LIGHTING SOUND International

THE ENTERTAINMENT TECHNOLOGY MONTHLY



MICHAEL FLATLEY'S FEET OF FLAME CONCERT - FULL PRODUCTION PHOTOS INSIDE

- Flaming Flatley the maestro of tap at Hyde Park
- Dr Dolittle: L+SI talks to the animals
- The CAD Files: second in a two-part survey of lighting packages
- The Summer Season at the Royal Liverpool Philharmonic Orchestra
- DHA Lighting in Profile
- Venue Versatility: Burswood Island Resort, Australia



AUGUST 1998



The flames of the falling meteor turned night into day.

Whirling, twisting, threatening to swallow all that came near.



422 VORTEX

The earth lay torn and savaged
by passing battles.

Primitive the carpet may be, it covered the dirty floor well enough.



441 WOVEN TEXTURE

LEE Filters

LIGHTING SOUND International

AUGUST 1998

VOLUME 13, ISSUE 8

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LIGHTING SOUND News

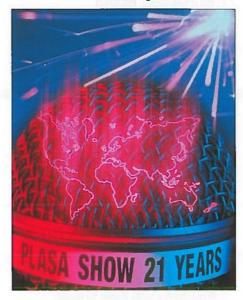
Best Ever line-up for 21st anniversary PLASA Show

In this, the 21st year of the PLASA show, exhibitor numbers are set to exceed all previous records with all sectors of industry representation stronger than ever before. This year's PLASA show will be host to an estimated 350 exhibitors up from 326 last year and is a truly international show with representatives from Australasia, North and South America, Europe, the Far East and Asia.

In line with the increased number of exhibitors, product launches are also likely to be up from last year's 472. A definite move has been noted in recent years that companies exhibiting at PLASA have scheduled their new product introductions in time for the show. This provides a real focus for the industry with most new products being launched at the same time of year, and also creates a strong draw for visitors.

There has been continued development of the various sectors within the show, notably the specialist sound sector dedicated to pro audio and sound installation. Several new audio companies will exhibit at the show, including Sony Broadcast and Professional Audio. These new exhibitors, together with the dedicated pavilion for the US National Systems Contractors Association (NSCA) will make it an even more interesting show than previous years for the commercial sound industry. For some companies in the pavilion it will be their first time exhibiting in Europe, drawing on the might of the NSCA to let them 'test the waters'. The sound sector will also be well provided for in the seminar series that is taking place throughout the show (further details on the topics and speakers appear in this month's issue on page 81), many hosted by the NSCA.

Audio-visual will also play a major role at this year's show, with many new product launches planned. AV technologies for pub, club, retail, leisure, stadia and live events will be



demonstrated in themed areas such as the PLASA café and the AV Bar, as well as on large screen displays sited across the exhibition floor.

The show is also looking to the future of the entertainment industry by inviting DJs to polish up their mixing skills and enter their demo tapes for the PLASA Show mixing championship. The competition, sponsored by Gemini Sound Products and DJ Magazine, will run throughout Sunday 6th September in the upstairs DJ lounge, and will culminate in an evening final. Anybody is welcome to enter. Tapes should be no longer than 10 minutes, marked PLASA Mixing Competition and sent to Mark Matthews, Gemini Sound, C4 Hazleton Industrial Estate, Lakesmere Road, Horndean, Waterlooville PO8 91U.

The show floor will be abuzz throughout the four days of PLASA for, in addition to the above,

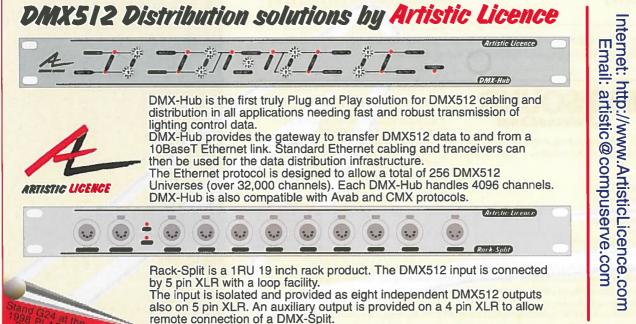
there are companies representing just about every area of this industry including theatre, club, AV, architectural lighting, pro sound, installed sound, multi-media, touring - you name it, it'll be there.

There will also be a number of trade missions including an inward mission from China. The delegation will include members of the Chinese Stage Design Institute, the Department of the Ministry of Culture and the Technology Centre of Shanghai Radio Film & TV Bureau. The mission, which follows on the success of PLASA Presents Light & Sound Shanghai earlier this year, will enable the VIP visitors to witness the progressive nature of the entertainment technology industry in the UK through visits to leading venues, as well as to the PLASA Show itself.

Away from the show floor a very special event will be taking place. As this is PLASA's 21st year, the main hall of the Natural History Museum will become the venue for a feast of entertainment and celebration as it transforms into a party venue to mark 21 years of the PLASA show. Coinciding with the opening Sunday of the Show (6th September), the party will commemorate the success for the entertainment industry.

The 1998 show is destined to be the best in its 21-year history. Throughout this issue, you will find details covering product launches planned by some of the many exhibitors at the show. Next month, we'll carry even more details of the many events and product news linked to PLASA 98. If you would like further information on exhibiting or visiting the show or would like to reserve a table at the 21st Dinner, contact P&O Events on 0171-370 8179.

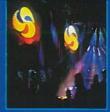
Once at the show, look out for the official PLASA Show catalogue produced by PLASA Publishing which will be free to all visitors and distributed in carrier bags sponsored by ADB.



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concert tours





here, there, and

EVERWHERE

television

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TECHNOBEANT NOW BEING SEEN IN ALL THE RIGHT PLACES

Richard Vickers

It is with great sadness that we announce the death, after a short illness, of Richard Vickers, managing director of Kelsey Acoustics. Richard was a highly colourful character,



remembered with affection throughout the pro audio industry for his love of a good time and his generosity. He made his name in the early days, touring with the likes of King Crimson, Emerson, Lake & Palmer and Blondie. Always larger than life and passionate about rock music, Richard formed the basis of a wide-reaching network of lifelong friendships and associations, all of which stood him in good stead when he finally came off the road and joined what was then Kelsey Morris in 1976.

In 1978 Richard bought the company from Bill Kelsey, changed the name to Kelsey Acoustics, and set about putting his own stamp on the business. Having decided to concentrate purely on the cable side of the business, he then started to develop the company.

In later years, his overriding priority was to see Kelsey Acoustics realise its full potential, and he worked very hard to achieve that end. As a result Kelsey continues to trade as normal. Richard's death is a great loss to his many friends and colleagues throughout the industry, many of whom attended his funeral which took place on 27th July in Bournemouth. For those unable to pay their respects at that time, a party is being planned in his honour around the PLASA exhibition in early September, which will create the opportunity to celebrate Richard's life in the way for which he is best remembered - having a great time!

Any donations to be made to the National Neurological Hospital Development Fund, Queen's Square, London WC1N. For further information contact Michael Whiteside at Kelsey Acoustics on 0181-964 8000.

PRG Restructures Lighting Group

Production Resource Group has announced changes in the management team of the PRG Lighting Group. The Lighting Group consists of BASH Lighting Services (New Jersey, Las Vegas and Baltimore); Production Arts Lighting (New Jersey, Los Angeles and London); Vanco Lighting Services (Orlando); Cinema Services (Las Vegas); Lighting Technologies (Atlanta) and Light & Sound Design (Los Angeles, Nashville, Birmingham, London).

Don Stern will become the chairman of PRG Lighting Group, and will bring his 40+ years of experience in the lighting industry to focus on strategic planning. The PRG Lighting Group executive team will now feature four highly seasoned industry professionals. Leading this are Steve Terry and Nick Jackson who come to PRG from Production Arts and Light & Sound Design, respectively. Bill Ennis and Bill Gallinghouse complete this team focusing on financial operations and sales and marketing, respectively.

In the new structure, Steve Terry will assume the role of president of the PRG Lighting Group. Terry will seek out leading edge technologies and will also lead the newly formed 'Systems Group' which will handle permanent installations. Terry, considered a pioneer of systems integration, has been involved in the engineering and management of many prestigious installation projects and has maintained an active involvement in the international lighting industry.

As the new team was announced Steve Terry told L+SI: "I am excited that PRG is structuring the management team to utilise the strengths of the individual lighting group companies. As a leader of this team, I am committed to drawing on the strengths of each member to bring quality products, great service and leading edge technology to our customers."

Nick Jackson will work alongside Terry in the leadership of the PRG Lighting Group. While continuing in his role of president of Light & Sound Design, Jackson will bring his considerable skills and wealth of experience to focus on the



L+SI was given an exclusive opportunity to meet with the key players in the PRG group at the Birmingham premises of LSD. Lining up for the camera are Bill Gallinghouse, Steve Terry, Dave Keighley (LSD UK), Nick Jackson and Anne Johnston (Production Arts).

development of complete production services within the Lighting Group, as well as on international business development. Jackson adds: "The variety of skills and experience represented on this team will allow us to offer high quality products and services to a very broad range of clients and market segments. I see a unique opportunity for us to establish PRG as the world's leading supplier of production services to the entertainment, event and corporate markets. With the anticipated demands created by the millennium, the timing is perfect."

Bill Ennis, chief financial officer and executive vice-president of PRG Lighting Group, and Bill Gallinghouse, senior vice-president of sales and marketing, complete the lighting group executive team. Ennis brings to PRG 20 years of experience in the financial arena while Gallinghouse has over 15 years of broad industry experience, most recently with Electronic Theatre Controls (ETC) as managing director of ETC Europe.

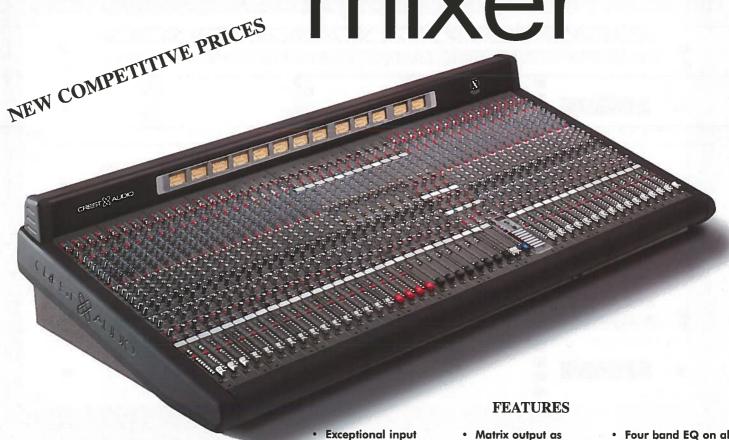
Jere Harris, CEO of PRG, told L+SI: "Not only have we acquired the best companies, but we have also been fortunate in inheriting the best management in the lighting industry. The new executive team has a breadth and depth of experience from a variety of different disciplines which will enable the PRG Lighting Group to set the standards for the industry."





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VL7 Hits the Road



After showing prototype versions of its new VL7 spot luminaire to the lighting industry at LDI '97 in Las Vegas, the engineering staff of Vari-Lite, Inc have now created the production version of the high-powered spot luminaire. The Industrial design of the product has changed since the prototypes at LDI, giving it a sleeker appearance, which is valuable because of the amount of time Vari*Lite luminaires spend on camera. According to Vari-Lite's Tom Littrell: "The luminaire hangs on 26" centres and weighs 68lbs. That makes it only slightly larger than our VL2C luminaire."

The VL7 luminaires have been used on a variety of shows since the first shipment a few weeks ago. Among those, long-time Vari-Lite programmer Harry Sangmeister recently spent many hours with 25 of the new fixtures lighting the Country Music Association Awards telecast and CountryFest '98 concert event for lighting designer Allen Branton. In Japan, Kazumi Nemoto took a break from his position as general manager of Vari-Lite Asia to act as lighting designer for Japanese pop artist ASKA. VLPS London has delivered fixtures to Swiss Vari-Lite dealer Scenetec for the Montreaux Jazz Festival. Designer Laurent Zumonsen and programmer Dave Stewart are using 12 VL7 luminaires for the historic concert series.

PLASA Launches VASA

A new organisation has been formed by companies involved in the manufacture and installation of voice alarm systems to improve standards in the industry. The organisation VASA (Voice Alarm Safety Approval) is an advisory and compliance sector of the Professional Lighting and Sound Association (PLASA).

VASA's chairman, Chris Kenyon of Delta Sound PA in Stockport told L+SI: "Our objective is to significantly improve public safety by establishing and promoting the highest quality standards of voice alarm system manufacture and installation, and to become the compliance authority for the industry.

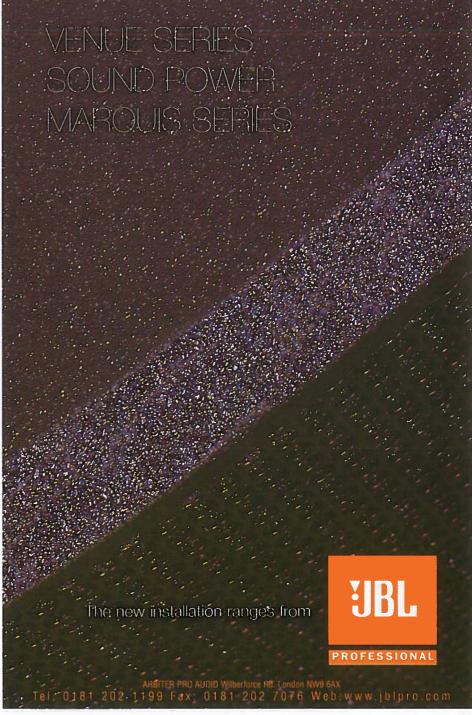
"An important aspect of our work will be to refocus and improve upon the British Standards for what we make and install as they apply to voice evacuation systems. Existing British Standards tend to cover sound systems or fire detection systems without addressing sound systems in a fire detection environment.

"We are working with the Loss Prevention Council to draw up new standards for the industry and to ensure VASA approved systems become the specified standard for the fire authorities, local government, the insurance industry, architects, building industry consultants and others who influence the installation of fire detection systems in new or refurbished buildings."

ESTA Announces Draft Standard

The Entertainment Services and Technology Association has announced that the draft American National Standard BSR E1.7, Entertainment Technology - Recommended Practice For Flying Performers is available for public review. All those who have an interest in the standard are invited to review it and to offer comments. BSR E1.7, Entertainment Technology - Recommended Practice For Flying Performers, describes recommended practices for lifting and transporting performers to create the illusion of flying or levitation in theatrical performances. These recommended practices cover single and multi-wire flying systems that use direct human power, mechanical advantage, counterweights or motors (electric or hydraulic) to lift or transport performers.

Public review and comment is being sought so that the draft standard may reflect the consensus of informed opinion in the industry. The formal public review period ends on September 15, 1998. Copies of the draft standard may be obtained from the ESTA website at http://www.esta.org/ or by contacting the Technical Standards Manager, ESTA, 875 Sixth Avenue, Suite 2302, New York, NY 10001, fax: +1 212 244 1502.



RCF will host a number of launches. Seen for the first time ever will be the new PA Contractor Series, Vision, alongside the new HC3200 'High Current Series' power amp - the first in a new range. Also on display will be the new 'DCA' Series, RCF will launch the 'Easy Line' of PA products including tuner/cassette amps (ELISA 2120), mixer amplifier (AM1120) plus a line of 'Easy To Install' speaker systems for celling/wall/indoor and outdoors RCF - E52

Strand Lighting in the visitors to experience their compre-hensive product range within their fully-networked show-room, designed for hands-on dentenstration of lighting control and dimming systems. The showroom features a 500 Series control desk networked with EC90 and LD90 dimmer systems. Premiere and Outlook architectural systems are also fitted. On show for the first time is the new 510i. Strand's high-capacity show controller. The rack mounting controller may be used as a stand alone 'show control' system or as a back-up for any 500 series desk.

Strand - K8

PCM, importer and distributor of Columbus McKinnon Lodestar chain hoists, will be promoting their Lodestar Plus package, available on all models of CM Lodestar. The package includes an in-built anti-phase system, weather-proofing, and a free first service and load test.

PCM - E28

ETC Control for Royal Opera House

ETC Europe has been awarded the contract to supply the stage lighting control systems in the development of London's Royal Opera House. This significant contract extends ETC's involvement with the project and follows the signing in April '97 of the contract to supply its Sensor dimming racks.

In specifying the system, the Royal Opera House was concerned with two aspects of the project: the control system itself and that the manufacturer could provide an ongoing support package for both the equipment and the network. Mark White, a Royal Opera House theatre consultant, wrote a detailed specification for the lighting control

system: "We have a once in 30 years opportunity to provide a system which will take the Royal Opera House into the 21st century. We wrote a specification for a lighting board which we knew did not exist, but which was needed for the day-to-day running of an Opera House in repertory. "ETC has agreed to modify the software and make changes to the operating system of its Obsession II. These changes will go a long way to providing us with the board we would like whilst retaining the software reliability inherent in ETC



The hard hat brigade: Fred Foster (ETC), Ruth Rossington (L+SI) and Mark White (Royal Opera House Theatre Consultant).

products. We look forward to working with ETC in order that the final product will be of mutual benefit."

The award-winning Obsession II was launched at PLASA last year, and is being supplied for the main stage at the Royal Opera House. For the studio theatre, an Obsession II 750-channel console has been specified. Additionally, there will be a sophisticated ETCMet Ethernet-based network throughout the Opera House, as well as peripheral control devices such as the Remote Focus Unit.

TeleCast Buys Blitz and TP Sound

TeleCast Communications Ltd has acquired Blitz Communications Ltd and its subsidiary companies Blitz Vision Ltd and Interactive Television Ltd, together with TP Sound Services and the non-hotel business of Samuelson Communications Ltd, all based in London, from Caribiner International. The three businesses hire video, audio-visual, sound, multi-media and staging equipment for use with corporate presentations, product launches, conferences and other special events.

Caribiner had acquired the three businesses in November 1997 as part of its acquisition of Visual Action Holdings plc, and last month announced its intention to sell. TeleCast was formed as recently as May 1998, and is backed by Candover, a UK private equity house. In May, TeleCast acquired the London and Singapore offices of Cinevideo, as well as Advanced Broadcast Services of Dallas, Texas, all of which specialise in hiring broadcast video equipment for the production of outside broadcast, studio, news and current affairs. This was followed in June by the acquisition of London-based Charter Broadcast.

Bob Ellis, chief executive of TeleCast, told L±SI: "Blitz is one of the UK's leading providers of AV equipment and technical services at business communication events throughout Europe. The acquisition is part of our continuing strategy to develop a broadly-based group providing services to media, broadcasting and business communications.





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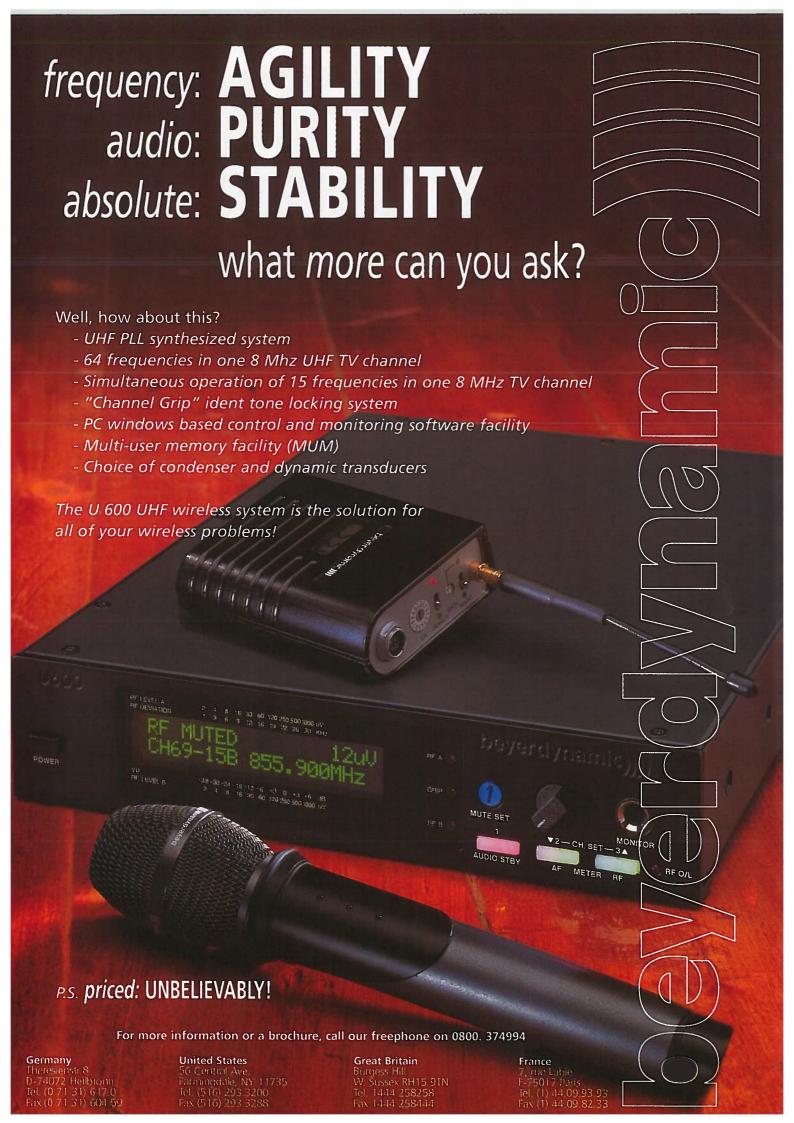
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NEWS IN LIGHTING+SOUND INTERNATIONAL

Strand Unveil Custom Expo Trailer



Strand Lighting have reached a unique milestone in their illustrious history with the announcement of a custom-built mobile trailer. Tailored for exhibition and training purposes, the trailer was unveiled in Berlin, coinciding with the opening of the company's new European office in the German city.

The Strand exhibition roadshow has been designed to provide a flexible, high-technology exhibition unit in which to present their entire range of product to customers throughout Europe. It will also be used as part of the newly-established Strand Academy, since the truck can be set up for training seminars, complete with plasma screen and chairs. The onboard system configuration allows easy demonstration of luminaires, controls and dimmers via a fully-



networked design. The idea was developed in conjunction with one of Strand's trading partners, Stage Electrics.

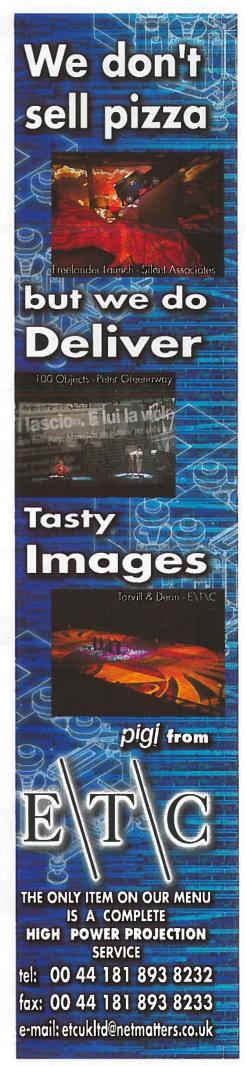
Following Berlin, the trailer has been visiting other European centres en route to the UK, where it appeared in a number of cities during July.

V-Dosc UK Join European Network

V-Dosc Rentals UK have become the latest addition to the V-Dosc Network Partnership extending the European network to eight partners, each of whom hold substantial rental stock that allows the same level of equipment to be offered to clients at the same price throughout the continent. V-Dosc UK managing director Paul Nicholson told L+SI: "We are finding that engineers are becoming much more aware of the capabilities of the system, and since the Supertramp tour last year, the profile of V-Dosc has gained in stature and momentum. Certainly, once an engineer has heard the system in concert, it is fair to say that they have all been extremely impressed."







Abstract will be launching the VR12 composite lighting projector. The DMX-controlled fixture features an MSD 250 lamp, rotating gobos, variable speed shutter, trapezoid colour changer and high resolution optics. On stand will be a fully-programmed lightshow, running every 10 minutes and controlled by an Avolites Azure 2000 desk.

Abstract 4,756

Bathlink will be showing a number of new product lines. These include a host of new products from American DJ, including the XDM-3633. Commander mixer and the V series amplifiers aimed at mobile and club applications. Also on stand will be products from Lite Puter, including DX series dimmer packs and the CX-1 DMX tester. Also on show, MBN foam generators and lighting Next and Genius.

Batmink - F46

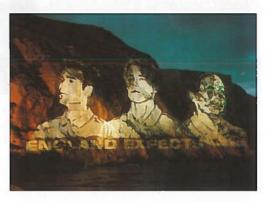
World Cup goes Large-Scale in the UK

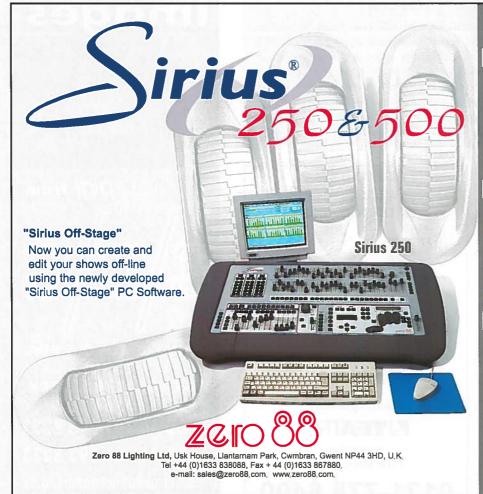
This summer's World Cup gave rise to some striking large-scale projection work on two of the UK's most well-known edifices.

projection London-based specialists Labyrinth converted the Millennium Dome into a mammoth billboard in order to wish the England team luck before their game against Argentina. The company used a Hardware for Xenon 7k projector to emblazon the dome with a 150ft St George's Cross, on which was written 'Football's Coming Home', 'Good England' and 'The Magnificent Eleven'. After the event, the (at the time) Portfolioless Peter Mandelson telephoned Labyrinth to congratulate them on a job well done.

In a separate project, a somewhat older edifice - the White Cliffs of Dover - had the faces of England footballers Graham Le Saux, David Beckham and Paul Ince (not the greatest of line-ups, as it turned out) projected onto them in an advertising campaign by Adidas. Production company MEI Design contracted Laser Creations to provide the projection (which bore the message 'They think it's all Dover'). Sam Samkins for Le Maitre added the pyrotechnic touches, reloading the fireworks on the rocky beach below, until Adidas had achieved the right shot of the spectacular shells exploding above the cliff.







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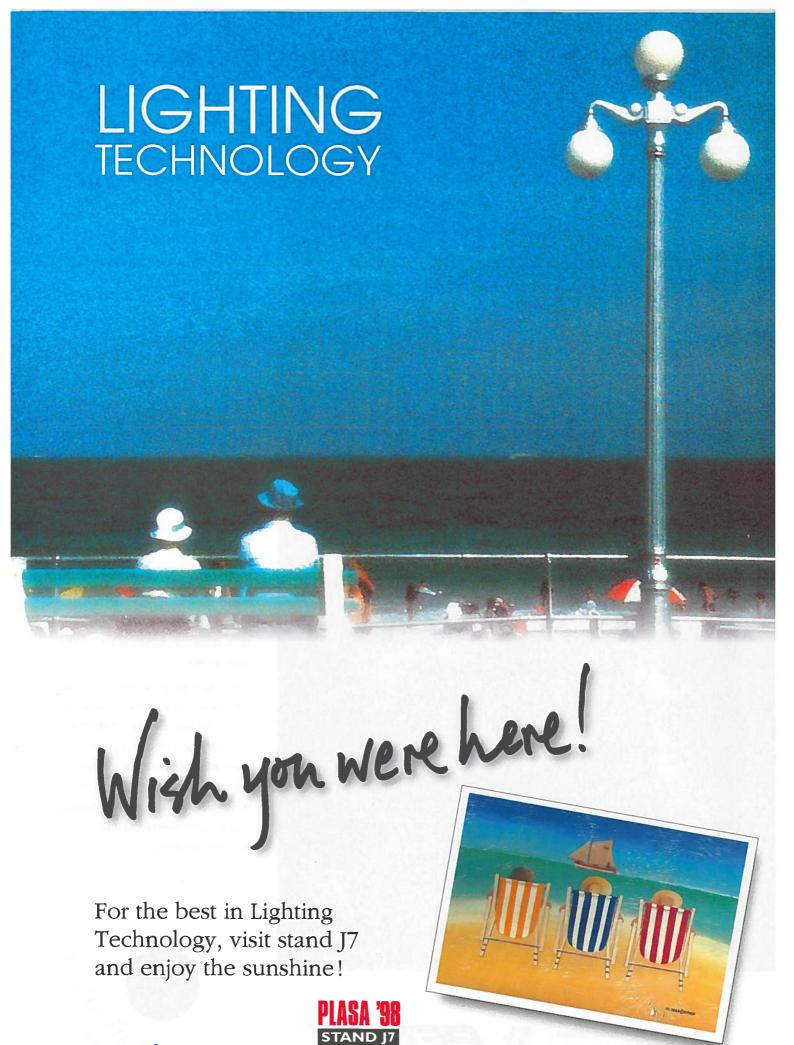
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Community Sports

Sports stadium specialists Carter Voce have completed a sound system installation at soccer premier league club Derby County's new Pride Park ground which they began in last year's close season. This contract follows successful installations at Stoke City, Reading's new Madejski Stadium and now Wolverhampton Wanderers' Molyneux Stadium which all now benefit from new sound systems designed and specified by the company. The company have been

working with Community components and enclosures for five years now and turned to their catalogue immediately they won the tender to equip the stadium with a voice evacuation/background music system.

The work had been put out to tender by main contractors Hilton Building Services, but according to Neil Voce very little performance specification was supplied, leaving the installers a free hand. "Our preference was for a system that was musical, rather than just horn-based voice repro," Voce told L+SI: "After all, the majority of the pre-match and half-time music is derived from a DJ, using CD and radio mic sources." Thus the company specified 28 custompainted clusters, made up of SH 494 horns, with M200 drivers and 12" LF enclosures. The 20K system is powered by a cross-section of amplification.

Voce continued: "The main priority was to provide even articulation from a system that was to be intelligible and at the same time quite loud." The same criteria for even dispersion applied in the restaurant area, which was fitted with eight Sound Advance CT8 transducers.

Work on the Pride Park contract was undertaken in conjunction with Midlands-based Sound & Vision Technologies, who provided security systems such as the CCTV, emergency telephones, access control, intruder alarms etc. They also fabricated the harnesses for the cluster rigging.

The emergency function is enabled from a touch screen PC-driven system, with all the routing effected via a VxLAN digital routing system. The VxLAN control system has allowed amp racks to be distributed around the stadium, minimising cabling and containment costs. Touchscreen control of live and pre-recorded messages combine with comprehensive fault monitoring to provide a simple, safe and reliable system. This time around, having been awarded the contract to complete the final phase, Carter Voce have completed the fourth corner of the stand, where the pub and hospitality areas are now linked to the rest of the bowl. An additional rack position has been installed, with a final VxLAN outstation, more amplification and further Community M200 speakers in the hospitality suites as well as the bowl itself.



Stage Two in Moscow

Stage Two Ltd, the Watford-based audio-visual, sound and lighting company recently completed the first part of a three-phase £150,000 project to fully re-equip the auditorium of Radisson Hotel in Moscow with new stage and effects lighting.

Designers from the company spent time at the hotel designing a system for the specific needs of the complex which hosts a wide variety of events from exhibitions and conferences, to fashion shows, whilst also doubling as a cinema for locals.

The first phase concentrated on supplying and installing a new theatre lighting control system. The heart of the system is an 84-channel Zero 88 LTC dimmer rack with a Sirius 48 lighting desk on the front end. This replaced the ageing system that was previously in place and provides the control basis for what is to follow. The project also included internally-wired barrel and trunking in readiness for new specialised lanterns to supplement their existing stock. Much of the lighting revolved around Martin products and included Robocolor 400s. The second phases will provide the complex with a Martin Case controller, plus Martin Mac 600Es and PAL 1200 high powered effects lanterns, together with a hoist to accommodate these effects at

Stage Two undertook the supply and supervision of the project from design to completion.

Cerebrum's New Deals

As mentioned in our ABTT report last issue, Cerebrum Lighting have renewed their earlier partnership with MA Lighting Technology from Germany, and taken over exclusive distribution of their products in UK and Ireland. At the same time, Cerebrum have also signed an agreement with Rainbow Colour Changers to handle exclusive distribution of their range within the same territories, and the company will shortly be announcing the appointment of a new technical product manager for both MA Lighting and Rainbow.

Martin Audio will be showing two new products at PLASA 98: a longthrow version of the Wavefront 8 Compact and a sub woofer Contractor series (C115 and C516). Both the CII5 wall-speaker and C516 ceiling speaker will also be on

Martin Audio - F64

Artistic Licence will launch DMX-Hub. Rack-Split, Cue-Patch, Line-Light and DMX-Term, as well as introducing updated versions of Micro-Scope, Grand-Master Flash! And the DMX-Dongle.

Artistic Licence - G24

Lightfactor are introducing the Studio Spot from High End Systems. Also new will be the Paradim digital dimmer golying racks from LightProcessor. A number of other product ranges will also be on stand, including those of Mad Lighting, Turbo-sound, Peavey. Kaleidolight, QSC, Penn, Denon, Doughty, Metro Audio and Cloud. Lightfactor - E7/E9

Le Maitre will be promoting their machine and hazer products. New is the flightcased Touring LSG and the Pyro Range Sure Fire System. They will be supported by Litestructures and the stand will new Lite Span.

Le Maitre - F18

German manufacturer Chain-Master will be exhibiting their chain hoists for the first time at PLASA 98. The company will hold instruction sessions on their products inside a 40sq.m stand. The main emphasis will be on the VGB-8 rigging lifts for loads up to 1000kg, manual and capturing systems and the company's electric running gear. ChainMaster - R58

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LETTERS TO THE EDITOR

Dear Editor

Re: No Comment, L+SI July, 1998

I read with interest Tony Gottelier's recent *No Comment*, in which he talks about Production Resource Group and their acquisition of various companies, including my own, Production Arts. I have always enjoyed Tony's view of our industry, but I see PRG from a somewhat different angle.

Tony comments that Nick Jackson of LSD and I will "... swiftly fade to grey, if not black." To the contrary, an announcement made recently regarding the restructuring of the PRG upper management (see news, page 8) clearly shows that PRG is putting a team in place that will give the organisation the best characteristics, corporate cultures (and wonderful idiosyncrasies!) of each of the acquired companies.

The bottom line is that the corporate management of the PRG Lighting Group is Nick Jackson, myself and all the other excellent managers of the acquired companies that make up the group. There is no boardroom full of 'big business' executives from outside our industry running the show. With few exceptions, the people running PRG have come from the trenches of the entertainment industry, not from 'big business'. Jere Harris himself comes from four generations of theatre people - in short, the upper management of PRG is made up of nuts and bolts people, all of whom have made their lifetime careers in our business, are not going anywhere and care very much about our industry.

It will, however, decidedly not be "business as usual". It is my personal conviction that it will be much, much better for the acquired companies, and most importantly, for our customers. In case you hadn't noticed, our industry of small players was getting to be a pretty rough-and-tumble place, of late. Tony points out that small companies have traditionally nurtured creativity in our industry. That's true, but I have to tell you that the market trends over the last five years were beginning to leave the 'pot' of creativity money pretty lean in a great many companies, my own included. They also left the 'buy new rental equipment' pot of money thinner than we liked. The economics of the lighting rental business have changed profoundly; the traditional methods of business and financing that worked so well for us during the relatively tame growth periods of the eighties and early nineties, were becoming less useful in growing our company in the current market climate. While I very much enjoyed working at the Production Arts of 1985 with 35 people, it could never have stayed strong and healthy without growth. Likewise, the Production Arts of 1998, with 100 people, also needed to grow in order to stay healthy and continue providing our customers with the level of service they have come to expect. Some change in our business paradigm was required to adapt to the changing market and its new scale.

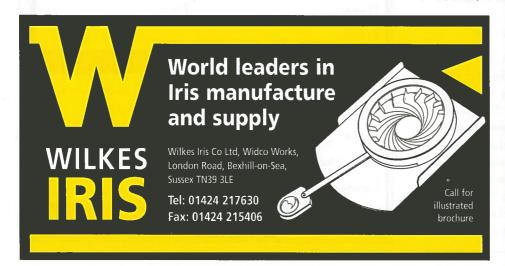
Enter PRG and Jere Harris. He came to us some years back with a vision of putting together a group of high quality companies that would create significant synergy and allow the market to take advantage of 'one-stop shopping'. We were initially sceptical of his proposals, but we watched with interest the success of Scenic Technologies in the automation market. Jere Harris once said something to me that was very simple but compelling. He said: "Steve, I'm not the smartest guy in the world, but I've learned how to find the best people in our industry who excel at all the things at which I'm not an expert."

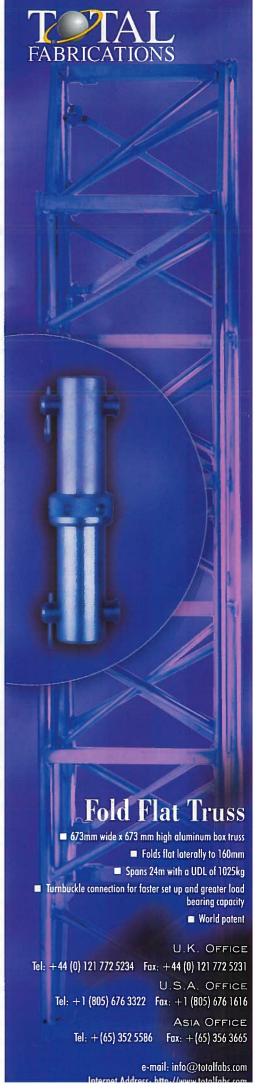
We watched many of the best minds in the industry begin to gravitate towards Harris companies. At some point we decided that it would be a wonderful organisation to join, and that's what happened on July 1.

Judged by conventional standards, PRG is hardly the "corporate colossus" that Tony sees. Compared to medium-sized or even small companies in other industries, PRG is tiny. It's just that when you compare it with the 'Mom & Pop' sized companies that have been the norm in our industry, it looks immense. Perhaps the PRG "phenomenon" has been facilitated in part by an industry that is maturing. Certainly, the financing model that PRG is using is completely new to our industry. But I believe it represents the basic shift in paradigm that our industry needed - one that will allow PRG to flourish in this new scale of market.

I am genuinely thrilled to be involved in this venture. PRG is being run by people from our industry who care deeply about customer service, innovative new technology that fosters creativity, and the future of the industry itself. Most of us put a much larger emphasis on those things than on big business and high finance!

Steve Terry - President, PRG Lighting Group









BackStage London Itinerary

The itinerary for BackStage London, the behind-the-scenes technical tour presented by PLASA and produced by LDI in association with the World Entertainment Technology Federation, has now been finalised. The tour will begin on the final day of the PLASA Light & Sound Show, and take in a number prestigious shows and venues.

Wednesday, September 9, 1998

5.30pm - Bus leaves PLASA Show, Earls Court. **6.30pm** - Dinner: Cinderella bar at The London Palladium. **7.30pm** - Performance of Saturday Night Fever. Backstage tour and panel discussion following the performance.

Thursday, September 10, 1998

9.00am - Meet for breakfast at the Drury Lane Theatre. A look at the technology used in Miss Saigon, plus a hard-hat tour of the renovation of the Royal Opera House, Covent Garden. **12.00-1.00pm** - Lunch. Afternoon: Matinée, backstage tours or themed attraction (tba). **6.30-7.30pm** - Dinner. **7.30pm** - Performance of Dr Dolittle at Labatt's Apollo Hammersmith Theatre, followed by backstage tour and panel discussion following the performance. Evening: late night club visit (optional).

Friday, September 11, 1998

9.00am - Meet for breakfast. **9-30-11am** - Madame Tussauds' Spirit of London ride and discussion. **12.00pm** - Lunch on pleasure boat on the Thames. **12.00-2.00pm** - Boat trip to see the Millennium Dome; discussion with creative team on the project. **2.00pm** - Arrive at Festival Pier on the South Bank. **2.30pm-5.00pm** - Backstage tours and panel discussions at the National Theatre. **5.15pm** - Dinner at the Mezzanine restaurant at the National Theatre. **7.30pm** - Performance of Oklahoma, followed by backstage tour of the Olivier Theatre and discussions.

For booking information, return the form below to the PLASA Office, or ring +44 (1323) 642639 with any enquiries.

Roll up for the Mother of all Parties . . .

PLASA has teamed up with organisers Live! magazine and the Production Services Association to sponsor a party in aid of the PSA's newly-launched Welfare Fund. The party, also sponsored by EAW/The Sound Dept, Screenco, Star Hire and XTA Electronics, will be held during the PLASA Show on Tuesday 8th September at the Shepherds Bush Empire in London. The fund is aimed at offering emergency support to live production freelancers and their immediate dependents when death, injury or illness strike. Entertainment at the event will include top soca/calypso artist Alexander D Great and his nine-piece Calypso band, plus other artists to be confirmed. Admission will be restricted to the industry by invitation only, with each sponsor being given their own guest list allocation and 100 VIP laminates.

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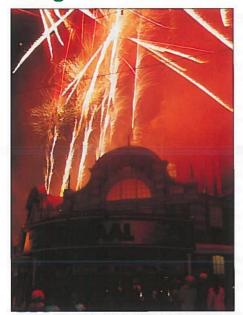
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NEWS IN LIGHTING+SOUND INTERNATIONAL

Firing The Kursaal



Le Maitre Fireworks were commissioned to mark the re-opening of The Kursaal in Southend-on-Sea, with a fireworks display. Their brief from the main contractors Rowland Group of Ilford, was to 'blow the roof off' - figuratively speaking, of course. In reality, they wanted a big finale to be fired off from The Grand Dome, which was to look as if the building had been blown up.

The resulting display was one of the biggest ever seen on this part of the coast. The main thrust of the show was a series of 8oz Colour Change gerbs positioned along the apex of the roof and 20 x 19mm Roman Candle cakes. Working to the music of Sky, they finished off the roof display with 20 red and silver Crossettes single shot effects. Whilst all this was going on, Le Maitre's Sam Samkin was waiting for the cue to trigger a spectacular four-minute display, with over 100 shells fired off in the last 30 seconds.

Futurist Foundation

Futurist, the Yorkshire-based light, sound and events production company, has launched the Futurist Foundation, a series of free day-long seminars and tutorials aimed at educating schools, colleges and amateur dramatic and operatic societies about the latest lighting technology.

For details contact Futurist on (01924) 468183.

Hackney's Lottery Bid

East London, although by tradition and historical fact, one of the poorest areas of the UK, is set to receive major lottery-funded capital investments to its entertainment facilities over the next few months. First in the starting blocks is the Theatre Royal, Stratford East, which is currently closed for a £4 million refit which promises a new roof, flying grid, restaurant, bar, offices and dressing rooms, scheduled to reopen in 18 months time.

Newham Council has also announced plans to build a £14.7 million performing arts centre, adjacent to the theatre, intended to offer a complementary programme, and due to open in time for the millennium.

Currently in the first phase of demolition, and also reopening at the end of 1999, are the Central Halls on Hackney's Mare Street. This former Methodist meeting hall and Library, now to be known as 'Ocean' is an ambitious £10 million redevelopment, comprising at its heart two main concert venues, one with a capacity of 2,000, the second catering for 300. Finally, and also on Mare Street, East London's most glamorous crumbling theatre, The Hackney Empire, recently completed the final stages of the lottery application process, after a £1.5 million feasibility study. The proposal as it stands at present, is to create a new 200-seat theatre above The Samuel Pepys pub and build workshops and a flexible rehearsal/performance space on the current site of the theatre's offices. The total bill for this project is set to be in the region of £38 million, and the Empires' partnership fund-raising effort is already well on the way to its £9 million target. However, following the presentation of the lottery bid to the Arts Council on 30th April, it has been rejected by the advisory panel on four stated grounds, which include a perceived lack of management capacity to deliver the project, and that the project is weak on value for money in relation to scale or cost. At this moment it is unclear whether the venue will scale down the level of their ambitions and try again or whether the entire project will be abandoned.

Despite this setback, boroughs like Hackney and Newham are still benefiting enormously from these improvements to their artistic and technical infrastructures. If Hackney can find a way round this setback, works will begin this Autumn, and it is hoped that the theatre will be able to reopen in November 2001, on its 100th birthday.

Francis Stevenson

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Coef will be endeavouring to give the best possible exposure to a new moving head fixture, the MP 250. 'MP' denotes 'Moving Performance and the leitmotif of the presentation will be the versatility of the 360° scanning mirror: Coef - F70

Navigator Systems, whose current rental management package Hire Track is presently being utilised at more than 300 sites worldwide. will be showing at PLASA '98 for the first time anywhere, a new product provisionally called HT Enterprise. This 'State of the Art' computer software will be a multisite rental management package aimed at the larger corporate. The company also plan to release shortly a new version of Hire Track which will incorporate PAT testing and an automated diary, as well as

Navigator Systems - B16

lumbotron at Festival



As part of an international roadshow, Sony's new video screen utilising LED technology will make its UK debut this month to play a starring role, alongside a JumboTron JTS-17 CRT (Cathode Ray Tube) screen, at the Festival Revue in Edinburgh. This new enterprise combines cutting-edge technology, business and the arts in a venture showcasing highlights of the Edinburgh International Festival and associated events, along with live interviews, film clips, digital video art and premiere screenings from the Rolling Stones and U2. With its emphasis on technology combined with innovative marketing and the arts, the Festival Revue provides a platform for Sony to demonstrate the potential of its JumboTron JTS L-15 LED system to applications where the availability of a slim, lightweight system that is easy to erect and economical to run opens up new markets. With both a JumboTron LED and CRT screen system working simultaneously, the event also provides Sony with the opportunity to demonstrate the relevance of each system for different applications.

I-Tech Dimmer **Technology for Cottesloe**

London's Royal National Theatre has chosen new IGBT technology (I-Tech) dimmers to replace the thyristor dimmers in the Cottesloe Theatre. Netherlands-based company I.E.S. BV has been selected by project managers Mike Atkinson and Chris Watts to supply 600 units of I-Tech dimmers for installation during the redevelopment of the theatre this year.

I-Tech dimmers are quiet, lightweight, compact, energy-efficient, will reduce the lamp sing and, more importantly, reduce the common mains disturbances such as harmonic currents and radiated interference. "Status reporting and bi-directional communication is standard and all units meet CE requirements," Mike Atkinson told L+SI.

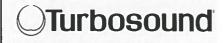
The installation at the Cottesloe will feature the I.E.S. Executive dimmer packs, each with 12 2.5kW channels incorporating IGBT technology for power control. The same pack will be configured to provide other loads such as 5kW or higher, and a mixture of power rating is also available if required.

One advantage of IGBTs is that they can control a wide range of load types with no minimum load current requirement. The Royal National Theatre plans to use I.E.S's dimmers for production lighting, independent switching circuits, house lighting and working lights.

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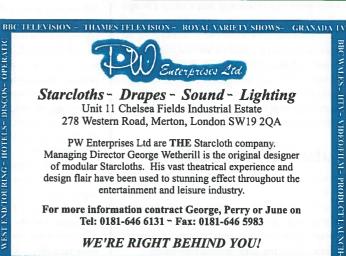








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PALA 98 Receives Positive Feedback, Despite 'Asian Flu'

The 10th annual Pro Audio & Light Asia (PALA) and Music Asia exhibition took place in Singapore in July, and in common with every other trade event held in Singapore in the last six months showed some signs of the economic problems that have been hitting the Far East. The much-talked about absence, by mutual agreement, of High End Systems, Martin Professional and Clay Paky also affected the scale, and the organisers announced that the show would indeed be switching to a biennial basis after next year's event - thereby running on alternate years to Australia's EnTech

For the first time, the show was held from Friday to Sunday, and fears that this would have an adverse effect on the number of industry professionals visiting the show proved to be largely unfounded, with a good number of serious visitors, most notably from Malaysia and India (although apparently not as many as usual from Thailand and Indonesia) attending. Final visitor figures released by organisers IIR stood at 6,108 trade visitors from 44 countries.

To mark the 10th anniversary of PALA, the organisers threw a party for exhibitors, at which a number of them, including D.A.S Audio, Celestion and PLASA, were presented with 10 Year Awards for their long-term support of the show. At the other end of the scale, Unusual Rigging were first-time exhibitors, and reported a number of excellent contacts, as did Starlite Systems Technology.



David Snipp (left) and Rob Robinson of Starlite Systems Technology.



L-R: Martin Kelly (Martin Audio), Derrick Saunders and Andy Graves (Pulsar) and Rick Wilson (Le Maitre).

The feedback from the show was surprisingly positive, with the majority of the UK group pleased with the results, and the British High Commission will be recommending that DTI support for the event, through PLASA, continues in future years. Much of the feedback from other



The teams from Total Fabs (UK and Singapore) and Unusual Rigging line-up for the camera.



Lawrence Chan of Laser Theatre Lighting (Hong Kong) with Jack Palacio of D.A.S Audio.

exhibitors seemed to reflect the feeling that the quality of visitors to the show had been high, and valuable contacts had been made. Derrick Saunders of Pulsar, Jim Sides of Apogee and Jerry Sutzman of Crown all confirmed their on-going support of the show.







PLASA

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Come and see our New Bird!



Celco will major on three key products at PLASA 98. The Explorer EPX lighting console, will be seen at the show for the first time in its new guise as Explorer II, now sporting an ergonomic raked design and featuring an integral floppy disk drive. Celco's flagship Ventura will also be shown with its updated operating system and integral floppy disk drive. PLASA will also see the global premier of the Fusion Rack-mount range of dimmers sansarea of development that Celco have prioritised over the past years.

Celco - F44

Sennheiser UK is exhibiting its full range of distributed brands on two tiers. These will include the Evolution range of low-cost, high-performance dynamic mics introduced earlier this year, the D.A.S Audio range of loudspeakers and Anchor Audio portable PA equipment.

Sennheiser - F26

Isle of Man's Gaiety Tour Hits the Road

A rags-to-riches roadshow spreading the word about the restoration of the Isle of Man's Gaiety Theatre to promote its centenary year celebrations, has moved into top gear. In a new sponsorship deal, Flemings Offshore has agreed to back theatre manager Mervin Stokes and production manager Seamus Shea on their flagwaving lecture tour around the British Isles.

Scotland to the Channel Islands at more than 30 theatres and venues, building nationwide interest in the theatre to boost the number of visitors to the island in millennium year. The roadshow will highlight the detailed 10-year restoration programme which will be completed in the year 2000 when the theatre will also celebrate its centenary.

Stokes and Shea are treading the boards from

The celebrations will include a faithful reproduction of 'The Telephone Girl', the theatre's opening show in 1900.

The sponsorship deal means island audiences will also have an opportunity to see the two-man presentation. There are plans to stage it at either the Gaiety or the Manx Museum later this year and in 1999 as part of the new sponsorship arrangement. Venues covered in the tour include The Grand at Blackpool, the Opera House at Buxton, the Theatre Royal in York, the Coronation Hall in Ulverston, the National Theatre Museum at Covent Garden, The Connaught in Worthing, The Playhouse in Salisbury and the Theatre Royal in Margate.



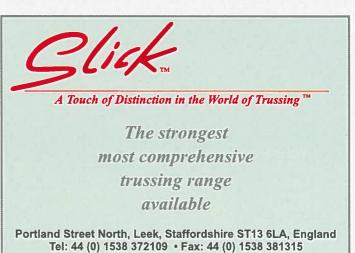
Seamus Shea (left) and Mervin Stokes (centre) set off in style aboard a Victorian carriage from the Gaiety's golden age with Flemings' Greg Horton in the driving seat.

TMB UV Seminar

TMB Associates will be hosting a seminar on UV Lighting and Effects during the PLASA Light & Sound Show this year. The seminar will be presented in association with Wildfire Inc, the world's leading manufacturer of UV lighting products. The broad area of UV lighting, effects and their numerous applications will be covered in a general session from 11am to 1pm on Monday 7th September, with a hands-on tutorial from 1.30 till 5pm. The seminar is free and open to all, but pre-registration is required for the afternoon session. To pre-register for the session, contact Paul Hartley at TMB in London, telephone 0181-560 9652 - before September 1st.







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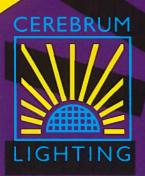
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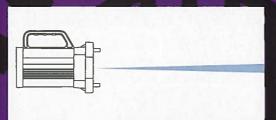
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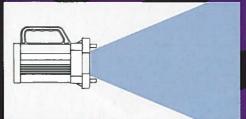
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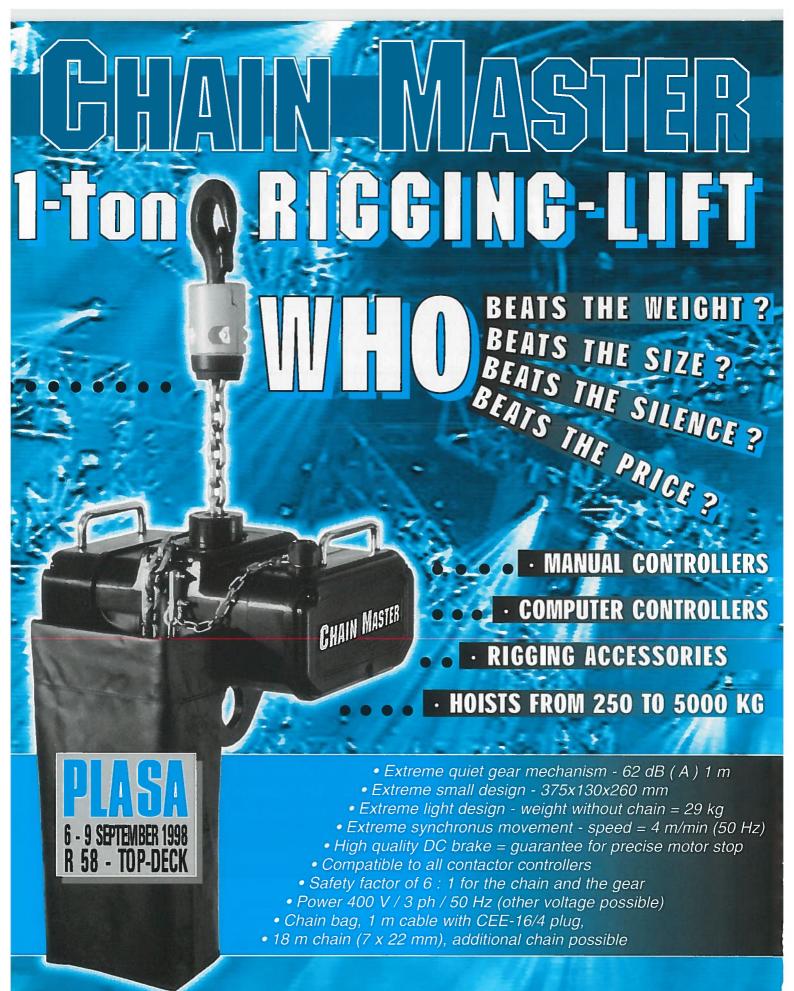








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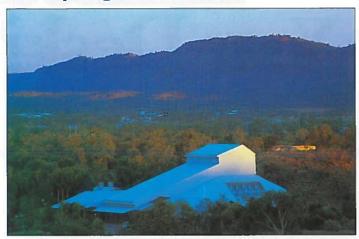
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NEWS IN LIGHTING+SOUND INTERNATIONAL

Hot Springs



The town of Alice Springs, famous for its dingos and nearby monolith, Uluru (Ayers Rock), is an outpost of civilisation in the dry, red Australian Outback. It might be rather surprising then to discover that Alice Springs is home to a modern, well equipped theatre that is busy most nights of the week. Araluen Arts Centre (Araluen is aboriginal for 'place of water lilies') is a 500-seat proscenium arch theatre built in 1983 on the site that was originally the home of Central Australia's first airline. Araluen is the only theatre in 100,000 square kilometres and the only place in town large enough to hold 500 people. It attracts business that ranges from conferences, high school graduations, local theatre companies and professional touring shows, as well as serving as the town cinema on Sunday nights.

Greg Thompson, the only full-time technical staff member, is the venue technical co-ordinator and frequently sets and operates both sound and lighting for a performance. To accommodate intimate productions, the venue capacity can be reduced to 240 by hanging an acoustic curtain in the auditorium. With a proscenium opening of 12.9m by 6.7m, a stage width of 21.4m and a depth of 11.6m from the apron to the back wall, the venue is suitable for a wide range of performance styles. The flying system consists of 45 sets of single purchase counterweight lines.

There are five lighting bars, including a cyc flood bar and a range of luminaires that includes units from CCT, Quartzcolor, Strand and Selecon. There are two control desks available: Strand GSX with Genius and Kaleidoscope software, plus a rigger's remote and an AVAB 202. There are 60 5kW and 12 2.4kW Strand Minipak dimmers available. The sound system is controlled via either a Soundcraft K-1 24/4/2 desk or a Yamaha M916 desk and is powered by Bose P-2200 and P-2201 amplifiers driving Bose 802 and 302 front-of-house speakers.

Since Araluen is the only theatre servicing the vastness of Central Australia it attracts its fair share of prestigious touring shows and if red dust, endless space and good theatre appeals to you, Alice Springs should be on your list of places to visit: just don't turn up during January when you're likely to find a ghost town, as at least half the inhabitants will have 'gone down south' in search of cooler weather.

Jacqueline Molloy



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NEWS IN LIGHTING+SOUND INTERNATIONAL

Litestructures Move



Lightstructures have moved their factory to a new site. The company can now be contacted at Unit 55 Lidgate Crescent, Langthwaite Grange Industrial Estate, South Kirby, West Yorkshire WK3 3NR, telephone (01977) 659800, fax (01977) 659801. To mark the move, Adrian Brooks invited a host of industry people to a party, where the entertainment included two rock bands performing on a 40ft stage, and the surprise act of the evening, the Carlton Main Frickley Colliery brass band. Pictured above are assorted industry liggers with Litestructures MD Adrian Brooks (right) at the launch party.

Chainmaster in Control

ChainMaster are a relatively young company producing control systems for electric chain hoists. The first request for such a device came in 1993, from a client needing a controller to meet the strict German regulations for use in public areas (VBG-70). Development of a suitable system began and in spring 1994, ChainMaster were able to present a certificated chain hoist controller at the Frankfurt MusikMesse. European certification followed in 1995 and since then, the company have grown to be one of the largest suppliers of VBG-70 chain hoist and stage control systems and accessories in Germany.

The control systems are modular, allowing maximum flexibility. The standard configuration functions allow work to be carried out on stage quickly and safely. Functions include the positioning and monitoring of electric chain hoists, electric running gear, curtain systems, light suspension units, backdrop hoists and cable winches. Data fed back from the motors is evaluated by computer and operating errors and malfunctions are displayed immediately in plain text. Single motors or groups of motors can then be instantly shut down when a problem arises. The uniform design of all operator environments provides for a user-friendly system. The controllers are also designed as plugin systems to minimise installation work.

The company's VBG 70 electric chain hoists are designed for loads from 125 to 2,500kg. Standard features include a braking system incorporating two independent brakes, a friction clutch which has been approved as an overload safety device, an emergency stop limit switch for top and bottom position and a shutdown function for underload/slack chain.

The load control system, for loads from 150 to 2,000kg and cable lengths of up to 100m, operates by means of strain-gauge tension measuring cells with integrated measuring amplifiers. Data transmission to laptop or PC is via an RS 485 interface integrated in the data acquisition module, to which up to 16 measuring cells can be connected. By networking these units, a maximum of 496 measuring cells can be monitored.

Chainmaster will be at PLASA in September.





FLATLEY'S FEET

Michael Flatley's final jig was a show of huge proportions in London's Hyde Park. Steve Moles was outside . . .



There is much that Michael Flatley and I have in common. I realised this one sunny afternoon in late July when attending a press conference front stage centre in Hyde Park. We are both of an age when men first begin to recognise that the flower of their youth is no longer with them. We are both vain enough to want to arrest this process, symbolically at least, as witnessed by the fact we have each had blonde streaks put into our hair. Flatley has also accumulated wealth beyond avarice over the past few years, dancing his way into the record books, and deservedly reaping the rewards born of a sustained self belief. He is a peerless public entertainer. I in the meantime, have discovered the incredible wealth of fellowship through the many hundreds of colleagues in the entertainment business who've become good friends over the years, and who make the job of humble scribe not a piece of work, but a

There the comparisons begin to blur, though we do both seem to share a fondness for a mid-20th century iconography that centres around leather trousers and a certain Austrian corporal. But back to the Park: the stage upon which Flatley sits is the largest seen in England, built as it is, from the one used for the VE Day celebrations. Supplied by Edwin Shirley Stages, it is, upon first impression, hard to absorb just how big it is, some 200ft across, 65ft deep, and 70ft high. This illusion of scale is partly due to the proportion of wings, canopies, and roof peaks, that all conspire to make the stage look like any other. That is, its proportions look familiar, until you walk right up to it and realise

you could park an Orbit Roof right in the middle and still have room to drive a truck around. The other contributing factor is Jonathan Park's lavish stage set which fills the gaping maw of this huge structure, and at once makes it familiar territory, filled with the now famous Celtic strap-work motif that has proved such a worthy setting for Lord of the Dance.

A lady from Reuters (yes, we do get to hobknob with the real press occasionally) asks Flatley what he thinks of it all. "This? It's fantastic. This is what it's all about," he responds, with grand stagey gestures to left and right. As Flatley sits comfortably at the edge of the thrust, dropping his pearls, a string of five diamonds the size of marrow fat peas and fashioned in an apostrophe, dangle from his left ear, glinting almost as brightly as the hunger that burns in his eyes. Ever the salesman, Flatley is well rehearsed in his 'press speak'. "Why have you chosen London for your last performance?" ventured another hack. "In a way it's to say thank you. When I began Lord of the Dance it wasn't until the show reached Wembley that it took off." And after a brief discourse about the merits of 'Lord' he gets to the meat of what Feet of Flame is all about. "This is a once in a lifetime thing, but it will be a great video. You'll see a lot of great stuff in this," hence the 27-camera team and the mere 25,000 seats for such a major production. "There are a lot of things in here you'll never see again," he concluded.

As it transpired, some of us never got to see them in the first place as L+SI, in common with every other trade publication, was barred from the show for reasons we will never be sure of. Thus this magazine is indebted to the immense help and ingenuity of all the service companies and individuals involved who went out of their way to bring the show to life, and to justify its coverage, whatever the sensitivities of the management. And if you detect a little resentment in there, then you're right - how can a publication such as this have any bearing on the career, prestige or life of the artist? Maybe a question his manager might care to answer.

SET

Needless to say, with Studio Park in the driving seat for Lord of the Dance, it was a foregone conclusion that Jonathan Park would be called upon to apply his talents to the bigger stage. But his long-term involvement with the artist also gave a sharper perspective on the objectives of this particular show. "This was new territory for Flatley's organisation," he said. "Previously they only knew the Arena environment. Thankfully, they took on a heavyweight like Williams (Robbie Williams of RW Productions) to look after it all. Quite frankly, I don't think they'd have had a show without someone of his calibre."

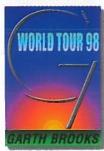
This was just 48 hours after the show, and like everyone else involved in the production, Park was still in a state of high elation. "The show was a success because of the sheer professionalism of everyone involved. The whole crew really put themselves through their paces. No-one wanted it to fail, and in the end it was magnificent."



















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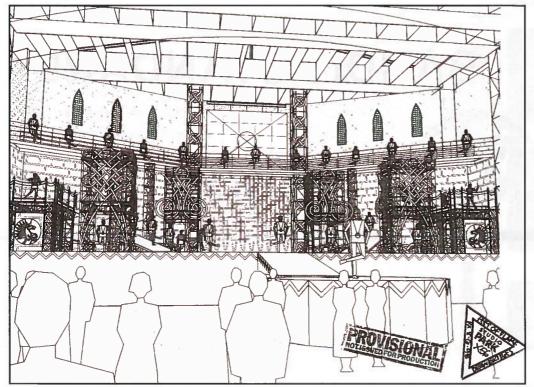
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Jonathan Park's visuals for Feet of Flame - extending the scale of his work on Lord of the Dance.

So how did you approach this show Jonathan? "I made everything bigger, of course, and created a grid of scenic elements. I drew on 'Lord' naturally, using the same scenic devices but either on a different scale or used in a different way." Thus Park had the main tower supports of the ESS roof embellished with the Celtic motif, the strap-work coloured either gold, silver or pewter, and backed with expanded metal. "I created the Celtic design myself, the metallic coloration is something I discovered. With the expanded metal effectively transparent you can light it from back or front, something Patrick (Woodroffe) exploited beautifully. The gold and silver finish is good because you can make very definite statements in certain light, white obviously, but they also take colour very well, deep saturates especially. I recall Patrick putting a blood-red onto the strap-work and backing it with a deep mysterious blue."

A significant factor for Park, he went on to explain his desire to create a strong setting, but one that was flexible enough to be evocative of something more fantastical.

"I had two extra roof columns in the middle of the stage to support a balcony from which hung the familiar portcullis of the *Lord* show, and above it, I put Lancet-style windows. Together they formed the abstraction of a building - not necessarily what they were meant to be - but nonetheless, forming a very strong castle battlement. Thus, despite the huge stage it worked at every level. Even if there was just a single performer on stage dancing, they were set in a magical environment."

Besides the decorative embellishments for towers and balcony (built by Stage One) Park also brought in some major theatrical devices to raise the event. "Brilliant Stages made two huge hydraulic risers - 50ft by 10ft - the first six feet up, the second 12, which were bordered in green, white and orange forming the Irish Tricolour when raised." For a one-off

production surely an expensive extravagance? "Well no," said Charlie Kail of Brilliant. "When you supply to a show like this there aren't the capital expenditures you'd get for a tour. We cobbled these together from six old scissor lifts that had been out on Take That. The Draw Bridges were from the old 'Big Ticket' Lottery show." There's the luck of the Irish for you Mr Flatley.

"To each side of the main dance area we had large Jumbotrons," continued Park, "provided by Screenco and rigged at low level. They were backed by a huge Starcloth from Blackout that spanned the entire stage width." The Starcloth effectively framed the screens with a five foot wide twinkling border, as well as covering the whole stage. Couple that with some quite fantastic overhead camera shots on screen that revealed the Busby Berkeley'esque formations of the massed dancers, and the whole effect was just as Park aspired - magical, fantastical, other worldly.

STAGING

"There were three major challenges to this job," said Olly Watts of ESS. "Size, quantity and the stuff out front." It's the 'stuff out front' that really made this show look different, to the casual observer at least. 18 towers in all, six of them for followspots at just over 24 metres tall! "Yes, very unusual," agreed Watts. "It wasn't so much the height (although reputedly these were the highest ever at a UK show) it was the limited space available in which to stand them." Despite huge production values, this was a relatively modest show, audience wise just 25,000 people tucked into a corner of the park. The tightly defined perimeter precluded large scaffold base structures to stabilise such high towers. This was a factor for other departments, notably sound, Wigwam having to perform some audio gymnastics to solve the delay speaker conundrum.

Fortunately ESS's Tower system lends itself to solving the space problem: just a six metre

cruciform base supporting Towers with up to three followspot perches cantilevered out from their upper points. The other towers included the aforementioned delay and quad speaker systems, plus camera platforms and a new variant 'sky-cam', running on a dolly pantograph system.

The stage itself was, as previously stated, a modification on the original one built for VE Day (also a Studio Park/ESS confection), but in this instance adapted substantially to suit this much more stylised production. "We built several new parts for this show, as seems to be becoming the norm for ESS special events these days," said Watts. "Accommodating the Brilliant Stages hydraulics into the main stage was one, modifying the VE Day peak another. The peak on the leading roof edge extends out some nine metres at its furthest point, and spans the full width of the roof. We also built and installed Jonathan's balcony, or bridge as we like to call it - a special fabrication by our regular engineering partner, KP. But perhaps the most unusual aspect for us was supplying the

sprung floor for the dancers. Three hundred sheets of 8 x 4 ply sandwiched with several different layers of wood and rubber, something we have decided to retain as a stock item."

SOUND

As we've learned already, there were some tricky problems for sound. Chris Hill, MD at Wigwam summed it up nicely: "The biggest problem for us was that they had sold all the seats, everywhere. The throw from stage to back was just over 140 metres, and with no allowance for delay towers, this was always going to be difficult." The distance problem was made more acute by social factors, this was not a rock concert and Flatley's audience are more genteel.

"It still is a loud dynamic show, but you can't part their hair with it," was Hill's assessment. In the end compromises were found, little delay systems were rigged, but to the extremities of the sides. With the added difficulty of four quad effect stacks to find homes for as well, some careful balancing was required.

Wigwam's system was based around d&b's 402 series with Meyer MSL3s and 650s for the quad. On stage two major hangs six wide six deep, a mix of 402s and some 702s, took the sides, while a four-wide, three-deep cluster filled the centre position. Most significant in the way the system was rigged was the close coupling: B2 and 402 subs were arranged in columns, slightly narrowing the dispersion and making them more controllable, while in the air, the top two rows were tightly coupled to produce the longer throw. Having heard some rehearsals in the afternoon preceding the show I can vouch for a pretty happening result, some slight loss of high frequencies at the very rear, but uniformity of coverage more than acceptable.

As for finding the sound, one peculiarity of a dance show such as this predominates the audio considerations - shoe noise. Fortunately, Charlie Jones (FOH) and Andy Robinson

(monitors) have extensive experience working on the *Lord* tour so were well familiar with how to deal with it.

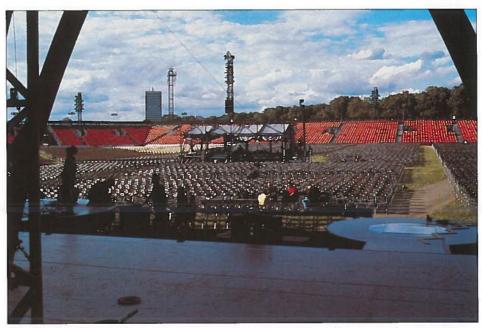
Nonetheless, with 100 dancers all tapping away "Actually that's 101 if you include me," said Flatley to a bamjaxed Jonathan Park - then the sonic effect is considerable. For Robinson, the problem is most acute, the dancers all work to a tap from tape so overcoming the natural sound on stage is vital to keep the show in time. Robinson worked from a Midas XL3 with a 16-channel stretch, with eight 402 subs and eight 702 tops (similar to the 402 with wider pattern) forming the core monitor system, the band working off two dozen Nexo PS15s and with MSL2 dotted about.

Charlie Jones mixes from a Yamaha PM4000 and has a quite muted array of effects and processing to deal with - Lexicon 480L, Pro 3R and PCM 80, plus a Roland SDE3000, Yamaha SPX1000 and a Behringer Bass Fex. He also had some other help, both divine and technical. "Thankfully, it wasn't windy on the day, and in the end I was very pleased," he said. "I was always concerned about the lack of normal delay position, a concern I faxed through to Chris Hill at Wigwam while I was still touring with Lord, knowing Chris loves a challenge and would find a solution. He got d&b to put some dispersion and SPL figures together for us, based on what we knew we could hang. From that plot we could see the problem areas. As such, we moved the two side hangs closer to the middle and reduced the centre cluster. Chris battled for the wide delay positions which weren't perfect, but helped fill a hole in the far corners. But they did confuse the image so we turned the more centre-facing part of them off in the end. The centre rear was the specific problem, even with the close coupling of the main system there was a loss of high end around 10kHz, so a bit disappointing for me from that point of view. But essentially Chris put in a substantial amount of work when we were potentially really up against it, and he deserves full credit for that."

Despite this problem, Jones avoided killing anyone in the front rows with sonic attack. However, Hill has a nice anecdote from the show that clearly defines the potency of the system, should you wish to call upon it. "I was standing to the side, by one of the quad stacks during the show, talking with Martin Flitton (Flatley's manager). At one point there is a gunshot effect which came cracking through. We had a good laugh as two nearby security men leapt eight feet in the air."

LIGHTING

Barely six months in their new UK-based clothes, landing this job has been a major coup for Bandit Lites, a decision taken partly because they are the *Lord's* tour supplier. Tony Panico of Bandit UK had a big job on his hands and Patrick Woodroffe who designed the show could find no fault in his work. "A splendid job," he said. Lengthy rehearsals contributed to making this a pressure-free lighting job, plus an unexpected benefit of the stage location. "We were delighted to discover that although this was a summer outdoor show, the area around the stage was darker much earlier than we expected," said Woodroffe. "Largely this was a



The view from the stage - note the single storey mix tower, and followspot and camera towers.

benefit of the surrounding trees and the prevailing sunset behind the stage." And this, don't forget, was during a summer plagued by bad weather which happily on this occasion was the loveliest weekend of July, bright, warm and barely a whisper of wind.

The lighting premise was straightforward: "We roughed the show in the 10 days at Bassingbourne as we had no idea how the daylight would affect it. We (Woodroffe and his moving light programmer Dave Hill) were conscious of the strong video demand for light, so we worked on using bright open white until it became dark enough to read the deep colours you could lay upon Jonathan's set." Woodroffe also ventured an observation about what makes the Flatley phenomenon so unique and enduring. "What's different is that there's no band - well there is, but this is not about a bunch of musicians. As such you are confronted by a completely open palette, there's not an amp, guitar lead, or winking red light to get in your way or detract from the image you paint. With a huge stage like this, and the scenic elements like a Portcullis, it's possible to create extremely dramatic scenes, even more so if there is just one person."

Hung from over 700 feet of trussing, the stage lighting was extensive. A show that would stretch any supplier, Panico called upon the resources of LGH to augment his hoist and rigging stock. "Bandit are contracted to supply both lights and PA rigging for the tour," he explained. "So we had to supply over 70 motors for this show. We'd purchased the touring system from Andy Tinneveld at LGH, back at the beginning of the year. Their equipment is excellent and the boys like it, so we like it." Tinneveld himself didn't want people to misinterpret LGH's role in this show. "We are not a rigging service company - we have no interest in taking this part of the business away from Bandit Lites or any other service company for that matter. But we do hold a massive stock of rental equipment and are always pleased to be able to support our sales customers in this way." An observation confirmed by Panico and the fact that all the climbing rigging was performed by Star Rats, headed up by Mark Armstrong.

Lighting-wise, heavy wash from massed ranks of Molefay with colour changers was Woodroffe's weapon of choice for the saturated colour once the sun had set, while 300 Pars and 100 ACLs gave strength to the white light required (though 50 plus did sport colour changers). Undoubtedly, the most breathtaking light was the Starcloth from Blackout: 280 feet across, a full 43 feet deep, it more than anything else made the stage work as a full width item, not a black box sandwiched between two wings. Vari-Lite provided 100 lamps, a mix of 2Cs, 5s and 6s, which Dave Hill ran from the Artisan while Jim Straw ran the conventionals from a Wholehog. With light-hungry cameras everywhere, the use of followspots was extensive: four truss Panis, plus eight Gladiators and four 2kW short-throw Super Troopers (Spot Co and LSD) on the ESS towers.

Similarly, the cameras dictated a heavy audience light system, Chromatic's Steve Nolan providing the direction: "I've worked with David Mallet (video director) before," he said, "so I knew what he'd want." Like Woodroffe, Nolan had similar concerns. "One of the biggest problems is dealing with the daylight. With video, even the brightest day can look overcast on screen if it's unlit. What we did was add glitz and sparkle with massed white light until it was dark enough for colour." And like Woodroffe he used much the same tools. Hung from six 24m high towers and seven 12m ones, Nolan had lamps all around the audience. "Actually, three six-lamp bars and four ACLs on each. Plus four Diversitronic strobes and a couple of Coemar 2.5kW Nats from Spot Co at the top." He also strung 600m of Chromatic's own festoon lighting between them, but it was the 24 Molefays with colour changers that gave him the big paint brush. "Even though in the end we didn't need the Pars for long, that amount of fire-power was essential. Without it the audience would have looked mangy."

Bandit also provided the audience lights, with Nolan operating from an Avolites Diamond III. The audience-lighting crew was led by Gus Kidd-Stanton and the stage-light crew by Tony Simpson who we saw earlier this year leading the Eurovision team.



The lighting and sound desk FOH.

One notable feature of the towers, apart from the small base area the ESS system affords, was mentioned by Nolan: "All the Gladiators and Troopers were put in Crows-Nests cantilevered out from the towers. It's a system very similar to the one on the 'Stones. It addresses a couple of very thorny issues: you get the spots nice and high which makes life much more bearable for the target artists. You also avoid having the familiar condominium-sized central mix tower - the only alternative to getting the spots anything like high enough, and even then the scaff' tower foot-print is

huge. From a safety point of view, the ESS towers are perfect as the ladder runs up inside them. That's an important consideration when you're asking middle-aged truck drivers to go up 20 metres plus to operate a spot."

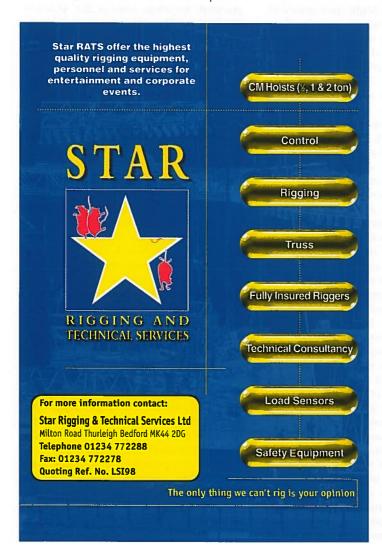
VIDEO

Two sectors to this - screens and recording. Screenco provided the two screens flanking the stage which were high definition JTS35 Jumbotron modules, configured to produce two unusually wide systems - 11.75 by 6.25 metres. "We don't often provide screens so

wide," said Screenco's Anita Page. "Possibly once or twice a year, at most." In fact, these two 70m≈ screens were four times the size of any screen in Hyde Park this year. "But the nice thing for us," Page continued, "was the way they tied in so well to Jonathan's set. And the shots that Barry Hain put on it were fantastic." Hain, like the key sound men, had been on the Lord tour and indeed his four camera team, including a Hot Head up in the roof, were all here for this show, but it was a far grander system that dominated the event.

In truth, the 27-camera shoot made by Vision Video Ltd (VVL) under the directorial guidance of David Mallet, was the whole raison d'être for Feet of Flame. Rumours were circulating even before the show that advance orders for the video were in the realms of the fantastic - 30 million some said.

Whatever the hyperbole, there was no doubt of where the financial muscle lay, and why. That's not to say everything else suffered because of it, but video recording did shape the whole event. Nick Levitt was brought in by VVL to manage what was a complex set-up by any standards. "Their need for someone like me was two-fold; the sheer complexity of integrating such a big shoot into a major outdoor presentation, and also getting the Cat-Cam approved." A worthy replacement for the Sky-Cam system, Cat-Cam is a dolly-mounted WestCam (as used in most helicopters) that tracks along a catenary of Kevlar rope. "This was a totally new item for Westminster Council to have to deal with. Since the Sky-Cam had been banned they were naturally concerned at



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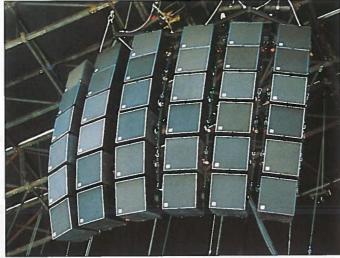


The Triple E Group

5 Admiral Hyson Industrial Estate, Hyson Road, London SE16 3PA Telephone +44 (0) 171 237 6354 Fax +44 (0) 171 237 7650 Email info@tabtrack.com www.tabtrack.com first, but the device (made in Austria), has several factors that help to reassure.

Weighing just 75kgs, the whole thing can be supported by just a single Kevlar rope, although it actually tracks along two, with a third present as pull with pull drive from either end of the run. Thus safety's in the order of three to one. Because the rope is Kevlar, not steel, should one break above the audience, the risk of lash injury is far less, being a much softer material than steel wire rope." Levitt had other reason to be thankful for Westminster Council's enlightened approach to this piece of new technology, as he explained. "The day before the show David (Mallett) was in the mobile looking at

the shot from the Cat-Cam. He quickly decided he needed the far tower moved much further away to get the shot he wanted. Now if you looked at the change you'd say - Why? We moved the far tower from 160 to 185 metres away, but the truth is he was right, damn him. I went in the mobile and had a look. For the camera to be able to sweep in above the tribune seating with any real drama it needed the longer run. I've worked with him a few times now, and he's always right about these things. Getting the tower moved was still a very last minute thing, but the Council were great." Other little coups that Levitt, with the help of Roger Chopping, pulled off included mounting a Hot Head on an old Genie Super Tower



The main stage left d&b PA cluster.

beside the mix platform. Something that wouldn't normally be a problem, but the advent of the high spot towers meant the mix platform was, on this occasion, barely a storey tall. "This got the camera head up eight metres with hardly any impact on sight lines. Everything about the camera positioning was meticulous - we ended up with two Hot Heads in the ESS roof and a String Cam up there running up and down stage. Although you'll have to wait to see the video, what was seen on the screens was fantastic, the foot detail was amazing, but when the action switched to the broad look then the screens became part of the whole stage rather than a distraction from it. I expect the video to be even better."

Speaking to all those above, a curious phenomenon emerged in the form of grand praise - it gave pause for thought. Here were practitioners at the very top of the industry, battle-hardened veterans of Floyd and Stones shows, and not just Park and Williams, but Patrick Woodroffe (LD), Pete Edmonds (site manager), Tony Panico (Bandit Lites), and many more, all reporting a show of exceptional accomplishment. Williams came closest to defining why: "Flatley's a very special act. How many dancers do you know that could fill a Hyde Park show? I think it's because he pulls one of the widest audiences I've seen. There's something in his show for everyone - grannies, kids, their

parents, even old lags like us. He's a great showman."Perhaps the funniest illustration of this was Flatley's bathetic vision for opening the evening's proceedings. An anonymous, but highly placed, member of the production team recounts a tale confirmed by many others. "He wanted to open the show by riding onto stage on a white stallion. The horse was to have a Unicorn horn fitted to its forehead, and he was to be escorted by a troop of the Household Cavalry in full ceremonial. The only trouble was, as someone pointed out to him, he'd never ridden a horse before in his life."

Truth is he'd have probably pulled it off had he tried - he's that kind of guy.

production photo: Richard Haughton





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THE MUPPET SHOW

Rob Halliday found that the Muppets had arrived in Hammersmith, at the new stage production of Doctor Dolittle at the Labatts Apollo

Famous film becomes stage musical. It's not exactly a new headline, the big screen having provided the material for shows ranging from Sunset Boulevard to Beauty and the Beast. A film that's taken longer than many to make the transition is Doctor Dolittle, Hugh Lofting's story of a man who could converse with animals that was turned into a musical screenplay for Rex Harrison by Leslie Bricusse. The biggest problem was cited as being finding a way of bringing the animals to life on a stage: even the risky strategy of using live animals wouldn't have made some of the creatures featured in the film - such as the doubleheaded Pushmi-Pullyu - possible.

But now it's happened, and it is the solution to the problem which makes the show: the casting of the Muppets as the animals! Well, not exactly. You don't find Kermit the Frog playing Doctor Dolittle - that role falls to television presenter Philip Schofield - but all of the creatures have been created by The Jim Henson Creature Shop, making full use of the techniques they developed for *The Muppet Show, Sesame Street* and countless films since, including by some curious coincidence, the recent big-screen version of *Doctor Dolittle*!

Produced by Apollo Leisure, the show has taken up residency at their Labatt's Apollo in Hammersmith, and it was the venue which presented the biggest challenge to both the creative teams and production crew. Spatially, the venue is a challenging one because it was conceived as a cinema, with the result that the proscenium arch is incredibly wide; technically, the venue has in recent times mainly been a rock and roll venue and so has very little technical infrastructure of its own. Practically everything used by the show had to be brought in, even down to extra dressing rooms!

For its creative team, *Dolittle* reunited the people responsible for the recent hit revival of *Joseph*, a production which also spent a spell at Hammersmith and allowed Philip Schofield to make the jump from television presenter to musical star. Director Steven Pimlott and designer Mark Thompson filled the same roles on *Joseph*, while lighting designer Hugh Vanstone was associate LD on that show.

Thompson's design sets the style for the show: slightly cartoonish, heading towards being over-the-top, as a show in which humans and animals freely converse demands, yet still keeping enough of a toe in realism for it all to be just about believable. The basic scenic elements are principally there to control the space: an elaborately curved gold pros arch, complete with chasing light bulbs, frames the entire playing area, this actually sitting some way forward of the theatre's arch, since a forestage is used to extend the acting area. Within this, a series of rotating panels effectively form a narrower pros arch, these black on one side and painted with clouds on the other, allowing a quick and effective



The Jim Henson Creature Shop created central animal characters such as Pushmi-Pullyu.

transition from closed-in indoor scenes to panoramic exteriors. The cloud motif continues upstage on the backcloth, while the floor is a series of perspective boarded strips that gently blend in to the variety of scenes played on them. A section of the floor can also lift and tilt, to provide a separate level used as a harbour wall in the opening scenes and a table in the court scenes. The playing area then extends beyond the pros, onto two side thrust stages that then connect to a walkway that continues all the way around the theatre's circle front. The walkway prevents the action from just being stuck on the stage, while at the same time giving the circle audience a closer look at the characters who are normally a touch distant in the Apollo's vast, ungainly space.

Two big scenic elements track into the main performing area: Dolittle's tall, cluttered house in act one and his ship - complete with rocking motion - in act two. Other scenery appears from every direction: the perspective seaside town that tracks on, the rings of the giant flower that fly in, circus caravans, the exterior of Dolittle's house and much, much more - some flying in the forestage area, beyond the theatre's flytower.

The challenge of making all of this work, issued by production manager John Holding, was embraced by the Unusual Rigging empire with just about every part of the company getting involved. The theatre's flying system needed careful cajoling to get it into a condition for the show, while upstage the company designed and installed three storage platforms that live high above the stage, and two pallet lift systems used to transfer scenery to and from the platforms. Though one of the few companies not directly involved in creating the scenery itself - this work was divided between Bowerwood Productions, Delstar,

Met Scene, Souvenir, Stageworks and Victor Mara - Unusual did supply the automation control system for moving it all, run from a PC-based controller located on the stage left perch and operated by Darren Williamson.

Unusual's pièce-de-résistance is the moon moth, upon which Schofield makes his spectacular final entrance, sweeping over the heads of the audience before landing gently down-centre. To achieve the effect, Unusual installed a monorail track around the roof of the auditorium; with the track weighing around 2,500kg and the moth itself a further 800kg this necessitated installing around 150 evenlydistributed points in the theatre's roof structure. The creature is suspended from a monorail trolley which also includes motors that lower the moth as it tracks along; power for these motors is fed through encapsulated conductor rails, while power for the radiocontrolled animatronic movement and fibreoptic wing lighting comes from batteries in the moth itself. The effect is worth the effort and is only slightly spoilt by the moth's relatively slow movement: apparently it can move faster, but perhaps the nerves need to settle a little before it is cranked up during the show!

LIGHTING

It seems to be Hugh Vanstone's turn to claim the title of hardest working man in theatre lighting: Dolittle sandwiched itself between the Broadway production of Art, the West End transfers of Closer (from the National) and The Unexpected Man (from the RSC), and new productions of the plays Amadeus and The Blue Room and the operas Carmen and Macbeth. For Dolittle, he has followed the increasingly-standard musical path, with a core conventional rig backing up a versatile collection of automated lanterns.



Above, Hugh Vanstone's lighting has created the wide range of looks the show demands. Right, The show's resident lighting crew of Lee Threlfall, Andrew Smith and David Sadler. Below, the sound effects desk, based around a Yamaha O2R.

As with so many recent shows, the conventional rig is based around ETC's Source Four, though an early plan to use nothing but Source Fours and Source Four Pars was eventually dropped on budgetary grounds, the Pars being replaced by conventional Par cans. Source Four profiles remain plentiful, but are supplemented by Altos, Cantatas and Optiques; the Altos and many of the Pars are topped with Rainbow scrollers. Dataflash, Toccata EPs with VSFX disks and HELL wave effects are also featured. The front-of-house rig is quite large, hung from trusses and bridges supplied by Unusual that also support four followspots (two 2K Color Arcs in the centre, a Robert Juliat Aramis on each side) and their operators. A replacement for the circle-front position also had to be created because of the installation of the circle front walkway; a truss hung beneath the front of what is quite a high circle serves this purpose well. As is his usual style, Vanstone has made extensive use of tophats and half-tophats to keep the lenses out of view as far as possible, giving a very 'clean' overall feel to the rig.

On-stage, the majority of the conventional equipment is hung on the sides of the stage, with quite a full perch-type boom position and three side ladders. The scenery storage platforms do double-duty as an extra lighting position, rigged with Par cans to backlight the skycloths. There is then quite a tightly-packed, curved downstage electrics bar tucked in behind the false pros, but the rest of the overhead rig is entirely automated. Supplied by the Moving Light Company, the majority of the equipment is from Martin Professional: 16 MAC 500 spotlights, and 29 MAC 600 washlights, split between the standard version and one with an extended lens snoot that gives a narrower beam. The 600s were topped with spill rings to try to keep stray light off borders, but this remains something of an on-going problem with these units.

Four of Martin's PAL1200 framing mirror spots also feature in the rig, on the front-of-house lighting bridges, while six Cyberlights give a remotely focusable gobo crosslight from



the side ladders. 20 DHA Digital Light Curtains complete the rig: two are rigged on the pros booms, from where they give a wonderful shaft of crosslight, the rest form four overhead runs. For these units, Vanstone has elected to use MFL flood bulbs in place of the usual VNSP spot bulbs; the resulting wider, more diffuse strips of light are an interesting variation on the light-curtain effect, giving a punchy yet diffuse backlight. Control for the moving lights is from a Wholehog 2, programmed by Richard Knight, while the conventional rig is run from a Light Palette 90 and the DLCs from Light Moves on a Macintosh. A second Mac runs Richard Bleasdale's SAM MIDI control program and binds the other computers together: the operator runs the show from the Hog and the rest are triggered as required. For the plotting period a third desk - an ARRI Finesse - was used by assistant LD Hartley Kemp to plot the huge array of smoke and haze (Skywalkers, DF50s and Pro-Haze stainless-steel dry ice machines from Sweden) into the show, this data eventually being recorded into the Palette.

Getting the rig in and working was a demanding project given the lack of infrastructure in the building. Production electrician Ben Jeffery led the team that took it on, aided and abetted by Nick Derrick, moving light tech Chris Dunford, and electricians Lee Threlfall, Andrew Smith and David Sadler who now run and maintain the show. Everything was brought in: on the stage left perch there is a 144-way touring rack based around ETC SmartRack dimmers, plus a 72 way Avo rack, plus the moving light mains distribution



running the stage rig, while a second dimmer room has been created at the rear of the circle next to the projection room. This contains six 24-way Strand LD90 racks that run the front-of-house rig. Control cabling was installed by The Service Company with the conventional lighting rig and dimmers supplied by White Light. The result of all of this work allows Vanstone to create the wide range of looks the show demands, from the naturalistic feel of villagers by the sea to the warm jollity of Dolittle's house, and from the crashing violence of an enormous storm to the tender intimacy of the show's rather bizarre main love song - sung by Philip Schofield to a seal!

SOUND

The most unusual aspect of Dolittle's sound is that there are two completely separate sound design credits for the show: Richard Ryan is sound designer, Paul Arditti is sound effects designer. It's a distinction that finally acknowledges the dual nature of this work, where creating a sound rig to reinforce the vocals of a large-scale show requires a completely different set of skills to creating atmospheric sound effects. The job was split on this show because sound effects encompassed not just crashing seas and thunderous storms, but adding sounds (and personalities) to the animals, and in particular to Polynesia the Parrot, voiced by Julie Andrews. Sadly, Ms Andrews couldn't be in Hammersmith every night, and it is therefore up to Arditti and sound effects operator Simon King to take her recorded voice and 'perform' it with the rest of the cast every night.

King operates the sound effects from the rear of the stalls, in a booth next to that operated by the main Cadac desk and sound operator Richard Brooker. Polynesia lives in four Akai 3200 samplers controlled from the Vision software running on a Macintosh (with a second as live back-up) and triggered from a MIDI keyboard (this system also sends MIDI to the lighting system during the storm sequence to keep thunder and lightning in sync). Samplers were chosen for their ability to replay sound effects over and over without delay, and for their instant start. The effects are mixed into a Yamaha 02R, which routes them out to an effect main and surround speaker system composed of Meyer UMP-1 and UPA-1A speakers specified by Arditti - these and the rest of the audio are supplied by TP Sound.

The sound reinforcement system is controlled from a desk made up of 44- and 30-way Cadac J-types and a 46-way Cadac F-type that feeds out through Yamaha amplifiers (mainly H5000 and PCM4002s) to a largely EAW loudspeaker system: 16 KF300s, four SB625 sub-bases, 14 JF80 surround speakers,

four MS120 surround sub-basses, 12 JF50 frontfills, and four UB12 downfills. The downfills are tucked just inside the false pros, directed at the difficult mid-side stalls seating in the hugely wide auditorium. The system is actually configured as a twin A/B system, allowing Brooker to keep singers talking directly to each other in separate systems and so keeping distortion to a minimum.

The Cadac receives inputs from 35 Sennheiser SK50 radio mics, with the cast on head mics and the principals, in particular Philip Schofield who rarely leaves the stage, equipped with two mics and transmitters for security. 10 boom mics are distributed around the puppeteers who operate the animals and, where an animal's movement and sound have to directly interact, make the animal noises. Because these sounds do not require quite the same degree of clarity as the vocals they are sub-mixed before being fed into one input on the Cadac. Two Garwood transmitters with 10 in-ear receivers are also distributed as required.

The most complex sound handling is reserved for Polynesia; because she has to be mixed in with the rest of the cast, she arrives on her own channel on the Cadac as if coming from a radio mic (though the studio recording of Julie Andrews passes through some fairly dramatic EQ to make it match the sound from the radio mics!). However, because the show's sound re-inforcement 'theory' is based around making real on-stage sounds 'louder', Polynesia's voice is also routed to on-stage effects speakers, coming out of whichever is closest to her location at any time.



The system allows Ryan to cope well with a difficult auditorium, the acoustic of which still betrays its cinema origins. After some lack of clarity in the opening moments, which Brooker attributes to some orchestral underscoring confusing the sound and audience, the cast are clearly and cleanly audible. In an auditorium that feels like a barn (and against a constant background noise of over-excited children), this is no mean achievement.

AND ANIMALS . . .

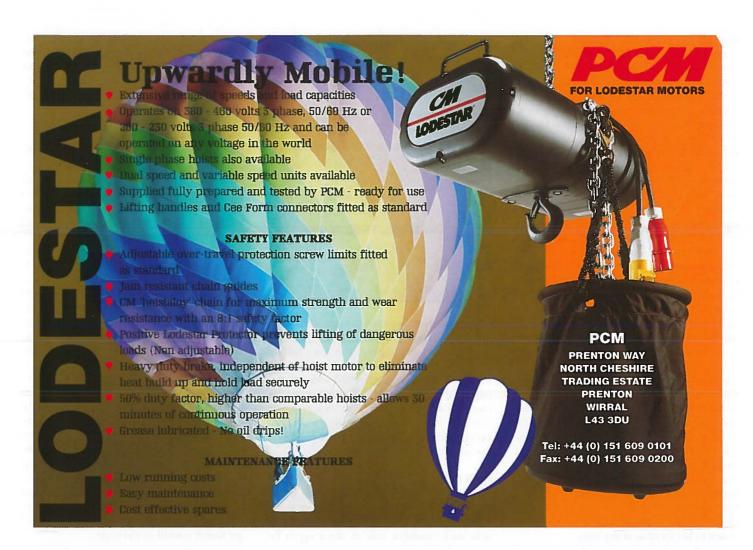
Even in the midst of all of this lighting, sound and scenic technology, the animals steal the show. The Henson company's work is fantastic, with their creations able to stand up to far closer scrutiny than most of the Apollo's audience will have the opportunity to give them. The animals are all slightly stylised, theatrical rather than cinema-realistic, but and this is the real strength of the Creature Shop - they all have enormous character.

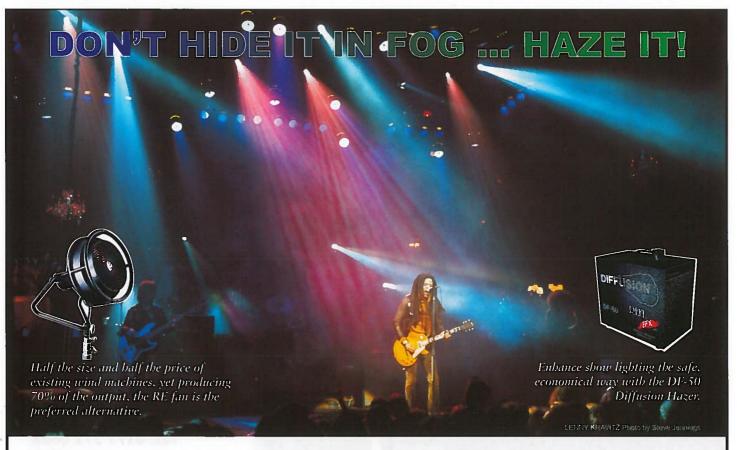
Just about every animatronic technique is put to use. There are people in costumes, there are glove puppets, mechanicallyoperated puppets for the larger creatures, such as the horse. There are also self-contained mechanically-animated creatures - animals that just move around in the background rather than playing a direct part in the action. And then there are the radio-controlled creatures, such as Polynesia, run by puppeteers from the wings. However, the theatre's location - next to a main road, directly below the Heathrow flightpath - led to some worries about loss of radio signals and animals appearing to freeze up, so these creatures contain a back-up system: if they lose radio signal they drop into pre-programmed movements communications are re-established.

The result is truly magical, with real interaction between creatures and humans (Philip Schofield looking the most natural of the cast members at this, perhaps thanks to his years of practice with Gordon the Gopher on kids TV) and even creature overacting at time; the pig, in particular, hams it up enormously during the storm scene. Their triumph is such that the few scenes where the animals aren't on stage feel lifeless and dull. This is media 'crossfertilisation' at its best. Maybe next time we'll get Kermit himself on the stage . . .











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s trailed last month, and in our cover story in the June issue, Mark Fisher has eventually allowed us a brief glimpse inside the outer layer concealing his concept for the spectacular he is planning for the epicentre of the Millennium Dome.

The metaphor of layers is singularly apt, since understandably all concerned are keen to maintain the suspense until the last possible moment, not to lose the advantage of surprise. So, Fisher's public role, and he is fast becoming a media star, casts him as a striptease artist, very slowly and seductively peeling off one item of clothing at a time before throwing it to the drooling masses. That way we don't get to see inside the Fisher trousers until New Year's Eve 1999, by which time the titillation should have had its Viagra-like effect.

rincipally, Fisher is keen for us to grasp the huge geometry and scale of the event which he does with a graphic description of the space: "Imagine the space as a pyramid drawn as a wire-frame diagram in Trafalgar Square - with the apex at the top of Nelson's tricorn hat and the base traced around the Landseer lions at the four corners. Now go and stand on the steps of the National Gallery." Pointing out that this pyramid is an enormous 50 metres high by 150 metres across, he continues: "The arena inside the dome is the same size, which means that we will be performing on a stage which is larger than any space our audience will have been inside before."

rom here it seems a logical step to a show based on the nerve-jangling aspects of circus. Here it is important to point out immediately that Fisher's idea of circus is not Billy Smart's or even Ringling Bros', Barnum and Baily, but something more experimental like Cirque de Soleil or Fura del Baus. Again, scale comes into it, for Fisher pointed out to me that a typical high-wire act at the circus is performed at 15 metres off the ground, here we will be looking at 50 metres!

"We will use the daring techniques of acrobats and aerialists, the stagecraft of rock concerts, the costume of carnival and the choreography of sporting events. The actions of our performers will create the spectacle, they will unfold high-tech lightweight structures, sails, parachutes and kites to create a stage set

which will appear to fill the Dome. The action will be accompanied by a fantastic soundtrack. And at the end of the show, everything will disappear again.

"Some performers will sky-dive from the roof 50 metres above the heads of the audience. Others will leap out of the ground and fly up to the roof. We will perform six shows a day, using two casts of 80 performers. With understudies and rotating principals, the Millennium Show will have a company of 200 performers."

his delivery, in Fisher's typically languid yet authoritative style, is so totally convincing that you wonder how any-one can doubt him, but then people from outside the business don't understand the language of the possible, nor are they intimate to his past achievements, except third hand. So it was a surprise to me when he admitted later that he felt that he hadn't got his case across, blaming the evocation of traditional circus and the assumption that everyone would understand what he meant.

Just transcribing those words again, my heart was in my mouth - but then I know that Fisher will put his heart where his mouth is. Frankly, Mandelson could do with 100 apologists at least as good at putting their case as Fisher. I just want to say, go to it Mark, show the doubters, we know you can pull it off!

ons ago in my misspent youth, when I was a mere strippling with a full head of hair, I was the pet lighting designer of that doyenne of the nightclub scene, the so called Queen of the Night, Régine Choukroun. Known universally as Régine, or Madame if you worked for her, she was either the owner, or more often the paid animateuse, of the eponymously-named international chain of outrageously 'exclusive' and over-priced night spots - only those with mega bank accounts need apply.

Some years later, and by a different route, I also designed a new lighting system for the famous, and infamously gay, Parisian nightclub Le Palace, filling it full of haut couture mechanical 'toys'. There followed a trail of disaster for the then owners, European Leisure, and, in one of those circular coincidences, in the fire-sale that followed, Le Palace ended up in the Régine portfolio.

égine was, and I am sure still is, addicted to fame, and her PR machine was truly awesome - but how the mighty have fallen. The next time I heard of her I was sitting on a plane reading the Herald Tribune when I spotted a piece about a Mrs Choukroun - they had completely missed the connection - and her son being hauled off an American airline in irons over a smoking incident on a nonsmoking flight - a situation which got seriously out of hand. What some people will do for a few lines in the newspapers! Régine went back to Paris and promptly called an anti-American press conference.

ow I see that she is in the news once again. Even she was unable to keep Le Palace going and when it went bankrupt after a drugs bust, the club ended up in the French system of Receivership. This system, which Régine has challenged in the National Assembly, is run in the commercial court not by the judiciary, but by business people. Apparently, an offer of £4.3million from Mick Hucknall of Simply Red was rejected by this cabal and the Palace was later sold at auction to two restaurateurs for £750,000. Now a parliamentary enquiry in the National Assembly has sided with Régine and agreed that 'there seemed to be a systematic conflict of interest' in the methodology of the court.

hough it doesn't get her money back, how Régine must be bathing in the reflected glory of her great triumph over bureaucracy. The flame-haired grand dame of disco and music hall, must now see herself as some latter day French equivalent of Boadicea. I can just see her charging down the Champs Elysées on her winged chariot, taking no prisoners! Almost worth the £3.5m pounds difference in the price for the publicity alone, I would have said. What will Madame Choukron do for her next media fix?

o close on a tip: anyone going to Expo '98 in Lisbon should be sure to pack their trainers, no matter how unfashionable they may have become. The entire site, which covers 330 hectares, is entirely laid to cobbles. And not just any old cobbles, but mostly of the 5cm square variety, lying loose on sand like mosaic without the mortar.

A report on the Expo will run in a future issue of L+SI.





THE CAD FILES

Part two of L+SI's CAD survey, in which Rob Halliday examines the pros and cons of CAD packages for theatrical lighting design

Following our review of CompuCAD, Martin Show Designer, Stardraw 2D, Stardraw Professional and WYSICAD in our July issue, we now complete the survey with appraisal of MacLux Pro, Softplot v5, Microlux '98, LD Assistant and AutoLIGHT.

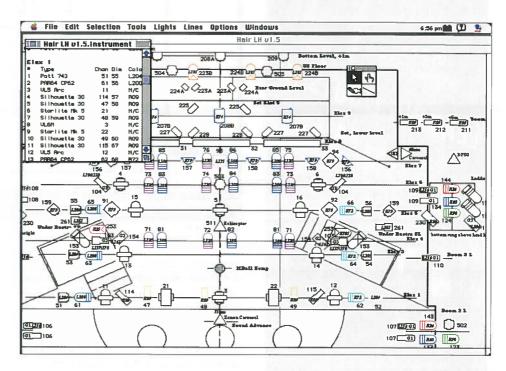
MacLux Pro

Available only for the Apple Macintosh, MacLux Pro has been around for several years now, with version 1.7 currently available. The program was written by American lighting designer Claude Heintz, and his background in theatre is very obvious in the program. It works like a computerised version of a drawing board and stencils - which means it has become the package of choice for many lighting designers who prefer just to get on with designing shows rather than learning complex CAD systems.

On opening, the program presents a blank window, with two palettes that can be left floating on the screen. One is a collection of lantern symbols, the other a toolbar containing selection, lamp-drawing, line-drawing and cue editing tools. Up to six plans can be imported in PICT format; these can be labelled and switched on or off as required, though the way PICT files are switched between being plan and section views is slightly clumsy. It's a shame that the program's own line drawing facilities aren't a little more versatile, since at the moment MacLux relies on the use of another program for generating even simple theatre or set plans.

You can then start placing lights on the planeither freely, or by first drawing a bar using the line tool then placing the lights on the bar. The supplied symbols cover a wide range of lanterns, and the actual product assigned to be a symbol can be re-assigned from show to show (to make a 1K Fresnel symbol a Patt 743 or a Harmony F, for example). New symbols can also be imported (this process considerably improved in version 1.7) and new lamp information added to the lamp database. The fact that symbols can only be rotated in 45 degree steps, rather than freely to any angle, is annoying, though.

But if those are the program's weaknesses, it has many strengths. A solid-symbol mode shows symbols in the colour of their gel, which is great for looking at big plans on small screens. Versatile copy and search and replace functions allow, for example, all the Silhouettes to be replaced with Cantatas or every light in 202 to change to 201. Lights can be switched on and focused, with the resulting beam displayed in plan or section view, and in colour on colour systems. Multiple lights can be switched on, with the program approximating the colour mixes that will result, and combinations of lights can be recorded as cues. These cues can be exported as ASCII text files for use with lighting desks that understand this under-used file format - or to rendering programs to create simple rendered images of



the lighting. The program is also very good at creating paperwork - instrument lists, rigging schedules, colour calls and even lists of unused dimmers or channel numbers. The link between drawing and paperwork is seamless (the program is actually better thought of as a visual database than as CAD program), since you can update information on the plan or the paperwork and the changes will immediately appear everywhere else.

MacLux Pro is now starting to look a little dated - in particular, it has no real understanding of scrollers or moving lights. But it remains a very efficient, reasonably-priced tool for the working lighting designer, as well as a great teaching system. And, unlike some of the new giants, it will run happily on Macs of just about any vintage, making a very low-cost computerised lighting system possible. It has its faults, but is still highly recommended.

PROS: Easy to learn, familiar environment. Seamless integration of plan and paperwork. Useful beam display and cuecreation mode. Great search-and-replace functions. Produces compact files.

CONS: Limited CAD facilities. Lanterns not freely rotatable. Fine-tuning the appearance of a drawing can be frustrating. Sometimes has problems with scaling drawings.

MacLux Pro is available from . . . Claude Heintz Design, USA +1 541 741 257 White Light, UK 0171-731 3291

SoftPlot v5

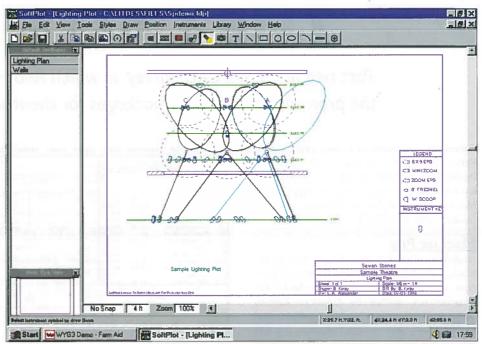
American supplier Crescit Software are something of a specialist in lighting CAD software; if a program has any connection with lighting, they probably sell it. SoftPlot is their own theatre lighting package.

Like MacLux and LuxArt, SoftPlot opens a drawing window with a white background, immediately giving the familiar appearance of a piece of paper. However, the program also has something of a CAD feel, with a list of layers occupying the left-hand side of the screen. Once you get the hang of what this list is telling you, it is quite helpful, especially since the program works quite hard to automatically place different elements of a drawing (the building, scenery, rigging positions and lights) on their own layers. Front and side section views are also available in their own small windows, while a useful plan overview window lets you keep track of what you're looking at in even the largest of drawings.

SoftPlot lets you select from a variety of rigging types (bars, truss, ladders and booms); you select one, then specify its size and height, then place it on the plan. When you then add lights, the program tries to insist that they only be placed on a rigging position but, unlike WYSICAD, is not dogmatic about this, allowing you to freely place lights if you want to. The program's fixture and symbol libraries are quite comprehensive, and it supports alternate symbols for lights - so that you can have a different symbol for lights rigged on booms, for example. Unfortunately, alternate symbols don't seem to be able to display colour, channel or other information text.

Libraries are, in fact, SoftPlot's main strength; it is supplied with Crescit's LightShop program





Softplot v5.

(also available separately) which includes photometric data for 1500+ lanterns, as well as comprehensive colour and gobo catalogues - including lantern and gobo pictures! Data from this program can be shuffled across into SoftPlot, though doing this is slow - you can only import gobos one at a time, for example. A symbol editing program is also included, allowing you to modify existing symbols or draw new ones.

Once lights have been drawn they can be patched (either by entering channel and dimmer numbers or by drawing circuit outlets and running 'cables' between lights and sockets), switched on and focused, though despite the libraries, the resulting beams won't show colour or gobos in the beams. Variable angle lamps have limited support (you can pick the spot or flood setting, but nothing inbetween), and Par beams appear round rather than oval. The beam display also gets very messy very quickly, with beams not disappearing cleanly when lamps are switched off. You constantly have to use the redraw command to tidy up the display, which is frustrating.

In fact, a lot of things about SoftPlot are frustrating. You get no indication when you have selected a lamp symbol, for example. The paperwork views are quite limited, though they are tidily presented. Cue editing is available but fiddly to operate (an extra package allows control from a real DMX console). You have to manually type the program's .ldp file extension, even when opening a SoftPlot file! And the whole thing feels quite sluggish, even on a fast PC. It also seems to fall between every stool: it isn't versatile or neat enough for those who want beautiful drawings, the beam display and paperwork options don't seem to do enough for those who want an integrated lighting design package, and it doesn't offer full rendering for those who want to visualise their lighting ideas. The wealth of data in LightShop, on the other hand, would make a great companion to those who design either using other CAD packages or on paper!

PROS: The supplied LightShop program with its comprehensive databases. Automatic layering of items. Tabbed lamp information windows. Plan overview window allows quick navigation of large plans. Supplied symbol library quite comprehensive (even includes Patt 264 section symbol!).

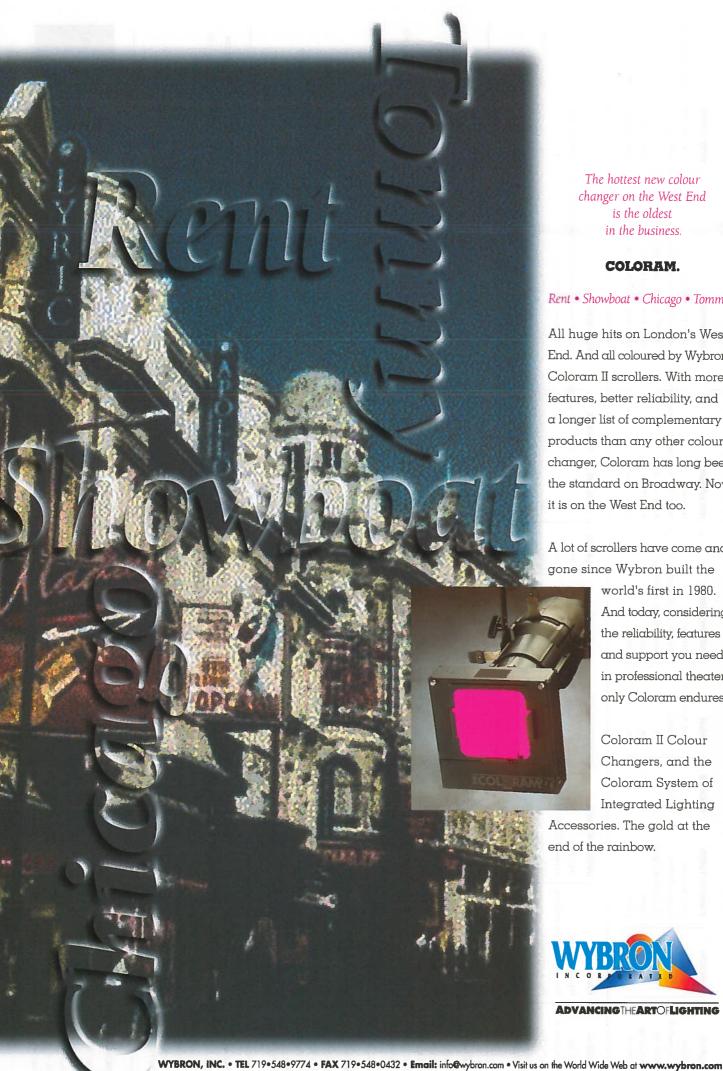
CONS: There is no indication of when items are selected. Constantly need to use screen redraw command to keep things tidy. Beams don't show colour or gobos. Importing colour and gobo data from LightShop is somewhat tedious. Whole program in general feels slightly sluggish.

Softplot v5 is available from . . . Crescit, USA + I 519 523 9224 White Light, UK 0171-731 3291

MicroLux '98

MicroLux '98 is the latest version of the longstanding Canadian lighting program created by LuxArt Design. The package actually consists of two main parts: MicroLux for drawing lighting plans and Composer for other drawing operations, with separate managers for gobo, colour, fixture and truss libraries. Modules for cue programming and visualisation from DMX inputs are available separately.

On opening, MicroLux displays a useful screen offering quick access to recent documents or the option to create a new file. Some sample theatres are included to get you going, these appearing in impressive 3D wireframe form; tabs make switching to 2D plan, front or side views easy. LuxArt have taken a novel approach to plan navigation, with what looks like a scroll bar actually



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ADVANCING THEARTOFLIGHTING

CAD SURVEY: TABLE SHOWING THE REQUIREMENTS AND FEATURES OF THE FIVE PACKAGES REVIEWED IN THIS ISSUE

PACKAGE	VERSION	MANUFACTURER	MACHINE	NEEDS	MIN PROCESSOR	MIN SYSTEM	EM	MIN MEMORY		PROTECTION
AutoLight	Pro v3	CJG Consultants	2	AutoCAD 13 / 14	Pentium 166	Win 95/NT		32Mb, 1Gb hard drive	ę,	Only works with one copy of AutoCAD
LD Assistant v8	8.2	Design & Drafting	PC/Mac	MiniCAD 7	Pentium (PC), PowerPC (Mac)		Win 95/NT (PC), System 7.1 or later (Mac)	16Mb, 30Mb HD space (PC/Mac)	ce (PC/Mac)	Serial number
MacLux Pro	1.7	Claude Heintz Design	Ĺ	N/A	Any model from Mac Plus on		later	2Mb (Sys 6), 4Mb (Sys	2Mb (5ys 6), 4Mb (5ys 7), 8Mb (5ys 7.5 or later).	-
MicroLux '98 SoftPfot v5	98 v4 5.0L	LuxArt Crescit	 5 5	₹ ₹ Z Z	486DX Pentium	Win 3.1 or later	later	16Mb RAM, 20Mb HD space 16Mb RAM, 40Mb HD space	D space	Serial number via key disk
PACKAGE	MAIN AIM	IMPORT	IMPORT FORMATS	EXPORT FORMATS	FULL CAD	LAYERS 2D PLANS	4S 3D PLANS	BEAM DISPLAYS		
AutoLight	Plan & paperwork	DXF, DWG	Ç	DXF, DWC, 3D Studio Viz files	es Yes, 3D	Yes	Yes, but 2D symbols only		Yes, with variable angle famp support, oval PAR beams (rotatable), gobos	is (rotatable), gobos
LD Assistant v8	Plan, paperwork and rendering		DXF, PICT, EPS	As MiniCAD: DXF, PICT, EPS			Yes		ction	
MacLux Pro	Plan & paperwork	PICT	A	PICT, RIB, POV	No	Yes Yes	Front/side section views	Yes, with colour mixing	t, oval PAR beams (rotatable in	Yes, with colour mixing, oval PAR beams (rotatable in 90deg steps), variable angle lamp support
MicroLux '98 SoftPlot v5	Plan & paperwork	DXF (in C	DXF (in Composer)	DXF	Yes, 3D in Composer Limited	Yes Yes	Yes Front/side section views	Yes, oval PAR beams (n Yes- monochrome, rour	Yes, ovał PAR beams (not rotatable), gobos, variable angle lam Yes- monochrome, round PAR beams, max/min zoom settings	Yes, oval PAR beams (not rotatable), gobos, variable angle lamp support, moving lights Yes- monochrome, round PAR beams, max/min zoom settings
PACKAGE	PHOTOMETRIC DATA		RENDERING	FIXTURE LIB	ELIB	CUSTOMISABLE LIBRARY	BRARY ML SUPPORT	100	COLOUR LIBRARY	
AutoLight	Yes, lux along user-specified lines		With additional Autodesk software		Yes (generic symbols, data)	Yes	oN.	Yes	Yes (Lee, Gam, Rosco)	
LD Assistant v8	Yes, footcandles at centre of beam		Yes		(Sjoc	Yes	No (MLs are in symbol library)		Colour support, calours must be defined by user	lefined by user
MacLux Pro	Yes, footcandles across beam		With 3rd party software		Yes (symbols, data)	Yes	No (MLs are in symbol library)		Yes (Lee, Cam, Rosco); symbols and beams display in colour	nd beams display in colour
MicroLux '98	S _O		Not yet available	Yes (symt	Yes (symbols - some generic, data)	Yes	Yes	Yes	(Lee, Gam, Rosco, Cinemills,	Yes (Lee, Gam, Rosco, Cinemills, Color Filters Corp, ProColor, TAS Ultragel);
SoftPlot v5	Yes, footcandles at centre of beam		No	Yes (syml	Yes (symbols, data, pictures)	Yes	Yes: multi-channel DMX patching		Yes (Lee, Gam, Rosco, Chris James)	(9)
PACKAGE	GOBO LIBRARY			TRUSS LIBRARY	RIG DATABASE		PAPERWORK			
AutoLight	Yes (DHA); gobos can display in beams	display in beams		ON.	No; lists and totals		Instrument schedule, cha	nnel, dimmer/non-dimmer li	ist colour call, hookup, focus,	Instrument schedule, channel, dimmer/non-dimmer list colour call, hookup, focus, effect , colour and gobo reports etc
LD Assistant v8	No (gobo images can be rendered)	be rendered)		Yes (generic truss types)				List of lamp fields in any order, must be manually set-up each time	-up each time	
MacLux Pro	No			No	Yes. Full 2-way links t	Yes. Full 2-way links between plan and database		n, circuit, dimmer, equipme	nt and unused list, colour call	Instrument schedule, chan, circuit, dimmer, equipment and unused list, colour call, gobo call, hanging schedule, cue list
MicroLux '98	Yes (Rosco, Gam, Kma	Yes (Rosco, Gam, Kmax, Lee, SFX Design); pictures can be added	victures can be added		Yes. Full 2-way links t	Yes. Full 2-way links between plan and database		iding any field, dimmer uses	Instrument schedulé including any field, dimmer useage, list of lights, truss, colours, colour changers and gobos	colour changers and gobos
SoftPlot v5	Yes (Rosco, DHA, CAA	M, Clay Paky, Martin, F	Yes (Rosco, DHA, CAM, Clay Paky, Martin, High End); with pictures	NO	Yes. Full 2-way links t	Yes. Full 2-way links between plan and database	-	List by position, channel, circuit, dimmer, colour, group, lamp type	up, lamp type	
PACKAGE	SEARCH AN	SEARCH AND REPLACE	COPY/PASTE WITH	COPY/PASTE WITH FUNCTION FILTERING	PATCHING		CUE STORAGE	ON-LINE HELP	WYG-ALIKE	SUPPLIED ON
AutoLight	Yes - symbols		No; field editing across selected lights	oss selected lights	Yes: channel/ circuit/ dimmer/ phase	/ dimmer/ phase	No	Yes	2	Floppy / CD-ROM
LD Assistant v8	2		No; field editing across selected lights	oss selected lights	Yes: channel/ circuit/ dimmer	/ dimmer	No	oN	No	Download
MacLux Pro	Yes - symbols or any field	or any field	Yes, in plan or paperwork	work	Yes: channel/ circuit/ dimmer	V dimmer	Yes	Yes	No	Floppy
MicroLux '98	oN O		No; field editing across selected lights	oss selected lights	Yes: channel/ circuit/ dimmer	/ dimmer	With optional Cue module	Yes	With optional Vision module	dule CD-ROM
SoftPlot v5	For colour only	ly h	No		Yes: channel/ circuit/ dimmer	t/ dimmer	Yes	Yes	With optional SoftPlot Cue software	ue software CD-ROM
PACKAGE	LINK TO DESKS	-	MANUAL	CRASHES	CRASHES DURING TEST PERIOD?					

THE FIRST PART OF THE CAD SURVEY APPEARED IN THE JULY ISSUE OF L+SI

Yes, displaying program information box, when editing lamp data on some Macs

Acrobat format on CD-ROM

2 2

LD Assistant v8

AutoLight

Yes Yes

ASCII cue files With optional modules

MacLux Pro MicroLux '98

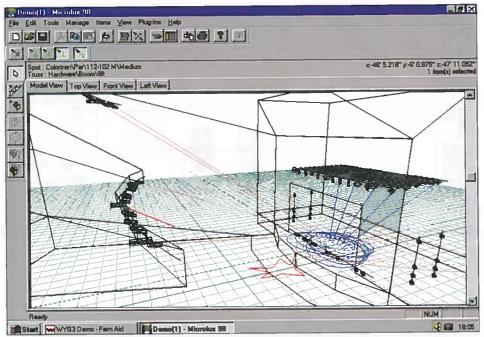
SoftPlot v5

ASCII cue files

Yes, when applying gobos to lights, when importing DXF into Composer

Yes, when no colour name entered in colour box

Introductory manual only



Microlux '98.

controlling zoom. A hand tool allows you to move around 2D and 3D plans quite easily, once you get the hang of it.

Rigging positions - truss, bars and booms (all listed as a type of truss) - have to be drawn first since lights can only be attached to rigging positions. Real types of truss are available from the truss library, but there's no way of just drawing a custom length of bar on the plan - you first have to create it in the truss editor. A 3D angle control allows truss or bars to hang at any angle, though this does mean that getting a bar to run across the stage is overly complicated.

Lights are then selected from the fixture library, this including a comprehensive range of conventional and moving lights. Sadly, the symbol libraries (the program offers 2D and 3D symbols) aren't as comprehensive: though the 3D symbols are quite detailed representations of the real lights, many lights share generic 2D symbols, and some don't seem to have any symbols at all. You can add extra symbols using Composer, but surely you buy a lighting program to avoid having to do this!

Double-clicking on a light lets you add the usual information or switch on a range of accessories such as gobos, scrollers and so on. Gobos and colours (including double colours) can be selected from the comprehensive libraries, with the colour library including names as well as numbers. And the program also allows you to make up scrolls, colour wheels or gobo wheels that can be added to lights; the colours in the scroll are then displayed in the colour field.

Lights can be focused either freely or to predefined focus points, though unlike WYSICAD's focus points, the lights don't automatically re-angle themselves if a focus point is moved. With the program in wireframe mode, light beams can be displayed, with colour and gobos if required - though the gobo library doesn't include gobo images, so you first have to draw the ones you want to project. It's also a quite a shame that overlapping beams don't indicate the colour mixes that would be created as a result. A render command is listed

under one of the menus, but never actually became available.

Paperwork is available; custom paperwork views can be created from within MicroLux and a Forms editor allows custom printed forms to be created. The program will produce order lists for spots, truss, colour and gobos, and also track dimmer usage.

Everything considered, MicroLux '98 is bordering on being brilliant, but in its own quirky way. There's a lot of functionality included, and its attempt to be a complete lighting environment (including handling theatre plans and house rig inventories) is great. It is just let down slightly by some poor detailing.

But if you're in tune with its quirks, it might be just what you're looking for; fortunately LuxArt let you try a fully functioning version of the program for 30 days so you can find out whether it's for you or not!

PROS: Quick display of good-looking 3D plans. Offers quick navigation of 3D workspace. Features comprehensive fixture, colour and gobo libraries. Beam display can show colours and gobos. Complete environment, with tools for storing theatre libraries, including plans and house rig information.

CONS: Can't just draw a bar onto a plan. Has poor range of 2D symbols. Beam displays don't overlap properly. Use of small plan overview for focusing lights. Poor arrangement of options under lamp information windows. Little use made of right mouse button.

Microlux 98 is available from . . . LuxArt, USA +1 514 990 0771 XTBA, UK 0171-700 0996

LD Assistant

Unlike most of the programs here, LD Assistant is a set of additions to MiniCAD 7 rather than a self-contained program. MiniCAD has become very popular, especially on the Macintosh and especially amongst theatre users. Its manufacturers, Graphsoft, even include a basic set of theatre lighting symbols.

Though MiniCAD has database-style facilities, using them requires some slightly indepth programming and so few lighting users have bothered. This is the niche LD Assistant is meant to fill; version 8 and its Light Manager rendering engine also add high quality rendering.

The learning-curve for LD Assistant obviously depends on whether you're already a MiniCAD user. It basically adds a set of commands, a different rendering engine from the standard MiniCAD version and a library of lighting and rigging symbols. You can use these symbols as you would use any MiniCAD symbols by selecting them and placing them on the plan; most of the symbols contain 2D and 3D drawings and the program will use the appropriate one for any view you choose. However, you can then select LD Assistant's 'attach data' command to fill in information about the lights or rigging positions (these commands will also work on non-LD Assistant symbols).

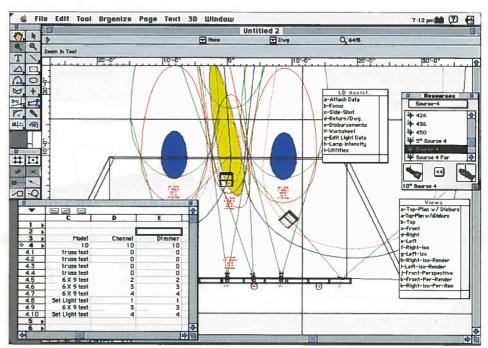
Unfortunately, problems are immediately revealed. For starters, every time you select this command you're asked whether you want to add 'light data', 'sound data' or 'other data'. The program then has no intelligence about rigging positions, asking you where the light is and how high it is, even if its on a bar that you've already specified this information for. And the lamp information database also seems to be basically empty - it contains lantern names, but you have to fill in anything else yourself. Colour is similar: the program allows you to define colour and give them names, but no colour libraries are included.

Once you've drawn lamps you can edit information or display it in a spreadsheet format; this lets you specify the order in which lamp data fields are specified then displays the information, but you can neither save view setups nor edit information in these list views, and they lump everything - bars and rigging positions - together in the same list.

Light beam views can be displayed in a number of ways. The 'focus' command lets you drag a focus point around the screen; the program then draws the beam and, in the section views, also shows a 3D man to give you an idea of the relationship between the beam and real people. A light reading at that point is also shown. Lighting can then be rendered; this is a select-and-wait operation that produces reasonable results, though they are somehow not as theatrical-feeling as those in CompuCAD. The adverts claim the program can render gobos but the manual gives no clue about setting this up.

In short, LD Assistant is a potentially useful idea spoilt by poor implementation. It's slow practically unusable on 68040 or early PowerPC Macs, sluggish even on year old highend machines. That's not entirely its fault - MiniCAD7 isn't the sprightliest of programs.

YOU NETWORKE ww.LightNetwork.co



LD Assistant.

But LD Assistant is also inconsistent, occasionally temperamental, error-prone and unreliable: commands operate in different ways, there's no indication of when a command is still running, light beams sometimes appear in the wrong place and it crashed a variety of Macs. And without the real world lamp and colour data that many programs now include, it looks very expensive at \$500, even to those who already own MiniCAD.

PROS: Adds beam angle views and database updating to MiniCAD. 2D and 3D symbols are well designed and attractive. Rotates lights to focus points while keeping text well oriented.

CONS: Extra commands are often poorly designed and inconsistent (some command-then-lamp, others lamp-then-command). Add-ons operate slowly and don't work on multiple selections. No understanding of rigging positions. No lamp or colour data included. Feels like an add-on.

LD Assistant is available from . . .

Design & Drafting, USA +1 708 499 0107

AutoLIGHT

AutoLIGHT is the real grand old dame of lighting CAD software, dating all the way back to 1990. Originally developed in conjunction with Modelbox, AutoLIGHT is now back in the hands of its authors, CJG Consultants. AutoLIGHT is actually a set of add-ons for the industry-standard AutoCAD package and AutoLIGHT Pro version 3 is a re-written version of the package that runs on top of AutoCAD release 13 or 14, and has the now-familiar

Windows 95/NT graphical presentation and feel.

On opening, AutoLIGHT appears as an extra menu within the standard AutoCAD environment: to get the best out of the package you do need to have at least a working knowledge of AutoCAD itself. Bars or other rigging positions are just drawn as lines, with the package not containing any kind of truss library. It does contain a fixture library with instrument data, though this feels dated - it doesn't contain any moving lights (these are promised soon) or even the increasingly-popular Source Four range.

Once selected, a lantern can be placed anywhere on the plan, though generic lanterntype symbols ('6" fresnel', 'zoom profile') are used rather than symbols for specific models. If AutoCAD's snap tools are used, the program will identify which bar the lamp has been placed on and automatically add the position name and height to the lamp data (though it won't blank out the bar behind the symbol), otherwise that information has to be entered by hand. Lamps can be moved and arrayed using standard AutoCAD tools, and AutoLIGHT has a tool to copy and mirror lamps without mirroring the corresponding text.

AutoLIGHT can display the beam generated by a lamp; variable angle lamps and freely-rotatable oval Par beams are catered for, and gobos can also be projected. Though AutoLIGHT includes a list of DHA gobos, however, not all of them have image data: you may first have to draw the gobo you want to project. The beam shown can be switched to the 1/2 peak or other views. You can also view the beam in section, or draw a line and have the program plot a graph of light intensity (from multiple fixtures, if required) along that line.

A lamp can have data attached to it, with the program having quite a good understanding of which fixture types can take which accessories, and at editing certain fields across multiple lights. You can define which information appears on the plan, and the program can even highlight paired channels. The information is

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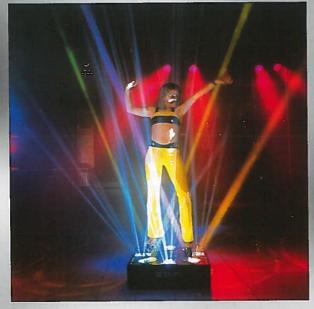
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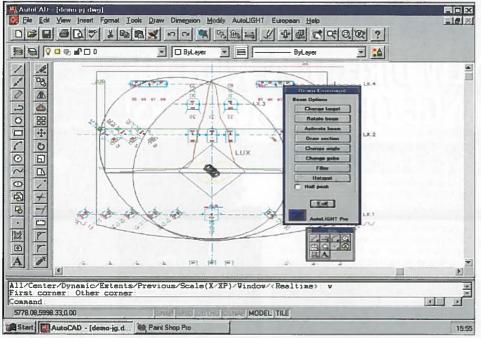
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AutoLIGHT.

also stored in a database accessed through a separate Report Manager program, which offers quite a wide choice of standard reports, including those that allow you to specify the equipment already owned by a venue so that AutoLIGHT can produce a hire list for any additional equipment required.

Reports can be customised to some extent; however, they very obviously remain 'lists with totals' - you can't make a change in the paperwork and see it listed in the plan, and reports such as 'weight by bar' list all of the equipment on a bar then provide the total more information than you'd want to see on a complex show.

AutoLIGHT is clearly powerful, especially if you're already an AutoCAD user. But its lighting functionality is quite limited compared to some other packages, and its plans aren't as neat as those produced by some CAD programs with custom symbol sets.

AutoLIGHT plans always look slightly computer-generated. It's also expensive at over £1000, before AutoCAD. It's sad to say it, but this grand old dame seems to have been left behind.

PROS: Powerful facilities for editing groups of lanterns. Versatile beam display, complete with gobo projection. Channel number text can highlight paired channels.

CONS: Can't edit data in the database. Limited fixture and symbol libraries. No moving light support. Plans always look slightly 'computer-generated'. High cost of both package and AutoCAD system needed to run it.

AutoLIGHT is available from . . .

CJG Consultants, UK 0171-371 8889

Conclusion

In early discussion, this round-up was called a 'group test'. But the programs considered here didn't really allow it to be that: group test implies comparing similar products. And what's fascinating about these 10 products is that, though they all have different features that are useful and that you'd really like in a lighting CAD package, none of them is perfect. You really want to blend them all together to get the best of every program - and that is starting to happen as each program copies the other's facilities. In particular, the WYSIWYG-style real-time visualisation from DMX lighting data is becoming more commonplace.

What does this mean if you're looking to buy a package now? You need to think about what you want from the package - whether you just need to draw plans, whether you want these plans to also store the rig data and generate paperwork, whether you want to be able to check beam angles, or whether you want to start to move in to rendering and visualisation. Rendering may sound excessive, but its very useful both for checking particular lighting problems and for presenting possible lighting ideas for discussion with directors, set designers or clients. This is exactly the kind of discussion that's hitherto been practically impossible.

The computer you have - or are about to buy - will also influence this decision, since older machines will creak when asked to start rendering complex images. Alternatively, if you're using a laptop you might opt for a program with built-in gobo and colour catalogues, to save you having to take the paper versions on your travels with you.

There's also the issue of price, of course, with the packages examined costing from £250 to £1000+ even before adding in the extra CAD or drawing packages that some of them need either to function properly or, for those that offer no drawing facilities of their own, to work on set drawings prior to importing them into the lighting package. None is cheap, but most will probably pay for themselves quite quickly. The best package in terms of value for money is probably MicroLux '98, which packs

in an awful lot of functionality. CompuCAD is also good value because of the huge amount of information it contains and its great rendering engine. MacLux is a good, honest program at a good price, and is a favourite with many LDs. SoftPlot is similarly priced, but not quite as friendly. WYSICAD sets the standard in a lot of areas; it may appear expensive, but there's a lot in there. And the two Stardraw programs are well priced compared to their competition, though this means other CAD programs rather than other lighting programs.

At the other price extremes, Autolight is expensive, but offers solid strengths that appeal to its many high-profile users. Martin Show Designer is more expensive than WYSICAD, though this does include the visualisation system that costs extra with WYSICAD. Of the two, MSD offers better rendering, but WYSICAD offers better paperwork. Finally, LD Assistant seems very overpriced, especially since more useful functionality can be added to MiniCAD (albeit without the rendering) with a package freely available from the Internet.

The Internet is likely to play a big part in any decision you make, since you can download demonstration versions of most of these programs and try them for yourself; you should make full use of this. The programs all differ in the way they operate, and each will suit different users. But you should also look around and see what colleagues are using; they are the best source of help when you get stuck, and if you're using the same program you'll be able to swap files easily. It is particularly useful if lighting designer and electrician can swap data back and forth, since having to print information to give to an electrician to work on seems like a retrograde step.

Indeed, that is likely to be the biggest improvement to these packages in the future: all will move towards integrated management of the total lighting project, from drawing the lights to planning the practical aspects of the rig to patching the desk. Ideally you should only have to type any piece of data once. WYSIWYG, used in conjunction with a WholeHog II desk, is the closest to this ideal at the moment; WYSIPAPER ensures that an electrician can edit the data, and the software can then patch to the Hog. The sad thing is that CAST Lighting worked hard to make the link back to the desk an open standard, but few desk manufacturers have yet made their end work. Compulite benefit in this area from manufacturing desks and CAD software.

Moving from the comfort of a drawing board can be quite traumatic for the first few projects. These will certainly take longer than they would have taken by hand, but allow for this and use them to learn your chosen software. Once you have been converted to this way of working you will never look back.

Alternatives?

For lighting designers who don't need the full functionality of one of the integrated lighting packages covered here, and really just want to use a computer to draw high-tech versions of paper plans, there are plenty of alternatives. Drawing packages abound, from low-cost entry level products up to the heavyweights such as AutoCAD. Two programs that have established particular followings amongst theatre users are

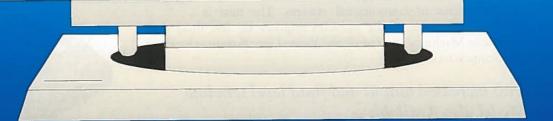
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PowerCAD and MiniCAD - both, coincidentally, first appeared on the Apple Macintosh, gathering popularity once development of the Mac version of AutoCAD ceased. MiniCAD even includes a set of lighting symbols with the standard package, though these are to be USITT-standard style symbols rather than the model-specific symbols more commonly used in the UK. For users who don't even need the full functionality of these programs, a cut-down version of MiniCAD formerly called Blueprint and now known as MiniCAD Lite, is available.

Once you've picked your drawing package, you'll need a set of symbols - unless you really want to spend hours drawing your own! Symbol libraries are now available from a wide range of sources. Some manufacturers make their CAD outlines available in electronic form, though these tend to be drawn in different styles and are therefore hard to use on a plan that you want to look consistent. A commonlytaken option is the Advantage library, produced by New York-based lighting designer Ted Mather and used for Beauty and the Beast, Miss Saigon, Les Misérables and countless others. The symbols are all 2D-only, but are accurate and designed to read well on paper; the collection includes a huge range of fixtures including every current Vari*Lite model. Mather can supply the symbols in DXF, MiniCAD and PowerCAD formats. The Advantage symbols cost \$99 and Mather can be contacted on tedmather@aol com. Check http://www.mckernon.com/advantage/.

Crescit Software, manufacturers of SoftPlot,

"The biggest improvement to these packages in the future? All will move towards integrated management of the total lighting project."

also sell separate symbol libraries. Their libraries include 130 symbols from manufacturers such as CCT, ETC, Strand and Vari-Lite. Their symbols cost \$49.95, and are available in AutoCAD or TurboCAD from Crescit's web site at http://www.crescit.com. A different, and again very detailed set, is available from Field Template, a long-term provider of old-fashioned stencils. Check http://www.esta.org/homepages/fieldtemplate /soft/softcopy.html.

Beyond symbols, further packages exist that extend standard CAD program's lighting functionality, in much the same way that the LD Assistant and Autolight packages covered here do. Crescit are players in this market, too: their ALight adds lighting symbols and functionality to AutoCAD. It doesn't have an internal database, but can freely exchange information with LightWright, John McKernon's industry-standard lighting database program. ALight costs \$249 from Crescit.

A real bargain, however, is AutoPlot, a set of 2D symbols, 3D symbols and macros for MiniCAD that puts LD Assistant to shame, especially since it can be freely downloaded

from the web (http://www.mckernon.com/). It doesn't do the full photometrics and rendering, but its macros are better written and more useful. They will number lights (with the text staying upright as you rotate symbols), draw rough beam representations, draw pairing and dimension lines, store lamp data and searchand-replace symbols or some types of data amongst other things. Data can be freely transferrred to and from a database package called Panorama, though the files are mainly textual and so should be readable by most database packages with a little work. The data will also be able to freely interchange information with the forthcoming LightWright version 3. This great package - not perfect, but you can live with the problems at the price! - is the work of Sam Jones with Stan Pressner and Craig Miller, who all deserve a great deal of praise. Anyone using MiniCAD for lighting should try these utilities immediately!

Finally, though it's not directly lighting-CAD related, you would do well to check into the ABTT's website, http://www.abtt.org.uk. This organisation have just started devoting their full attention to CAD, and are holding discussions in an attempt to set up standard CAD conventions and plan formats for theatre users in the UK. Since lighting CAD works to its best effect when the relevant set and theatre plans arrive in electronic form, this initiative is to be applauded. I wonder if the Arts Council could be persuaded - as a service to their touring clients - to join in and fund surveys of British theatres, so that we could have a really accurate set of electronic plans available?

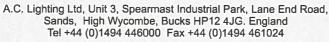
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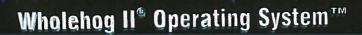












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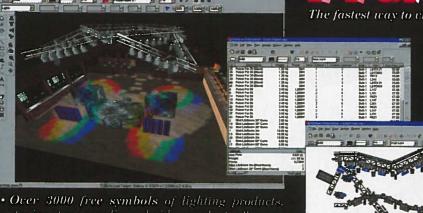
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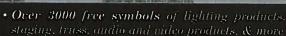


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PARK LIFE

What are the problems associated with running a season of concerts, with 14 different shows in a park in Liverpool? Ross Brown packs his sandwiches and thermos to report

Oh how we danced on that early summer evening back in the heady days of 1992. Like Euro 96 and France 98 rolled into one - it seemed as if all our dreams would come true, this time we really did have a chance. Never mind "thirty years of dreaming", 92 was the year we would go all the way, reclaim the contest as our own and claim the ultimate prize. Glued to the television, liquid refreshment in hand, we held our communal breath throughout the whole performance; praying, hoping, wishing, singing: "Well . . . one step out of time, one reason to put this love on the line, Again, can't believe that it's true, Now I'm one step out of time." How we hummed that one on those lazy summer afternoons, truly believing that this was the year that Michael Ball would regain the crown not won since Bucks Fizz made their minds up in 81. Ah, the Eurovision Song Contest - fantastic.

I'll be honest, I'm not your quintessential Michael Ball fan. For a start I'm male. Then there's the question of youth. Add to that a complete lack of fondness for the works of Andrew Lloyd-Webber (except Evita) and you have to wonder if I was the right person to attend the Royal Liverpool Philharmonic Orchestra's 'Magic of the Musicals' concert. Don't get me wrong, I'm as open minded as the next person about music – one look at my record collection will attest to that – but as a rule you're unlikely to find me rushing to this country's clubs, arenas and stadiums to see this kind of stuff.

So looking around the Arena in which I'm sat, I have to wonder if this was the best night to choose to visit the RLPO's summer pops season. The Taj Mahal concert may have been more my thing, even the Pops in Space Lighting Spectacular ('Sit back, relax and enjoy your journey through the outer limits with the RLPO') was more likely to have been my bag. But no, I plumped for Michael Ball, allowing me to sit in an impressive 3,000 seater temporary stadium provided by those nice people at De Boer Structures, surrounded by a gaggle of Ball supporters (Jock Straps?) and my dad. Well, you try and find someone else to accompany you to a Michael Ball concert when you're 26.

The biggest outdoor event by a UK symphony orchestra (it says here), the self-styled Summer Pops is a big event in the North-west's summer festival season with 35,000 people attending concerts in the Arena last year. That, however, was at its former venue of the King's Dock, with the Pops shifting this year from the home it had held since 1992 across the City to Sefton Park, where a distinct lack of a physical arena necessitated some serious work from De Boers.

Banbury-based De Boer Structures used its 70 years of experience to design and install a truly spectacular venue combining – apart from



Carl Davis whips up the audience for the RLPO Summer Pops.

"Never before have I seen so much animation from a bunch of pensioners. If it had been me walking onto that stage, I'd have worried about my chances of leaving with all my clothing intact."

the actual arena itself – a grand reception/bar/café/congregating area/space to lose your dad (found, unsurprisingly, at the bar), various dressing rooms and a heavily-guarded (is there a fatwha on Michael Ball?) VIP area.

Inside the arena itself, the front of the stage was surrounded by a collection of tables and chairs (for those people who presumably wanted to make a vain attempt to believe they were seeing an orchestra and a West End star in the privacy of their favourite restaurant, not a 3,000 seater arena in the middle of a park), a dozen rows of chairs were placed behind these and then, on the three sides not covered by stage, were 20 or so rows of elevated seating (filled with a motley selection of twin sets, pearls, middle-age Lloyd-Webber groupies and bemused journalists).

But purple hair-rinses aside, it was the stage that dominated the Arena, and that's without even as much as a musician in sight. A Thomas ground support system on six towers – three either side of the stage – made from 12" x 12"

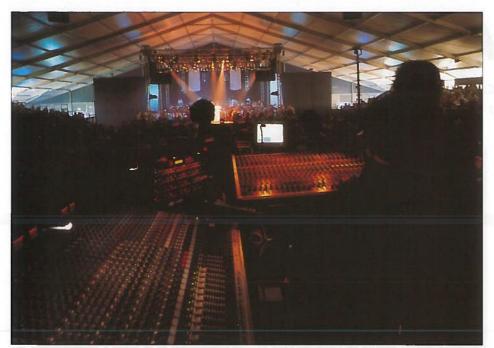
heavy-duty towers with Thomas pre-rig truss formed the main grid, with the addition of an out-rigged scaffold pole to hang the backdrops from.

The men responsible for this trussing and the accompanying lights hanging from it are Liverpool-based Phase 5 who provided a vast array to ensure that every aspect of every performance could be catered for. When you're installing a system that has to cover any eventuality in a season lasting 20 days, you need to have products that you can rely on to pull a variety of tricks out of their diachronic hats. So, they've gone for Martin Professional MAC 500s. "They're just amazing," says Haydn Gregson of Phase 5. "They do anything you want them to." Yeah, we know Haydn, we know.

A dozen each of MAC 500s and 600s provide the core of the system, backed up by eight 1kW profile spots, eight Martin Pro 400 colour changers, a pair of Pani 1200 Follow Spots and 15 6-way Par 64 lamps bars. Add to all this, a cracked oil machine and a Jem ZR22 smoke machine, and you've got your basic lighting and effects system. But it gets better, in the shape of a Spectra Physics 2011 water-cooled laser — every home should have one. Oh, and a mirror ball (I've always had mixed feelings about mirror balls. The Brown jury is still deliberating whether they're naff, kitsch or still have a valid place in nineties society. I'm wavering towards naff at the moment).

Meanwhile, up in lighting central (tenth row, back of the auditorium, facing the stage – and "no I won't sit down I'm talking to this guy. I'll move when the show starts. Yes I know I'm very tall dear, but I won't be here when

. .



Various aspects of the technical set-up are featured on this page, including the Avolites Pearl console and dimmers, and the combination of Crest desks.







Michael's on stage."), the RLPO's very own production manager Tony Astor is the man responsible for lighting the show and, considering that this is a Phase 5 installation, it's hardly surprising to discover that the whole kit and caboodle is handled by an Avolites Pearl 2000 console. It's no exaggeration to say that Gregson is a fan of all things Avolites, but wouldn't a variety of other desks do the job equally as well? I appear to have committed heresy: "If you bought a Rolls-Royce and a mini – both will take you to work, but which would you rather drive?" he says.

Tony Astor is an equal enthusiast: "Avo desks are very quick, especially if you need to pluck something out of thin air. The Pearl is an extremely robust desk - unlike some which simply give up the ghost if you ask them to do too much - the only noticeable difference with the Avolites is that it slows down, but if you get it to do that anyway, you're doing well!"

It's the flexibility of the system that will also ensure its continued presence at future Pops. "With a rock show, it's the same set-up every night — but here we have 14 shows over the two-and-half week run," says Astor.

And, unlike any rock show this side of Rick Wakeman, there is also the small matter of around 80 people on stage at any one time — and the lighting headaches that in itself creates. "Because they're classically-trained musicians, they've always go to be able to see the conductor and there must be no moving light over the orchestra as they've got to be able to see the music," says Astor. And you can wave goodbye to your harp solo if you plan on using primary red — because your harpist won't be able to see the red strings. The kind of things you just don't have to consider when lighting Oasis basically.

And, because the vast majority of the audience is unlikely to dream of attending a concert by that Burnage quintet – indeed probably found the Fab Four too noisy – all-singing and all-dancing lighting shows are definitely not the order of the day. In short, the old dears wouldn't like it.

But let's be honest, I'd much rather be lighting this thing - even with all the problems with harpists - than providing the sound. Enter stage left, Ian Barfoot of Sheffield-based B&H (not to be confused with Regal of Barnsley or Marlboro Lights of Rotherham), a man for whom the words string section hold little fear. "I could be classed as a bit unusual," said Barfoot when asked about the mountain of equipment surrounding him. Because he didn't have dribble coming out of the corner of his mouth and an apparent penchant for women's clothes, I'm presuming he was referring to his choice of main desk, a Crest X8. Reliability goes without saying, but for Barfoot the greatest benefit of the desk is its complete lack of noise "there's none to get rid of," he says.

In total, Barfoot has 80 mics to control, made up of (deep breath) AKG 45s for the strings, an SM81 on the harp, a Shure 58 for the vocals and the brass, Sennheiser 441s for the cellos, a Shure 57 on the double bass, Octava's for the percussion, but an Earthworks PCK30 for the timps, SE 300s, 451s and 535s for the woodwind and the flutes, an AKG 414 for the piano, an SM91 on the kick drum and AKG 419 clip-ons for the toms ("There's not enough

space for stands."). Ouch. And no compression in sight. "It's in the racks but all bypassed," says Barfoot. When pushed, he admits to a "little" on the vocals.

On the subject of equalisation, front-of-house was handled by a BSS VariCurve ("very clean") but in the Arena, Barfoot prefers to handle things with an analogue parametric equaliser. "I get great support from BSS," says Barfoot. "If I get a problem, I call BSS and the problem goes away. The bottom line is, there have been no complaints from anywhere in the room."

To make matters slightly easier – everything being relative when contending with up to 400 people on stage – Barfoot produced a separate string mix on a Crest Century G2, dumping this down to the X8 before sending it off into the ether, a big tent and the elderly ears of a Michael Ball audience.

And those ears were tantalised with a relatively simple mixture of speakers: a pair of EAW J8 115s, Martin LE400s, a Meyer UM1P, eight EAW KW850s and four EAW SB1000s handling the sub-levels.

Okay, so the Arena's a solid affair, the lighting does its job and the sound is just about perfect but what about the man himself?

Jumped-up, talentless, arrogant, self-important . . . nah . . . I can't do it because it's not true. Promise you won't mention it to any of my Prodigy-raving friends but, godammit, Michael Ball can hold a tune. I don't know about you, but whenever I see someone famous on the likes of Wogan or Parky – or even on stage – I often turn to whoever is next



The man himself, Michael Ball.

to me and make some comment about them being "nice" or "the kind of guy you could have a pint with." Don't know if it says a lot about the kind of person I am but "sharing a pint" with someone is one of the greatest compliments I can pay; and I wouldn't mind sharing a snifter with Michael Ball. And, according to Ian Barfoot, Ball's on-stage persona is accurate too. "Good afternoon Mr Ball, I said when he first arrived," Barfoot recounts. "Mr Ball is my father he replied, I'm Michael." Pint of Carlsberg Export for me, and whatever the singing-bloke is having.

Tonight's concert was being conducted, as

were the other nights in the season, by American conductor Carl Davis, a man whom seems to have adopted Liverpool as his spiritual home, presumably because of his marriage to Bread-actress Jean Boht. A rousing overture of 'That's Entertainment' (unsurprisingly not The Jam – but the Broadway standard) and it was time for the appearance of the great man himself. Never before have I seen so much animation from a bunch of pensioners. If it had been me walking onto that stage, I'd have worried about my chances of leaving with all my clothing intact. But the lad is obviously made of sterner stuff – or more used to it.

Les Miserables, Miss Saigon, Cats, Sunset Boulevard, Jesus Christ Superstar, Phantom of the Opera, Aspects of Love - you could probably guess the set-list given two minutes and a little knowledge of Ball's career to date, but nobody present this evening seemed to mind, because it was what they had come to hear. And, although the stories that peppered the mid-song banter were of "the time I played the part of" or "I said to Andrew," variety, they revealed a nice line in self-deprecation, with Davis acting as the perfect foil for Ball's jokes.

Throw in an appearance from four pupils of the Elliott Fox school as backing singers (The Ballettes?) and some elderly hissing when Ball kissed the hand of the cellist following her solo on Sondheim's 'Send in the Clowns', and you've got Michael Ball in concert. And that evening's encore? We're in Liverpool – what do you think it was? 'You'll Never Walk Alone', naturally - twice. And still no place for 'One Step out of Time.'

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Animatronics in the Stalls...lan Herbert

hree big musicals and one little gem in the space of a few weeks give us much food for thought. They prove that no matter how much money you throw at a show, or how little, it's going to be harmony that counts, and I don't mean whether or not the chorus is in tune. Mind you, when the opening number of Whistle Down the Wind has a bloke singing 'we're all looking for the key' and then not finding it, it doesn't bode well.

ndrew Lloyd Webber's latest has had a difficult journey to the Aldwych. The hope was that Gale Edwards would find the right levels, as she did with the revise of Aspects of Love. To put it bluntly, she hasn't. She has delivered a show full of interesting bits - it's just that they don't fit very well together. You're not expecting big *Phantom*-type staging effects here, though Peter J Davison delivers a two-tier stage that goes up and down very impressively, and brings on all forms of wheeled transport, but the point of it all? Well, not much.

well remember the deep visual impression made by the first Gale Edwards show I saw, a superb Saint Joan from Clwyd. Mark Henderson's lighting of some more very fine, typically architectural Davison sets played a big part in its success, and Mark McCullough has tried to achieve something similar here - there are some great moments when light streams in to give a biblical halo to The Man, whose identity is the central question of the evening. But it has a very contrived feel to it, and McCullough has obviously been put at a disadvantage by the set: while it has some nifty apertures for the occasional streaming halo, it can only be fully lit from the front and one side. Amazingly, the worst feature of the production is the band that often sounds like those synthesizer-led noises on old Pickwick compilations. Martin Levan must take some responsibility for this.

ver at the Bridewell, some of the merits I noted last time in their Pippin resurface in Eyam. Mitch Sebastian is back in very different form as choreographer to Clive Paget's direction, and once again the scenery is minimal, but makes clever use of platforms. There's fine work from another top lighting designer, Robert Bryan, with rather fewer lanterns than Chris Ellis used for Pippin. The cast are unmiked, as suits a musical in the Howard Goodall tradition of English choral, an ensemble who can take Andrew Peggie's sometimes complicated part-singing in their stride. Down in the pool, Peggie himself directs a biggish band for this small venue, seven of them, with a wind and brass emphasis to fit the period. It's not easy to create a plague-stricken seventeenth century village in front of an audience sitting a pace away from you, but that's what Paget's production and Louise Belson's design achieve.

he entire Eyam budget would only pay for one of the animatronic creatures which effortlessly steal the show from Philip Schofield's Doctor Dolittle. Steven Pimlott and Mark Thompson have continued the successful association with Schofield forged in the megamix Joseph, and make good spatial sense of the notoriously difficult Labatt's Apollo. Inside a smart false pros, a succession of increasingly exotic sets moves very smoothly, and Hugh Vanstone's lighting copes with all their challenges. There's even a walkway round the circle to light, not to mention the final arrival of Schofield on a huge, fibre-opticallyglimmering moth that tracks around the theatre's wall to lower the Doctor centrestage.

est news of all is the sound. Richard Ryan has seamlessly mixed pre-recorded voices for some of the animals, notably Julie Andrews as a parrot, with the live on-stage ensemble and a big pit band. There's also a surprisingly delicate orchestration of background sound from Paul Arditti. I assume the speaker system is neatly concealed behind the blacks that frame the proscenium and not being able to see them is a great bonus - the overall sound picture is tremendous, fully three-dimensional and extremely natural. If you think this monster show is lacking in subtlety, that may be true of Leslie Bricusse's sketchy book and all-purpose songs, but it's certainly not so in the production values.

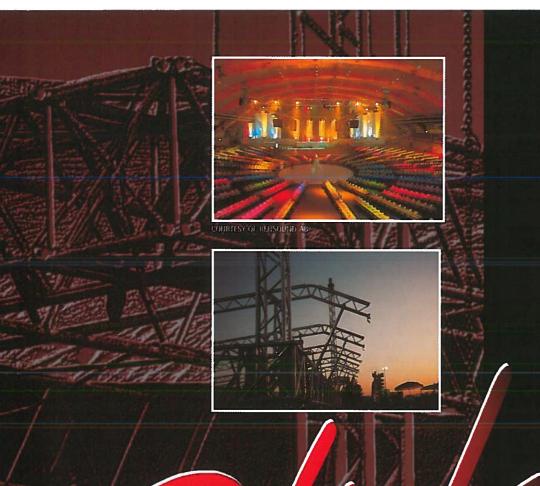
he technical skills of *Dolittle* are as nothing, however, to the quite gobsmacking achievement of Trevor Nunn's *Oklahoma!* at the Olivier. It's this harmony thing - a show which had become synonymous with corn (however high) is revealed again as if new-minted. Anthony Ward's sets make clever use of differently sized models to achieve a zoom effect during the overture, where for the only time in the show we see the big orchestra (a little light on strings for Rodgers and Hammerstein, but making a satisfactorily rich sound) set upstage of the action behind the cyc.

ard doesn't use the Olivier drum's rise-and-fall capabilities, but the revolve and cyc (and some big flown setpieces including that corn - as high as an elephant's eye, since you ask) are quite beautifully worked to offer scene-changes that are part of the action, not breaks in its flow. There's a cinematic feel about it all, aided by some absolutely classic David Hersey lighting, which achieves almost all its effects by stealth rather than cheap fireworks. Not surprisingly for the gobo king, the cloud effects are wondrous.

As in Dolittle, there's a fine soundtrack, this time from Paul Groothuis, gently insisting that you are in a working Southern farm environment where dogs bark and crickets sing. I don't think the singers were miked - if they were, the genius who mixed them deserves a huge credit - but it's quite amazing to hear such strong voices filling the cavernous Olivier so richly, soaring over those peachesand-cream orchestrations. This is not the place to talk about the casting, but the young, almost unknown leads set the tone for the production, one of clear-eyed confidence. What makes Oklahoma! the finest musical in London for many a year is that confidence, which shows in the way all its elements have been put together in an almost perfect harmony of intent.

here are those, and for a moment I was almost one of them, who were ready to see the lacklustre, directionless Whistle as the end of an era for the British musical. Dolittle, in spite of the weaknesses in its composition, showed that for sheer verve and technical invention we're still very much in the game. Eyam, with its honest energy and a commitment to musical excellence, showed where we could be going if the mega-musical bubble does finally burst. But Oklahoma! demonstrates something even more promising: London can now use the resources, human and mechanical, that have been developed over two boom musical decades to add new and astonishing life to works in the existing musical canon that might otherwise have become fossilised out of existence.





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BY DESIGN

As DHA Lighting approaches its 30th year, Ruth Rossington visits them at their London HQ to see how the company are preparing for their third age

Thanks to its genesis at the hands of David Hersey, DHA Lighting has one of the strongest profiles in this industry. The company has traded on the unusual, and made a virtue out of converting sometimes impossible wish lists into realities. To such good effect, in fact, that the industry has come to depend on products it didn't even know it needed 15 years ago. For me, DHA will always be a byword for creativity and professionalism but, perhaps more important than that even, it has a human face and the natives seem to me to be friendly and businesslike in everything they do.

So how does a company like DHA arrive at such an enviable position in the market? The answer is wrapped up in its unique history: the company was formed in 1971 when the then up-and-coming lighting designer David Hersey decided he needed a small team to support his work in industrial and commercial theatre. At that time, it was the etched, stainless steel gobos that were the backbone of the manufacturing side of DHA, whilst Hersey's growing reputation as a lighting designer provided the creative impetus. In the years that followed, both DHA's and David Hersey's careers flourished and by the late seventies DHA already owned an extensive and everincreasing catalogue of gobo designs. In 1977 the company established an office in Cobham, Surrey and as the product side grew, so too the creative team, and by 1980 Wyatt Enever, with his experience of photographic and etching techniques, joined the small team providing further impetus to the development of a much needed custom gobo service.

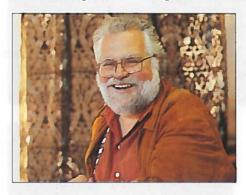
Meanwhile, Hersey's creative reputation was being swiftly forged and he was increasingly in demand as a freelance lighting designer. The critical successes of such productions as *Evita*, *Nicholas Nickleby* and *Cats* meant that he could commit less and less time to the running of the Surrey-based company some 25 miles from London's West End.

His commitments to lengthy theatrical projects were compromising his future in the world of trade shows, product launches and conferences and it was obvious that Hersey could no longer dedicate his time to both. Some serious heartsearching followed: the relative security of corporate productions or the unreliable world of commercial theatre—the responsibility of running a thriving business or the creative opportunities of lighting design? History has already related which route Hersey took, but at the time it was no surprise to anyone who knew his passion for theatre that he chose to pursue the role of a full-time, theatrical lighting designer.

The inevitable consequence was that DHA needed to be re-established as a company in its own right, successful for its own products, so in 1981, DHA Lighting was restructured and Wyatt Enever became managing director.



Above, the stunning set for *Cyrano de Bergerac* at The Haymarket where DHA's Digital Light Curtains and glass and metal gobos were used. Below, DHA founder David Hersey.



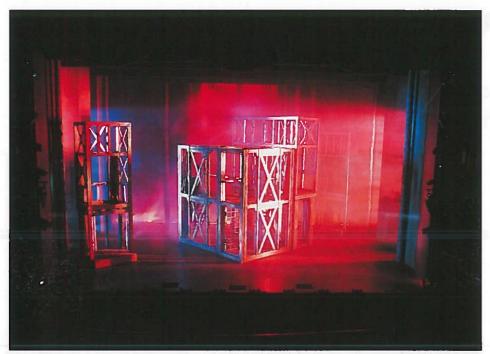
Hersey's input continued to be a critical part of the commercial and design processes, however, and it was in response to many of his bizarre technical requirements, that a number of DHA's principal products were developed. Witness the Digital Light Curtain: this began life as a prototype Light Curtain produced for the English National Opera's 1976 production of Dalibor. Such was the scale and speed of its development that by 1978, 24 Light Curtains were put through their paces in Evita when they were used to create the innovative 'white out' effect. The Light Curtain was just one of many products that translated from Hersey's drawing board to DHA product. The first ever DHA Beamlight batten, for instance, was developed for the musical Cats when it opened at the New London Theatre - and is still in use today.

With the development of a manufacturing arm and the continued growth of gobo production, it soon became necessary for DHA to move to larger premises and to site itself

geographically closer to the centre of the theatrical world - London's West End. Accessibility and fast product turnaround were the hallmarks of manufacturing industry in the eighties and DHA was quick to realise that without those two factors in its favour, it would not otherwise survive. Relocation would also allow Hersey to house his design work under the same roof as his service company, and lay the ground for his increased input into the management of the company. So, in 1983, a building was leased and DHA moved from its country roots in Cobham, Surrey, to the industrial area of the Thames' South Bank.

Placing itself in the midst of the swirl of London activity was to pay off dramatically and by the mid eighties, DHA's position as market leader in the production of gobos, both stock and custom was confirmed. It was also rapidly gaining a reputation as a manufacturer of moving effects and lantern accessories and the development of the first motorised light curtain in 1985 set the seal on its future. Today, the DHA Digital Light Curtain features in a host of theatrical productions the world over - and the research and development programme goes

Accessories for gobos quickly became a fundamental part of the DHA product range. Hersey's desire to create an affordable water effect for the 1984 National Theatre production of *Rough Crossing* led to the birth of the animation unit and before long it was apparent that fire and cloud effects could be created in much the same way. When he wanted to rotate squares of light on a revolving



Above, Martin Guerre featured DLCs, cyc projection and a range of metal and glass gobos, whilst for Burning Blue custom glass cloud gobos in rotators and VSFX discs were spec'd.

chess board for the musical Chess, the Gobo Rotator was created and similarly the company's Yoyo was borne out of Hersey's desire to create a number of effects (moving door, water, sunrise) in Miss Saigon. Aside from these developments, DHA were also extending the line up of products even further, and a range of fibre optics completed the package.

But these were just the obvious strings to the DHA bow, and the company was continually looking for ways to extend its scope. One such came in the form of the

production of projection slides for use with small and large format projectors. With his fundamental understanding of distortion concepts, Wyatt Enever had, by the early eighties, developed a technique allowing highly complicated distortion calculations to be worked out and incorporated into projection slides, enabling their use in situations where the projector had to be positioned off-centre in one or both planes. This technique was put to the test in the Royal Opera House's production of Don Giovani where the projection surface moved around the stage, but the images had to remain centred and in focus. It proved a critical success and the valuable experience gained was reapplied to the productions that followed, including Les Miserables, Miss Saigon, The National Theatre's Murmuring Judges and, more recently, The Invention of Love, and La Traviata at the Royal Albert Hall. More recently, Enever was drafted in to provide the complex multi-plane image distortion for the celebration of Cameron Mackintosh's Hey Mr Producer! (see last month's L+SI). Today, the company has three darkrooms and handles in-house processing of Cibachrome.

In the mid-eighties, another DHA development also began to take shape with the





Above, DHA's new Digital Beamlight 2 - to be officially launched at this year's PLASA



LIGHTING+SOUND INTERNATIONAL AUGUST 1998

introduction of an architectural lighting design service. Permanent and long-term installations became part of DHA's portfolio and it was during the pre-production work for the British Pavilion (Expo Vancouver 1986) that Adam Grater took over the design reigns from David Hersey, whose theatrical commitments prevented him from completing a delayed Expo production period. The net result was the formation of DHA Design Services.

Although at first a one-man band making use of the highly talented freelance pool available at the time, by exercising his talent for design and his ability to employ the right people for the job, Adam Grater soon established DHA Design Services as a successful consultancy in its own right and earned it a place amongst the top lighting design houses. Over the years, projects including the headquarters for Hong Kong Telecom, the Natural History Museum's Earth Galleries Atrium, and work on Las Vegas's Treasure Island have been testament to the creativity and tenacity of DHA Design Services' team. The division now includes five full-time designers and is currently working on museum and architectural projects in locations all over the world, including the MOMI Imax at Waterloo, Holocaust at the Imperial War Museum and the billion dollar plus Bellagio Hotel project in Las Vegas. (This project, together with a closer look at the work of the Design Services division, will feature in a future issue of L+SI).

The synergy of the triangle was instrumental in propelling the company to its next phase. The five people who originally brought DHA to London had become 12 and the company's range of products, services and gobos was extensive and expanding. 400 designs now made up the stock gobos catalogue with a further range of library designs available to order. (The current catalogue incidentally has 800 designs in 14 stock sizes!). The custom gobo business had grown to such an extent that it required the employment of dedicated graphic artists with the sole responsibility of touching up clients' artwork and tagging for gobo production and at this time, Vicky Fairall joined DHA to up the graphics team. Critically, for the first time, the sale of stock necessitated a front-line sales team.

By 1988, DHA had outgrown its existing premises and was casting around for a new base. The move to the 5,500sq.ft Jonathan Street premises in 1989 represented its most dramatic expansion to date. By consolidating on everything learnt in the preceding 20 years and by developing the roles of key personnel, the company managed to ride out the recession of the early nineties and continue its trend of success. Over the next six years, the 12 became 35 and the turnover effectively quadrupled.

Soon after the purchase of Jonathan Street, DHA recruited Philip Nye, a talented electronics design engineer. His first project was to design and implement production of the Digital Light Curtain which was to have bespoke Macintosh-based control and which would form the basis of an eventual small family of related products. Within 18 months, the first Digital Light Curtains were being installed for *Miss Saigon* in New York.

Developments within the technical world of







The faces of DHA (clockwise from top left): Wyatt Enever, managing director, Diane Grant, general manager, Philip Nye, chief engineer and Adam Grater, who heads up DHA Design Services.

lighting brought with them the need for new products. Although originally introduced as far back as 1980, by 1991 glass gobos were beginning to play a major part in DHA's range and now account for a significant slice of the overall turnover of gobo sales. Intelligent lighting gave rise to the need for OEM gobo production and DHA began its long and lasting relationships with some of the key names in the industry including Vari-Lite, Martin Professional, Abstract and Apollo Spectrum.

Technical advancement ushered in wider applications for glass image projection. By laminating cibachrome 'cloud' transparencies onto 443mm toughened glass for use with an effects projector, high quality cloud effects could be produced and the 1994 production of Oliver! saw the introduction of this first new cloud effect for 30 years. A year later, further cloud designs were introduced to the DHA range for Burning Blue, undoubtably a factor in



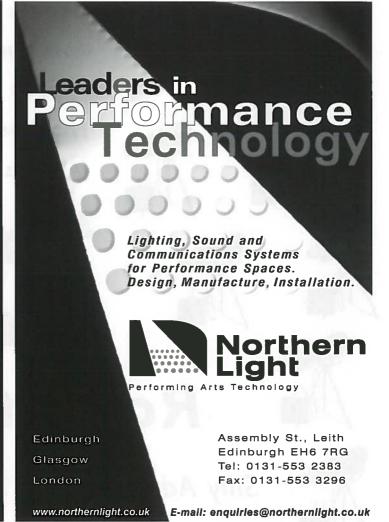
it winning the 1996 Olivier Award For Lighting. As with any growing business, the need to constantly reassess and re-evaluate personnel and potential was proving vital. 1995 saw a major company reorganisation and a move to 15,500sq.ft of space just down the road from The Old Vic Theatre. The latter part of 1997

saw two further developments. Diane Grant, DHA's general manager, was appointed a director and the company took the decision to purchase the Waterloo premises.

The additional space allowed DHA to expand all areas of production. Investment in state-of-the-art reprographic technology improved the speed and accuracy of the custom gobo tooling process. Colour dark room space was made available so that slide production could become a mainstream contributor to DHA's business and the improved manufacturing workshops enabled both moving effects and Digital Light Curtain production to more than double. In the summer of 1998, Digital Beamlight 2 came out of R&D and into production, and it will be formally launched at this year's PLASA show.

Which should provide a fitting point from which the company can successfully move to its third age.







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BURSWOOD ISLAND

Jacqueline Molloy visits the Burswood Island Resort, where The Dome and the Showroom have both been the subjects of upgrades designed to expand their horizons



Burswood Island Resort - all the trappings of Las Vegas transplanted to Perth, Western Australia.

Burswood Island Resort sits like a slice of Las Vegas on the edge of the Swan River just a few minutes from the city of Perth, Western Australia. Opened 10 years ago, it offers a five star hotel, casino, world class golf course and a choice of entertainment venues, with the Showroom and an arena venue - The Dome as the star attractions. Over the last decade, both the Showroom and the Dome have flirted with various forms of entertainment, seeking to create a house style that patrons could identify. The Dome has only recently established itself as a successful venue for both mega rock concerts and major exhibitions, whilst the Showroom has opted to expand its horizons and push further into the commercial theatre/musical market, having already established a reputation as a successful cabaret and convention venue. These are interesting times for both the venues, as the Showroom is in the midst of major renovations and the Dome is steadily forging a reputation on the international touring circuit.

THE DOME

As arena venues go, Burswood Dome is a generous space, offering 8,791sq.m of floor and a seating capacity of 21,000, but the most remarkable aspect of the Dome is its air-supported Teflon-coated flexible fibre-glass roof. The air pressure required to keep the roof suspended is 1.2 atmospheres, which is equal to being about one metre underwater. The air pressure is controlled via eight fans run off a fully computerised system, though in an unoccupied mode it takes only one of the fans to keep the air pressure at the required level.

At the centre of the Dome, the roof peaks at a height of 37m, and standing in the middle of the floor, you can't help but be struck by the fact that there are no structural supports to disrupt your view of the space. Being inside the

empty Dome on a sunny day is like standing under a huge white marquee, and if it wasn't for the eerie ambience created by the air pressure, you could believe you were outdoors under a canopy.

Access to the venue is through one of 16 revolving airlock doors for patrons and two service airlocks for equipment delivery, each measuring 21m long, 5.35m wide and 5.6m high - more than enough room for a pantech trailer. Naturally, when the Dome is in use, the air pressure fluctuates and up to four of the fans may cut in to cope with the demand, but in 10 years of operation there has never been an occasion when all eight fans were called in to use. Continuity of power is a crucial issue for the Dome, since the roof suspension depends on it, so there are two back-up generators which have only once failed to cut in during disruption to the power supply.

Patrick Pierce, the venue manager, recalls the occasion well. "There was a delay between the power going off and the generators cutting in on a really wild, stormy night. The roof dampers, which are basically the valves which allow the air to escape if the pressure builds up too much, filled with water and the weight forced the roof to flatten out and drop five metres. When the generators finally kicked in, the dampers opened and water started to pour into the venue. It was just like watching a waterfall as it gushed the 30 metres to the floor. Fortunately, an exhibition had bumped out the night before so the space was empty, but it still took a bit of clearing up."

Until three years ago, the Dome was widely dismissed as a white elephant - with no clear identity and no proven track record in any of the areas for which it was originally designed. Part of the problem seemed to be that the architect's brief was constantly changing between creating an exhibition-oriented space

and a combined exhibition and sports venue. The construction of the Dome was done on a fast-track, in essence it was being designed as it was being built, and unfortunately many of the projected facilities that were specified were never provided, due to over-runs in costs involved with building the casino, hotel and Showroom. Funds that had been earmarked for the Dome were redirected to finance the shortfalls of the other resort buildings, leaving the Dome slightly short of expectations.

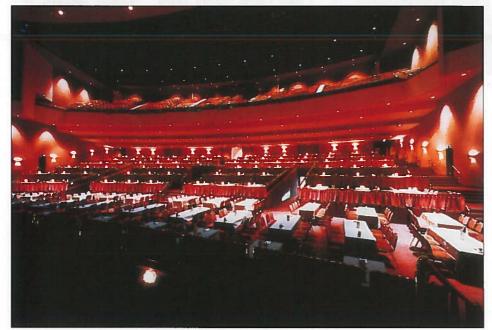
A major event held shortly after the Dome's opening was a Rolling Stones concert, where the sound was so distorted it was considered a disaster by audiences and critics alike. Sound took 13 seconds for the round trip from the stage to the back wall, rendering the music unintelligible for many patrons. In a structure which is predominantly concrete with an air-supported roof and an air-pressure of 1.2 atmospheres, sound reproduction was always going to be a challenge.

The management have spent the last 10 years trying to get the Dome to a viable level of operation, and three years ago a decision was taken to actively pursue new directions. The acoustics of the venue were improved in a \$1.2m project to place black acoustic lining on the exposed concrete walls and hang a quilted baffle panel from the roof. Since these upgrades, a number of successful concerts have been held, with artists such as U2, Neil Diamond, Mariah Carey, Placido Domingo and Gloria Estefan performing well-received shows. These days, with its sound problems behind it, the Dome is recognised as a flexible space capable of staging major rock concerts, spectacles, exhibitions and sporting events. It even holds the Australian indoor attendance record for having 21,000 punters at a Neil Diamond concert.

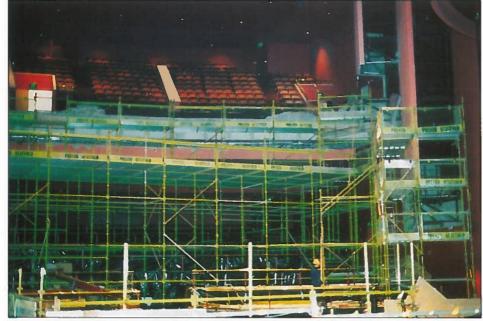
There is also the occasional gala dinner to



Motorcross racing in The Dome.



The Showroom prior to the final stage of renovations.



Work in progress on the upgrade for the Showroom.

cater for and Pierce feels that organisations are attracted to the Dome for its novelty value: "With our 214m of drapes we can turn this space into just about any themed environment that people can dream up. And we recently hosted a formal dinner for 5,000 people where we served fillet mignon and every steak was served piping hot. There aren't many places that can offer that kind of service and still have space left over for a stage and dancefloor."

David Hobbs has been the venue's technical supervisor for the past three years and feels that it has really flourished in that time: "I think we've now had most of the major promoters through the place and proved to them that this is a viable space to stage productions. Previously, the only real event that happened here was the Hopman Cup Tennis Tournament (the venue has two permanent courts which are usually covered by a temporary floor) in the summer, and then we basically locked the building up for the rest of the year. Last year, in just under two weeks, we had over 120,000 patrons through the doors for U2, Franklin Graham and Gloria Estefan. Times have certainly changed!"

The Dome has minimum resources in terms of PA and lighting. There is a basic array sound system suspended from the centre of the roof, while the lighting system consists of eight banks of metal halide 2kW floods evenly distributed around the space. Lighting and sound rigs for concerts can be suspended from the roof, which can take 80 tonnes of weight distributed over a nine metre square, with any square metre able to support three tonnes. The majority of shows prefer to utilise the steel ground support system that the Dome subhires as required.

Only two major shows have so far opted to rig from the roof - Placido Domingo and a massive production of *Aida*. The ground support system can take 35 tonnes in either a 90sq.m configuration or in a 30m x 20m format, allowing for a false proscenium and backstage area. Hobbs is currently devising several rigging scenarios for the roof that will enable speedy and efficient flying of various-sized systems as required.

The translucent white roof is a mixed blessing: while it minimises the need for artificial lighting for day-time exhibitions, it also eliminates the possibility of a daytime blackout, restricting the type of rehearsals which can be undertaken in daylight hours. As it is impossible to heat the space, due to the air-pressure requirements, it does get very chilly in winter. Hobbs commented that at a recent management meeting it was jokingly suggested that a message be printed on tickets advising patrons to wear a thick jumper for winter performances!

THE SHOWROOM

A short walk from the Dome is the Showroom, a beautifully fitted-out venue, complete with gold house curtain and a rich burgundy colour scheme. It opened in 1987 with a lavish American production, *Las Vegas on Ice*, which called for the stage to be temporarily converted into an ice rink for its six-week season. This was a pretty spectacular event for Perth, performed to an audience tucking into a meal, whilst being entertained by flamboyant showgirls,

illusionists, comedians, huge musical numbers and dazzling skating. Las Vegas had definitely arrived down under!

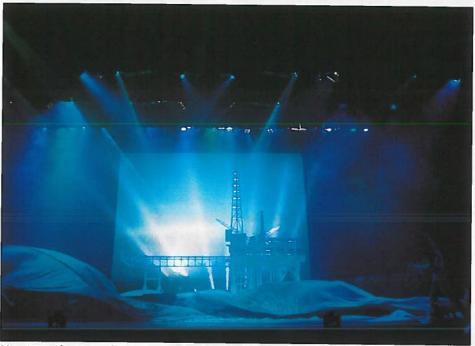
The original brief for the Showroom was to provide cabaret-style entertainment for patrons who could dine during the show, then finish the evening off with a trip to the casino and maybe an overnight stay in the hotel. Over the years, artists such as Petula Clark, Don McLean, The Village People and Dionne Warwick have graced the stage, in addition to the numerous corporate and smaller spectacle events which have taken place.

Showroom management have taken the decision that they would like to attract longerrunning productions into the venue, and to this end have started an extensive refurbishment programme, which is due to be completed this summer. One of its major aims is to create a more intimate ambience in the Showroom by focusing the attention of the audience on the stage, rather than on the vastness of the auditorium. To help achieve this, the dress circle is being extended by 3.3m out over the lounge and a curve is being created at either side to narrow the gap between the lounge and the circle. The proscenium arch opening is being reduced to 18m from its previous 21m, and the side stages are having their curtains replaced by acoustic panelling so they blend with the surroundings when not in use.

A major aspect of the renovation is the addition of 300 seats, bringing the total seating capacity to 2,300 in theatre mode, with the additional benefit that 82 of the circle seats which previously had restricted viewing will now benefit from an uninterrupted view of the stage. Acoustic baffling is being installed onto the front of the concrete balcony and to the rear walls to upgrade the sound quality of the space.

An 80-line counterweight flying system is being installed on prompt side to replace the previous 22-line electric winch system. Terry Cranswick, the Showroom manager, explained that with only 22 lines, the majority of flown scenery and masking had to be dead hung, especially since lighting bars took up six of the available lines. The lack of a substantial flying system was always a hindrance when trying to attract larger-scale productions, and Cranswick has great hopes that the new system will act as a drawcard for prospective clients.

The Showroom stage is dominated by a 12m x 6m lift with a capacity of 18 tonnes and



May 1998: the Natural Gas Convention in the Showroom.

powered by a single electrical motor driving four gearboxes. It goes from the loading dock 5.5m below the stage to one metre above. The lift has enabled productions to carry out some spectacular reveals over the years, but can also slow a set-up down by rendering the stage off-limits whilst equipment is being lifted to stage level. There was talk of relocating the lift, but this has been dismissed in favour of installing a gantry lift at the rear of the stage which will drop down to the exterior of the venue and enable equipment to be loaded directly from the dock, thus freeing up the stage for other work.

In terms of lighting and sound equipment, the Showroom has always been quite well equipped, and it is unlikely that much will be done to either of the systems at this time, other than minor tweaks to accommodate the structural changes. The main sound system consists of 12 JBL 4892 cabinets located at stage left, right and the centre of the proscenium, mixed from a Midas XL3. The showroom is the only venue in Australia to have an AVAB Viking lighting desk in operation, but since the majority of their shows to date have been one-night stands or short runs, it was necessary to add a 60/120-channel LSC Focal desk to allow for faster plotting. The

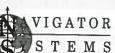
Viking is not the sort of desk that can be learnt in a short space of time, and many of the touring shows that come through bring their own operators, who are generally more inclined to opt for the more accessible Focal. The Showroom runs 320 5kW Bytecraft IDS dimmers and has a standard rig of around 400 luminaires, plus Samurai robotics, effects projectors and Colourset scrollers.

A prime consideration for Showroom management is audience comfort and as part of the refurbishment they are installing 1,600 high-backed velvet theatre seats in the lounge area, which previously only had stacking chrome chairs. The down side of this, of course, is that it will take much longer to turn the venue around from theatre to cabaret mode, with Cranswick estimating around 200 labour hours for the operation. Needless to say, the Showroom won't be encouraging clients to do this too often!

The next year is going to be a telling one for the Showroom, as management push the venue in new directions, using the improved facilities as bait to attract bigger productions and new clients. If staff commitment and a beautifully-equipped venue are the secrets to success, then the Showroom has a bright future to look forward to.

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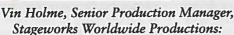


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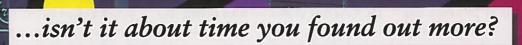
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AND PRODUCTION NEWS

Eros Ramazzotti

Stadio Olimpico, Rome

LD: Billy Bigliardi SD: Maurizio Maggi

Thanks to the generosity of a couple of the service companies involved, I had a few hours to spare before I needed to be at the Stadio Olimpico. It was a sunny morning, not a common feature in the UK at the time, so I went down to St Peters Square, as one does 'when in Rome'. The square was filled with camera-wielding tourists, mainly Japanese, but plenty of Americans too. Every 50 metres or so, the wide open spaces of the piazza were interrupted by temporary barriers, and there were nearly as many police in the square as people.

St Peters Basilica itself was in a sorry state - the entire façade was clad in scaffolding. Only the famous Dome was bare, peeping above the forest of steel like a bald head in a crowd. Here too, at the base of the scaffold were hoards of armed police - what was afoot?

The answer soon emerged, in a cacophony of church bells and a chaos of police sirens as only the Italians can muster. Out from behind the iron clad portals came a motorcade. Papa? Nada (the Latins have no proper word for No) Some other Catholic worthy? Nada y Nada. Fresh from doing the washing up, the tea-towel still atop his head, was none other than Yasser Arafat. Wedged between two enormous bodyguards in the back seat of his Alfa Romeo saloon he managed a hearty wave.

I recount this little tale for two reasons. Firstly, even the most unlikely people get their moment on stage eventually, so we shouldn't be surprised or disappointed when persons we know little of pop into our field of vision. If our glorious leader decides to visit his presence upon the Des O'Connor show, then Arafat can see the Pope. Secondly, at a time when the audiences for big rock shows are waning, it's as well to remind ourselves that some trends are more durable and have been entertaining crowds of many thousands for more than 2,000 years. One of the key factors in the Christian armoury has been the spectacle, and the Italians still like a big show.

SE

More than any other, it is the visual medium which stamps its mark upon this production. The touch is that of Paul Staples, a well-known enough name, but not in the pop concert idiom. Nonetheless, his hand is clearly upon the Eros stage with this, a derivative of what he produced so lavishly for the Hong Kong bowing-out ceremony, with its great swooping surfaces of white. The set is at once plain, and yet immensely complex. It appears simplicity itself; the dominant feature is without doubt the huge, curving canopy



that vaults a full nine metres out from beyond the towers of European Stages' space frame roof. Visually uncomplicated, the structure behind it, built by Total Fabrications Ltd is, to say the least, difficult. "It curves in all three dimensions," explained TFL's Peter Hind. "Two of those dimensions in opposition to one another. It is, without doubt, the most taxing geometrical structure I've ever had to run through a CAD package."

The canopy shape also acts like an aerofoil. "We can experience anything up to eight tons of lift, or four tons of down force, depending on wind direction," said Mikkel Brogaard of European Stages. As such, it's immensely strong structurally, but as we'll see, it was effort well made: this facet alone defines both the lighting and video aspects of the presentation.

The set is in many ways an exposition of international builders. Tait Towers built what sits upon the deck, a multi-layered stage of risers and steps that runs from back to front like cataracts on the Tiber. Here the Eros band, 11 of them in total, are scattered about in elegant repose. The only shame of it is that Eros is a front-line man, as are his (on this occasion) three guitarists. Despite ample runways and stairs upon which to lift his performance, he sticks resolutely to terra firma.

The set is further enclosed by a series of white scenery flats. Seen from the point of view of the audience, they start high backstage centre, stepping down in an arc to the front. So it is that the performance area is enclosed by an upper and lower ellipse. The line is continued further by other white flat embellishments to the sides. The thing is, the complete set totally obscures the standard black box stage behind it. In the absence of huge inflatables and other major scenic artefacts, this is a very unconventional stage - it looks fresh and different.

There are other elements that contribute to the

sense of the unusual. Brilliant Stages have created further additions to the main stage, a great curving arc of aluminium strip enclosing Par 36 ACLs, that form a neat elliptical halo above stage.

But it's what's seen to the sides that really jars: the two Sony Jumbotrons from Screenco are immediately adjacent to the playing area, but if that's so, where's the PA? It's our friend the V-Dosc system - two columnar strips each side, almost 19 metres in the air, thanks once again to Total Fabrications. The crucial factor in the V-Dosc configuration is its curved face; the PA is reliant on real precision in the curve, otherwise it won't work. This is something that completely precludes your standard, vertical, self-climbing PA tower. Instead, TFL have produced their own leaning tower (no pun intended, this one's far too stable). Built upon a crow's foot design, it inclines at what appears a perilous angle, and in so doing it allows the curve of the speakers. I mention this here rather than in the sound section because the elegant look of the supports, and the confoundingly discreet size of the PA, contribute heavily to the overall appearance of the show. The comparison between a wall of something like 120 S4s, and 28 V-Dosc per side is not just one of sound quality, the lightness of mass makes a huge contribution. And that's not forgetting the great savings to be made in deployment time, steel erectors, stage hands, and truck space.

SOUND

The intrigue of this show was to discover just how well the V-Dosc actually does perform in the great outdoors. For Ramazzotti's regular sound man, Maurizio Maggi, this is the first time he's used V-Dosc at all, let alone outdoors, so what made him switch from Martin and Milano Sound Systems? "I'd talked with Lars (Brogaard, the tour's preproduction manager) about it and was interested.



He arranged for me to go to one of the Diana Ross concerts on which the system was being used and that was enough."

Not quite as simple as it sounds, Brogaard also arranged for Vincent 'Lucien' Perreux, Maggi's assistant, to tour with Ross for some time to familiarise himself with the system. Even so, a big step for Maggi, as he explained: "We started the tour at the San Siro stadium in Milan without rehearsals. For various reasons there are very tight sound pollution controls at the stadium so long sound-checks are out. We had rehearsed a little indoors with the band and V-Dosc, but the first time I got to try it was in the late afternoon before the show."

Even then, not an ideal try out. Ramazzotti did a duet with Tina Turner for the show, and it was this that Maggi had to learn from, three runthroughs of an unknown song, with a star he'd never worked with before, when priorities beyond the system applied. The system was supplied by our old friends Westfalen Sound, the people who serviced Supertramp last year, the show that every mag' in the biz covered. Just two strips of 14 cabinets per side, hung from the aforementioned TFL towers. Apart from the V-Dosc, Maggi has half a dozen Arcs (also built by L'Acoustic, maker of the V-Dosc) for near-fill across the front of stage, and the system uses Westfalen's own sub-bass units.

Johan Schreuder is the ever-present technocrat from Westfalen, who really nursemaids the system and tweaks it to performance status at each venue: "We now supply the system with a laser [In]'clinometer", he said, in reference to a conversation about the critical angling of the system we had last year. "We use it to measure the stadium angle to the top seat, plus there's a 'clinometer built into the top cabinet to allow us to set precisely to that measured angle."

The laser also measures the distance to the furthest seat (almost 800ft in San Siro), yet astonishingly, no delay system. Maggi had many of his sound engineer friends come to the show in Milan: "They didn't believe it, but afterwards they all came up and said how uniform the coverage was." It's a fair comment, I made a point of trudging all over the Stadio Olimpico to confirm this - it's not so much the uniformity of coverage that's surprising when you're up in the nosebleeds, it's the fact that you can barely see

the PA, yet hear it perfectly. But the coverage isn't quite perfect, as 5chreuder admitted: "Of course, you do lose a little high-end at the extreme sides in the high seats," and at the very back, I'd have to say, "but it's still coherent."

Having two stacks of V-Dosc per side almost contradicts the ethos of the system, but at over five metres apart, the single-line array theory that makes them so uniform and throw so far, comes to prevail: "I also mix the stacks so they go L, R, L, R, across the front of stage, and the subs are delayed to the system by 10.8 millisecs which means they cross with the system at around 200Hz.

Maggi has a big band to contend with: "The programme is very full, but I find every instrument is easy to identify - just a little change on the fader and it's there. I'm using a Midas XL4, effects are very standard - a Lexicon 480, SPX990 compressors, just one Summit, one Brunetti (a custom pre-amp built by a colleague of Maggi's) and an Avalon, plus the usual BSS stuff." Which includes the now fully-functional Sound Bench software that Schreuder was having to contend with on Supertramp. "It's now perfect," he said, and then went off into paroxysms of pleasure about how many filters it gives him.

Ramazzotti's voice is the main focus of Maggi's attention: "I try to make him sound as natural as

possible. All the band use Shure wireless system, UHF, and are on in-ears, whilst Eros uses a 58."

He then went on to make a very valid point about experimentation in the live arena: "I've done a lot of studio recording in my time. In the studio you get the time and opportunity to research new equipment, but in live performance you might only ever use 20% of the new features on a given piece of electronics." With an obvious submerged coda, he feels manufacturers could do more to teach the facility of their products to the users. He then continued this line of argument to make an interesting observation on the PA. "There's a new development every two or three months in electronics and control gear, but with speakers nothing has changed in 50 years - they're still just bits of cardboard moving in magnets. But V-Dosc is, I believe, the biggest advance in speaker technology in more than 10 years."

Praise indeed, but the arguments are very compelling: fidelity sound, small, fast, light, "and it looks beautiful." Has a sound engineer ever made that kind of observation about his system in the stadium environment before?

MONITORS

David Bryson was just a shadowy figure beavering around on stage last time we covered a Ramazzotti concert (Albert Hall, Christmas '96). Here he was in his element, even after an unusually long afternoon: "I can't handle sound checks that are longer than the show," he guipped, with a twinkle in his eye, but then he had just come from a three-and-a-half hour stint. "But I can stop things there," continued Bryson. "I'm out of outputs on the desk," and he's using an XL4 as well; plus the usual suspects - BSS Varicurve, racks full of gates and compressors. "We're using three types of in-ear monitoring -AKG, Shure and Garwood. We're testing out the AKG system, the virtual acoustics thing. I have to say that the AKG is up where the sound is (meaning FOH), it's really transparent."

"I use a PCM 90 to put a long delay on Ramazotti's vocals - he likes a breathy effect. Wide and textured, that's the character of his voice." Apart from the ear systems, Bryson has four Arcs flown per side and a thumper for the drummer: "The Arcs are all pointed upstage and that's all you'll hear. At the start of the show the audience can be really loud, but you can't fight the audience. I might put extra vocals in the side-fills to help compensate for the leakage of audience noise, but I have to be careful. The harmonic distortion in the ear system means if he asks for it louder what I usually do is turn down the band." Good man.

LIGHTING

Lighting designer Billy Bigliardi has a lengthy relationship with the star, over a dozen years, and as such is able to evolve his design ideas directly in consultation with Ramazzotti. "I draw up many different plans for each project. I start with one big idea which I show to Eros, and then develop others from that first one. He asks me for an explanation of how certain things will work, but finally it's down to me."

The set demanded certain lighting assumptions - something Bigliardi was happy to make: "I did a set design at first, but I found Paul's ideas better," he admitted, "lighting it has been easy." An observation agreed with wholeheartedly by Mark Payne, his Icon programmer and co-designer:

"There's no space for surprises, this is a big look. To have a reveal in a stadium show, the set's got to be very, very big. Eros is not that kind of artist, he's a musician. We've tried to keep it as simple as we can, but big. If you've only got one look you'd better make it as beautiful as you can."

In an unusual departure for this day and age, Bigliardi secured a week's lighting rehearsal in the UK at Cardington: "There were lots of new arrangements and two new songs to deal with." The two men blasted through the song list fairly comprehensively, not wasting valuable rehearsal time as there'd be little opportunity once on the road. "Since rehearsals I've had to change cues in my head as it were," said Payne. "I change them blind, and don't get to see how they look until the next show." Such are the pleasures of outdoor shows on long summer evenings.

The rig is compact in many ways. LSD have made a central hub of lighting from an Octapod, surrounded by four Hexapods, sitting squarely above stage centre. This hub provides all the down lighting onto band and set - other lights are variously deployed along the front line of the stage, at floor level, and not surprisingly around the perimeter of the canopy. The main constituents of the rig are Icons and LSD Washlights, 40 of each, with a further 22 High End Cyberlights on the floor level front line and positioned on end around the rear of the stepped stage set.

With so much white surface to play with, making the BIG look that Payne alluded to earlier is a simple combination of gobo displays rotating, mixing, colour changing - projected upon the ample underside of the canopy. Further enhanced by splashing thick colour washes across the scenery flats, and then utilising the hub lights and followspots to cover the band. (The Washlights are supported in the wash role by some 22 MoleMags, 10 5kW with MiniMags and 48 Par 64s with Chroma Q scrollers: followspots are four Lycians in the rig upstage, and two 3kW Gladiators front-of-house).

The trick to maintaining crowd interest on a one-look show is basically down to application and dogged hard work. Quite simply, Bigliardi and Payne don't rest from finding new and varied combinations of the three main factors, canopy look, band look and scenic wash look. To give an example, the song 'Aurora' was framed by a blue canopy with red sun gobos - baroque designs, very Louis XIV - played upon it. At lifts in the song the gobos would gently coalesce towards the centre of the canopy and by careful overlapping produce a visually creditable rendition of a Tsar Nicholas' two-headed eagle. 'So what?' you might say, but the care and craft in the timing of the move, and the way the eagle image metamorphosed before your eyes, added a certain magical poignancy to a highly emotive song about the singer's wife.

The only unanswered question of the night was why was a UK lighting company servicing a European artist on a European tour that never touches England's shore? Bigliardi was very self-effacing about his reasons: "I've worked with many Italian lighting companies - they have all the latest gear but they are not used to this level of work. Italian touring work is very sporadic, lots of little jobs, if they committed to a big show like this it would take over. I've used LSD before, they have bases or connections all over the World, so when I take Eros to South America or the USA, I can get the same service everywhere."

He then went on to make some very flattering

remarks about his crew that any crewman would be pleased to hear. "The guys are very professional. To tour a production like this with an Italian company would need a crew of 15, with LSD I've got five and it's enough."

It wasn't hollow praise either; Payne himself has worked with Bigliardi a great deal and confirmed the problems Italian lighting companies experience: "It's quite normal for the production side to be slow and untogether.

So much so that even the mainstream press expect it. Thus, when we opened the first night of the tour in Milan with a well-rehearsed show, the papers were full of praise, surprise even, of how good the show looked." What I saw didn't look any different from what you might see on Janet Jackson or Elton John for this is the level of professionalism we've come to know and expect in the UK. On that basis, presumably there's opportunity for any UK company in this market.



Two Sony Jumbotron screens from Screenco and a three-camera team and PPU from Creative Technology were headed up by video director Steve 'Jimbo' Kidd. He has two cameras in the pit with 14:1 lenses and another Sony Digital with a 33:1 out at the mix tower. He's also aided by a little Toshiba minicam set for backward shot on the drum kit. "But it's difficult to keep finding different looks," - the same dilemma as faced by Payne and Bigliardi. "The camera guys get everything I need, but with Eros not allowing anything other than static minicam on stage, there's not really a range of different shots."

However, he is helped by the artist who, despite his reservations about hand-helds on



The Total Fabrication PA towers for the V-Dosc system.

stage, does appreciate the camera art. "Oh yes, I look forward to every day because Eros knows the cameras are there and loves playing to the lens. Eros keeps me on my toes, every time he looks into the lens he expects that little red light on top to pop on."

In the end, the video set-up is a bit basic, but that's what Ramazzotti wanted. As Kidd said himself: "I'm not producing a music special for MTV here, my sole responsibility is to reach the guys at the back - they've come to see Eros so I stay with him most of the time." This is probably the only element of the show that's weaker than it might be (although lack of exploitation of the set by the star is a tragedy, it still looks nice) and as such somewhat of a disappointment. However, with so much attention lavished upon other elements of the show, it may be that video just seemed weaker than it might have been by comparison.

There is one more lesson to be learned from this. While crowds may be staying away from the rock shows in the UK, it's not necessarily the case elsewhere. This is the Euro' market - how about all those domestic artists? Tesco's didn't build a supermarket in Budapest for the expatriate English community, did they?

performance photos: Diana Scrimgeour



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

f I start this piece with the word 'safety' then I guess I'll lose 90% of my readers before the first joke - there will be one along in a minute - but I can claim a certain expertise, having started in this accident-prone world long before the Health & Safety Act. Of course, I was also around when the infamous ETU used safety as a ploy to slow things down. Have you ever been made to earth a wooden table lamp with a plastic lampholder?

Earlier, during my apprenticeship (not as an electrician) I remember being faced with a star delta motor starter to connect up and, not knowing which of the six wires went where, I decided to dab the live wires around the terminal block until I got a result. It's difficult to hold six at once so I stood on three (Hush Puppies had reasonable insulation properties on a dry day) and flashed around with the others: having persuaded the boss I hadn't taken up electric welding (his electrical theory wasn't on a par with mine) I eventually got a result, and not one of sudden death either. I suppose I had been lulled into a false sense of security, having been brought up on a threewire DC installation at the Haymarket Basingstoke where any contact with a conductor caused muscles to contract, making letting go a problem. At least AC tends to throw you across the room. Needless to say, you should not try the above at home, or at least not without an adult present.

y mind is on these weighty matters because this week I received a sample safety bond from Rope Assemblies to whom I'm most grateful: I've been looking for some way of securing the bike outside Grantham Job Centre for some time (you never see a production manager riding a bike, do you?). On the blurb it lists all the things you shouldn't do with a bond, which seems to cover pretty comprehensively all the things I see people doing with them every day.



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quote: "Never shorten, knot, tie or choke safety bonds together." I wonder what 'choke' means in this context? "Never subject safety bonds to temperatures in excess of 150 degrees C." I've no idea how hot some bits of lamps get, but I bet it's close. "Never use a safety bond where the load can drop more than 200mm." (Use a bungy cord instead, maybe). Not always easy to achieve . . . well, not without shortening, knotting, tying or choking, anyway. "Never choke-hitch the bond round a lighting bar." You usually can't get anywhere near a lighting bar. Have you been in the Tide End Cottage at Teddington lately? "Never use inappropriate attachment points on the luminaire." What about when the lamp is 'perched' and the attachment point is on top, usually more than 200mm away? What's wrong with the yoke? Has anyone ever seen one come off? "Never use bonds as general purpose lifting equipment."

Seriously, this is all good advice, but fearfully difficult to apply in the hurly burly of a busy production; I promise to try harder in future.

t's a rumour that it always rains in Manchester, spread about by people like me that go there and get soaked. That said, it's the only minus that comes to mind. When I was last there, the Beeb operated out of a redundant church in Dickenson Road where, amongst other things, they produced a series of shows with the Northern Dance Orchestra & Sheila Southern. Boy, did they swing. It was introduced by the laconic Roger Moffit who I recall managed to get himself sidelined with his special brand of sarcasm - I know the feeling. Needless to say, I never crossed those hallowed steps. I'm not sure that they even accepted the fact that a group of young upstarts were plying their trade down the road in Didsbury in an old cinema.

nyway, the BBC operate now from a large building in Oxford Road which could be made of Lego, but isn't colourful enough. Times change, and I found myself on the way to a job there and after only three or four circuits of the one-way system I get to the gate. A pleasant bearded guy, without the clipboard or attitude of his opposite numbers at TV centre, directs me into the underground car park, designed by an architect with a sense of humour but no sense of direction. Navigation is not helped by the stacks of redundant props and scenery waiting to leap out and scratch my new car. Having parked, I wander about looking for reception and find myself back with my bearded friend at the gate! "How do I get to reception?" I say. "Well" he says "a fairly idiot-proof way is to follow the big blue signs saying 'Reception This Way', like the one you're standing by."

arrive at reception to be greeted by Tony Smith, their client liaison man who has witnessed this pantomime on CCTV and is having difficulty containing his mirth. I suppose if you spend every day sorting out clients'

problems you grab whatever laughs you can. However, I have a sneaking feeling that he's quietly wondering if this non-Evesham trained lighting man, who can't even find his way out of the car park, stands any chance of getting 150 lamps in the right place. I shouldn't have worried, I soon found myself in a real, professional studio with a crew to match. Stan Robinson, ably assisted by Steve on racks, is one of those strange and rare blokes who dedicates himself to making sure that the LDs he works with don't make prats of themselves. Good ideas, local knowledge and coffee appear in large quantities - what more can a wandering lighting designer ask for. Well it's churlish I know, but a window between lighting and production would be useful, as it would allow me to see the director and thereby judge whether he got the joke or not. Anglia seem not to have got the joke about their control room window, as I've not been back; greetings to the lads who understood my funny ways. But Manchester left me hoping to return soon: nice, talented people with enough resilience to take a bit more of me.

small group of us are trying to plan the next Showlight, which, for those of you that have never heard of it, is a conference and small exhibition aimed at theatre, film, TV, event, concert and architectural lighting. It's a couple of years away yet, but views on the viability of such an event in the current climate would be welcome. The five previous shows have been successful and much enjoyed by delegates. If you are a working lighting designer, I would be particularly interested in hearing if you would support us or would be prepared to speak about your work.

he venue has not been decided, but we had a recce in Dublin a week or two back and it's certainly on our short list. Whilst there we met with Robert Moore, manager of TV production operations at RTE, and Tom Gibney, head of the lighting and electrical departments. Both made us very welcome and gave us the full tour of what is, in the nicest possible way, an old-fashioned setup. Old-fashioned in the sense that they are a self-sufficient broadcasting organisation. They produce a full range of programming including outside broadcasts, two soaps, children's programmes, current affairs and news, all from a number of well-equipped studios. A stark contrast to those empty, depopulated shells that were once active production centres here before Mrs Thatcher created ITV Ltd. If we end up in Dublin you will be able to sample the legendary Irish hospitality, also the traffic which is truly awful though the taxis have their ways involving pavements, one way streets, speed and cheek.

never knowingly go the wrong way up a one way street but speed and cheek are certainly a requirement these days for lighting in the fast track.



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PLASA 98 - Seminar Programme

MONDAY 7TH SEPTEMBER

11.30am - 12.30pm

Local Area Network Technologies & their application to Live Sound

David Karlin, BSS Audio managing director

Review of basics of digital audio transmission, a SWOII analysis of network technologies and how these solutions affect real audio systems and their application to the distribution of digital audio for live sound. Some case studies of audio distribution for various applications, senues and events. The technology available and network protoculs, finally, what does the future hold for pelworked audio control and what new products will meet these demands?

1.30pm - 3.00pm

Voice Evacuation - the Last Message

Tony Barham, Baldwin Boxall Peter Barnett, AMS Acoustics

Alan Patmore, Luton & Dunstable NAS Trus

Along with various industry figureheads, Baillying Boxall will enlighten delegates on the many advantages and complex system registrements of voice alarm equipment and systems including 65839 Part 8, and what the inture holds.

3.30pm - 5.00pm

Review of the Pop Code

Keith Ferguson, PSA general manager/ Roger Barrett, Star Hire/Tim Norman, Edwin Shirley Staging/ Lorraine Miller-Patel, Health & Safety Executive/ Mike Lethby, Live! editor

Sponsored by Live! Magazine PSA

Debating the forthcoming review of the Pop Code, For the first time, at the PSA's instigation, the production inclustry has the chance to have its opinions taken into account in this all important legislative review. This seminar is the last chance inclustry professionals have to air their views in public before the legislation is finalised.

TUESDAY 8TH SEPTEMBER

11.15am - 1.15pm

Sound System Gain Structure & Equalisation

John Murray, TOA Electronics Inc Sponsored by NSCA

A seminar covering procedures which must be performed on virtually every sound teinforcement system of even modest complexity. Attendees will benefit from greater confidence in approaching the proper adjustment of systems from the smallest to the largest and most complex.

1.30pm - 2.30pm

Outdoor Displays -Giant Screens for Sale or Rent

Peter Lloyd, AV Magazine Dave Crump, Screenco Sponsored by AV Magazine

the session tools at technology and marketing developments in the large screen display sector. Developments include the introduction of LED screens suitable for shopping centre sites and permanent installations, and the possibility of using large screens indoors. Suppliers and users are on the panel.

2.30pm - 3.30pm

Displays for Pubs and Clubs -Making the Systems work for Owners and Customers

Peter Lloyd, AV Magazine editor-in-chief Sponsored by AV Magazine

tooking at published because installations of large screen displays and the technical and creative requirements that make them successful. The relative ments and roles of different display technologies - including monitors, videowall, plasma and projection. What are the pitfalls facing developers and how do they avoid them?

3.45pm - 5.30pm

Taking Theatrical Lighting and Effects into the Architectural World

Chaired by Rick Fisher, ALD/Mark Major, Speirs & Major Jonathan Howard, DHA Design Services/ Steve Terry, Production Arts USA (PRG)/ Tony Rimmer, Imagination

The use of theatrical style lighting and effects in architectural and retail environments. Designers from different backgrounds will discuss the advantages and shortfalls of using this type of lighting, the tricks to create theatrical effects with standard architectural luminaires and some of the new luminaires now available.

WEDNESDAY 9TH SEPTEMBER

11.15am - 12.45pm

Public Address for the Non-Technical

David Hopkins OBE, Audio Design Services

Every Public Address Company has its level of technical expertise but beneath that are staff who find it hard to grapple with the basics of the subject. David Hopkins will explain Public Address in non-technical language - Now sound levels are calculated and their importance in planning an installation. Also frequency response and the effect of dispersion and the pros and cons of using specific loud-peakers in various environments.

1.00pm - 2.00pm

Remote Source Lighting - the future or simply a pipe dream?

Brent York, TIR Systems Ltd (Canada)/ Emma Dawson-Tarr, Absolute Action/ Barrie Wilde, Building Design Partnership

An examination of two different types of remote source lighting, Fibro Optics and Lightpipe, their applications and limitations. The use of these techniques, their successes and failures. Will inture developments in performance and perception make this the preferred behine solution?

2.30pm - 4.30pm

Theatre Afternoon (to herald the start of Backstage London)

Chairman - Tony Gottelier, Wynne Willson Gottelier Sponsored by Lighting+Sound International

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EQUIPMENT NEWS

Bonus Channel From Cloud



Cloud Electronics have introduced the new CX133 zone mixer, which replaces the successful CX132. The CX133 now offers an extra (mono) output channel as one of several major enhancements.

The mono 'utility' output, additional to the two-zone stereo circuitry, which is retained, is intended to feed peripheral areas of a venue. The CX133 now also has its previously optional VCAs permanently installed on the motherboard, for even easier remote control of the programme.

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Electro-Voice XW12

Electro-Voice have introduced the XW12, a 12", two-way floor monitor aimed at quality live sound applications. Using materials developed for the X-Array, it incorporates a customdesigned woofer, using new cone material for maximum internal damping. Top end comes from a 1.4" compression driver coupled to an 80 x 60 degree horn. A symmetrical design means that two monitors can be placed head to head, allowing the HF horns to be coupled for use on larger stages.

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Coemar Pilota

Coemar have introduced the Pilota 1200 MSR/SA followspot. The compact unit - 1m long, 40cm wide and 25cm high - includes an electronic ballast, a dichroic 'cold-glass' parabolic reflector, and a new 1200W short arc discharge lamp developed specifically for Coemar.

Coemar - Italy: +39 376 779336

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Griven's Kolorado

Italian lighting manufacturer Griven have introduced the Kolorado architectural colour changer. Designed primarily for external architectural use, Kolorado combines a wide-angle high-power floodlight (MHD 1800W discharge) with a CYM colour changer. The patented optical system, utilising a group of planar mirrors, gives an even light coverage over 30sq.m from a projection distance of only 5m. The functions (colour mixing, colour scenes sequences, dimmer, blackout) are controlled from a standard DMX signal, and set-up is simplified by the on-board seven-segment display. Control has been designed to be intuitive, even for multiple projectors, where any unit can be selected to operate as the master. Automatic operating is available, from a series of preprogrammed sequences.

Griven - Italy: +39 376 779483 Multiform - UK: +44 (1825) 767005

CompuCAD Update Launch at PLASA

Following our review of CompuCAD in our CAD Survey last month, version 1.3 has been introduced with a number of new features, and version 1.5 will be launched at the PLASA Show. Apart from being more stable, version 1.3 is supplied with a complete manual and allows for exporting of files in TXT Tab delimited for import into spread sheets. Sorting and printing of any data displayed is now possible in the conceptual design module, not only instrument schedules, but all information. Search and replace is available by simply clicking the mouse on the relevant

V1.5, which can be seen on the Compulite stand (C3) at PLASA, will incorporate 'WYG Alike' which enable connection of the PC direct to any Compulite console via Ethernet, or to any console via a Compulite E-Mix Ethernet DMX node. This provides a completely interactive display of the stage states while the desk is being operated. V1.5 also incorporates a rig database and allows direct access via template to Microsoft Excel.

Compulite - Israel: +972 3 540 1268, Stagetec - UK: +44 (1753) 553522

New Opto Isolator Kit from Jands

AC Lighting Ltd has announced the launch of a new retro-fit DMX 512 Opto Isolator kit for the Jands range of lighting control consoles.

This compact unit can be fitted to consoles quickly and easily by the end user, negating the need for the console to be returned to the workshop. Once fitted, the Opto Isolator kit will offer additional protection to the internal electronics from any sudden voltage spikes running into the console which could, potentially, cause a great deal of damage to the delicate circuitry. These new kits are available for the complete range of Jands controllers, bar the Stage consoles.

AC Lighting - UK: +44 (1494) 446000

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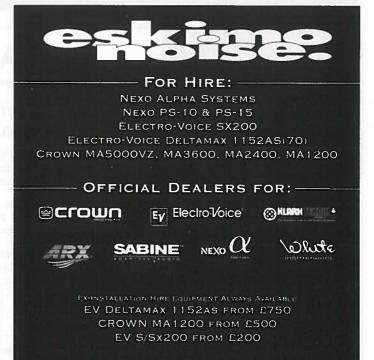
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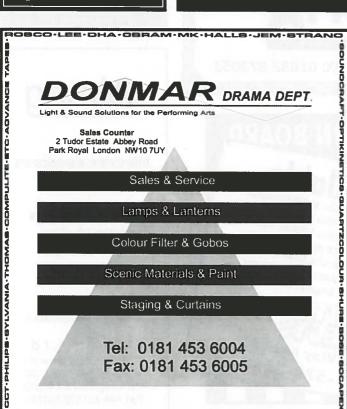
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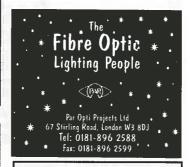
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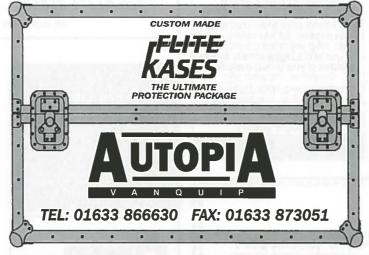


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IN PROFILE

Ross Brown talks to CVA's Craig Vartey

It's a universal truth that, often, it's not what you know - but who. Being a veritable genius in any field, in any industry, is all well and good, but to get that all-important first break, even the greatest entrepreneurs often need to call up some old friends. Nothing wrong with that but – damn – you've got to make sure you can do the job or that first favour could be the last time you work for a very long time.

With a dad steeped in night club history owning, among others, Mr Craig's in Leeds and Wakefield's Rooftop Gardens - Craig Varty knew from an early age what he wanted to do: the rest was just a matter of getting there. The full name - and not just the surname - may well be familiar because Craig's dad Michael was known professionally as Michael Craig Varty.

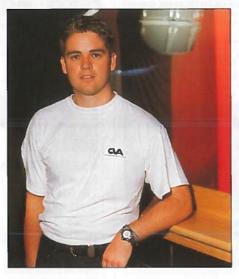
Being some distance from bus-pass collection myself, it's always a case of mixed emotions when I meet someone like Varty. Largely because, as I begin to realise the scope of his success, two thoughts inevitably run through my mind: "The lad done well," and "How bloody old is he?"

Pushing envy to one side for the moment (is this a green-eyed monster I see before me?) I can let him off his considerable achievements because he's a whole year older than me, which means I've got chance to catch up! Some hope. Short of learning the basics of electronic engineering, founding a highly successful sound contracting company and gaining a reputation as a veritable guru of the club scene, I'll have to settle with a career in journalism. Oh well. Que sera sera.

The list of venues and clubs that have benefited from Surrey-based CVA's expertise read like a who's who of late-night establishments and it all started with a 17 year old trainee technician with an eye for a bargain.

Shuttlesound was Varty's first step on the professional ladder, where he began as a trainee technician in the company's service department. Spending a day each week studying for a City & Guilds in Electronic Service, he swiftly rose to become manager of the department at the ripe old age of 21.

But, even at this point, CVA was already



taking shape, as, with Shuttle's permission, Varty had begun buying broken amps and speakers, fixing them and then hiring them out, with Romford's own Hollywood his first success.

But things would swiftly change. After CVA undertook an installation at Club UK in London, Varty decided that enough was enough, he had to make a go of CVA, so he resigned from Shuttle, but remained a freelance technician for them for around 18 months. There's no point in burning your bridges after all.

By the early nineties, the dance boom was in full swing, and CVA was swift to take advantage of the requirements of the club promoters. To be blunt, they didn't have the cash to pay for the high-quality systems required by your hardened club-goer, so hire was the only solution. Naturally, Varty had a solution to all their problems - an innovative hire purchase scheme. Start-up clubs could hire the required CVA-emblazoned equipment and once cashflow, and assured success allowed, the club could purchase the system outright - and get half their HP money back. Neat huh.

Up Yer Ronson, Back to Basics, Hard Times, Cut the Crap, UK Midlands, Middlesbrough Arena, Perth's Ice Factory and the Ministry in Aberdeen have all benefited from CVA's expertise. But it was Liverpool's Cream that saw Varty taking the biggest risk of his career. "The deal was simple. The promoters told me we could install the system but, if it didn't come up to scratch, it was out on Monday." As you can imagine, installing a complete system into Cream was not a cheap operation, and had Monday's removal occurred, then CVA and Varty himself - could have been in serious trouble. Faith is a fantastic thing to have in one's product and so much better when it's justified by other's reactions.

But the last few years have seen changes in the air and Varty was determined not to be caught out. "I saw a change coming," he says. "The dance market was beginning to reach saturation point - so we had to look at other markets." A quick left-turn had Varty shifting resources and time to the corporate market, although 80 per cent of work is still for the independent sector.

European Leisure was one of the first corporates to fall under the CVA spell, with Varty paying a visit to his hometown of Leeds to undertake work at Len's Bar and, one of his father's former venues, Europa (the club formerly known as Mr Craig's), and Northern Leisure following swiftly after, making CVA sound contractor for its south-east venues.

Libel, the rules of competition and the words "off the record" are a terrible curse because some of the stories I could repeat would have the majority of you rushing out to buy a piece of the growing company. Suffice to say, if I was a major sound contractor I'd be worried, Craig Varty's out to get your business. And he's gonna do it too.

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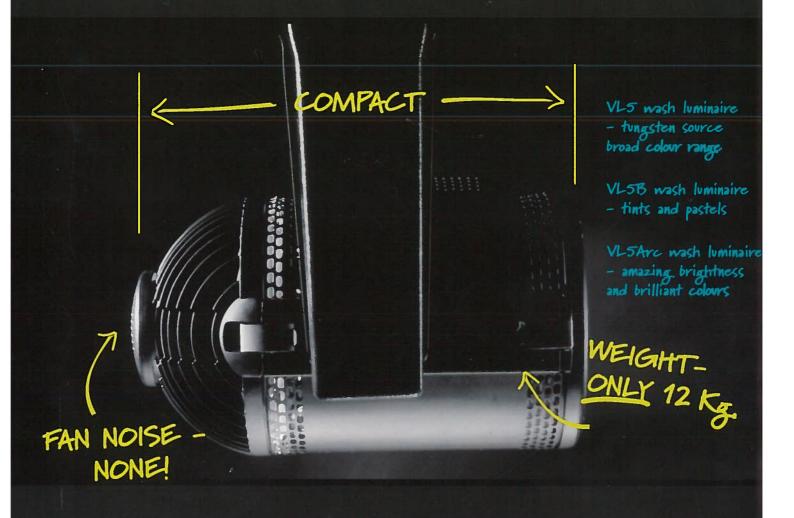
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