-cursor to success. How many West End shows have received a mauling in the press only to go on and become long running successes? The site of the Roundhouse is already infamous, in Sheffield at least, as being the location where a youthful and charismatic Christian priest established a Rave version of Christian celebration. The basement of the Ponds Forge sports and leisure complex where these events took place is owned by the City Council and although they were able to curtail these activities swiftly, they were then left with a valuable city centre space.

Sheffield International Venues (SIV) already manage the Ponds Forge complex as well as the Don Valley Stadium and Sheffield Arena. With a well honed expertise in utilising recreational space, they decided to retain the room's function as a venue for dance and music and contracted Roadstar, a local PA builder and installer, to oversee both the sound and lighting refurbishment. Gaynor Bradshaw of SIV worked closely with Craig Broadwick from Design and Build Services to remodel the room.

The room has retained its circular character and the bar has pushed out a 12 metre section of wall. To break the monotony of the space and provide a quiet retreat from the dance floor, a ramp rises gently to the left of the main entrance to a platform area approximately 1.5 metres above the floor. Otherwise the room is rather anodyne, almost totally without character.

A number of factors influenced the choice of Roadstar as contractor. They are local, with successful installations already at one Sheffield club, and, perhaps of greater importance to the owners of Ponds Forge, they had existing examples of their expertise in a more public/civic domain, namely the giant food hall at the Meadowhall shopping centre where they had installed a PA system. Roadstar also have a history in the touring industry, where they developed their own design PA system based on JBL components. This aspect of self-design and build has influenced their success in the installation market.

Roadstar's 2 x 15" bass cabinet (CR215B) is less obtrusive than many, but their location, backed onto monolithic concrete pillars, a circle of which encompass the central 12m wide dance area, did force a flattening of the box. There are eight bass cabinets in total on four of the eight pillars, four facing inwards and four out. For the mid highs (16 of their CR12Ts) there's a higher concentration with one three metres up on each pillar slightly angled down, with further cabinets around the outer walls and above the bar. All the speakers are powered by Crest amplifiers (VS900s, 1100s and 1500s) and the control gear is all Behringer, two MDX2000 compressor/limiters, with two Ultracurves employed to control an inner and outer sound ring.

There's a four second reverb natural to the room, and coupled with the inherent acoustic anomalies caused by its circularity, Roadstar brought in freelance sound consultant Marcus O'Hagan. O'Hagan has designed some small (4' x 2') hanging panels to deal with the high frequency problems and some bass traps. By effectively re-engineering the room Roadstar have thus avoided having to dial problem frequencies out of their system, much to the benefit of the punters.

With the lighting Roadstar again drew on established expertise. Lighting designer Dave Moore has worked with them for over five years and in keeping with the stark feel of the room, his system is simple, but not sparse. Four Astralite trusses transect the room into four quadrants, hanging from them are four Golden Scan 3s, six Anytronic Superstar strobes, two six lamp bars of Par 64s, four Strand 650W profiles and four Optikinetics K1s. To round off the effects six Galactic Moons from Abstract and a pair of Jem smoke machines make for a busy room. This is an environment where a variety of effects can work well together without confusion, the K1s being especially effective on the large expanses of white wall, while the Moons and GS 3s weave their spells around the dance floor. The whole system is controlled from a Pulsar Masterpiece with all the lighting gear supplied by AC Lighting.

Steve Moles



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Rock Hard



Pictured above is Island Systems's Carlos Gonzalez with the Apogee system.

Island Systems & Design's formula for themed restaurant sound is now embracing 16 additional Hard Rock Cafes. Some 300 specially-designed ISD-3 speakers and 100 Apogee ACS-110 subwoofers have been manufactured by Apogee Sound for installation in three new restaurants (Niagara Falls, Atlantic City and Key West) and 13 existing locations from Chicago to Maui.

AKG Help The Prodigy 'Breathe'

Several UK PA, theatre and backline hire companies, including Sensible Music, Gradav, and MM Productions, have ordered stocks of AKG's new WMS 300 UHF radio-microphone system.

Engineers who favour the system include Jim Ebdon (Wet, Wet, Wet/Tears For Fears) and Jon Lemon, who is using the WMS 300 with The Cure. One band giving full approval to the WMS 300 system is The Prodigy, who've been running four channels throughout a host of summer dates taking in The Phoenix and Reading festivals, as well as the shows with Oasis at Knebworth and Cork. For the 'Breathe' UK tour currently underway, AKG has supplied co-front man Maxim with chrome-plated AKG WMS 300 hand-held transmitters.

Celestion Gets Taste For Chicago

The City of Chicago recently purchased 30 Celestion KR8 loudspeakers for the annual 'Taste of Chicago' celebrations.

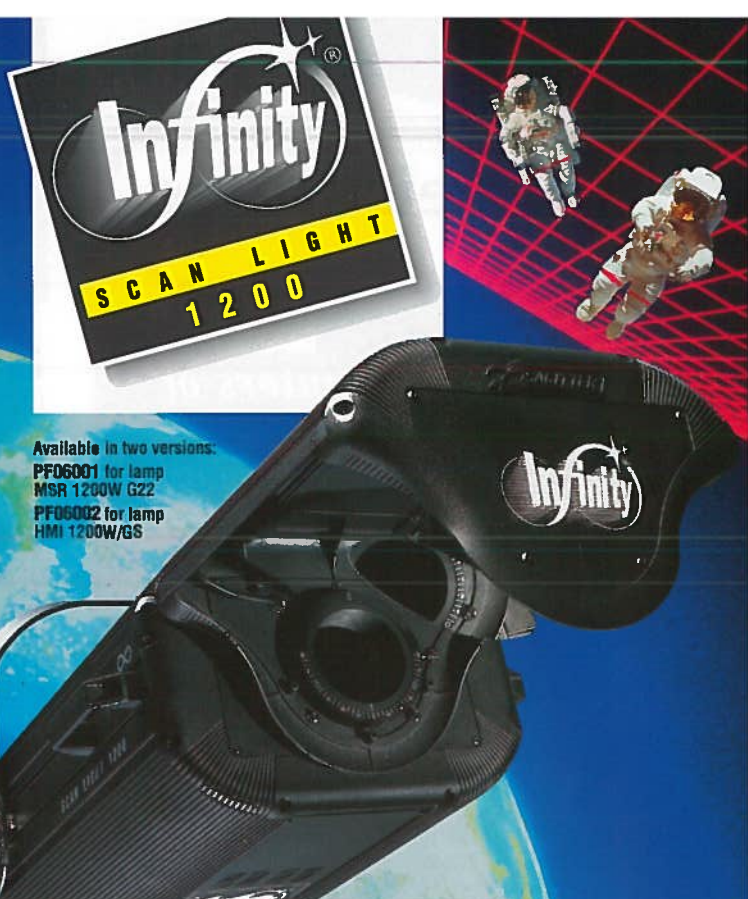
The KR8s were used to provide general sound reinforcement throughout Grant Park, where the 11-day festival was held. Chicago Sound Inc. handled the sale of the loudspeakers, having provided audio for all of the park's festivals over the past five years, including the Blues Fest, Jazz Fest, Gospel Fest and Viva Chicago.

In addition to the daily events, evening concerts were held featuring such top names as James Brown, Harry Conick Jnr, Del Amitri and Hank Williams Jnr. To ensure that the music could be appreciated throughout the park, a split was taken from the stage and run 2,000 feet to the production trailer. From there, a signal was sent out on delay to the 30 Celestion KR8s flown individually on light poles amongst the various entertainment areas.

Prior to delivery, Celestion provided additional weather-resistant protection to the loudspeakers, by sealing the drivers, placing screens over the horns and sealing the reflex vents. Once Chicago Sound had taken possession of the enclosures, the company fitted 70 volt transformers to the units and sealed the cabinets with silicon sealers around the seams.

Virgin Ghost

One of the UK's most successful commercial radio stations, Virgin Radio, recently used a Soundcraft Ghost console for a part live, part recorded station concert with Robert Palmer and his band The Powerstation. The concert was set up in Virgin Radio's Bar, The Zoo, and broadcast to around four million listeners.



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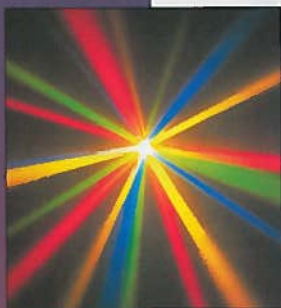
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Big Bang Anniversary



The London Stock Exchange, in association with Andersen Consulting, recently celebrated the 10th anniversary of the Big Bang by arranging a party in aid of the Save the Children fund.

David Jamilly of Theme Traders, the designers of the event, put together a themed evening opening with a short drama acted out at the Throgmorton Street entrance, leading into Jonathan's Café. The guests were then guided by actors through a tunnel onto the old market floor, where they were shown the full scope of the London Stock Exchange. Scenic art was undertaken on a vast scale and one of the largest paint frames in Europe was used to paint the 21ft by 40ft world map and the other 21ft by 300ft backdrops. Project manager Chris Watts praised the enthusiasm of the Stock Exchange project team. "They provided assistance and back-up at all stages - nothing was too much trouble."

SIEL 97 - Paris

SIEL 97 and the 12th Theatrical Services Exhibition will be held in Paris, from 9th to 12th February 1997, at the Porte de Versailles exhibition centre.

For 15 years SIEL has been one of the leading events in the European market, and its 96 exhibition was attended by more than 25,000 visitors. In '97, an estimated 300 exhibitors will showcase a host of new products, whilst alongside will run a new cycle of round table and conference sessions.

For more information, contact the organisers in Paris on +33 (1) 41 90 48 21.

Betty Bam Turbo

Tel Aviv-based rental company Betty Bam Sound has invested in a 24-stack Turbosound Floodlight system. The company, which has also recently taken over Turbosound's distribution in Israel, caters for 80% of the visiting foreign tours, as well as supplying equipment for Shlomo Artzi and Rita, the leading performers in the country. The new Floodlight system was in action as soon as it arrived, on the country's largest-ever dance event - an outdoor trance festival, sponsored by Levi's and which attracted over 10,000 people, as well as some of the world's best-known DJs, such as Paul Oakenfold.

M&M Dance with ETC

M&M has supplied a major order of ETC equipment to the Rambert Dance Company, for use on the world première of Kim Bandstrup's latest ballet, *Eidolon*, at the Wycombe Swan.

The Rambert's technical director Malcolm Glanville used an Obsession 600 control console with designer's remote and offline editor, together with the first three Sensor touring racks to be delivered in the UK.

Spirit Gold



The Hyatt Carlton Towers in Knightsbridge has recently made history by purchasing two specially made Gold Spirit Folio RacPacs. Used for the control of sound in the hotel's largest ballroom, the consoles have been cleverly integrated within the ballroom itself. Surrounded by a spread of opulent furniture and chandeliers, the Gold RacPacs seem perfectly at home!

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Pulsar Preview New Products for 97



Left to right: Pulsar's Hamish Robertson, Pene Nudds, Paul Mardon, Steve Unwin and Phil Read.

Pictured above at the recent PLASA Show are members of the Pulsar R&D team offering a sneak preview of just some of the products, including a new strobe and part of a new dimmer range, which the company intends to officially launch in early 1997. The Pulsar product range has an international reputation and the company recently played host to a German student who had requested a chance to visit the company in order to learn more about the technical aspects of Pulsar's operation in Cambridge.

The company readily welcomed René Berhorst, a 21 year-old from Hövelhof near Paderborn, who had previously studied Communications Electronics with Siemens-Nixdorf in Germany and also worked for four years with Rollsound, where he first came across the CP&P range, before returning to study. Berhorst spent a week with staff in Cambridge, enthusiastically learning the Pulsar business, including spells in the inspection, test and service departments, gaining experience of Datapack dimmers, Masterpiece controller and the company's interactive systems, as well as dealing with Clay Paky imports and testing.

Blackout in Fashion

Blackout were part of the team that refurbished the old Rialto Cinema for the launch of the Fashion Cafe recently. The company worked with organisers Dineson & Owen to re-fashion the old cinema. With the use of drapes, starcloths and rigging, they were able to recreate many of the design characteristics of the Fashion Cafe which stands next door. The venue was dressed in lime greens and leopard skins with a stage and pier built to accommodate Paul Young and his band, while seating was in the form of huge cushions around the pier.

Glantre Global

The new brochure from Glantre Engineering offers a global perspective of one of the few British companies to have twice received the Queen's Award for Export Achievement. Glantre's worldwide services to the performing arts, from theatre to presentation and conference systems, on land and sea, are detailed in the publication. For a free copy contact Carolyn Cerrino at Glantre in Reading, telephone (0118) 964 0000.



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ASSOCIATION UPDATE

First in a regular series of news covering the work of Industry Associations



Association News

The Professional Lighting and Sound Association now has 429 member companies covering a wide spectrum within the entertainment technology industry internationally. It is in the enviable position of being able to constantly push forward the frontiers of this fast-developing area of business and aims to benefit not just members of the association but also the entertainment technology industry as a whole.

Industry Sector Recognition by DTI

At its October meeting PLASA chairman, Paul Adams, told the executive committee that the Department of Trade and Industry has now recognised Entertainment Technology as a UK industry in its own right. The sector will cover all aspects of PLASA's members' activities and provides a vital and direct link to all areas of Government. Paul said: "It is obviously good news that we have achieved recognition relatively quickly following visits pre- and mid-summer to various member companies organised by our chief executive John Offord. The PLASA Show clinched matters, with a visit by most of the relevant DTI team to the event, where they were suitably impressed."

John Offord said: "We now have work to do to back up this development. The sector team at the DTI need to have more detailed information on the industry itself, which will involve some immediate research. Obviously PLASA will be seen as the lead trade association within the industry sector, and it is a major feather in our cap. The same DTI team will also be our contact for the new Sector Challenge and PLASA will have to spend a considerable amount of time preparing to bid for funding."

Australian Mission to the PLASA Show



Members of the Australian Group at the recent PLASA Show in London.

A jointly funded PLASA/DTI Inward Mission proved highly successful with eight top designers and specifiers flown in from Australia especially to attend the PLASA Show. A comprehensive programme organised by PLASA enabled the visitors to visit many stands by special invitation, go on tours of Soundcraft's factory and Lighting Technology's premises and enjoy the best of British hospitality. The objectives were to raise awareness of British products, particularly in the run-up to the Millennium Olympics, introduce major decision makers to PLASA exhibitors and build on the relationship between PLASA and the Australian entertainment technology industry. All these objectives, and more, were fulfilled and the Missioners, without exception, flew home with extremely positive views of both PLASA and British products.

PLASA's WWW Site

If you are on the Web it is worth visiting PLASA's Internet site - recent additions are a Trade Show Calendar and comprehensive membership benefits and services section. All PLASA members have their details on the PLASA site and there are hypertext links to the 64 members who have their own Web site. Visitors to PLASA WWW average almost 4,000 a week, so to find out why visit the award-winning PLASA site on: <http://www.plasa.org.uk/plasa/>

News from ESTA

New ESTA Publications: The Entertainment Services and Technology Association of the USA has announced the publication of two new technical documents. Recommended Practice for Ethernet Cabling Systems in Entertainment Lighting Applications is written by industry lighting experts and members of the IEEE 802.3 committee and describes preferred system topologies, hardware, and labelling practices, and also gives a synopsis of how Ethernet works. Ethernet is the preferred technology for linking multiple consoles, designer's stations, and dimmers in permanent installations, and is also becoming popular with touring companies that use it to cut the amount of control cabling needed for large shows. Proper wiring is the first step towards a reliable Ethernet system, and getting a copy of ESTA's guide is the first step towards this. The ESTA Standard for the Construction and Use of Wire Rope Ladders describes how to make and use wire rope ladders safely. The wire rope ladder is an indispensable piece of gear for shows touring with their own rigging, but until now there was no standard describing the construction or use of this tool. The publication was written by the rigging experts on ESTA's Truss and Rigging Working Group, and was twice submitted to public review, so it represents the best thinking of people in the industry. If you make, sell, specify, or use wire rope ladders, the ESTA Standard for the Construction and Use of Wire Rope Ladders is every bit as important to have as the ladder itself. The Recommended Practice for Ethernet Cabling Systems in Entertainment Lighting Applications and the ESTA Standard for the Construction and Use of Wire Rope Ladders are now available from the PLASA office via our Technical Book Service. The cost of the Recommended Practice is £16 and the ESTA Standard is £13.

ESTA Link to Luminaires: ESTA has set up a series of Web pages listing numerous moving lights, and offering links to pages that tell what parameter is on each DMX512 channel. This is meant as a handy guide to anyone trying to patch a show and program an unfamiliar robotic luminaire. Designers and electricians can get to the list of luminaires by pointing their Web browsers at ESTA's home page (<http://www.esta.org/>), then clicking on 'The ESTA Technical Standards Program'. On the next page, a click on 'DMX Usage Data' takes them to the luminaire list with its links to tables of specific channel data. The DMX Usage Data on the Web is an on-going project and the pages are constantly updated. ESTA would also like to expand the types of information available. For example, the tables now tell the user what channels control the colour wheels but do not tell the user what those colours are on a stock machine.

ESTA is seeking help from manufacturers and end-users to expand the information available about robotic instruments on the Web site. If you have information you'd like to share about channel allocations, stock patterns and colours, and other features that can be controlled by DMX512, please e-mail it to 'standards@esta.org'. Late night programmers will certainly thank you.

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HEATHCLIFF

As Cliff Richard's new musical Heathcliff prepared to tour the UK, Steve Moles visited the technical crew during rehearsals at London's Earls Court 2

As Martin Guerre descended into the maelstrom of a re-write barely three months after opening - and even then only after a similar experience which delayed its opening in the first place - another musical ugly duckling was preparing to chip a way out from its shell. Whether Heathcliff will grow into a white swan, it's too early to say. The initial run of eight months is already sold out, but this is a false picture of its potential; these 350,000 ticket holders are die-hard Cliff Richard fans who will follow him to the most desolate of moors. The approbation of critical acclaim is uncertain, indeed one can already feel the West End critics sharpening their quills, for Sir Cliff is a lofty target, and how they relish a sitting duck.

However, as is the case with musical theatre, critical acclaim is no guarantee of success, nor critical damnation a certain death. In the case of Sir Cliff, who is undoubtedly vouchsafed a special place in the hearts of the British public, the faint praise which is most likely to come from the critics may well lead to a popular upswing in support of this national icon. Whatever the ebb and flow of popular opinion, we are unlikely to see this debate resolved for quite some time, certainly the production will have to enter a second run for us to discover whether a more genuine musical audience can be sustained. Drawing on parallels from the more successful musical shows, what will be the make or break of Heathcliff will not be whether Sir Cliff can act, but whether there are any 'good songs' and is it a 'good story' well told?

Valiant folly of ego or noble deed? Take your pick. What is certain is that from the production side of things, this show is being taken very seriously indeed. This is not Cliff in concert with a couple of polystyrene boulders and a few dancers. In the unlikely setting of Earls Court 2, that grandiose Nissen hut in West London, I attended the production rehearsals to witness the assembly of forces that would support this endeavour.

SET

The first impression of the stage is one of scale. Director Frank Dunlop has engaged the talents of Jo Vanek to design the set (and costumery) and he has produced something of dimension that belies its confines. To qualify that, the show will tour the UK and then end its run at the Labatts Apollo in Hammersmith. Thus, the set had to conform to that theatre's stage limitations, especially its total lack of any wing space. This is not a stage set with an in-built 'wow' factor. There's no major mechanical *coup de théâtre* like in Starlight Express or Les Misérables - the restrictions of touring prohibit such indulgence - but it does provide the essentials, readily conveying barren open space, yet providing intimate settings where we can connect with the actors. A simple forced



Cliff Richard takes the title role with Helen Hobson as Cathy.

"The approbation of critical acclaim is uncertain, indeed one can already feel the West End critics sharpening their quills, for Sir Cliff is a lofty target, and how they relish a sitting duck."

perspective resolving in a large cyclorama to the rear is framed by a long sweeping slope to stage right and a rough moorland outcrop to the left.

Centre stage is largely open, save for an imposing rocky crag mounted on a revolve which allows it to swing in and dominate centre stage; or it can move to blend neatly with the outcrop stage left, where in so doing it reveals a bridge across the rear of stage connecting the slope to the moorland. Set-wise, the other restriction the tour imposes is the limited use of fly-bars. Two of the venues visited will be simple arenas with no resident flying facilities at all. The answer has been for Cliff's production organisation - personified in the unforgettable figure of Dick Parkinson, cigarette holder clamped resolutely between his teeth - to look to its origins in concert touring and apply solutions found there.

The expertise of John 'Happy' Bray and his company Summit Rigging, have sole responsibility for not only flying the entire

production - sound, light and set - but as far as possible to provide alternatives when no counterweight system is available. "The problem is," said Bray, "as we go through rehearsals and the production develops, the director may want to add things. Even something simple, for instance an extra border to fly in mid-stage for one number. We've been able to plan for such things in advance. There's a 15 x 20 metre super-grid above the stage with over 20 tons of equipment hanging beneath it.

"I've brought in 14 drum winches from Unusual Rigging (Will Slatter runs them from a URC automation controller) to cater for projection screens and other planned elements to fly in and out, but for last minute extras, it's more a matter of education. One has to remember that there is very little surplus space up there and certainly no fly bars. There are different ways of providing the same result, but the frustration in rehearsals is that it's not quick and easy like lowering in an extra bar. We have to plan out a way of dealing with it, and that, of course, takes time."

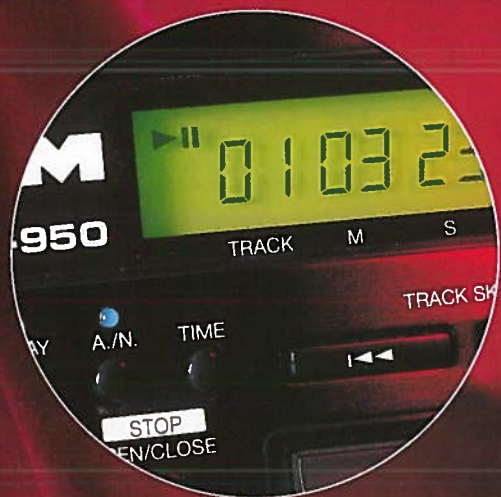
Set pieces and screens apart, the grid supports six lighting trusses and to each side, between every flat, a hanging boom. The booms are built by Brilliant Stages - as is the set, and are a development of standard pre-rig truss, in that they are built to keep their lamps permanently mounted. Alistair Grant, who assists lighting designer Andrew Bridge, defined the functional parameters of the booms, increasing the depth to enable long-focus Source 4 profiles to be mounted within, and also removing much of the side webbing normal in pre-rig to allow for a more accessible and open structure.

LIGHTING

With the marriage of lighting and set very much to the fore in this production, Bridge cited German artist Kasper David Freidrichs as a stimulus to the character of presentation for both elements. "He's a sort of German Turner," he noted, describing the stylistic vein. "In presentational terms this is more in the style of an opera than a traditional British musical." Bridge has specified a lot of automated lamp technology for one simple but fundamental reason: "Although the tour stays for several weeks at each venue, there's only an allowance of two days at each for fit-up. There just wouldn't be the time to focus a conventional rig."

Perhaps of most interest in the rig is the inclusion of 24 PAL 1200s, the new auto shuttering, moving mirror profile from Martin Professional (supplied in this instance by The Spot Co). Bridge finds the lamp a double-edged sword: "They're enormous and heavy - thank God there's not too much scenery! There's two unique things about them. They have extremely

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precise, accurate gobo indexing. This, combined with the wide beam they can produce at short range, makes for excellent large, yet sharp, images when we want them. The shuttering system is just extraordinary."

The general contractor for lighting is Theatre Projects, which naturally points to Vari*Lites for the rest of the automated system. Derek Jones, who has programmed and operated Cliff's concert tours for many years, runs the Artisan and has a system of 28 VL2Cs and 26 VL4s with just one VL5. Before joining Vari-Lite in the early eighties, Jones served almost 10 years with the RSC, and is thus no stranger to the different demands of lighting drama. The PALs are run from a Wholehog II by Stuart Porter, while Peter Lambert controls all the conventional system from a Mini Light Palette.

Despite the PAL's voracious channel appetite, it's Andrew Bridge's intention that eventually the Wholehog (fortunately capable of running four DMX streams) will take over all the Palette's cues. But for programming and rehearsal, he finds the multiple desks more workable. "I like to fragment control at the programming stage," he explained. "It can save a great deal of time. Especially here where so many of the lamps are automated, not fixed. With a strictly conventional rig, once you've set lamps to light a certain stage element then they are always there and when you're at the point of lighting the fifth scene or whatever, you know that pulling up a certain channel will always hit that mark. With this system, we have to design every cue because there aren't hundreds of lamps up there, each dedicated to a single function."

This was an area where Derek Jones' previous theatrical experience, coupled to his familiarity with VL programming, helped. He understands the imperatives driving Bridge's reasoning, but was disciplined enough to avoid building thousands of different base cues that would negate the whole rationale behind solving the conundrum of limited focusing time on the two day set-ups.

Despite the preponderance of high tech' lighting, there is a sizeable conventional element to Bridge's design - 92 Source 4s (most fitted with Rainbow scrollers), 12 Thomas four-cell ground rows, eight Molefays with Rainbows as top cycs, 14 Altman MR16 battens, and much to the chagrin of TP's Peter Marshall, 12 brand new Par 56 battens. On the effects side, Creative Technology are providing an imaging control system with three Pani projectors sub'd in from Production Arts (a 5kW and two 2.5kW Compacts), there are 10 Cadenza EP cloud projectors and 12 AF1000 strobes, plus five DF50s and three F100s for a little smoke here and there.

On the subject of environmental effects, there are also three different types of snow machines used ("Not so much lighting as weather men," quipped Bridge). There's the familiar Packman Research machines and regular chemical snow, but for the real blizzard effect, Andrew Bridge is using an idea borrowed from the Japanese Ninegawa theatre. Large, one metre diameter, industrial AC-type fans, through which is blasted a very particular type of finely shredded crepe paper (1-90 per tiny bag).

With the armoury at Bridge's disposal, it will be interesting to see how he deploys his strengths. As he said, he can do those big number concert-style looks where appropriate,



but he has to support the story: "I can't just fill the stage with lots of pinks and ambers all the time. The moors have to look cold and bleak." And, of course, they do.

SOUND

"The fundamental difference is in the sound - because Cliff is used to concert presentation, it's a lot louder than musical theatre would normally be." This is not the sound engineer speaking, but VL operator Derek Jones. His comment underlines the very different pressures applied to sound for this production. It's one area where Cliff feels he can safely expect his regular touring sound team to grapple successfully with the challenges of a stage musical without recourse to calling in a 'theatre expert'.

In fact, PA supplier Britannia Row have serviced similar productions before, notably *Blood Brothers* and *Hot Shoe Shuffle*, but this is still a new convention. Brit Row's Mike Lowe has gone to great lengths to find practical and acoustically acceptable solutions to putting quad and fill systems into all the venues, to give the kind of pressure levels required without blowing the heads off the first 20 rows. It's a service gratefully acknowledged by Dick Parkinson. The main PA will be Brit Row's familiar blue boxes of Turbosound Flashlight and Floodlight, 16 JBL 4892s for the quad effect, and varying combinations of JBL 1710ps and Control 1s for fills and delays.

The sound is a co-design between Mike Lowe and Cliff's regular touring sound engineer, Colin Norfield. In a departure from the norm, Norfield is using a Midas XL4 instead of his more familiar PM4000, but seemed quite at home with it and was certainly appreciating the ability to automate functions: "I need all the help I can get," he said, the automation being the main reason for the desk change. The only thing that took some getting used to was "the EQ - it's very subtle, not the instant effect of the PM, but that's just down to practice". He also has a 40-channel XL3 which is used for running a complete multi-track back-up (currently three sync'd DA-88s, but soon to be on a more easily-managed Akai hard disk system) of the show. With the musicians all working to track, he can literally back-up anything, although, as rehearsals progressed, he was hardly using it, just John 'JJ' James on monitors (using a brand new PM4000M) giving the odd vocal feed to one of the singers who was having trouble pitching.

The band is small - guitar, bass, drums and three keyboards, and is completely separate from the stage. Although, where possible, it'll be in the pit (hardly ever), for Hammersmith



Cliff's sound engineer Colin Norfield at the Midas XL4.

they will be in the Green Room and for the arena venues they will, as they were at rehearsals, be ensconced in a specially furnished 45ft trailer from Redburn Transfer.

For monitoring, the band all have their own Formula Sound Que 10 mini mixer taking a feed from John James, while on stage, the 13 vocalists all have in-ear systems from Garwood and are using Sennheiser radio mics. There are just four wedges, all mounted up in the truss, which are there only to give the dancers something to work by.

Not surprisingly, Norfield has also expanded his range of effects for front-of-house. As well as the expected profusion of gates, compressors and limiters there's a BSS graphic inserted on every vocal channel and a Dual Summit used for both Cliff and his leading lady, Helen Hobson. "I usually go for minimal effects," said Colin, "but this time, for obvious reasons I've gone for more and better quality, like the Lexicon 480L - a quality reverb." He also has a Yamaha 990, two SPX900s, two SPX1000s and a Roland 3300: "I've got dedicated equipment for each instrument, to give me more options, and to make things more accessible. I'm not constantly switching programs".

In a slightly unusual departure for a sound company, Britannia Row are also supplying a CCTV system with three cameras and half a dozen monitors, positioned each side of stage, backstage, at the SM desk, front-of-house and

in the band's trailer. One camera is in the truck on band MC Alan Park from whom Norfield takes most of his cues, one FOH for a full stage view, and up in the front truss is an infra-red camera to enable the SM to check set changes made in the dark.

A valuable commodity for this show, Mike Lowe expects such systems to become increasingly commonplace in concert touring, this one originally having been bought by Brit Row for the complex stage set-up employed by *Simply Red's* recent 'in the round' tour. For rehearsals, the biggest problem Colin Norfield encountered was one of distance. Normally in the concert environment, Cliff has a good handle on what he expects and with a well established relationship between the two men, communication is direct, fast and effective. In this environment, Norfield found instruction was coming via four or five intermediaries as Cliff is very much in the hands of the production and is thus insulated from him. That tended to not only slow things up, but was also prone to garble the message. Like the EQ on the new board, he will no doubt get used to it.

This is very much Cliff Richard's show, and as one would expect his influence on the presentational style is signposted from the beginning. The opening of the show sees him downstage centre within a clutch of lights, a bit more like a concert opening than what we might expect in, say, a show like *Phantom*. In the same way, sound has a much more aggressive role to play than would normally be the case. As Andrew Bridge, Colin Norfield and many others associated with this show noted, this show is, in essence, taking selectively from both rock and theatre and producing something different. Hence the allusions to opera, and it's a comparison well made. Was it not the likes of Harvey Goldsmith and Raymond Gubbay who spotted, and then made successful, the transition of classical opera to the regimen and wrapping of rock concert arena-style presentation?

Like *Aida* at Wembley, such presentations may nuzzle the purists, but in the final analysis it was not detrimental to opera per se, and raised both its popularity and perception to a much wider audience. I suspect that Heathcliff may well do the same.

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ABROAD IN THE STALLS

This year, the International Association of Theatre Critics held its biennial Congress in Helsinki. I won't bore you with the content of the congress, except to say that it was one of the friendliest of these events I've attended, and that it was organised with an almost military precision by the Finnish theatre critics, which in no way lessened the overall jollity of the atmosphere.

What I thought might interest readers of L+SI was the bird's eye view of Finnish theatre I got in my well-organised week. The Finns are great theatre-goers - three million tickets sold a year for a population of five million says it all. Any town of consequence has its own theatre, and in the capital there are several, including the National, the City and what seems a disproportionate number of theatres serving the six per cent Swedish-speaking minority. Over 500 professional productions are staged a year, which will include 70 or 80 new Finnish plays.

One of these was my first night out, Pirkko Saisio's *Vera Verotchka* on the City Theatre's small stage. Small is a relative term here - it's actually a very big amphitheatre stage, surrounded by 300 or so seats. (The main house was putting on *West Side Story* the same night, with a full opera orchestra). For this musical soap opera set in Kallio, the working class area of the city where the author grew up, there was extensive use of the space, with some serious stage technology at work: a ramped street ran across the café/restaurant in which the action is set. We got the high realism such a production demands, with rain and snow effects for the outdoor scenes and a full set of street lamps running the length of the set, though curiously these were not operational. The show itself is a history of an area dear to Finnish intellectuals, which becomes a wry commentary on Finland's on-off love affair with her big neighbour Russia.

The Finnish critics didn't receive Laura Jantti's ambitious production very well, perhaps because its first half is very hesitant, with only snatches of song and half-achieved characters. As the cast and their material grow in confidence in the second half, however, the show's satirical panorama of a whole way of near-criminal life goes beyond mere episodic form to bring home a few sad truths. The sound, usually a problem for musicals in an amphitheatre space, was very well balanced, in spite of the band having to crouch in a hollowed-out section of the theatre's seating.

Another new musical the next night provided quite a contrast: Bengt Ahlfors' *Russian Roulette* was staged in the Lille Teatern, one of Helsinki's Swedish theatres and truly a small space with a tiny proscenium stage fronting its 200-seat auditorium. The Lille is no Fringe theatre, however - the complex lighting rig for *Russian Roulette* had all the most up-to-date colour changers and light curtains, which made a great contribution to a very slick, well-staged production. In a Cabaret-style nightclub setting and with an opening number that sounds suspiciously like 'Mack the Knife', the show



Turkka's *Cherished Disappointments in Love*.

"Either Finnish is a very pedestrian language (every line sounded like 'rumperi-pumperi jiggeri-pokeri ratatateri doolalli buggeri' - rhythmic, repetitive, one-note) or Turkka is a very monotonous writer."

runs the risk of being called derivative, but it picks up a strong character of its own as it progresses through multiple scenes to tell the fact-based story of a Comintern assassin. Ahlfors' music is equally versatile, and well played by its small ensemble. No need for sound assistance in the Lille - solos and sophisticated group pieces came over loud and clear.

There is one National Theatre outside Helsinki, the TTT (Workers' Theatre) of Tampere, a town which is proud to call itself the Manchester of Finland, and it was on their small stage (another amphitheatre, but this time a 100-seater) that we were shown a piece by the man who, in his forties, is still the enfant terrible of Finnish theatre, Jouko Turkka. He lost his job at the Theatre Academy 10 years ago amid controversy over the rigours of his actor training regime, and last year there was a furore over his latest TV series, not surprising when you learn that it was called *Policewomen on Heat*. The Tampere play, called *Cherished Disappointments in Love*, has been a huge hit with the Finns and even gathered a rave review from *Plays and Players*, but without its all-important language failed to make any real impact on us foreigners.

It's fascinating to watch a play in a language you don't understand. You have to fall back on the visual clues and the sheer sound of a piece, and often these are enough to tell you whether or not it has been well staged. Turkka has gone all out to shock, and his frank exposure of the

sexual drives of his four characters, incorporating a pretty vicious attack on the Tampere petit-bourgeoisie, was strong stuff for the locals, who laughed - and wriggled - a lot. The uncomprehending outside observer saw a very poor use of the stage area by the director (Turkka himself - usually a sign of megalomania and in no doubt here).

The sound was almost all pitched at treble forte, which left the actors with nowhere to go and exposed the lack of interest in the words themselves. Either Finnish is a very pedestrian language (every line sounded like 'rumperi-pumperi jiggeri-pokeri ratatateri doolalli buggeri' - rhythmic, repetitive, one-note) or, more likely, Turkka is a very monotonous writer, however vital his content. Visually, the piece seemed to be played in the manner of a bad boulevard farce, with multiple exits and entrances and much falling about on a thoroughly uninteresting set, and although it was lively enough to keep one awake, its stagecraft was as elementary as everything else about it. There was one highlight: the entrance of the ingénue clad only in a strategically placed layer of whipped cream. I guess you don't need A-level Finnish to enjoy that.

The final production of my week provided a very useful set of contrasts with the Tampere experience. Tampere has this National stage playing new work, as it should (with *All's Well That Ends Well* in rehearsal to follow), receiving a satisfactory subsidy and employing experienced actors to turn out a far from satisfactory evening in terms of the standards set. Viirus theatre company, back in Helsinki, work out of an old water pumping station which they have converted themselves into a versatile black box. Viirus's production (they play in Swedish) was a classic, Strindberg's *The Father*. And the Fringe company playing a classic offered a much richer evening for the non-linguist than the national company playing new writing.

The richness lay not simply in the writing, though you could immediately hear the greater rhythm, tunefulness and expressivity of Strindberg, even if only the occasional word got through. It was there in the acting - raw youngsters not long out of drama school, but playing with a commitment and energy that came straight across the language barrier. The meaning of the play was crystal clear, even without words.

The stage was relatively unadorned, but sympathetic lighting of its slightly expressionistic set (from a rig which used very few lanterns but made every one earn its keep) worked wonders - particularly when at moments of stress the elk-horn trophies on its walls seemed to sprout a forest of ominous shadows, thanks to some clever gobo-work.

In our critics' congress the question was asked, 'How do you assess audience response other than by the applause?' and a Romanian colleague reminded us of that key moment which marks out the really fine production: the period of silence at the curtain, before any applause breaks the audience's concentration. Viirus achieved that moment.

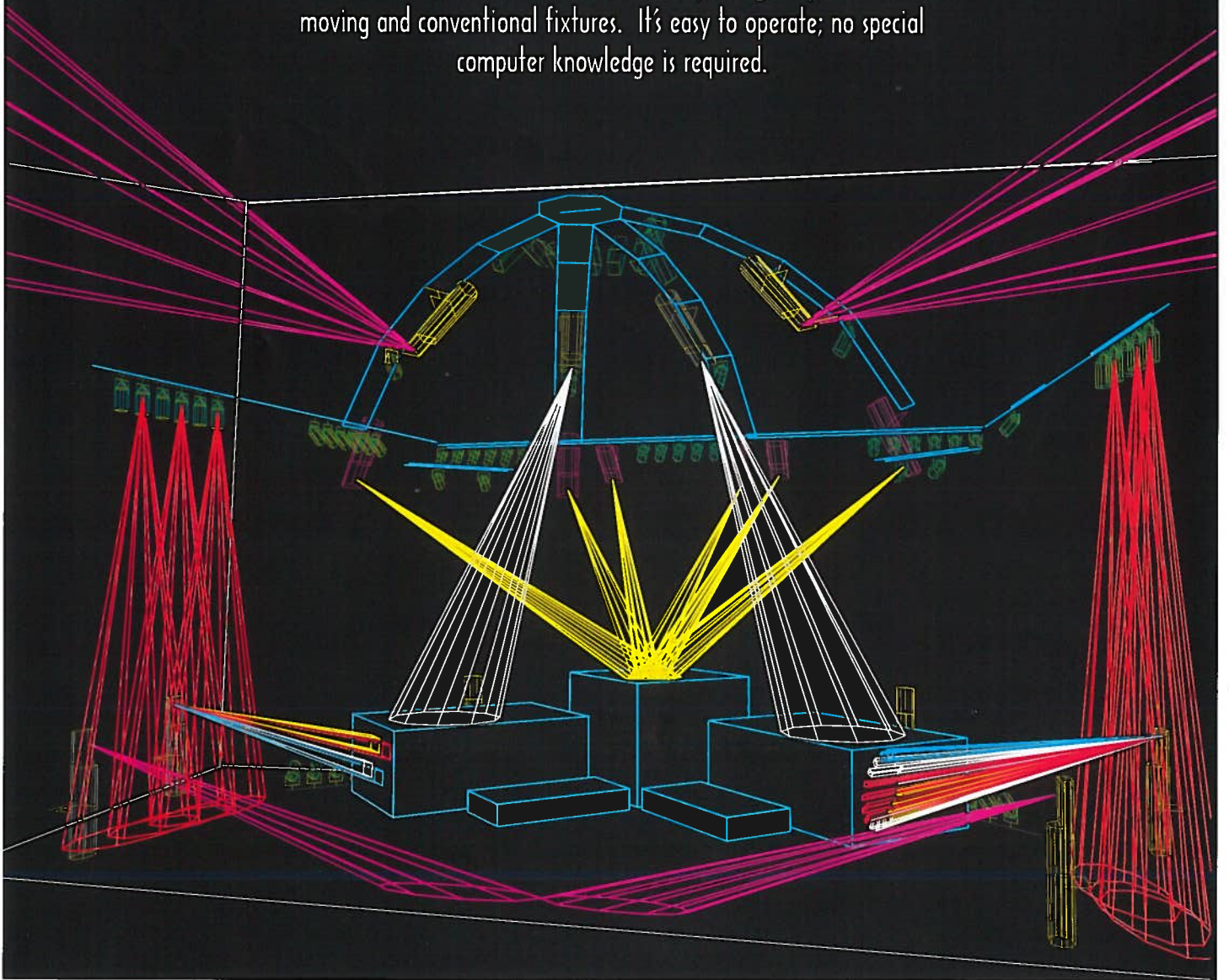
Ian Herbert

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

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QUEST FOR IMPROVEMENT

When one of the main centres for amateur drama in the UK was awarded National Lottery funding, it turned to Marquee Audio for a new sound system. Mark Cunningham spoke to the theatre's head of sound, Ian Howlett, about the new upgrade

Situated a stone's throw away from Ealing Broadway in West London, The Questors Theatre enjoys an enviable reputation as the largest non-professional theatre in Britain, and quite possibly the world. It is known for its high standards of modern and classical drama, direction and set design.

Its fascinating story began on September 5th, 1929 with a fund equivalent to almost 40p (seven shillings and 11 pence ha'penny), and its 17 original members included Alfred Emmet, who continued his alliance with the theatre until his death in 1991. For the first four years, The Questors performed in various halls around the Ealing area until they finally found their current home in October 1933, a redundant Catholic chapel which was initially shared with the local Boy Scouts. From the outset, The Questors upheld a policy of staging only the most adventurous and challenging productions, and, in turn, this attitude gave birth to a number of stunning original works along the way.

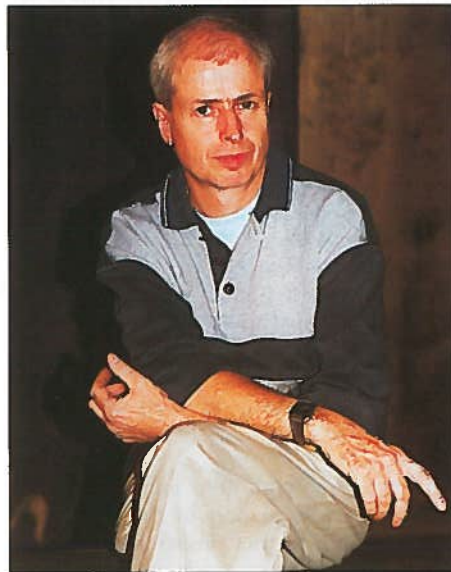
The original 'tin hut' venue was knocked down in 1962 to make way for the first new theatre to be designed in the UK since World War II. Conceived to allow versatility, the new Playhouse was based on the thrust stage concept and received much critical acclaim - 'revolutionary' was a common adjective in press reviews. Opened by HRH Queen Elizabeth The Queen Mother in April 1964, the Playhouse's first production was a Gala performance of Ibsen's 'Brand', after which the theatre and its members, which now total more than 3,000, continued to progress and push back the boundaries of the amateur world.

This long and eventful past culminated most recently in a generous injection of funding through the National Lottery to finance an extensive refurbishment programme, part of which included the upgrade of its tired and ageing sound system. In late January of this year, The Questors applied for a £400,000 grant, only to be advised by the Lottery organisation that they were not being sufficiently ambitious! Instead of submitting a detailed refurbishment plan, which would later include disabled stage access and a fresh external look, the company had drawn up a wish list based on work that would need to be carried out over five years. The original figure was eventually inflated to nearly £900,000, with the bonus that all investments made during the previous two years, such as an ARRI lighting console, could be added to The Questors' own funding of £115,000. (A stipulation of Lottery grants is that before an organisation can be helped, it must first be seen to help itself.)

Featured as part of the Renaissance programme (as it has been named), will be a refurbished box office, complete with a new computer system, a new-look foyer and other public areas, rebuilt dressing rooms and the creation of a prop store. As both a production



Above, the new look Questors Theatre, and below, head of sound Ian Howlett.



house and a receiving house with 25 in-house shows and several lets running this year, the problem of accommodating rehearsals in the existing space has increased. Therefore, a new rehearsal room between the Playhouse and the studio theatre block is due to be built and named The Emmet Room after The Questors' founder.

SOUND PROGRESSION

For the first 10 years or so, following the building of the Playhouse, the theatre had worked with a 100 volt line system, with column speakers and rotary attenuators (theatre sound was fairly primitive in those days). A major upgrade in the late 1970s saw most of the electronics designed and built in-house, but expectations quickly moved on and there was increasing dissatisfaction with the limited facilities and even more limited

headroom of the system. With the prospect of Lottery money, it was time for change, and no one was more willing to wave the flag of revolution than The Questors' head of sound, Ian Howlett.

A freelance VT editor and sound and lighting engineer who worked for many years at the BBC and in numerous theatres, Howlett outlines the problems: "Apart from the age of the system, there were also physical difficulties with what we had. Because we do not only proscenium shows, but also productions that are in-the-round and on a thrust stage, we required a system that was sufficiently versatile so that people could avoid having to constantly rig for every show. That was, of course, what we had to do in the past but it is very time and labour consuming."

Howlett immediately faced problems when putting together a new sound design. The open stage situation posed a serious dilemma with the long-standing question of where to position the loudspeakers? "With an in-the-round presentation, you may have an open set but all the sound has to come from the middle of that set, and there is nowhere to put the speakers," comments Howlett. "I'd had a long think about this because these problems were becoming a regular challenge. I eventually worked out a system that I thought would solve them, and scribbled something down on paper. When the Renaissance money came through the Lottery funding, I was asked to put a scheme in motion, inheriting a budget of £30,000."

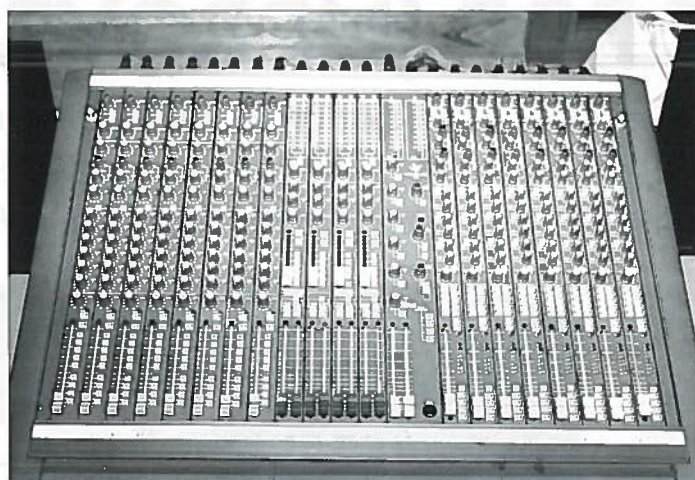
A number of loudspeaker manufacturers were called upon to have their potential judged for the project. "Rob Dollings at AMS Acoustics identified a number of problems that we were going to face with the regularly adapting stage space, and came up with something quite similar to my ideas. I had a lot of help from Chris

Smith at LMC who helped to co-design the system, but at the time they didn't have any in-house installers. Sysco were very interested, specifying Electro-Voice equipment, but in the end they couldn't meet the budget that we were fixed to. There were some things that we would not compromise on and the system wouldn't compromise on price, so inevitably we were trying to squeeze a gallon into a pint pot! I did not want to compromise on speaker coverage and the number of boxes, or the size of the console."

Early on, it was decided that the Soundcraft Venue II mixing console and MiniDisc machines would be among the hardware in the control room. "I originally wanted hard disk, having fallen in love with 360 Systems' Instant Replay, but we were trying to meet the requirements of people who are really only used to working with 1/4" tape and those who use computer music. It was felt that MiniDisc was the most acceptable medium so we settled on the Denon MD 980 and 990 cart machines. Some people will continue to want to use analogue 1/4" tape, but the great joy of MiniDisc for me is the complete absence of noise. By the time we'd bought a £6,000 desk, a Tascam DA20 DAT machine and added the cart machines to the kit list, the number of loudspeakers was beginning to squeeze the budget very tightly."

Howlett adds that it was for this reason that Sysco dropped out of the race and although Cunnings Audio came in late and had a very good stab at weathering the budgetary restrictions, it too was beaten. This left only Marquee Audio in the frame, inspired by the prospect of an association with a prestigious theatre installation. "I was dealing with Spencer Brooks at Marquee and the entire speaker installation process and trunking was handled by Robin Stubbs and his team with incredible attention to detail. It's a difficult building with lots of restrictions and I'm no slouch at nit-picking, but they've done a bloody good job with remarkably few lapses of good humour."

The choice of loudspeakers turned out to be almost wholly Martin Audio, with a cluster of two Martin ICT-300s and four EM25s in the centre, four more ICT-300s on the proscenium line, two large ICS-300 bass bins (one fixed and one portable), two ICT-300s, four EM15s and two existing Electro-Voice Eliminators as sound



The Soundcraft Venue II console.

effects speakers. "Previously, most of the speakers were second-hand, home-made or BBC throw-outs," comments Howlett. "As a result, we couldn't get sufficient clarity or volume."

"Flying of loudspeakers in what had traditionally been regarded as 'lighting' space has caused a few raised eyebrows, but we've attempted to find a compromise to suit everybody. We have put in a lot of speaker points to replace our two effects rings, and we have 44 effects lines with many under the stage in places we've never had them before. Obviously, we won't need these facilities all the time, but there may be occasions such as we had recently for the play 'Scorched', the winning entry in our annual student playwright competition. For this, the stage was an island and a sea wash effect had to be heard and 'felt' at the audience's feet and also distant, all around the auditorium."

This new 6.5kW Questors system is managed by Martin M1 controllers. The amp rack houses one Crest Vs650, which feeds four EM25s, while six Vs900 amplifiers provide power to the bass bins, cyclorama EV Eliminators and ICT-300s. Also in the rack are five recycled Quad amps (two 405s and three 303s) which previously formed the whole amplification system. "We are keeping the Quads for the effects speakers and the 10 channels can go to any of the 44 speaker outlets."

Trantec S2 hand-held and lapel radio microphones form part of the equipment inventory, but Howlett insists that mics, by design, have long been a rarity at The Questors. The theatre, however, is let six times a year for

musicals which employ mics and the in-house theatre group normally presents a musical every two years or so, for which radio mics are brought in. At the time of my visit to The Questors in late September, which coincided with the presentation of James Goldman's 'The Lion In Winter', directed by Ruth Lister, Howlett was preparing to work on a production of 'A Chorus Line' and a dance show which was to involve eight radio mics and a miked-up orchestra with some basic monitoring.

"They will have an 18 x 24ft thrust and the orchestra will be squeezed into a 15 x 6ft pit downstage, so it's all going to be very close and

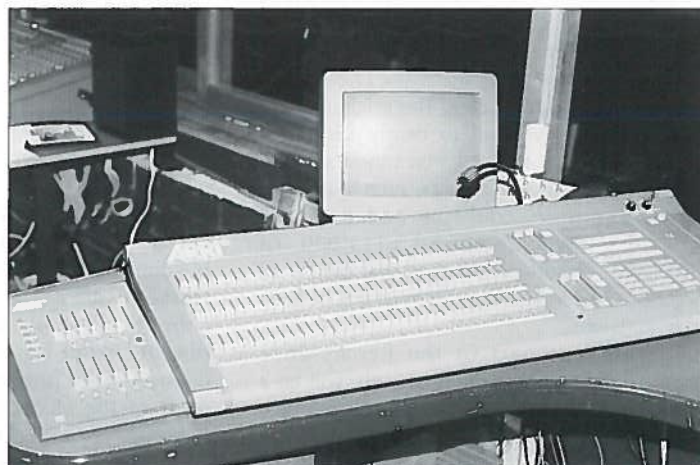
intimate, and therefore it won't need a great deal of miking. [In the event, this prediction turned out to be somewhat optimistic!] The more usual arrangement is for the orchestra to be somewhere in the wing in which case you need performer foldback to the musicians and television links. In general, that is all brought in because being an amateur house, we can't afford to install facilities that we will not use with our own people."

The Questors' choice of a custom-made Soundcraft Venue II desk was determined by their requirement for something which would be versatile enough to cope with the varied demands of all the shows presented in the theatre. "We needed a modular desk with plenty of stereo inputs, but something that was physically as small as possible. This obviously cut out most of the dedicated theatre and low-end desks which tended to have mic/line inputs and few stereo modules. The only other desk that would have physically fitted was the TAC Bullet. Unfortunately, Malcolm Toft's Intermix came out just too late to be considered. In the past we had faders on the desk with everything else in a rack. This gives you a fairly uncluttered space to work in and if you are non-technical, like most of our operators, the amount of knobs you have on a regular desk can be a bit daunting."

The control room is currently in the process of having a custom housing designed and built by Marquee for the Venue II desk and two Revox open reel tape recorders. The basic collection of rack-mounted units in this room includes the already existing Yamaha SPX-900 effects processor and, at Marquee's suggestion, a Yamaha Q2031 graphic equaliser.



In the rack - Denon, Yamaha, Tascam and Trantec.



The ARRI Impuls provides 84 channels of dimming.

The Questors has retained its Sennheiser infra-red system for the hard of hearing, and 10 sets of headphones are available to audiences. In addition, the sound inventory includes a Canford TecPro two-ring intercom system as part of the refurbishment as the replacement of the house communications system, for which Northern Light designed the backstage console.

LIGHTING

By his own admission, and despite being head of sound, Howlett was for some time more preoccupied with lighting. "I was a lighting designer here for many years, but there were more people involved in lighting than sound. I was involved in sound professionally, so it seemed appropriate for me to switch roles. We have a large number of lighting and sound operators, but a small number of designers. Very often we have new members come in and put on a show straight away, having had little or no experience. I have actually had people working on a show for the first time within a week of joining, one of whom went on to be a very good sound designer. Unfortunately, 'real' work took him away."

The theatre's ARRI Impuls console provides 84 channels of dimming, with 77 2.5kW and seven 5kW dimmers. "Thanks to the Lottery funding, we have just had a new patch panel system put in, whereas before we used to get through miles and miles of cable, because inevitably wherever you wanted to put a light was nowhere near a free socket!"

Another part of the refurbishment has been the installation by Steeldeck of a modular stage and thrust stage, and 14 new lighting catwalks to replace the temporary scaffolding rigged for



James Goldman's 'The Lion in Winter'.

every show. A totally unexpected side benefit of the catwalks was that they blend in so well that the theatre's apparent ceiling has dropped to catwalk floor level, concealing much of the lighting rig in a 'ceiling void'.

"Back in the 1960s, the system went in as a 48-way Strand LC rig," says Howlett. "Some time later, Strand were delivering a board and a load of dimmers to Portugal and some rather careless dockers dropped the lot into the sea. As a result, we ended up getting a consignment of cheap, but slightly salty dimmers!"

"We kept going with that equipment for a while until we were able to do a favourable deal

and get a Strand Duet computerised board and new dimmers. But two years ago we decided to join the rest of the world and get a more modern board which basically does everything, and we are very happy with it.

"We decided to go for something with a fader per channel, so that you can busk your way through a show. It's a very easy board to drive and flexible for busking. If you like what you have done in busk mode, it's simple to record presets in that way for recall, rather than do it with via keyboard. We purchased the ARRI through Donmar, after shortlisting it alongside other desks."

Lantern-wise, The Questors has a mixture of mostly Strand 500W, 650W and 1kWs. The full list of well over 150 lanterns includes Strand Prelude Fresnels, 16/30 and 28/40 zoom profiles, Frennell 650W lights, a number of second-hand 1kW Cantata profiles and four of the new CCT Freedom zoom profiles for projection work. "We have also just acquired some second-hand Patt 750 Beamlights and Patt 743 Fresnels from the Lyric Theatre in Hammersmith to replace our aged Patt 223s, which had a habit of drooping as soon as your back was turned! By coincidence, our patch panels and rewiring were done by RWS Electrical, who were also rewiring the Lyric at the same time."

With new seating, carpeting and fresh image, The Questors Theatre is delighted with its new facilities as it looks forward to the next 30 years and to a continuation of its pioneering ways. Within the next 18 months, the refurbishment of its 100-seat Studio Theatre will also get underway.

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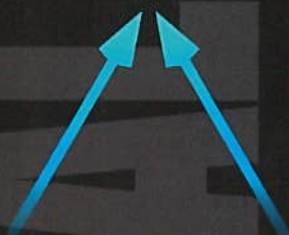
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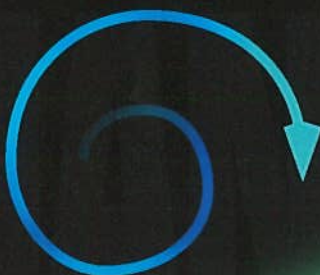
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ON TOUR

by STEVE MOLES

AND PRODUCTION NEWS

Lighthouse Family

York Barbican

LD: Andy Liddle

SD: Dick Rabel

Consider these ingredients: an eight-piece multi-instrumental band, music rooted in the styles of jazz, soul and swing, celebratory lyrics promoting the positive, add the woody timbres of a unique vocal sound, make slick arrangements, use classy production, and you've got M People. Well sort of. The unusual aspect to Lighthouse Family's success (that's Lighthouse without a preceding definite article) is their apparent ability to imitate a musical genre and yet add a little something that makes it uniquely their own. Arguably a pop group, in the sense that they have risen to prominence in just one year, and almost exclusively by charting singles, rather than continuous gigging, they are seemingly more than just a combination of their parts. That their musical output has substance was witnessed by the way a rapturous crowd at the York Barbican greeted not just their hits, but almost every song from their solitary album.

SOUND

The distinctive voice of lead singer Tunde is what characterises the band's sound and presents sound engineer Dick Rabel with his biggest challenge, as he explained: "Tunde's voice is an enormous problem - it's very unusual. The tonality of it needs careful attention. His voice just has too much warmth at the low end and he sings very quietly." To underline this, Rabel has both a Rupert Neve 9098 EQ and a BSS 901 frequency conscious comp/limiter inserted on his channel.

Tunde's voice alone would not be so much of a problem, but in the live environment with such a big band on stage, the potential for leakage across a vocal channel already cranked on the input side, is enormous. Fortunately, the members of the band recognise this and show great restraint in their playing, but you can only go so far, as Rabel said: "I can just about mute the snare drum on some occasions." This was borne out during the show, when much of the instrumental content came directly from the stage, leaving just the vocals and DI'd keyboards to be laid on top. Naturally, Rabel went through the process of microphone experimentation to find the tool best suited to the Tunde conundrum.

In one of those curious quirks that sustain an ageing reputation, he ended up with a standard Shure SM58, finding it most consistent for coping with a band that can, in his words, "start a song at a very low dynamic and build to an incredible driving force just three bars later." The PA is the latest system from Tour Tech, the TT4c developed jointly by Dick Rabel and his partner Rob Coles. Ostensibly it's another one metre square box that closely resembles that big heavy beast from Littitz Pennsylvania, but this latest version from Tour Tech is much lighter (even than their own



Lighthouse Family - the group have quickly risen to prominence in the British chart scene.

predecessor, the TT4) with fewer, yet more powerful components. The full range cabinet contains a pair of Vega 18", two 10" and a bullet from JBL with a V&C 2" horn.

The system is all Crest driven (8000 and 9000s) and crossed through a BSS Omnidrive. On monitors, Simon Thomas is using a Midas XL200, while out front Rabel has a Soundcraft Europa. His preference for this desk is strong and his rationale is in some ways exemplified by this particular act. "I think this board is streets ahead for live work. The band all play live, there's not a sample or sequencer in sight, just 38 channels of real instruments coming at you. This board is well laid out - it might be a bit bigger and heavier than most, but there's not a dual concentric pot in sight and the ergonomics of accessibility mean that, for me, there's nothing to touch it."

There were times in the show when Tunde's voice became lost amongst the bass, kick-drum and low end keyboards, but this was a rarity, not a constant feature. When the band went into the outro for 'Absolutely Everything', the mix of snappy snare rim shots and a bass line that really made those big, flabby 18s sit up and pay attention, effortlessly gave way to the return of Tunde's big burr walnut vocals. The hardest thing to get used to was the rapid builds in level, but that's a feature of the music, not the mix, and I'm sure that's something that kept Rabel fully engaged. Definitely a challenging band to mix.

LIGHTING

For lighting designer Andy Liddle, this band is a breath of fresh air after the rigours of the Smashing Pumpkins (see L+SI July '96). Here he's been allowed his own design and even if the budget's not as big as he'd like (are they ever?), he is positively supported and encouraged by both the band and their management. "They're very keen and receptive to ideas," Liddle said. "They like the

associations and imagery I've chosen," but more of that later. The rig is modest in scale, but for its small number of instruments is not short of varied looks.

The simple set comprises a riser two feet high across the rear, supporting keys, drums and percussion, a lower platform in front for the bass and guitar, with the remaining two vox and keys on the fore-stage. The stage is enclosed by a curved cyc that extends approximately half way downstage each side. The lighting rig above is a 40ft by 32ft truss box all black bordered and with a black wool backdrop. The LSD-supplied system comprises just seven Icons, 10 Washlights, 48 Pars and six Molemag cyc lights placed behind the eight point white sharks-tooth cyc. Liddle drives the whole system from a Mini Icon controller.

With the rig, he has concealed many of the lamps by hanging them off the top truss cord, not just the Pars, but also the seven Source 4 sils he has for band pick-ups. With four of the washlights on the floor hidden behind the upstage riser, the overall look is very spartan indeed. There is, however, more purpose to this rig than just a bare setting; the cyc is trimmed at different heights throughout the show to alter the playing space. For a straightforward function, this achieves quite marked results. The lengthy intro tape plays to a black stage, the band come on and the cyc rises to full height immediately. It stays there for the first few numbers and it's at this point you see the Washlights behind the risers perform their first task, to light the matching white sharks-tooth borders on the risers.

The look is strong - saturated washes from above, Icons putting gobos down on the front line musicians, the set and band silhouetted against a pastel cyc. It's very TV. Then the cyc descends, stopping halfway down, and for a few moments we all think the damn mechanism has stuck, but the lighting soon confirms this move is intentional. The Washlights behind the risers switch to putting

colour into the smokey air above the band, while from the rig Liddle uses the top-rigged lamps almost exclusively which, as sources, are invisible to all but the first few rows. The effect is to dramatically reduce the perception of scale. Short of physically lowering the rig, it's the most effective way of pulling the atmosphere down to a club level. For the last couple of numbers the cyc drops right down and the back-cloth takes alternate projections of stars and a skyscraper nightscape for the two songs. While down, crewman Colin Green (who also lights support act Ryan Molloy - one to look out for) discreetly attaches two faux yacht sails to the cyc rail and as it re-surfaces, lo and behold, there's the perfect setting for Lighthouse Family's big hit number finale 'Ocean Drive'. Liddle had Acre Jean make the sails from cotton sheeting, deliberately sewing in additional seams to mimic the real thing, and it's an attention to detail well made. The crowd rise to their feet for the umpteenth time and stay there swaying gently throughout the song.

This style of music seems to fill the niche once occupied by Tamla Motown when Britain last led the world's pop industry. Then, as now, it's the combination of insistent but smoochie dance music that nurtures the demand, the difference now is that it all seems to be coming out of the UK instead of the US. During this show, Lighthouse Family added in a couple of unreleased songs destined for their next album. Judging by their reception, this band are good for at least another couple of years and may go on to join Simply Red and M People as the British arbiters of soul.

Lovett and Carpenter

Nynex Arena Manchester

LD: Cathy Berbena

SD: Richards/Peters

Mary Chapin Carpenter is universally acclaimed to be pretty. She sings pleasant, well crafted country folk songs, and she is a well known and frequent visitor to this country. Lyle Lovett, in contrast, resembles a cross between Danny Kaye and John Hurt, gaunt and angular, with the kind of hair that stubbornly refuses to do what even a passing hurricane tells it to. He produces songs of subtle wit, and despite touring here with Dire Straits a while back, is much less widely known.

For my money, however, he is the better entertainer. He is that rarest of creatures from the USA; someone who, by classical definition, is physically unattractive, has a distinctly British sense of irony totally alien to American culture and yet has forged a popular success in his home country. The two artistes together make for an interesting package, and hopefully each will benefit from the other's pulling power. Despite each being in a niche market, Lyle Lovett especially so, they are playing the arena circuit - not either's natural turf.

LIGHTING

A decidedly modest system from the good offices of CPL/Vari-Lite - three parallel trusses of Telestage loaded with Pars, plus 12 VL5s and 16 VL6s spread uniformly around the mid and up-stage trusses. The mid truss also had a section each end joined only at the bottom cords and hanging vertically like booms with two rows of six lamp bars all fitted

with colour mags (with what looked like some decidedly old washed out colours in them). Cathy Berbena takes design credits and operated the board for both acts.

With the Nynex being the first venue in a very brief European jaunt, Berbena was busy in programming hell for the entire day. For Lyle Lovett, she adopted a recessive posture, lighting subtly and allowing the music to shine. This was entirely appropriate, as Lovett is an excellent communicator with his audience, both in his banter and through his songs, and as such requires little in the way of lighting to set a mood. His band need only to be lit to be seen. With the Nynex set half house and with the upper bleachers curtained off as well, an audience of approximately 4,500 were there for this theatre-style presentation.

The opening number was performed solo, just Lovett in the spotlight displaying all the isolated vulnerability of Norman Wisdom. With his band in full swing (16 of them, including vocal section and himself), big 12k and 20k washes of amber and pink took the strain, while silhouettes came and went with brief solo flourishes. Berbena may have been eating her dinner at the board when the house lights went down, but she still hit her marks when they occurred. For Mary Chapin Carpenter came a strong contrast. A much rockier, up tempo style demanded an altogether busier show - which is exactly what Berbena delivered. Working the VL5s and VL6s hard to expand both the range of colour on stage, and with her first use of smoke, a much livelier use of light in the air. The simpler, dare I say it, catchier numbers had a jaunty quality that permits moving light but Berbena was quick to rein this back after the two relatively explosive opening numbers had made their impact.

SOUND

Where the lighting system was theatrical in stature, the PA was most definitely rigged for the arena. A Turbosound system from Britannia Row was flown in two clusters, six wide and three deep each side, with a row of near down fills below, and with a side wrap two by two on the acute angle to left and right. On the floor, a veritable wall of subs, 12 wide each side, completed the array. A heavy commitment of control gear for Brit Row saw two Yamaha PM 4000s out front and three Midas XL3s for monitors. However, the off-board gear was more modest - a bunch of BSS comp/limiters, a Lexicon, Eventide H3000 and a dual comp/limiter from Tube Tech used for Lyle's vocals. John Richards engineered for Lovett while Chuck Peters covered for Carpenter.

Neither man was using their PA of preference - Peters wishing for a Meyer system while Richards missed the Gauss and EV component system from his own company Concert Production back in Murfreesboro, Tennessee. That said, both men were pleased with the Turbosound rig, not to say pleasantly surprised, especially Richards who even found the time on this first day to admire the system packaging and was obviously intent on taking a few ideas home with him.

He had the much bigger band to mix:



Lyle Lovett, with all the vulnerability of Norman Wisdom.

Carpenter's group comprised just two guitars, bass keys and drum, while he had to deal with four horns, piano, percussion, drums, bass fiddle (as they say in Texas), cello, violin, guitar and four backing vocalists. (One of this latter group of singers could produce the deepest, honey-toned basso profundo. A voice that fully justified the large array of subs.)

For the acoustic instruments, Richards uses Demeter 2B1s, a tube pre-amp he much prefers to a straight DI, and has all Beta 87s for the vocals. As well as country, influences of blues, gospel, swing and jazz permeate Lovett's music, the dynamics of which keep Richards busy. With Lovett's relatively weak voice but pronounced vocal character to maintain, Richard's 70 minutes must have rushed by. Walking the room, even at the highest seats, this was a nice sound, reined well back on level but clear and natural. Peters on the other hand had a nervous first 10 minutes. Carpenter's rockier style alluded to earlier did require a stronger presence, but it was a little heavy-handed in the beginning. That said, it was not dangerous and didn't spoil the night, but it was a startling jump from Lovett's sound and caught the audience off-guard. By the end of the second number we were back down to a more suitable level as befitted Carpenter's genteel delivery.

In Richard's defence he was running a system entirely new to him and this, coupled to the fact that he's more used to running the show from a PM3500 where he can automate a lot of his song set up functions through MIDI, made for a steep learning curve. In the final analysis, the audience had a good time and appeared to enjoy both performers with equal gusto. The transition for both from theatre to arena is probably unwelcome - they are both personable performers and both acts require that intimacy. Rigged at half house, as it was in Manchester, they both just got away with it: if it's a full house in Wembley, I fear that the audience will lose much of what both these artistes are all about.

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THE NEW GEARY

Robert Halliday visited San Francisco to witness how one of the city's most historic theatres has been reborn following the disaster of the 1989 earthquake

What happens to a theatre when it gets old? In the UK, the answer is often 'very little'. Until the advent of the National Lottery, 'refurbishment' often meant a new coat of paint. After all, new shows could still be slotted onto the stage, even if the flying system was groaning under the weight of the heavy scenery and there weren't enough dimmers for the lighting rig. Even with the Lottery, things aren't much better - witness the ongoing debacle at the Royal Opera House; there's always a public relations problem. Millions of pounds to refurbish a frivolous place of entertainment or some extra beds in a local hospital? Tough choice.

What's needed is a good natural disaster. Something that causes enough damage that major rebuilding is required, at which point new facilities can be slotted in and no-one complains about the expense because, well, the theatre's just being returned to a presentable condition. Only better. The Savoy Theatre in London suffered a serious fire in 1990. Three years later it reopened in glorious condition, the auditorium a stunning example of late 1920's design, the stagehouse equipped for today's shows. The problem is, Britain tends to be a bit short on natural disasters; good news for all of us who live here, less helpful to those who'd like to be able to upgrade their theatres. California, on the other hand . . .

San Francisco's Geary Theatre owes its existence to an earthquake - it was one of the eight new theatres built in the city after the devastation of the 1906 quake. Designed by architects Bliss and Faville, it opened in 1910 as the Columbia Theatre and subsequently played host to such legends as Sarah Bernhardt, Basil Rathbone, Laurence Olivier, Vivien Leigh, Boris Karloff, Clark Gable and many others. In a double life as a cinema, it also housed the premiéres of *Fantasia* and *Citizen Kane*.

In 1967, the Geary found a new lease of life as the home for the American Conservatory Theater. Founded in 1965 by William Ball, ACT is an organisation that combines a theatre company producing annual seasons of plays with an acting training conservatory that now serves 1,400 students a year, and whose former students include Danny Glover, Annette Bening and Denzel Washington. Their policy is to produce a mixture of classics and new works, resulting in a mixture of plays not unlike that of the British National Theatre, though on a smaller scale. ACT bought the Geary in 1974, and in 1975 it was placed on the US Departments of the Interior's National Register of Historic Places. In 1979, ACT received a Tony Award for its work, which continued successfully through the 1980s. Until 5.04pm on October 17th 1989, when the Loma Prieta



Above, the beautifully refurbished auditorium of San Francisco's Geary Theatre. Below, the impressive facade.



earthquake shook the city with a force that measured 7.1 on the Richter Scale.

The front half of the Geary's auditorium - the curved 'dome' of plaster rosettes that swept down to the proscenium arch, and which was supporting a wall-to-wall lighting truss - collapsed. A 2,000 square foot hole was left in the ceiling, and the first six rows of the stalls seating were hidden beneath tons of fallen

plaster, with the twisted remains of the lighting truss left perilously half-suspended a few feet above.

To see pictures of the auditorium immediately after the quake leaves one wondering how no-one was hurt. According to Ed Raymond, technical supervisor of the Geary and manager of ACT's scenic workshop, the earthquake's timing was extremely lucky. "It happened at a time when people weren't at work. The San Francisco Giants were playing in the World Series, so 90% of the people were at home watching television. The theatre was dark because we'd had work calls in the morning, but it was too early for the show call, so no crews were here. As unfortunate as it was, it could have been a lot worse."

ACT quickly decided to carry on performing in alternative venues. "We lost the show that was on stage when the earthquake happened," Raymond recalls, "but that was the only thing we lost that season. When that show closed we were meant to open *A Tale of Two Cities* here, but we opened it at the Orpheum Theatre instead, with a new design for that theatre. Then we found an abandoned movie house up the street from the Geary which, with the help of the landowner, we turned into a performing space that was our base for the six years that we wandered about the town homeless! We played in a number of spaces, but most were either too big for the kind of theatre we do or too small to support our audience."

As the building's owners, though, ACT remained committed to the Geary. "When you do a reconstruction there are certain laws and codes that come into effect, so saying 'we're going to do it' and understanding what that means are two different things," Raymond notes. "And the project got defined as we went along by how much money we thought we could raise." This took time, and so apart from some exploratory work and the removal of the company's theatrical equipment, the theatre lay practically untouched until April 1994.

Just under two years later, on January 10th this year, the refurbished Geary Theatre opened to the public, the result of a \$27.5 million fundraising campaign and close collaboration between architectural firms Gensler and Escherick, Homsey, Dodge and Davis, construction contractors Cahill Constructors, theatre consultants Theatre Projects Consultants and staff from the Geary and ACT. Ed Raymond was closely involved with the recreation of the theatre, and is delighted at the input the theatre's staff were allowed. "We worked a lot with the architect and the interior designer - they were really responsive, and included us in a lot of the decision making, even down to colour schemes. On the technical side,



The Geary's fly floor, showing the mesh floor and spiral staircase.

things evolved with help from Bob Scales and David Taylor of Theatre Projects - we spent a lot of time trying to define what the theatre was going to become."

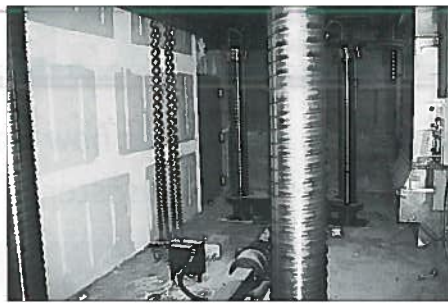
What the theatre does seem to be is a mixture of the best of the old and the new. The auditorium, for example, seems to be a return to the old; it has been restored to a beautifully clean version of its original decorative scheme, with seating on three levels capped by a huge dome that leads down to a curved 'vault' of rosettes, which curve in to a proscenium arch flanked by side boxes. The decorative plasterwork has been particularly well restored. "There were two guys in charge of all of the plaster restoration; they'd been doing it for 40 years, and they retired after they'd finished the theatre. They had a bunch of apprentices with them and they were teaching them how to pull a mould of a piece of casting, press a new one and put it up; it was spectacular. Seeing those guys work was something else."

Overall, the auditorium has a slightly different, more spacious feel to the many similarly-sized British theatres that are its contemporaries - the first and second circles are higher, making those sitting at the rear of the stalls and first circle feel less congested by the overhang above them.

This results in higher side walls than is normal in Britain, and these are the only section of the Geary that feel rather featureless. But the relationship between the audience and the stage feels right and the acoustic, though lively, for the most part carries speech clearly to the audience - and would do so even without the reinforcement system that the touring production of *Mrs Klein* that was playing when I visited had deemed necessary. The few problems that remain with the acoustic, principally concerning reflections from the side walls to the upper balcony, are already being tackled.

Beneath the surface, though, the auditorium has seen many changes. At around 1,100 seats, it houses 300 fewer people than before - the result of a new rear auditorium sheer wall that runs from the theatre's basement right up to its roof. The lost seats "weren't the most desirable," according to Raymond, and the re-allocation of space has allowed the architects to enlarge the theatre's bar and foyer areas; the upper circle bar in particular, with its sweeping curved roof, is a fabulous piece of work.

The side walls of the auditorium were reinforced with steel beams, and what were exterior fire escapes were enclosed and turned into interior exit corridors, with the new construction doubling as a flying buttress to add stability - and also helping to reduce the breakthrough of traffic noise into the auditorium. The curved roof above the proscenium arch - the section that collapsed

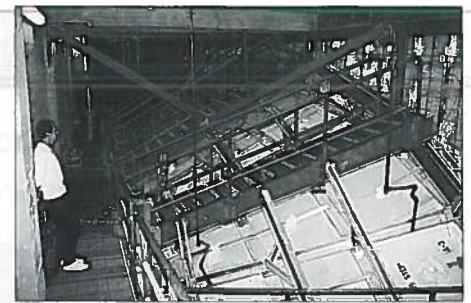


The Spiralift system, used for the get-in lift at the theatre.

during the earthquake - is definitely not what it seems. The original rosettes were made from plaster; the new versions were sculpted from gypsum reinforced fibreglass and weigh around 10lbs each, rather than the 100lbs of the originals. And they are not fixed: each rosette is actually mounted on a removable four-foot square panel that sits on a grid of three-quarter inch steel. This allows either lights to be rigged so that they can shine through the resulting holes to the stage (the opening production of *The Tempest* used Source Fours reflected from Vari*Lite Mirrors for frontlight), or allows a technician to reach through and clip a motor chain onto the rigging points that are designed into the roof's structural steel. "In the old theatre, if you wanted to hang a truss you punched holes in the plaster and went up and found a piece of steel," Ed Raymond recalls. "But the philosophy of Bob Scales of Theatre Projects when designing a theatre is that you're building a bag of parts out of which you can do anything you have to do. So now there are engineered points that you hang the chain motors from, there's power in the ceiling that you can power them from and there's a patch for the dimmers or speakers, so it's all built in. It imposes a lot less on the auditorium than the old style, and it's a lot safer. I can go through the list and tell you what every point is engineered for."

The remarkable thing, given the potential the theatre now has for adding lighting and sound positions (there are also rated rigging points further back in the roof and in the side walls), is ACT's new policy: to keep the auditorium as free from technical clutter as possible, so that its beauty and detailing can be appreciated. The circle front positions and pros' booms (which feature useful fold-down steps to allow easier access to the lamps) are as unobtrusive as possible; the lighting bridge at the rear of the upper circle, bedecked with narrow-angle Source Fours, is the only part that looks out of place; ACT did consider concealing this bridge and the booms but was prevented from doing so by the State District Preservation Office, and by fire and seismic problems. Lighting and sound outlets are run to every part of the building, reducing the need to string loose cable around the building and generally "keeping the infrastructure of the show invisible to the audience". That the audiences appreciate the auditorium and the effort usually taken to keep it 'clean' was confirmed on the night of my visit; the touring production had rigged a large speaker truss above the pros, swathing both the truss and the motors in black masking. A couple just a few seats along from me spent the interval complaining about how ugly it looked.

On stage, many of the changes were again related to making the building earthquake-proof. "There are two ways to build a seismic



Workshop manager Ed Raymond stands by the removable rosettes above the auditorium.

building," explains Ed Raymond. "One is to isolate the building from the ground by floating it, so the building actually stands still if the ground moves. The other version, of which this is the classic example, is just to reinforce everything." A foot of concrete was added to each proscenium wall, whilst the side walls of the stagehouse were reinforced with steel beams. Structural steel was added to the back wall for sway bracing and a new steel roof was added both to support the grid and to accommodate the air conditioning. Below the pros' arch is 'the Great Wall of Geary Street' - a 10ft wide, 10ft deep construction to hold the proscenium still. The building should now withstand an earthquake of over eight points on the Richter Scale - though Raymond hopes they never get a chance to prove it!

In refitting the stagehouse, Theatre Projects and the Geary team tried to maintain the best of old working methods as well as adding more modern techniques - something that those people who have long years of working with the old techniques demanded. Raymond, for example, has been with the theatre for 21 years, continuing a tradition of long service. "When I started, the flyman in the building was the original flyman who had started here as a teenager. He retired while I was cutting my teeth here."

The theatre "was originally built as a hemp house, and in the restoration we were actually able to keep the ability to use it as a hemp house in addition to adding a steel grid in place of the original wooden one, 48 counterweight sets and trolley beams underneath the fly lofts and the grid itself". They didn't take the next step to automated flying, partly on cost grounds, and partly because Raymond doesn't feel that automated systems are foolproof, reliable and versatile enough just yet. The counterweight system was installed by PDO, using Clancy components; the overhead pulleys in the grid make access particularly easy.

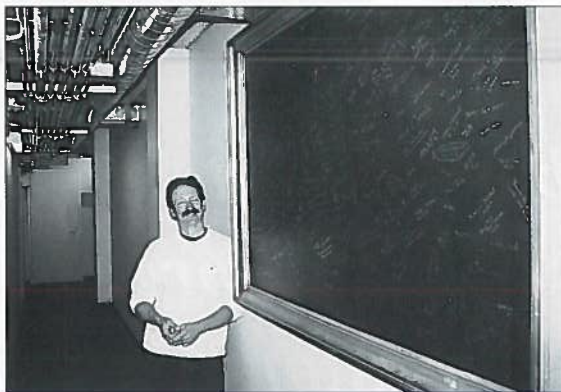
The fly floor is a clear example of Raymond and the Geary staff's close involvement with the theatre - Raymond was on site for at least a couple of hours every day during the construction period. Originally, the fly floor was going to be made from concrete. During the planning stage, it was changed to steel slats so that the flying crew could see the stage while working. Then Raymond came in one morning to find the welders installing the slats up and down stage rather than on-and-off stage, so rendering the stage invisible - an error that was quickly corrected. However, I suspect that the access to the fly floor owes more to TP's West End heritage; instead of a ladder there is a rather elegant spiral staircase, very like that at London's Haymarket Theatre.

Elsewhere, the Geary now contains technology to speed up fit-ups and changeovers, since ACT often play two shows

in repertory. With street level six feet below stage level, scenery always had to be dragged up and down a ramp; there is now a Spiralift in the scene dock to the side of the stage area. The dock itself is something of a construction feat. It was a separate building, of which "the street-side wall had to be maintained for historical purposes - it's part of the fabric of the neighbourhood. So the architects reinforced it with steel, welded a couple of beams through to the upper level of the theatre, then demolished the building." The dock is now isolated by a sound-proof door, and in theory sets could be assembled in the dock ready to be rolled onto the stage.

Below the fully-trapped stage floor are a series of screwjacks which can adjust the stage from flat to raked. Although intended to be used between shows, the warning klaxon can be disabled for use in a show. "We did this on the very first show, the \$10,000 a seat opening gala. It was terrifying. We'd only got in the building maybe two weeks before, and there were still contractors working. But we used it and it worked!" The original specification also included a forestage lift, but this was "value engineered out". However, Theatre Projects ensured that trunking and power remained, so that anything that did have to be cut on budgetary grounds could easily be reinstated later.

The theatre's lighting and sound installations follow what now seems to be the standard American routes. The lighting installation is almost entirely from ETC; an Obsession console runs 576 dimmers, a mixture of 5 and 10ks, plus additional racks containing houselight dimmers and worklight switches. DMX data from the desk to the dimmers passes through a patch bay designed by ETC, which also allows touring shows to take over control of some or all of the dimming installation from their own desks. Power is then fed out to socket outlets around the building, most of which contain both individual outlets and six-way multicore outlets and are duplicated at several locations to ensure that dimmers aren't wasted. The majority of the rig is made up of Source Fours; the on-stage rig is a fixed repertory rig spread over seven lighting bars and moveable



Ed Raymond with a commemorative board bearing the signatures of everyone involved with the refurbishment.

side ladders. The overhead bars used to be rigged from flown catwalks, but master electrician Jim Dickinson feels that rigging from bars allows the lamps to cover more of the stage without being obstructed by the bridges, as well as freeing more flying space for scenery. The theatre also has the advantage of a resident lighting designer, Peter Maradudin, whose familiarity with the building and the rig allows it to be used to its best advantage.

The sound installation, under the control of sound master Susanna Bailey, uses a Level Control System Macintosh-based control system for effects, feeding sound out to a Meyer system. Loudspeaker, microphone, video and comms tie lines all run back to one patch room, allowing easy routing of signals around the building. And to ensure that no money was wasted, the company's existing amplifiers were incorporated into the paging systems.

The most peculiar aspect of the installation is the location of the control room: at the rear of the stage, one floor up the spiral staircase, and without even a window looking out on to the show. The only view the operators get is on a TV screen. Dickinson and Bailey insist that they prefer to be closer to the stage in case any problems occur, and Raymond offers a further explanation for this peculiarity. "ACT has a contract that allows us to have inter-departmental crews, so during an act shift we can bring the lighting and sound people down to help rather than hiring two more people."

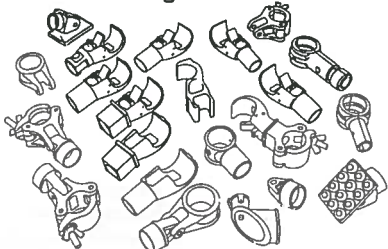
Perversely, the stage manager calls the show from a box high at the rear of the upper circle rather than the more usual prompt corner - but then, they are in a different union and can't take part in scene changes! Unsurprisingly, given the effort he expended ensuring that British operators could actually see the shows they were operating, TPC's Richard Pilbrow seems slightly disappointed by this aspect of the refit. But should the operators ever decide to move out front, tie lines already exist in the upper circle control room, and a six inch cable pipe runs from the basement to the rear-of-stalls mixing position, then up to the control room should other cabling be required.

With nine months usage behind them, the Geary team seem very happy with their newly refurbished home. Ed Raymond has a few regrets - he feels that they underestimated the spread of DMX-controlled devices and could have done with more DMX tie lines, and has already started upgrading the flying bars to truss bars. But there are aspects he is particularly proud of: the rest of the flying system, the pin-rail for hemp flying, the versatile lighting and sound installations, and especially the bus-track power system - a 100A bus bar that runs around the theatre and which can have outlet boxes clipped into it at any point. Boxes can be made with any kind of outlet on, allowing particular outlets to be provided only when and where they are needed rather than installing every kind of outlet at every location. The system was originally Raymond's idea - a clear advantage of having people involved in the design process who understand the way a building and the company who will use it work.

The Geary is a superb piece of work, a 1910 theatre confidently ready to face the next century. It's unfortunate that it took a natural disaster to force the upgrade, but the result has been just the kind of improvement that the lottery is supposed to be funding in the UK. Let us all hope that the recipients of this money learn from the Geary, make sure their staff are as involved as the Geary's were, and do as good a job on their theatres as ACT and Theatre Projects have done in San Francisco.

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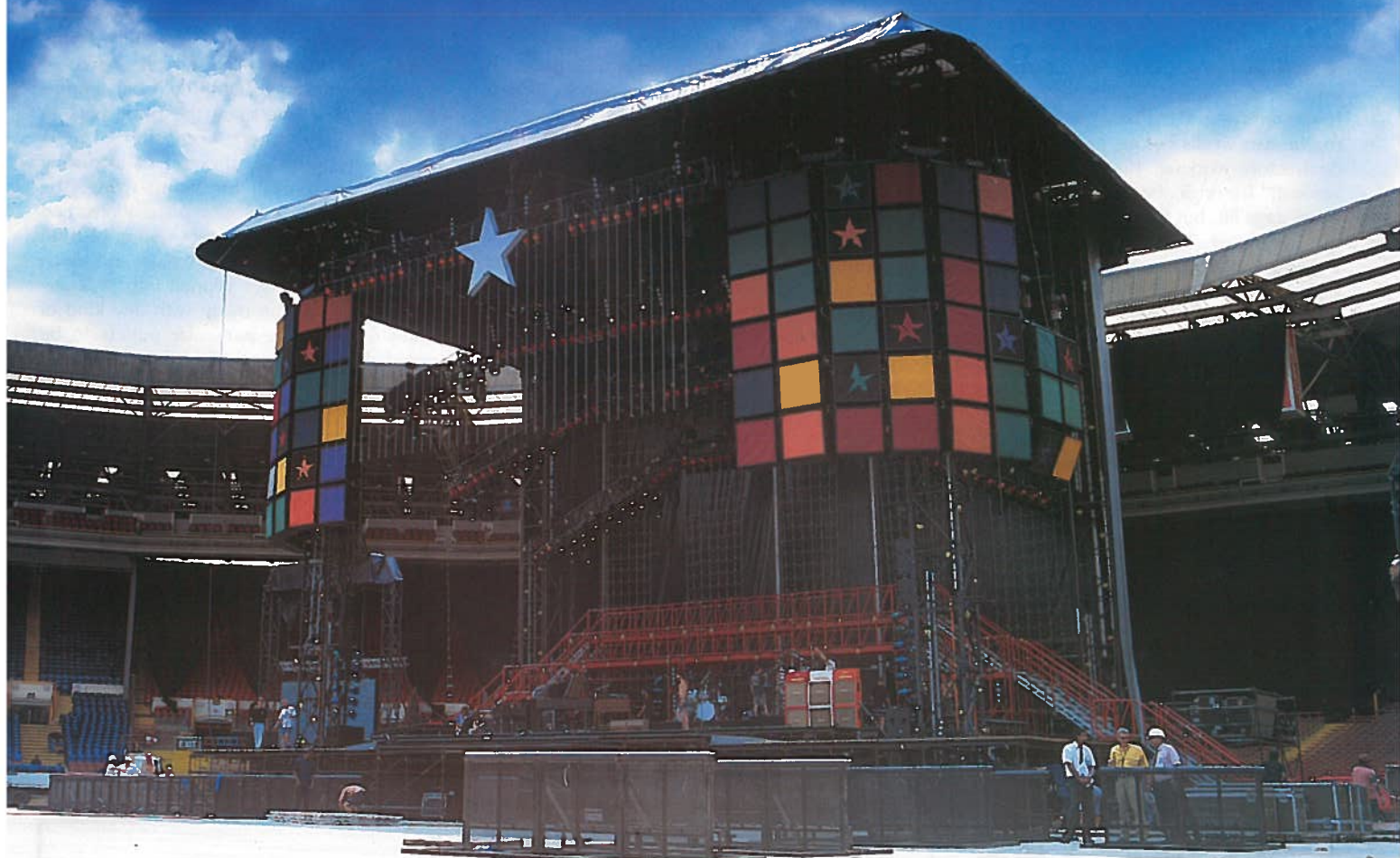
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HEAVY DUTY ROCK

An awe-struck Steve Moles samples the demonstration of power and extravagance when Metallica went live at Sheffield Arena

I've been waiting for this show for 26 years. As a young schoolboy (yes, shorts and a cap!) I went to see the nascent Black Sabbath play London's Royal Festival Hall. These were the early days of heavy metal, if not the absolute birth pangs. The PA looked impressive, two huge cabinets made by Orange towered either side of stage and, as I recall, show lighting was non-existent - the band performed with the house lights on. What the music engendered in me - and what sustains its allure to this day - is its monstrous hook into the simple, baser emotions. A powerful grinding beat plugs straight into those ego-driven sensations that are symptomatic of adolescence.

What would have made the experience complete was something symbolic of those surging emotions: scenes of havoc and destruction, dark and wanton excess. In essence, heavy metal is all about the dawning realisation of power. Bands of the genre have striven to tap this vein ever since: Kiss with their big tanks and flame throwers, Iron Maiden with Eddie in all his manifestations; but all have looked a little kitsch. What Metallica have here, and they have it in spades, is a concert of long and sustained build, climaxing (and I use the word advisedly) in an unexpected and totally cataclysmic finale.

Unashamedly it is the theatrical, rather than the audio content of this production that provides much of its momentum. Not that sound doesn't contribute fundamentally, but lighting and set are the major influence and will take the lion's share of this review. Lighting design is by John Broderick with Mark Fisher's distinctive imprint on the set.

The show is set in the round with two stages. The larger, viewed from above, mimics the body of an electric guitar - I'd hazard a guess at a Fender Jazz Bass. The other is circular; starting as a domed mound, its outer edges like petals rise up to form a flat surface with an irregular perimeter. The two are relatively close, though not physically linked in any structural sense, and are enclosed by a continuous barrier that resembles the thick waisted hourglass figure of a cello.

Beside the moving petals, both stages have central cores that elevate and rotate, upon which two drum kits are mounted. If criticism can be laid at the set design, it's here, not through any failure of conception, but merely unnecessary extravagance. These drum platforms shift mainly in the dark between songs, and when viewed against the bigger whole, go largely unnoticed. However, spending on set design is ultimately the indulgence of the band and they are obviously prepared to indulge heavily. Despite the costs involved, there's no skimping on this production, least of all the finale, as the 19 45ft Transam trailers outside bear witness.

The lighting system grows out from the set, a sci-fi contrivance of articulated radar masts and derelict electricity pylons, and above each



stage is a small square box truss. The pylons look straight out of the TV ads for the National Grid privatisation a few years back; crooked and leaning, their cross members like the arms, they present a slightly sinister anthropomorphic image. Ever the eye for detail, they also bear Fisher's trademark airfield type marker lights, and for a touch of realism fake 'anti climb' barbed wire around their middles.

For a decibel heavyweight like Metallica, the surprise of this lighting system is just how small it appears to be. Even more surprising is its content. The general lighting contractor is the Obie Company, with John Wiseman the account manager. It is he who, by his own admission, went to extremes to gather up 110 of High End's Studio Color automated washlights. Lighting designer John Broderick's chosen instrument, the Studio Color has featured as an element on the occasional tour since its relatively recent launch, but has never been seen before in such quantity and taking such a leading role in a major production.

Whatever the track record of High End products, it's still quite a leap of faith to make a new lamp the major element of a show. This concert was the 26th since leaving rehearsals and already the lamps were receiving plaudits from the crew like 'bomb-proof' and 'indestructible'. Of the 106 active lamps, a dozen of them are hurled to the ground each night with a terminal velocity calculated at three Gs. So far (apart from one during rehearsals which was crushed by the falling structure it was attached to and since returned to an active role) no lamp has malfunctioned the next day.

Secondly, the tour has thus far played three outdoor festivals, the one in Lisbon being deluged by rain. With almost half the lamps on the floor exposed and getting continuously soaked, not one failed, thanks largely, it is believed, to the well-sealed electronics and convection cooling. As an observer I can only say that when receiving these reports, which came separately from crew chief Ian 'Cammo' Cameron, Ben Richards, the Status Cue board operator, and various other similarly enthused members of the lighting crew, there was a

residual tone of incredulity in all their voices. A month after Lisbon they were still finding it hard to believe it themselves.

Broderick's overall lighting concept has some interesting self-imposed strictures. When I visited the production rehearsals back in August, he informed me that he didn't really like moving lights - the Studio Colors were chosen primarily for their output and ability to reposition. Two months later, true to his word, I only noticed them move when illuminated once, and that during a segue sequence.

The intensity of lamp output is undeniable, from the floor at the centre of the Sheffield Arena they were easily able to project thick coherent beams of saturated colour up into the distant roof structure at

either end. Broderick's other desire was to light from overhead as little as possible, hence the two small box trusses above the stages, each carrying just 16 Studio Colors and four underhung spots. The spot seats, designed and built especially for the tour by Obie, are rather like pedestal office chairs as might be found at an old-fashioned A0 drawing board. They have a full 360 degree foot plate and both operator and his lamp can fully rotate upon them quickly and effortlessly.

The four members of the band work randomly across the whole potential playing area including the floor space between and around the stages. Although Broderick has another nine Super Troupers out in the house he likes to keep them and the total of eight truss-mounted Lycian medium throws on their targets as much as possible. I never cease to be impressed by how accomplished American LDs are at calling spots, JB not only runs the conventional lighting from an Avolites QM, but also has control over the shutters of the Studio Colors and yet still finds time to manage 17 followspots.

Even two hours into the show, synchronisation of lighting and spot cues was rock solid. Rehearsals also saw Flying Pig's WYSIWYG earn its keep. Although the talents of both Brilliant Stages and Tait Towers were engaged to build the set, Broderick wisely elected to give himself the option to blind programme on the assumption that the more innovative parts of the set might prove problematical. Nick Porter from Spot Co spent two days transposing Mark Fisher's 3D CAD file of the set into the WYSIWYG system. Ben Richards then went on to pre-programme much of the system with Broderick.

Which was just as well, considering the circular stage didn't actually appear until the first show in Vienna. The rest of the lighting system is composed of Molefays (I counted 24), all fitted with Wybron Colorams (another piece of kit to be praised by the crew for its weather tolerance). The Moles are bulbed with either FBEs or DWEs thus providing both rectangular blocks and broad washes of light. There are also

10 Terrastroses and a sprinkling of DataFlash on the radar dishes. Finally, at the base of each of the four radar masts, are high pressure sodium floodlights, the sort you might find in any dingy British Railway car park. And that's it!

Broderick's application of his lighting system is pronounced. At rehearsals, he scrupulously monitored the colour palette that Ben Richards produced from the Studio Colors, rejecting many on the premise that he'd seen them before from other automated lamps. John Broderick is an erudite man. Physically, he resembles Alan Alda from his role as Hawkeye in MASH, perpetually wearing a nine o'clock shadow on a craggy jaw. Like Hawkeye, he has a razor-sharp wit, a pungent turn of phrase and a keen eye. What his self imposed rigour has left him with is an unusual colour collection - pinks, ambers, blues and greens that you'll rarely if ever have seen before. Dirty and industrial, the colours are characterised by a quality of neglect - the stage looks like a Los Angeles sunset on bad smog day.

The four band members are really covered exclusively by the spots which is how JB is able to maintain his 'no movement' ethos with the Studio Colors, and indeed he does on occasion light entire songs without them. You won't see a hard edge from any lamp on stage - even the spots are purposely run soft-edged and much of the time you're completely unaware of them on their target area. Conversely, this makes you acutely aware of the complex lattice of coloured followspot beams carving through the dense trashy washes that suffuse the stage.

Broderick has been lighting this band for eight years and it shows in his cueing, not just the spot calling, but those little nuances where a big bucket-load of wash receives a subliminal tweak of intensity as a bass line thunders past. The most telling aspect of this lengthy relationship is the band's trust in his ability: "They'll let me try anything," he says. This trust seems well founded - Ian Cameron assured me that since the design went from drawing board to production, not a single lamp has been added or taken away from the system: everything is used as intended.

Sound engineer Mick Hughes also took a less than conventional route to this production and, like Broderick, is fortunate in having a long enough relationship with the band to warrant it. This is not their first 'in-the-round' show; indeed Metallica seem to have constructed something of a genre, so Hughes was already familiar with its inherent problems. "The biggest is reflection," he said. "Sometimes it's so bad it can completely mask out the cluster that's right in front of you and then it's difficult



Metallica front-man James Hetfield.

to know what's going on. Short of turning off all the other parts of the system . . ."

It was more the shape of the performance area that gave Mick pause for thought, and the fact that his preferred supplier, SSE were offering the opportunity to use their newly purchased Nexo Alpha system. The advantage offered by the system was a simple power to weight equation. He had previously used SSE's established MT series PA by ElectroVoice, a system with which he was well versed and quite happy. "I thought weight was going to be a problem," he said, referring to the six separate clusters he uses as a standard arena array. "To get the kind of power and coverage I wanted I thought I'd need to hang too much of the MT system." The Nexo Alpha promised greater concentration of power in a smaller lighter box.

Unfortunately, development wasn't complete, the low end and system processing still requiring some attention. Without the luxury of an audio equivalent of Broderick's WYSIWYG system for some predictive work to lean on, Hughes was obliged to revert back to his tried and trusted MT system and hope he could overcome the roof load problems. (In the intervening period between then and now, SSE have resolved the two Nexo problems thanks to producing a dedicated low-mid cabinet and the addition of Omnidrive.) Ironically, Hughes has now used the Nexo system for the three outdoor festivals mentioned earlier and rates the Alpha very highly.

The other element he was at pains to point out was the effect of the PA system change just as they went into rehearsals, and how it was dealt with. "With a situation like that, using a service company with different systems available helped a lot. Under other circumstances I might not only have been

changing systems, but also supplying companies as well." Needless to say, SSE had their copious quantities of MT cabinets scheduled for other work, not least several festivals spread about the European continent, so effecting the change-over proved a prodigious juggling act. No doubt they were happy when it was all resolved.

So the familiar MT cabinets are hung in abundance, and weight thus far has not proved a problem. "I'm just waiting to see what happens when we get to America in December," said Hughes "and snow loading becomes a consideration. But from what I've learnt already, the amount I need to hang is not as big a problem as I first thought."

He is running the show from a Midas XL4 and is no doubt glad of the automation functions this desk gives him when dealing with the multiple vocal microphones. The band eschew radio systems, so instead a small forest of Shures on stands is spread about the performance area, so that any band member can avail themselves of whatever is closest. Besides the desk, Hughes has found a couple of tools especially useful - a 4050 microphone from Audio Technica perfect for the guitars and a Behringer Composer.

As for the sound? Within minutes of arriving I was offered ear plugs, and yes, volume is expected from Metallica. I wore mine for perhaps half the show - the first half - taking them out repeatedly as I paraded around and up and down the hall. What was noticeable was that despite high SPL, the more painful and desensitising frequencies were throttled back. I took mine out for good after an hour and didn't really regret it for the next 90 minutes.

The audience did receive a good lashing from the guitar on a couple of occasions, but nothing that Fletcher Christian couldn't have handled. Around the room the spread of the hanging clusters appeared to avoid any real coupling effect; there were patches where the vocals were exceptionally clear and transparent to others, but seeing as this was not Pavarotti singing and nobody had paid £500 a ticket, who cared? What Hughes did achieve was a mighty drum sound. Largely natural and warm, it featured a percussive kick drum with such marked physical presence that it was a while before you realised how low in the audible mix it was.

So what was this cataclysm at the end? I won't tell the full story - after all, this tour runs for two years and you may be tempted to visit yourself. Let's just say that the pylons collapse, and with some gusto. There's also some pyro' and special effects, and some very realistic stunts performed by a few daring individuals. All the power apparently fails, the lighting desks out in the hall also being totally extinguished. It sounds like the PA has just had all its amps run through a mangle, a more excruciating sound of a totally stuffed PA system I wouldn't want to hear and didn't dare ask Mick Hughes where he got the idea from. When some normality returns the HP Sodiums are lit and the band eventually return for a couple more numbers under the lights' baleful yellow glare. Before they returned I could hear the whispers running around the hall: "That bloke who fell out the truss didn't look like he was faking it," and indeed the band have already started to receive letters of condolence and concern from their fans, hoping that the lighting system failure has been fixed and that no-one in the crew was too badly injured. Oh to be 15 again.

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EQUIPMENT NEWS

Ryger Expand Range

Following the success of the Defender range of intelligent lighting effects, Ryger have introduced the Tunnel effect into the Discovery 400 HTI and Discovery 250ELC ranges of intelligent lighting.

This now provides the end user with a choice of one single beam of light (Scanner), four beams (Lynx or Wolf), or eight beams (Tunnel), all of which can be still or rotating at variable speeds. Ryger have also recently introduced the 102 Pro-40, a 10A version of the popular 402 Pro. These units are dimmable, with 32 programs, soft chase and sound activation.

The M2L Pro is a new, more advanced MIDI to eight controlled mains outputs and with more features such as 32 pre-programmed chasers, 32 scenes, variable attack and decay, master fader and pre-heat, all in a 1U package.

For further information, contact Ryger in Langley Mill, telephone (01773) 530053.

Out Board's VCM6

Out Board Electronics' new VCM6 multiple chain hoist motor control system is available with dual standard compatibility for both Verlinde and CM chain hoists. For maximum safety, each channel of control has its own contactor that only switches three-phase power to the motor when a move is required.

Each motor power output has a phase reverse switch to cater for non-standard cabling to motors. The VCM6 offers full control from front panel switches with LED indication of direction and motor activity, while every motor output is protected by its own MCB enabling individual channel isolation as well as high levels of safety.

For further details, contact Out Board Electronics in Cambridge, telephone (01223) 837827.

Spirit Folio F1

The Spirit Folio F1 is a rugged multi-purpose console capable of digital quality (mic EIN-129dBu) mixing for live sound, recording, sub mixing and location sound applications. The console uses 100mm faders - previously the sole reserve of large, professional consoles, giving greater control and flexibility at mixdown than standard 60mm designs.

It comes in 16/2 or 14/2 input versions with eight or six mono channels available. These include Spirit's UltraMic preamps giving 60dB of gain range and 22dB headroom, meaning that the Folio F1 input stage can handle virtually any mic or line device. F1 includes eight outputs as standard and four stereo inputs for keyboards, effects or stereo playback equipment. Mono inputs all have steep 100Hz 18dB per octave high pass filters to eliminate low frequency rumble.

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

Starlite Mk5 in Full Production



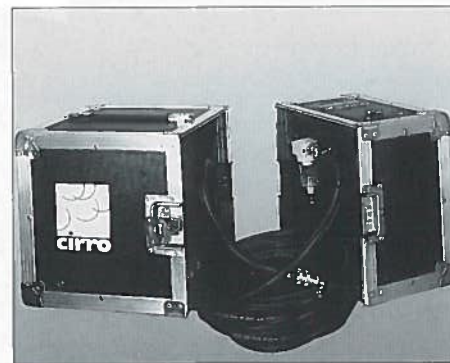
The Starlite Mk5.

Starlite have announced that the new DMX, moving yoke profile fixture, the Starlite Mk5, previewed at the PLASA Show, will go into production without delay.

Previously only available for rental, the Starlite system has undergone an extensive development period and will finally be offered for sale. The Starlite Mk5 brings a new level of quality optics to the market, with complete image focusing, and a high quality flat field, coupled with a modular design which enables the user to purchase precisely the options required. The package is aimed at a wide variety of conference, theatre, TV and touring applications.

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

Cirro Lite's Split Box



Cirro Lite have launched the new Cirro Strata 6 (CS6). First previewed at the recent PLASA and IBC shows, it features a split case which allows the tank to be placed in smaller spaces and, if required, to position the compressor remote from the tank, via an air hose.

This new machine will supersede the tried and trusted Cirro Micro Mist. The CS6 is flightcased as standard, while a new screw cap avoids spills if the box is tipped in transit. The unit will feature a sound baffle for the tank output if quieter running is required. The use of a new compressor has increased the fine mist output by 30% from the Micro Mist.

For further details contact Cirro Lite in London, telephone 0181- 964 1232.

Solar 250 Returns

Optikinetics have announced the return of the Solar 250, the veteran effects projector manufactured since 1973, which they temporarily removed from production last year. The Solar 250 has now undergone considerable re-engineering in order to comply with worldwide CE, UL and CSA directives.

The new Solar runs cooler, increasing the life and widening the range of gobo media. A new transformer makes it lighter, while safety is improved thanks to internal electrical screening.

For further information, contact Optikinetics in Luton, telephone (01582) 411413.

Gem's DJ Power Amps



The PA-550 from Gem Sound.

Gem Sound has recently added new power amplifiers to their DJ and club product line. The PA550 (550W) and PA750 (600W) are two continuous-duty power amplifiers designed to endure the rigours of non-stop club sound use.

Both models are designed especially for continuous high-level sound amplification and dependable, low heat operation. They feature fan cooling, thermal and output protection circuitry and a vented front panel. The PA750 also features illuminated output meters.

For further details contact Gem Sound Corp in New York, telephone +1 (718) 292 5972.

AutoLIGHT 3 Release

CJG Consultants of London have launched the most recent version of their graphical lighting design and database program. AutoLIGHT Version 3, which is fully compatible with AutoCAD Release 13, will be a considerable boost to architects, designers, production electricians and all professionals involved in education.

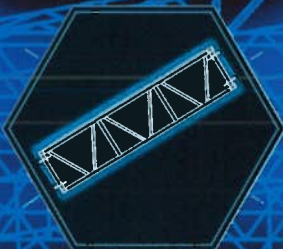
For further details contact CJG Consultants Ltd in London, telephone 0171-371 8889.

New Soft Light Source

Lowel Lighting have introduced the Rifa-Lite, a portable, lightweight, location-oriented soft light source. It features a self-contained halogen lamp, centred within a collapsible, high temperature tolerant, 'silver'-coated textile housing. A heat resistant front diffuser provides efficient illumination with soft shadows. The system is quick to erect and strike and its umbrella style design is easy to use and transport. Because the quality of light is soft, it is suitable as a key or fill light for both subjects and backgrounds.

For further information, contact Holmes Marketing and Distribution in Newbury, telephone (01635) 32321.

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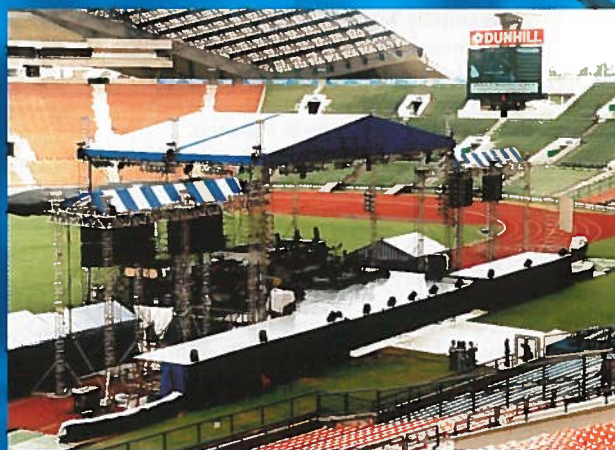


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SECOND TAKE

John Watt's View from Beside the Camera

• It's a cosy business being able to berate and criticise from the comparative safety of a column like this - no redress and no answering back (not in the short term, anyway), but I do get letters and some direct comment too, by phone or in person. Amazingly, several people accosted me at PLASA last month saying they recognised me from the photograph! I always thought those photofit pictures or those done by police artists were pretty useless and yet that combination of the two which accompanies this is enough to get me convicted. Worrying.

The letters take various forms and I have recently had a couple from old mates at LWT. They're taking a risk, as my memories of that place are not the happiest, having done a series with Cilla where my intellectual approach wasn't welcomed and a series of the 'Donkey' where my wit wasn't needed.

I digress. Those letters - well, actually a single half-page ripped from an old script (well I think it was old, because it said 'Lighting by Bert Wilkins' and 'Runner Greg Dyke'). In this letter, John Pocock asks why I never mention console operators and how they get lighting directors out of the mire all the time. The uninitiated may be surprised to learn that John is a console operator and afflicted by the usual common complaints among that much maligned breed, namely a complete lack of respect for his elders and betters, extreme stinginess when it comes to getting the tea in and stumpy fingers which always hit two buttons at once. When this happens, he tries to sell the resultant cock up as 'an interesting effect'. To be fair, he tries to pay attention and is usually good-humoured, providing you've called him in late enough to use his bus pass. Oh, and he has got me out of the mire more than once.

His fellow complainant is Sean Moon. You may have heard of him, as every caption sequence you've ever seen coming out of LWT says 'Vision: Sean Moon'. How he tweaks three studios at once I'll never know - in fact, given his field studies for a Masters degree in Female

Appreciation, it's a wonder he has the time to tweak or write letters. He's got me out of the mire too, but that's because he's too busy studying to have either the time or the energy to do anything and has, by default, discovered the secret of good racks operation i.e. leave them alone. Sony set up those cameras quite well when they left the factory and if you don't tweak them they'll be OK.

But this flurry of letters makes me wonder about a new twist to my career. If my editor will agree, I can perhaps run an agony column.

Dear Aunty Watty,
I am starting to suspect my director is seeing another lighting man. Whenever I go into the control room unexpectedly she hurriedly puts down the phone saying 'I'll call you back Brian'. She is less tolerant of boom shadows than she was, and doesn't brush past me behind the cyc' like she used to. Am I imagining this?

Dear Mark,
I am sorry to be pessimistic, but this relationship must end. The phone calls are ominous, especially as there aren't any lighting directors called Brian. Boom shadows are caused by booms, not lights - any other view is quite irrational. As for earlier heady encounters behind the cyc', well, you have only yourself to blame - a few more kilowatts and a circuit of follies pink should raise the ardour of even the most wavering director, but it's too late for that now. Apply for a teaching post at Wood Norton.

Dear Aunty Watty,
For years I have been keeping this dreadful medical problem to myself, but now that magazines like this encourage discussions of formerly taboo subjects, I feel that I must talk to some understanding kindly person like yourself. I have changed my diet and eat red cabbage, green apples and blue cheese but to no avail - I am incurably colour blind.



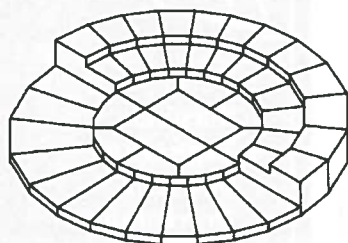
Dear Dave,

Don't worry, half the people in television are too, and management in general does not think it significant. They want colourful pictures, but any colours will do (See The Big Breakfast or Rory Bremner). Directors and designers respect a confident approach and are completely insecure, so if you say on the end of the number, 'We'll do a cross fade from this (medium blueish) to this (unbeknown to you medium blueish) they'll think 'that was a bit subtle, but his reputation is good' and so say fine, but do it a little faster. Always use a modern control with a dipless crossfade, then you can be sure of about a 30% dip to indicate that you've done it. In most studios there is a burst of mains hum as you crossfade, which emphasises the effect.

• Part of this month has been spent in Norwich, at Anglia's refurbished studio with its novel vision lighting control room. There's always an explanation why things are the way they are, and in this case I think it must be that the drawings were photocopied back to front. The racks and lighting desk have their backs to the window! Yes, there are swivel chairs, but make-up and design have their backs to the glass, so all the LD sees is the make-up girl's legs (do I protest too much?). VTR share the same space too, so at times the babble and traffic remind you of a cocktail party. Most studio centres feature long corridors, but at Anglia it's a pleasant 15 minutes walk down pretty cobbled streets from the main building to Studio E. The crews are great - funny accents and their own vocabulary for some of the lights, but I can get used to calling for a bread bin or a bath and they can always find a 'phoo more circuits boy'.

• Sometimes, almost by accident, you can have a terrific and entertaining day out in congenial company. I visited Steve Warren and Rick Salzedo at Avolites last week, expecting to be baffled by their range of control systems (maybe bored too), I do not pretend to be a console operator (see above), but somehow I was gently led through their very user-friendly systems. Their 4D track is one of those bits of kit (for controlling moving lights in particular) that you just cannot wait to get your hands on, I can't anyway.

ALISTAGE

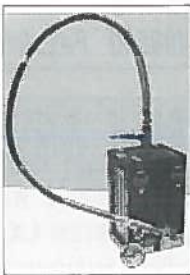


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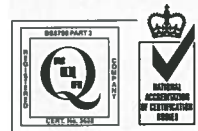
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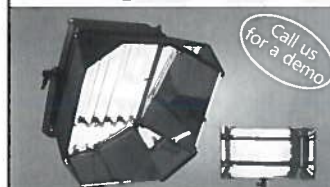
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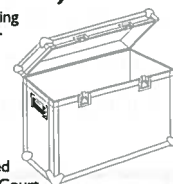
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Lighting+Sound International talks to lighting designer Michael Odam

'Dobbin' may not be the most flattering nickname for a top lighting designer, but it does at least imply a certain reliability. When all around are tired and flustered, having the strength and persistence of a cart horse may be just what is needed to pull everyone through.

Michael Odam has been in the theatre industry for 25 years, but unlike many of his contemporaries, he has never once languished on the sidelines waiting for the next job. Born at Guildford in late 1955, his early interest in theatre lighting began when he was barely in his teens, while still a student at the Robert Haining school in Michett. His father worked at the nearby Farnborough Aircraft Research Establishment, specialising in lightning strikes on aircraft, of all things, and because of his essentially technical background was roped in by the local amateur dramatics club to refurbish their lighting equipment.

He was "dragged along" by his dad, as he put it, and quickly found his interest kindled. Perhaps the thought of following in his father's footsteps didn't appeal, but at least electricity and light was involved, so genetics may have played its part. Odam's school allowed him to gain work experience at the Yvonne Arnaud Theatre, and he eventually joined the theatre staff as second electrician on his seventeenth birthday, barely three months after leaving school.

"Second electrician is not quite as grand as it sounds," he noted modestly, "the lighting department only consisted of three people - a head LX (electrician), a deputy and me," but it did prove to be a valuable placing for him nonetheless. "By the time I left, five years later, I had learnt the basics and had been promoted to deputy electrician."

He had also started turning his hand to lighting design: "Many of the productions at the YA were destined to tour or move to the West End, so I didn't get a look in design-wise. But we also put on home-based productions and performances for the local education department that I got to light."

Like many practitioners of his art, Odam started to come into contact with established

designers who were to prove influential to his own development: "I remember working as an LX for Michael Northen. To my shame I can't remember the production - but it was the first time I'd seen lighting designed for an open stage, rather than the more standard box set. It opened my eyes to possibilities I hadn't even considered."

Feeling that the opportunities presented by the Yvonne Arnaud had been exhausted, he left in 1976 to join the Gardner Arts Centre, based on campus at the University of Sussex. He was still only 22. The Arts Centre was renowned for staging avant-garde productions. It also had an art gallery with a busy schedule of visiting exhibitions, which Odam, as chief electrician, was obliged to light. With the added confidence this gave him, just one year later he entered the world of the freelance lighting electrician.

"It was then that I met and worked with Joe Davis, the grandfather of theatre lighting design. He was a major influence on me." And an influence that in many ways accounts for Odam's sauntering style. "He was in his late sixties then, and still obviously enjoying himself. I thought 'there's no hurry to rush off and light everything - persist, take your time - work with the likes of Joe and learn the craft'."

Which is exactly what he did, eschewing lesser design work so that he could work alongside the likes of David Hersey, taking the role of production electrician. In fact, it was several years later when he was working with David Hersey on *42nd Street* that he took his next big step: "I had kept in contact with friends in the theatre back in Guildford. Three of us decided to set up our own lighting hire and production company, Limelight."

The small equipment stock the company carried was not intended to put them in contention with the big West End suppliers, it was for local and provincial shows, but it did



Michael Odam in the dimmer rack cage beneath the stage of the Prince Edward Theatre for *'Anything Goes'*.

put Odam in the frame as a designer, offering his service through Limelight. "It was our production service that predominated, but if someone did phone up and wanted a design, I said 'fine'. It was a service we could provide."

In early 1981, he met designer Andy Bridge while the latter was lighting *Oliver!* at the Aubrey. Durham Marengi was production LX, and was due to operate the show when he fell ill with food poisoning, and Odam was brought in to cover for a few weeks. A chance meeting, it was four years before he and Andy

Bridge worked together again. Odam had just finished *Time*, when Andy called him in to work on the first ever staging of *Phantom of the Opera* in London.

"As the show grew in popularity, so productions were staged in ever more diverse locations. Initially Andy and I would go and light them together, but eventually he made me associate designer and I became responsible for recreating the whole show." To date, he has lit *Phantom* nine times, the most recent in Basel, Switzerland, in Autumn 1995, and the musical's popularity shows no sign of diminishing.

The lighting equipment for the Basel show comes from Theatre Projects in London, a curious coincidence, as 10 years earlier, Odam had worked with a relatively new LX, Alan Thomson, lighting the Torvill and Dean ice extravaganza at Wembley. A coincidence because Thomson is now the managing director of Theatre Projects and has recently co-opted Michael Odam onto his staff.

In the intervening decade Odam has been busy advancing his career, building his reputation as an associate lighting designer. Most notably he has lit *Joseph* half a dozen times now, and has also worked on *Les Mis*, *My Fair Lady*, *Anything Goes*, *Aspects of Love*, *Guys & Dolls*, *Carmen Jones* . . . the list goes on.

As Alan Thomson noted: "He's one of the most familiar faces in London Theatre land and his experience alone is invaluable." Not so much of a heavy horse - more of a heavyweight!

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