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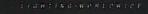
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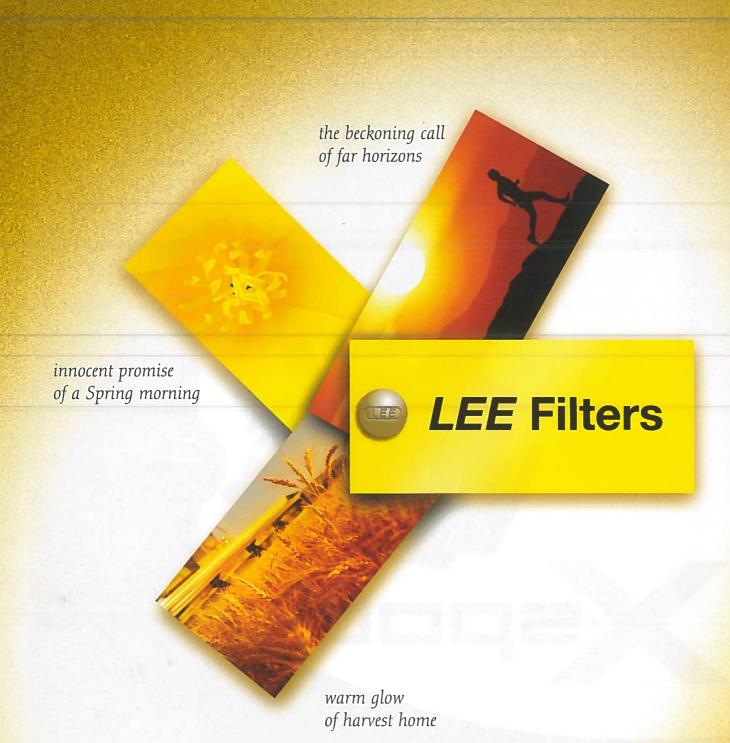


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Volume 16, Issue 1

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As the Tweenies prepared to open their first show at the NIA in Birmingham, they had already sold 220,000 tickets for the 84 scheduled UK shows in seven weeks, with a further 100,000 sales predicted. Graham Brown caught up with the production on the (slightly nervy) dress rehearsal day

Out of the Closet 67-68

The recently-reopened Sadlers Wells Theatre played host to the RSC's production of The Lion, The Witch and The Wardrobe over Christmas - and was also the first sighting in the UK of Yamaha's new digital mixing console. Mike Mann spent an evening in Narnia . . .

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DEPUTY EDITOR

Ruth Rossington - nuth@plasa.org Lee Baldock - lee@plasa.org ASSOCIATE EDITOR Tony Gottelier

ADVERTISEMENT MANAGER PRODUCTION MANAGER SUBSCRIPTIONS

Barry Howse - barry@plasa.org Sonja Walker - sonja@plasa.org Sheila Bartholomew - sheila@plasa.org

ADVERTISING CO-ORDINATOR Jane Cockburn - jane@plasa.org

PLASA - Managing Director: Matthew Griffiths - matthew@plasa.org PLASA - Financial Controller: Shane McGreevy - shane@plasa.org

Regular Contributors: Steve Moles, Rob Halliday, Louise Stickland, John Watt, lan Herbert, Jacqueline Molloy, Mike Mann, Phil Ward,

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International News Round-Up

log on to www.plasa.org for daily news updates

Fraud Enquiry at Martin UK

No sooner had we gone to press on the December issue, than we were tipped off about an announcement on Martin Professional's website in which it signalled its intent to investigate financial irregularities at its UK subsidiary.

The parent company's action places Martin Professional UK at the centre of a fraud investigation.

According to the statement, signed by board chairman Jørn Ankær Thomsen and CEO Kristian Kolding, the accounting irregularities date back at least to 1999 and were discovered

after a former long-standing chief financial officer and his close subordinate retired.

KPMG, Martin's auditor, has recommended provisions and write-offs totalling DKK 9-10 million (between £732,000 and £814,000). Now KPMG has completed its audit, the case has been handed over to the British police for further investigation and possible prosecution.

Although this is clearly a setback for the company, which has had to exorcise many demons over the past few years, it doesn't seem likely it will adversely affect its overall performance - the Group's pre-tax profit for

the year is still expected to be around the DKK 50 million mark, although this will move the wrong side of zero when extraordinary items reduce this amount by the above mentioned DKK 9-10 million in Martin Professional PLC and by DKK 48 million for the settlement in the Vari-Lite patent case which we've covered in previous issues.

No doubt Martin Professional are hopeful that they can now finally put their past behind

them and move on to better things. The company is looking for a 20% increase in sales over the coming year and has already set in place plans to boost production at its Frederikshavn facility as part of a

DKK 100 million reinvestment programme. It has invited tenders for the build of a new assembly plant and a fully automated 12,000sq.m multi-storey warehouse in a new industrial area in the northern part of Frederikshavn, Denmark.

The company's existing facilities in Frederikshavn will produce components and become home to Martin's loudspeaker production which is set to move from its current leased properties. Building is expected to start next year and is scheduled for completion in the spring of 2002.

Sound Dept in Liquidation

The Sound Dept has gone into voluntary liquidation. Official notice of the move was posted in early January, and a liquidator has been appointed.

The company, which was established in 1993 - the result of a collaboration between Stage Electrics and Steve Smith and subsequently bought by Steve Smith two years ago - specialises in the importation and distribution of pro audio and commercial sound equipment. Among its roster of products are some of the leading audio brands in the industry - Community, Crest, Ashly and Sound Advance. Until recently, EAW products had also been in the Sound Dept portfolio, but the company lost its distributorship when EAW was purchased by Mackie, which switched distribution to RCF UK.

This was just one in a series of setbacks suffered by the company in recent years. The first came in 1998 when one of Sound Dept's key brands - Crest Audio - was purchased by Peavey. During the necessary transfer of the manufacturing process, production was affected and Sound Dept was left without a product to sell. The second, more critical blow, came when Glantre Engineering went down in August 1999 leaving Sound Dept out of pocket to the tune of £110,000. With support from their main manufacturers, the company managed to continue trading, but when Mackie's announcement about EAW was made at the Frankfurt Musik Messe last year, it effectively proved the final straw, Smith told L&SI.





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PROFESSIONAL SHOW LIGHTING



Eavis Pulls Plug on Glastonbury

Glastonbury Festival organiser Michael Eavis has cancelled this year's event because of fears about crowd safety.

The festival, which was first staged in 1970, had been under fire from its local authority after thousands of fans sneaked into last year's Festival. The 2000 event has left Eavis facing prosecution over alleged breaches of the festival licence, and he says he hopes his decision will send out a message that organisers are taking the issue seriously. In a statement he said: "After much deliberation I have now decided not to run the festival this year."

He added, however, that he has every intention of running the Festival in 2002. Eavis's decision follows the deaths of nine members of the crowd at the Roskilde Festival in Denmark last year. Eavis has commented that the Roskilde tragedy has made organisers and authorities more concerned about crowd numbers.

Eight Years For Roxsett Boss

Roxsett boss David Wilson has been sentenced at Canterbury Crown Court to eight years imprisonment for smuggling £4.27 million worth of ecstasy into Britain.

Wilson, whose clients included the Spice Girls, was stopped in June last year with 125 kilos of ecstasy tablets as he drove a rental truck through customs at Dover. His young daughter was in the cab with him.

In mitigation, Aidan Marron QC said Wilson was forced to smuggle the ecstasy into Britain by a "vicious" gang of "serious and professional criminals". "He was threatened with a sawn-off shotgun. He feared a loss of life if he didn't obey their orders," Wilson pleaded guilty to one count of importing Class A drugs but had smuggled the illegal cargo under duress, Mr Marron said.

Mike McMullan



Playlight founder Mike McMullan has died from cancer. McMullan passed away peacefully at home on 3rd lanuaru.

A statement from the directors and staff of the Playlight Group said: "Mike was one of life's great characters, and he will be greatly missed by all who knew him."

The funeral took place on Wednesday 10 January at the Altrincham Crematorium in Altrincham, Cheshire. The family has requested that donations be made to the following charities: St Ann's Hospice, St Ann's Road North, Heald Green, Cheshire; the Cystic Fibrosis Trust, 11 London Road, Bromley, Kent; or the Lymphoma Association, PO Box 386 Aylesbury.

Look out for the PLASA Industry Directory, mailed with the next issue of L&SI





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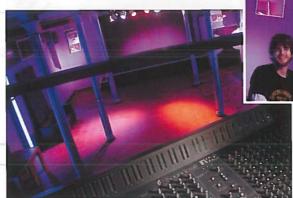


93 Feet East

London has a brand new live music venue in the shape of 93 Feet East, an independently owned club sited in the former Truman's Brewery complex in Brick Lane, East London.

The venue, which can accommodate up to 600 people in the main room and bar areas, also features a recording studio on site, which is connected, via tielines, to the live venue, enabling performances to be recorded and broadcast on the Internet. The venue's music policy is alternative, from electronica to drum 'n' bass, and early bookings include Cold Cut and the Sneaker Pimps.

Audio at the venue is provided by a Funktion One Resolution PA system, installed by Blue Box from Sussex, comprising four full-range hornloaded Res2s, two classic Funktion One 218 hornloaded bass enclosures and two of the single version F118s, powered by four QSC PL236



Powerlight 2 amplifiers, and two QSC PL230 Powerlight 2 amplifiers. Also included are two XTA DP226s.

Four flying positions have been incorporated into the venue so that the Res2s can either be configured one in each corner for dance events or as a pair either side of the stage for live band orientated events, the custom-built flying yokes enabling quick relocation of the boxes. "It's

Left, the Soundcraft Series TWO in situ. Inset, sound engineer Paul Epworth (left) with Blue Box's Mark Metcalfe

almost an insult to call this a PA system!" says technical manager and sound engineer Paul Epworth. "It's like working inside a gigantic hi-fi really crisp, clear and very easy on the ear, it sounds a lot

louder than it actually is. I'm a big fan of Tony Andrews' designs - the Res2s have no coloration, and give you exactly what's intended in the music so, after that, it's down to the mix on the console."

Front-of-house control is provided by a new Series TWO console from Soundcraft, supplied by Marquee Audio. Epworth is as enthusiastic about this as he is about the PA. "The Soundcraft desk has a very open sound. It's easy to place sounds in a mix and, like the Soundcraft K3 which I've used before in live situations, the EQ is very sensitive. It's a very flexible console."

Result - one happy man.

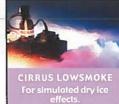
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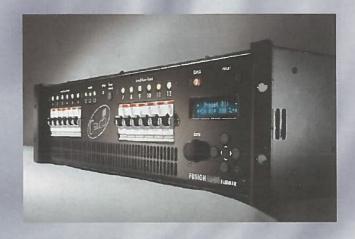


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PLASA Highlights Personnel Issues

Association NEWS

New service introduced to help members through the complexities of running a company

Ever mindful of the growing burden legislation places on businesses, PLASA has launched a new service designed specifically to make life easier for its company members.

The new Human Resources Service, set up in conjunction with CP Associates HR Consultancy, provides PLASA members with access to professional help and advice on personnel issues.

The service is designed to offer practical, independent advice, based on the latest legislation, and covers areas including contracts & terms of employment; disciplinary and grievance procedures; employee benefits; employment legislation; pay reviews; recruitment and selection; risk assessment; redundancy and absence control.

To give you an idea of the type of information you could receive through this new service see the Briefing panel to the right. To use the service, members simply call the PLASA office, and are then

given the telephone, fax or e-mail address of CP Associates. They are then entitled to 15 minutes of free advice on any one subject. Where a more detailed or specific consultation is required, PLASA has negotiated highly preferential rates for its members. These might include personnel procedure audits, contracts of employment and staff handbooks, setting a human resource strategy, and new personnel policies or systems. To safeguard the viability of the service, it can only be used by a member company's PLASA contact or managing

Since late 1998, major new requirements have fallen on employers and enhanced rights have been granted to employees through the National Minimum Wage, Working Time

Regulations and Disability Discrimination Act. Revised legislation has also raised the unfair dismissal compensation limit to £50,000.

Parental Leave

Regulations Briefing

If all this has come as news to you, then it would be worth your while taking advantage of PLASA's new Human Resources Service. The advice you receive will clarify the current legislation so that you and your staff don't end up in a dispute.

For instance, when the Parental Leave Regulations were updated in December 1999, the existing entitlements were revised. Parents became entitled to 13 weeks' leave per child before the fifth birthday (subject to a four-week annual ceiling in blocks of one year), a ruling which also applies to adoptive parents or those of children with disabilities. Maternity Leave was extended from 14 to 18 weeks and all employees now have the right to take unpaid time off to deal with family emergencies.

The Human Resources Service can advise PLASA members on all the above - it will also highlight other issues such as the Data Protection Act of 1998, the Working Families Tax Credit and the New Stakeholder Pension schemes, all of which have placed additional burdens on employers.

Don't get it wrong out of ignorance. If you need further advice, call PLASA now and we will help.

Latest News from PLASA

Over the coming months, we will feature a range of new developments and initiatives from across PLASA's operations. We'll soon be reviewing some preliminary results from PLASA's major industry research programme, and show how it can benefit you. We'll feature Frequently Asked Questions about PLASA as an organisation, highlight the real advantages offered by PLASA's expanding portfolio of services, and more. But first, look out for news of a major new launch in the February issue of Lighting&Sound International . . .



38 St Leonards Road, Eastbourne, East Sussex, BN21 3UT, UK.

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IoA Conference

The Institute of Acoustics (IoA) held its 16th conference on Reproduced Sound in November - and much of the varied content was relevant to the theatre and live music industries.

Multi-channel sound reinforcement was a topic that generated a large amount of interest, with presentations from David Malham (University of York), Fred Ample (Technology Visions), Robin Whittaker (Out Board Electronics) and Steve Ellison (Level Control Systems). It was clear that the demand for higher-quality audio environments is growing rapidly.

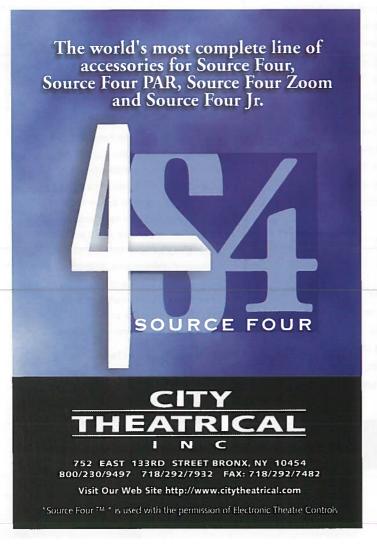
Robin Whittaker explained the theory of sourceoriented reinforcement and illustrated its applications from the wealth of theatre, industrial and music productions that Out Board has undertaken. Whittaker concluded by stating that the concept of source-oriented reinforcement has several key benefits; namely, the minimisation of room effects, even distribution of SPL and tonality and improving the direct-to-reverberant energy ratios to improve intelligibility. Steve Ellison explained LCS' drive towards improved multi-channel control of live audio. The Matrix3 system, with its CueConsole and Ethertracks add-ons, represents Ellison's vision of the future of multi-channel systems; completely integrated playback, routing, processing, mixing and distribution. A further presentation from Ellison and Markl Poletti of Industrial Research in New Zealand, on the LCS Virtual Room Acoustic System, showed how such an integrated system could be expanded still further.

Two further developments were worthy of note: Duran Audio in the Netherlands has taken the linearray loudspeaker concept a quantum leap further by introducing steerable arrays. Using DSP techniques to design a specific coverage pattern into a loudspeaker system, the Intellivox system is less limited by architectural restrictions than conventional designs; loudspeakers can be positioned vertically and their 'beams' angled electronically to cover the audience area. John and Perrin Meyer presented Meyer Sound's MAPP acoustic prediction program (still under development), showing how closely the theoretically-calculated behaviour of a loudspeaker matches the empirically-measured result. MAPP provides an accurate indication of interaction between loudspeakers, thus helping greatly with array and multi-driver system design.

Mike Mann

Timax in Control

Further to our news piece last issue on the West End musical Napoleon, we can tell you a little bit more about the soundtrack and effects elements of the production. Sound designers Martin Levan and Henrick Marsen, masterminded these aspects, and for full control and realistic localisation of all sound effects, specified Out Board's TiMax level and delay matrix, supplied by Autograph. All the sound effects within the production are distributed via the TiMax system, which is triggered by MIDI cues and the Cadac show control system. As well as the sound effects themselves, Levan and Marsen utilised TiMax to add artificial reverb enhancement to the auditorium as the natural sound environment was very dead. Two of the TiMax inputs were fed from an ambient mic cluster through to all the loudspeaker panels, just to create a more lively atmosphere!







Their publicity talks about 'a multi-disciplinary approach to create a visceral experience' to teaching fire safety. But it's the big red fire truck inside the window that gets people in to the new Fire Zone exhibit at the Rockefeller Center in New York!

It's a good start to getting across a message which is important, but too easy to make it over-preachy or just plain dull. That

was the problem the New York Fire Department had. The new approach came about after Tishman Speyer Properties, who manage the property of the Rockefeller Center, offered the Fire Department space in the building for a token rent. The Fire Department accepted, and turned to BKS/K Architects to create the Fire Zone.

Once the fire-truck has lured people in, it acts as the first stage of the themed show: an alarm, a fire-fighter and a video-projection showing a fire truck's journey to the fire. The large garage door that acts as the projection screen then swings open allowing visitors into an area that re-creates



Fire

the smouldering remains of burnt-

out New York apartments. Video montages projected around the room from

multiple projectors then allow the survivors of fires to tell their stories: with each, lighting and sound transform the room to show what happened to cause that fire.

To bring the exhibition to life, the Fire Department and architects turned to New York-based designers Dawn Chiang for lighting, Tom Morse for sound and Mediaworks to create the storylines and video. Chiang's lighting had to deal with the room as a whole for the narrative sections, with a lit area for the group leader. She then had to light each area of the display separately in both pre-fire and burning states. To achieve this, she assembled a tightly-packed rig of mainly ETC Source Fours and Source Four Pars into a pipe grid hidden in the exhibition's roof; there are also MR16 battens at the top and bottom of the New

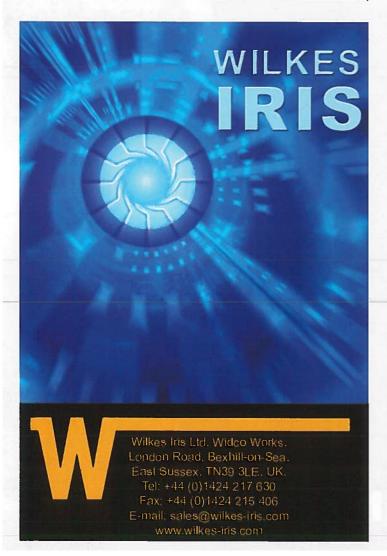
Lighting designer Dawn Chiang (in uniform), with fire fighters at the Fire Zone

York skyline skycloth. The fire effects were created using overlaid rotating gobos in GAM Twinspins, plus a selection of split-colours, occasionally supplemented by fan-blown silk flame effects. ETC's Dimmer Doubling was used, with Sensor dimmers driving 77v long-life lamps in the Source Fours, to keep the dimmer count down. The show is controlled from an ETC Expression 3 LPC, with the lighting installation carried out by Westsun.

Chiang's lighting is complemented by Tom Morse's sound, with its selection of spine-tingling roaring fire sounds. Effects are replayed from two Akai S5000s through five LCS LD88 racks. Sound, lighting and the hard-disk based video playback are run from a Conductor showcontroller.

The design team have one last trick: before leaving, visitors are asked to follow the recommended procedure in the event of a fire, and check the door to see whether it is hot. They do - and are surprised to discover that it is, courtesy of an embedded heating plate. It adds a final touch of realism before everyone exits into the inevitable shop.

Rob Halliday





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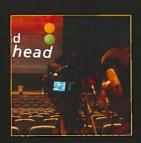
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BBC Sports Review

The recent Illuminated Video
Workshop, fronted by Screenco and
designed to show the versatility of
LED screen configurations, paid
immediate dividends when the
senior producer of BBC Television's
Sports Personality of the Year
decided to transport the concept-to
BBC Television Centre.

On December 10, a TV audience of around 10 million - as well as an invited studio audience of 560 sports personalities - assembled in TC1 studio in Wood Lane to see 60 of Screenco's 15mm modules, with help from Vertigo and Stage One, perform some gymnastics of their own. Assembled in a block, the matrix formed the entire scenic video backdrop for the production - but the show's senior producer Paul Davies saw possibilities way beyond that.

He decided that the matrix could also be configured as a walk-on entrance for the personalities. "We wanted to integrate an over-the-top screen into the show, but hadn't realised it could move around so much until we saw the Screenco/Stage One demonstration at Three Mills Island. "Suddenly, we could see how we could use this with star walk-ons - allowing us to support these by great images of yesteryear - because we could move the screens around." Taking feeds from conventional VT and live camera relay, there were six preset positions.

Working with set designer Christopher George and LD Mike Lefevre, Screenco's main concern was providing a skin to diffuse the LEDs and reduce the luminance. "It's the kind of problem you expect when you merge the technologies," said Screenco's Mike Walker. "We've done a lot of testing to get a good picture, and adapted our screen for TV, minimising the moire pattern and diminishing the strobing effect."

The Video Workshop at Three Mills Island, had demonstrated not only the accurate tracking of Screenco's giant LED video screens, but also the sophisticated image-processing capabilities of the Electrosonic Vector. Davies was also able to make full use of the image processor - supplied by Screenco - which allowed for the mixing and display of the most stunning big screen images, while simultaneously controlling from one to 16 individual image sources.

Screenco also provided the control, and set up an operations unit in the gallery. "All the operation, including the slo-mo, took place from there," continues Davies. "A second vision mixer sent four aux signals to the Vector, which then decided



whether to do a quad split or send four separate 4:3 images."

The installation and safety aspects of the flown screen system were overseen by Martin Smith, BBC studio operations manager. Vertigo, another company involved in the workshop, were again asked to rig the overhead screens and motion system. This was a tricky task with the weightloading in TC1 needing to be carefully spread to satisfy the BBC's structural calculations. Each of the two flown sections of screen involved a moving load of one tonne across a 24m span in the roof. Vertigo's Tim Roberts project-managed the rigging operation, and had to work out clever ways of not stressing the roof beyond the set limit (250kg load every 2.5m). This was done using a series of spreader trusses inbetween the existing roof beams, ensuring that as the screens tracked across, they were always over a 500kg point.

Two further screens were also trucked at ground level built on modular sledge platforms and steel wheels running on steel tracks, driven by a motor driven sprocket-and-chain set drive shaft. The positional accuracy and speed of the screen movement was regulated via the Q-Motion system, Stage One's PC-based controller capable of running up to 128 axes with an unlimited number of cues.

For the lighting elements, LD Mike Le Fevre used the in-house lighting system supplemented by a Richard Martin lighting automation package. Moving fixtures included 80 MAC 600s and 26 Clay Paky Stage Zoom 1.2Ks. Sound supervisor Tony Revell, meanwhile used Cine Video for radio microphones and JHE to dry hire the PA, while Marcom Presentation provided two Barco ELM back screen projectors. Final credits go to Jon Sweeney and Rob Lewin - the technical resource managers.



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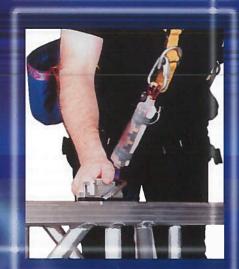


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The RSC's acclaimed musical production of The Secret Garden opens shortly in London after a hugely successful season at Stratford-upon-Avon. Lighting designer Chris Parry (better known for his work on Broadway) and sound designers Andrew Bruce and Terry Jardine have helped to bring the timeless tale to life for a 21st century audience.



RSC Brings Garden Makeover to London

Parry says: "The design of the show is much more monochromatic, dark and dramatic, and much less colourful and decorative than the original Broadway version, which I think is great for the piece. Despite this, it has a huge range of lighting quality, from a soft, dim candle-lit bedroom scene through to a big, bright and energetic dance number with gardeners and house-maids!"

Parry's design, furnished partly from the RSC's stock of conventional luminaires, but with a large hire inventory supplied by White Light, included eight Strand PAL Pirouettes and 14 MAC 500 moving lights. Parry says the Strand units are very bright and flexible - although his favourite tool for this production was the DHA Digital Light Curtain, eight of which feature in the design. Colour scrollers were also much in evidence, with 94 spread between the Source Fours, Pars, fresnels and Pirouettes. Control came from a pair of Strand 520 desks, and Parry was assisted by the RSC's Paul van der Hayden and ably supported by chief electrician Vince Herbert.

For Andrew Bruce, the burden was eased by splitting the workload between himself and Autograph co-director Terry Jardine. Bruce handled the sound effects, handing over the band and vocalists to Jardine. His main production tool, a DAR Soundstation paid dividends by the time the show moved into the Royal Shakespeare Theatre. "Adrian Noble loved being able to see the various effects tracks on the screen - he was able to visualise the timeline and how everything fitted together. It also helps that he is a comparatively young director who is technologically aware and who understands the vocabulary that we use." Out Board Electronics' TiMax level/delay matrix, supplied by Autograph, adds extra dimension and source oriented reinforcement (SOR) to the sound effects in the production. The small robin in the garden, for instance, who speaks through the mind of the central character Mary, would be imperceptible but for the location of its voice through two small tweeters at the front of the stage.

In the theatre, Bruce and Jardine had specified a Cadac E-Type console with a G-Type sideframe, a 24-channel Sennheiser UHF radiomic system, and a Meyer-based split speaker system, arranged using console subgrouping to allow separate EO for vocal and music feeds rather than compromising one for the sake of the other.

Unusually for an RSC show, the vast majority of the audio system was brought in from Autograph Sound Recording. The delay system made use of the RSC's in-house Proac Tablettes - though Jardine pointed out that when the production transfers to London, Meyer UPMs will be used as they are better able to cope with the higher levels required for a musical. The Secret Garden transfers to the Aldwych Theatre in February.

Mike Mann



wysipapewysicad







WYSIWYG 25





Tussaud's, Vegas

Following our feature last month on the new Tussaud's in New York, we switch coasts to look at Tussaud's Vegas' debut at the \$1.4billion Venetian Hotel.

The Venetian, with its indoor Grand Canal (complete with gondolas, singing gondoliers and stylish waterside cafés), is the perfect host for the Tussauds Group's celebration of all things celebrity.

Madame Tussaud's is to be found
within the St Mark's Library building
which, of course, is a full-scale replica of the
famous Venice landmark. Tussauds has created a
\$20million experience that showcases glamorous
personalities, many of whom have ties with Vegas,
in sumptuous surroundings. The design elements
of the exhibits have been thoughtfully executed
with talent and kit pulled in from around the
globe to make this Tussaud's a dazzling
experience, even by Vegas standards. Show



Liberace offers us a cheery two-fingered wave

producer Phil Pike spent a year at the drawing board at Tussauds' London base before relocating

to Vegas for a further six months prior to opening night in mid 1999.

A striking aspect of the exhibition is the scale of the setting for the 100 or so wax figures, with the sets and interiors all designed inhouse by Tussauds in London and constructed by American company WestSun Design Edge Studios who also sourced the lighting equipment, which came from a variety of

manufactures. McLean Media in Toronto were responsible for the complete audio-visual installation.

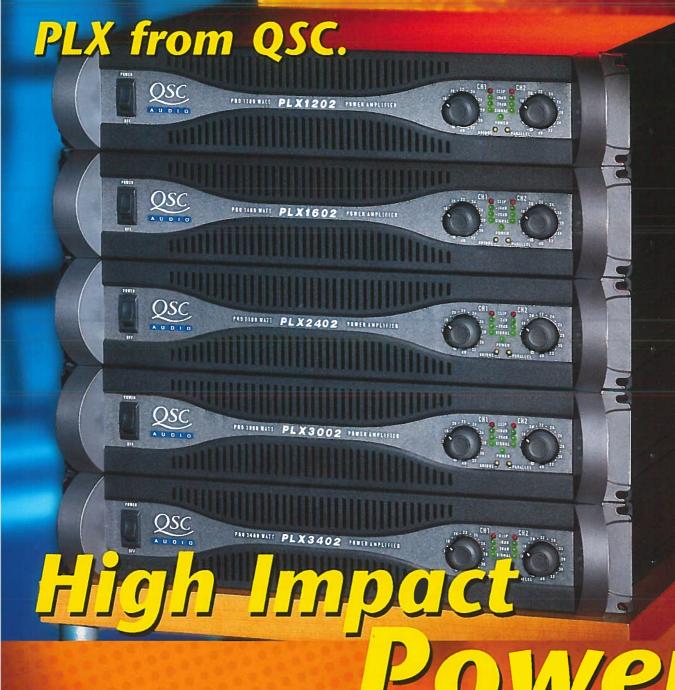
LDs Mark Henderson and Stephen Wentworth lent their considerable talents to enhancing the unique environments. Both LDs have a long association with Tussauds which, says Henderson, makes it a little easier to "follow the permutations a project undergoes over the course of an 18 month to two-year build-up." The exhibition is divided into themed areas, which were chosen based on the feedback of focus groups that opted for "glitz and glamour, plus a bit of Tussauds history," says Pike.

The two 'Gs' are evident from the moment you enter the exhibition; you are greeted by a mix of stars who inhabit the worlds of The Big Night Party, Sports Stars in Action, Rock 'n' Roll and Las Vegas Legends, the latter a striking area with its fibre optic starcloth surround supplied by TRP Fibre Optics of New York. The finale was Pike's golden moment as producer, with his inspired idea to use renowned illusionist Jim Steinmeyer to assist in the creation of an animatronic Elvis Presley who magically appears and then vanishes to be replaced by a heavenly star. 'Elvis' cost \$300,000 and was made by Advanced Animations.

If you're still looking for a bit of action after being dazzled by the attraction you can always pop into the on-site wedding chapel for a quick ceremony and then pose for a photo beside Elvis and Priscilla's giant replica wedding. How very Vegas!

Jacqueline Molloy





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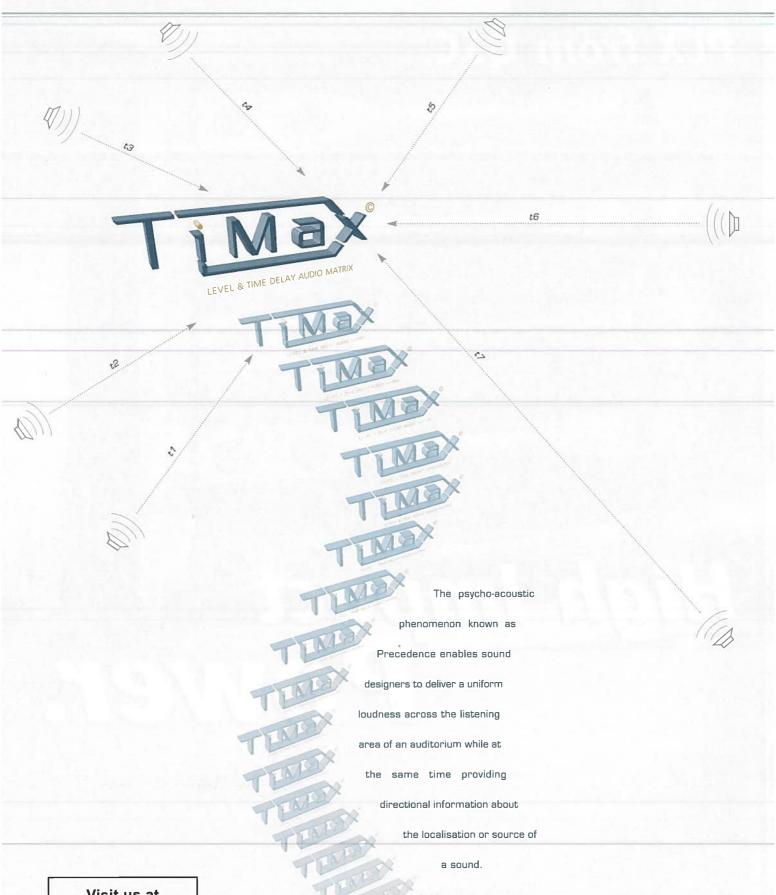
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Smoke Factory's Expo-tise

Further to our report on the 2000 Hanover Expo in the last issue, we return as promised to the Smoke Factory's extensive role in the Planet of Visions . . .

The vast Planet of Visions exhibit - the largest at the Expo - suffered a setback shortly after the Expo opened, when the original smoke effects contractor was removed from the project. In a major dilemma, someone at this point remembered that Hanover was home to a smoke effects specialist - The Smoke Factory.

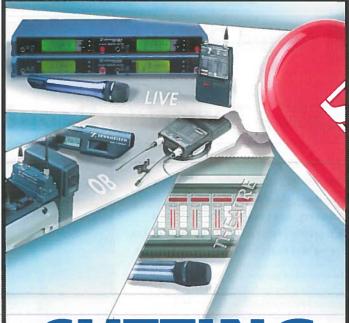
The Smoke Factory's Florian von Hofen told us: "This was probably the most complex smoke effects project ever undertaken - not the biggest, but the most complex. It is a vast exhibit, visited by 30,000 people each day. The budgets would not allow for permanent technical personnel, so everything had to be automated."

By the time The Smoke Factory was called in, the set had been built, and there was no opportunity to pre-plan for anything. "We had to live with every limitation that had already been built in to the exhibit," says von Hofen. What he and his team came up with was certainly complex: the system required 42 smoke machines covering the 16 separate scenes of the display, all of which are controlled via an Avenger Show Controller. The entire exhibit runs through a day/night loop lasting five minutes, at which point the loop returned to point zero - meaning all smoke had to have gone. In addition to this, Hall 9's highly sophisticated 'sniffing' smoke alarm system had to be taken ito consideration. This analyses regular samples of the air in the hall, looking for significant changes that could indicate a fire.

Faced with achieving a wide range of effects, including steam jets, mist, clouds and ground fog, von Hofen took the unusual step of choosing to stick solely with glycol-based fluids, confident that he could achieve the necessary effects with that alone. He says: "Smoke from Glycol-based fluids usually comes out - and goes up. However, in this very controlled environment, I was able to achieve the wide range of effects required very satisfactorily." He's not saying how, of course.

Von Hofen made use of a webcam to monitor the effects: from his desktop he could clearly see how the system was working. Amazingly, for such a complex system, it requires just one hour of maintenance per day, and this is almost entirely for fluid replacement, says von Hofen: "If we had been involved in the project earlier, we could have made allowances for larger fluid containers within the set, but this was not possible, so we have to refill more regularly."

Lee Baldock



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ESS's Towering Reputation

Edwin Shirley Staging's Tower system, which allows for the rapid construction of large-scale, clear-span temporary venue structures, has been used in some very high profile places in recent years, and has given a real boost to the company's profile.

The system has performed a large number of high-profile roles, including the home of the Midland 97 concerts in London, the Millennium Dome's SkyScape, to the home of De La Guarda's Villa Villa (30m x 20m x 18m high) at the Rio Hotel, Las Vegas, to the smaller-scale screen mounts for the 1999 Cricket World Cup venues.

But it's not just their clients who have been impressed. Following their high-profile involvement with projects such as SkyScape, their working methods are attracting interest from the construction industry. ESS project engineer Liam Hogg explains: "Many construction projects run over time and over budget. But because we come from the culture of rock and roll, we get the work done on time. You won't see Michael



Jackson being asked to wait while the crew finish building the stage. We do whatever we have to do to get the job done." And ESS certainly have the resources and experience to do so: during the building of SkyScape, the personnel involved varied between six and 200 at any one time. The company's logistical expertise, borne out of its 25year touring experience, is extraordinary: leapfrogging two separate but interchangeable topflight world tour stages around the globe is no mean feat.

The advantages of the Tower system demountable structures are seemingly endless. They are cheap

and can be built very quickly, and to guaranteed deadlines; when you're finished with them, they can be quickly dismantled and removed. And these are by no means temporary tents, but highly sophisticated structures. Take SkyScape, for example: the two 2,500-capacity auditoria contained within it boast the largest cinema screens in Europe; one of them can be converted into a 3.700-capacity live event venue; the building is fully heated (using a trick borrowed from the Romans - an under-floor hypocaust system) and air-conditioned, and has specially-manufactured acoustic cladding which offers noise reduction of 30dBA (incidentally, visiting sound engineers have called it the best-sounding live venue in London). SkyScape also meets the highest safety standards for permanent structures, and is O-rated - the highest fire safety rating possible.

With all these advantages, it is no surprise that ESS's Tower system has attracted attention from clients far removed from the world of entertainment - multi-national construction companies and governments among them. A number of varied demountable structure projects are expected to come to fruition for ESS in the near future - some of them may surprise you.

Lee Baldock

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The *grandMA light* is the small console that performs all of the functions of the larger Award-Winning *grandMA*. With the *grandMA light*, you lose some of the faders & touch screens, but none of its functionality. It is completely compatible with the *grandMA* and will accept all shows programmed on *grandMA* in view of its reduced hardware.

At 29" x 20" x 5", it only requires a very small space. It has a very bright high-contrast, full-colour TFT touch screen and the viewing angle can be altered via adjustable legs at the rear of the housing. The light will support 2 additional external monitors. It has all of the I/O of the grandMA, so it will output 4 DMX universes (with 4 additional ones via Ethernet), DMX in, SMPTE, MIDI, RS-232, audio input, switching analogue inputs, etc.

The grandMA light has the features that have made grandMA so popular including an internal UPS and hard drive as well as motorised faders for multiple programming and playback options.

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Etruscan Expo

Palazzo Grassi is among the most imposing buildings on Venice's Grand Canal. It was built in the 1700s for a rich merchant family before being purchased by Fiat in 1984, who restored it to its original splendour and equipped it with all the facilities necessary for a large modern exhibition centre.

Currently running until July 1 is a new exhibition covering 'The Etruscans'. Occupying 36 exhibition rooms with 700-plus exhibits, the exhibition uses cutting-edge multimedia technology to ensure visitors high-impact immersion in the history of this mysterious race of people. The company responsible for these aspects of the exhibition was specialist Turin firm Medialogos/WDM, whose expertise in this area has been gained on other high profile events, including 'The Future of the Longobards', the Italian Design Process show in Seoul and the 'Sinestesia' exhibition on the five senses.

The company's Ottavio Dichio explains: "The idea was to use innovative technology to complement the information given by the more traditional media - so videos, stereoscopic computer graphic reconstructions and 3D Dolby Digital sound environments help tell the exhibition's story." 3D videos, designed for projection on 'fragment' screens, are used to emphasize aspects of the Etruscan civilisation.

"In rooms with just projections," continues
Ottavio "we used DVDs with films in MPEG2. The
D-1999E players by Olidata can play DVD, video
and audio CDs and CDs with MP3 files and have
a built-in AC-3 decoder for Dolby Digital sound.
Images are projected by Sanyo SP 10E units with
70:125 zoom lenses and visitors are immersed in
a combination of music and effects recreating
natural settings (the noises of a forest during the
night, the deafening din of a battle, etc)." In



Images of the Exhibition provided by Medialogos

some cases, such as in the War Room, atmosphere was created with audio only and during production, sounds were recorded using proprietary mic techniques (e.g. for outdoor environments and with antique instruments) and underwent psycho-acoustical processing to increase the audio effects' impact.

3D computer graphics were also used to reconstruct stereoscopic environments recreating the Etruscans' evolution from villages to towns. The most important Etruscan archaeological sites were reconstructed for the exhibition and a two-minute animation was produced to enable a virtual visit, with HD stereoscopic rendering giving great realism and depth to the images. The projection features a DVD with a video produced by Medialogos and specially encoded for viewing using customized 3D personal display system i-glasses and a D-1999E unit with an IR sensor triggering the video when visitors enter the room.

Also in on the creative aspects of the multimedia project from the outset, Renaissance Sound Technologies developed Dolby Digital 'immersive audio environments' for several rooms. Working with a range of Olidata DVD players and Turbosound Impact 50 and 110 Subs, all powered by dB Technologies 100+100 amps, the company have added a much-needed dimension to the exhibition.

RST's Riccardo Mazza explains: "As well as the actual creative audio aspects and finding the ideal balance between ancient art and cutting-

edge technology, our work also involved historical research - in the War Room for instance, this regarded combat techniques, types of weapons, numbers of soldiers in formations, etc, to make the battle setting realistic without exaggerating it."

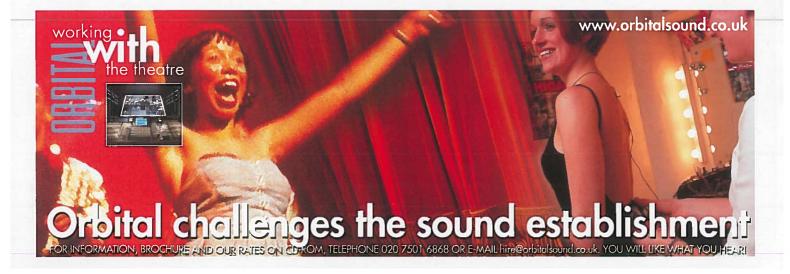
Standing in the centre of this room in front of a chariot surrounded by helmets, swords and shields, visitors find themselves in the midst of a battle - clashing swords, terrified horses,

chariots thundering back and forth. The result is so impressive that key press agencies have opened their news bulletins on the exhibition mentioning the effectiveness of the sound effects.

The intent of the Writing Room is to bring the Etruscans' mysterious language back to life. Researchers have reached the probable pronunciation of Etruscan words, which have been recorded in various situations with appropriate surround mixes. This is the simplest set-up, with just four Turbo' speakers located in the corners of a square room, but here as elsewhere, care had to be taken to avoid damaging Palazzo Grassi's valuable stucco and frescos and clashing with the decor - so the speakers are fitted in custom columns matching the walls' colour scheme.

Visitors to The Etruscans can also use an innovative stereo audio guide system (the lightest in the world) from Antenna Audio, equipped with a display showing commentary title and number and a volume control allowing visitors to listen freely to commentaries and to choose their own route through the exhibition. The system can be used worn around one's neck with a set of headphones or hand-held and has multilingual options.

Mike Clark







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Explorer of the Seas

Explorer of the Seas, the latest addition to Royal Caribbean International's Voyager class cruise ships, showed the world her colours on her first cruise out of Miami on October 28th, 2000.

The Explorer, the second in the Voyager class which debuted with Voyager of the Seas in 1999, could actually be considered a destination in itself, boasting a wealth of facilities, activities and entertainment. Perhaps one of its most arresting features is a 60ft by 40ft ice skating rink (the only one at sea) which can be converted to a 900-seat concert venue or TV Studio.

At the heart of the vessel is the Royal Promenade - longer than a football field and wider than three lanes of traffic anchored by two atria that are marvels of marble, trees, greenery and sculptures. Diversions along the way include the Crown & Kettle - a traditional English Pub, a 24-hour cafe, a sports bar and more shops than you can shake a credit card at. The Palace, the main show lounge, is a fourdeck-high, 1,350-seat theatre equipped with all the latest technology. There's also a jazz bar, a contemporary sports bar, a Vegas-style casino and The Chamber, a nightclub designed to resemble a Gothic castle, with stone columns. arches and a dance floor flanked by chrome suits of armour.

And all this is just but a small part of the onboard facilities, but there isn't time in this millennium to list the rest. Nor to cover



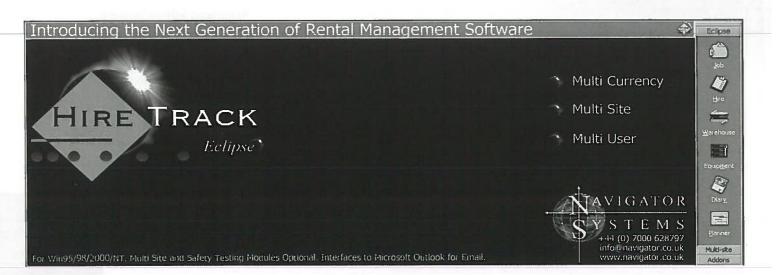
comprehensively the technology arrayed across the ship. There are however some common denominators - on the audio side JBL, Clair Bros, EAW, Bose and Genelec speakers seem to take the main honours with Crest providing amplification, XTA and TC processing, and Euphonix the control. On the lighting side, ETC Europe provided all the dimming and control in the three main entertainment areas - the main theatre, Studio B and The Royal Promenade. In terms of the lighting fixtures themselves, ETC again feature heavily alongside Thomas, Clay Paky, Wybron, Martin et al.

The responsibility for the design of the lighting, sound and video elements in the jazz club, health centre and The Chamber fell to cruise regulars Wynne Willson Gottelier. The lighting rig in The Chamber features the familiar signatures of Clay Paky and Martin but also something you won't get to see elsewhere - a host of WWG specials stacked in the central rig which form a highly effective cage of

lighting. ShowCAD provides control on the lighting side with Peavey, Yamaha, Cloud and Crest doing likewise for the EAW rig, and a Kaleidolight system steering the video effects.

One of the more interesting features of the ship is the level of technology that has been applied to its conference facilities. Floating conferences are apparently big business and the Explorer of the Seas, offering the largest Conference Centre at sea, seems destined to mine this rich vein.

The size of the ship allows for a high degree of flexibility in the design features of the Conference Centre, which comprises four Conference Rooms, a Reception Area, a multimedia Screening Room and Board Room. Cruise specialists MAVCO equipped all the rooms with a dedicated multi-system VHS video player, to which additional AV sources, such as CD players, overheads and slide projectors, can be connected via a wall-mounted connection panel. With much of the







Far left, The Explorer at the Kvaerner Masa-Yards Turku shipyard Left, The Chamber nightclub

Below, the 1350capacity Palace Theatre inspired bu the Fin de Siecle European music hall

equipment being portable, control is via a switching matrix, which allows the signal to be sent to any destination within the complex.

The various user functions in the Conference Rooms can be controlled by a touch-screen wireless remote control, with duplicate control panels on the walls. There is also a tie-line

system installed from one end of the Conference Centre to the other, facilitating the connection of a 24 channel mixing console for larger meetings. The Explorer is also one of the first ships to make use of Plasma technology, and MAVCO has installed Plasma screens in each of the Conference Rooms, in addition to two in the Reception Area.

In addition to supplying the AV equipment for the Conference Centre, MAVCO was also involved in installing AV equipment in many of the ship's other function rooms. It installed video projectors in the Kids Room, an LED display system to give updated sports scores in the Sports Bar, and fitted individual LCD monitors with built-in TV tuners to the treadmills in the Health Club.

One other area of Explorer worthy of mention is the Atmospheric and Oceanographic Laboratories area - the first full working science research and training facility onboard a cruise ship. This is a project undertaken in partnership with the University of Miami Rosensteil School of Marine & Atmospheric Science and in affiliation with NOAA - National Oceanic and Atmospheric Administration.

In this area MAVCO installed the audio-visual equipment in the Lab, comprising a remote camera/intercom/audio system which forms a link to the ship's satellite uplink system, as well as coordinating it with MTN satellite uplinks off the ship.

photos - Kvaerner Masa-Yards

Dome Goes Under the Hammer

The Ministry of Sound's New Year's Eve bash at the Dome, not only ushered in the New Year, but

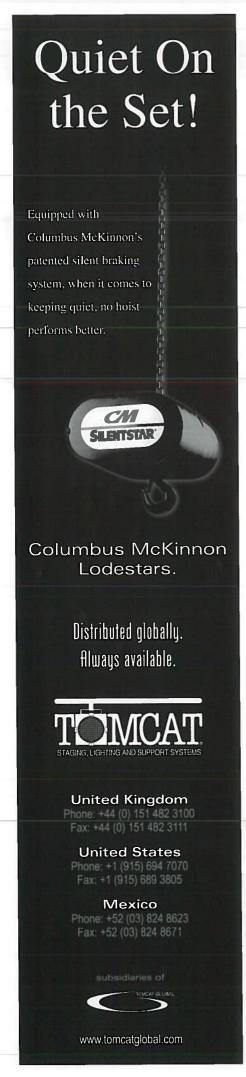
also ushered out the old

The 'Closed' sign has at last been hung and all that remains before the new owners move in is to clear the place. Ironically, the auction of its contents will in all probability attract more interest than the attraction itself. Auctioneer Henry Butcher International has been appointed to dispose of the Dome's contents. Under the hammer goes all the lighting, audio visual, broadcast and sound equipment, restaurant and catering equipment, stage equipment and office furniture. Even the equipment from the world famous Millennium Show will be for sale including stage and acrobatic props, costumes and rigging.

The assets are to be disposed off over the next three months by both Private Treaty and Public Auction. The Private Treaty sale process is already underway, and includes many of the themed zones, in their entirety or in substantial parts. The majority of assets will be sold by Public Auction, which will take place over four days - 27th/28th February and 1st/2nd March. To register e-mail: dome.auction@henrybutcher.com

For details see ad in classified section. Henry Butcher - tel: +44 (0)20 8331 4194







In a move that will surprise many, Bob Schacherl, one of the founding partners of High End Systems, has resigned from his role as president in order to spend time with his

family and pursue personal interests. Schacherl, who was instrumental in establishing the initial worldwide sales distribution network during the early years of the company will, however, continue as a shareholder. Sean Hoey, sales manager for North America will assume responsibility for Latin America, supported by Tony Magana. John Wiseman will continue management of European Sales and will assume responsibility for the Asian, Middle Eastern and African territories.

Hampshire-based Audient plc has appointed Martyn Flood as senior design engineer. Flood

ioins Audient from the Klark Teknik Group where he was responsible for a number of Midas and DDA design projects. Operating from a new development office in Cambridge, Flood's responsibilities will range from product development through to manufacturing release.

Further to our news story of 27 October, New York-based Group One has officially appointed Keith Dale as international sales and marketing manager for Elektralite, the company's lighting control division. Dale, the founder of Celco, has worked with Group One in a manufacturer/ distributor capacity for some 15 years.

Qahtan Hardy has stepped down as Telestage managing director. Hardy will, however, retain his links with the company and will continue to be involved as an advisor. A successor is expected to be appointed in 2001; in the meantime, Mike Bacon has been appointed operations manager.

join its Nashville sales team. Dihigo, who

previously worked for the Shop At Home Television Network as a floor director and as an independent representative of Excel Communications, is a graduate of Middle Tennessee State University with a BS in Mass Media Communications.

QSC Audio has appointed Roger Maycock as product application specialist. Maycock brings a wealth of experience to OSC,

having served as a product trainer, clinician, documentation specialist and journalist. In this newly-created position, he will spearhead QSC's education programmes.

Tom Scharff has been appointed the new general manager for the United States Institute for Theatre Technology. Scharff joins USITT from Cornell University where he was general manager of the Cornell Center for Theatre Arts.

Mackie Designs has appointed its chief operating officer, Jamie Engen, chief executive officer and

> president. He has also joined the company's board of directors. Ivan Schwartz has joined the company as director of corporate communications. He comes to Mackie from his previous position as director of marketing at EAW, acquired by Mackie Designs in April 2000.

LD Chris Watts has left the Royal National Theatre, following the completion of his role there and will return to work as a freelance designer and project manager.

Martin Professional has appointed Claus Rothmann as director of logistics. He joins Martin from a position as vice-president of Dandy Company's corporate supply chain development. Rothmann will form part of Martin's management team alongside sales and marketing director Pio Nahum and R&D director Stig Poulsen.

Stagetec has appointed Chris Campbell as project engineer to assist with its rapidly expanding projects department. Campbell, originally from Toronto, Canada, has extensive experience of sound and lighting installations, most recently with Celebrity Cruises.



Bob Schacherl

Martyn Flood



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(TIMES)

Get a Life!

As someone who works on the fringes of this industry, it was with some trepidation that I booked my first Broadway Lighting Master Classes (BLMC). In the event, not only did I and the other 130 attendees learn much about the art of theatrical lighting, I came away with ideas that will also serve me well in everyday life.

Held in New York (where else?) in December and organised by Entertainment Design and Lighting Dimensions magazines, the BLMC offers an opportunity to learn from a group of truly distinguished lecturers, which this year included Jules Fisher, Peggy Eisenhauer (Cabaret) and Don Holder (The Lion King). Similar in concept to Showlight, BLMC is sponsored by manufacturers who have the opportunity to show their products and gain feedback from end-users.

The BLMC provided a few invaluable pointers for us lesser mortals: one of the key messages of the conference was that no matter what our position in life, however elevated or otherwise, we should always

make time to listen to those around us. It was also pointed out that what you perceive to be the problem

may not be what someone else perceives it to be.
And just because you've reached the exalted
position of working on Broadway, life doesn't
necessarily get any easier. In fact, the demands can
increase and you still have to worry about the
budget!

Time and again, our mentors insisted that we should get a life! Richard Pilbrow even went so far as to tell us that he had disbanded his own company of highly distinguished lighting designers because they became so intense about lighting - to the detriment of everything else. For a lighting designer to help an audience suspend disbelief, he

Left, Steve Terry leads a panel discussing the Lighting Products of the Century. Left to right - Steve Terry (back to camera), Dave Cunningham, Sonny Sonnenfeld, Nils Thorjussen, Gordon Pearlman, Kenny Whitright, Jim Bornhorst.

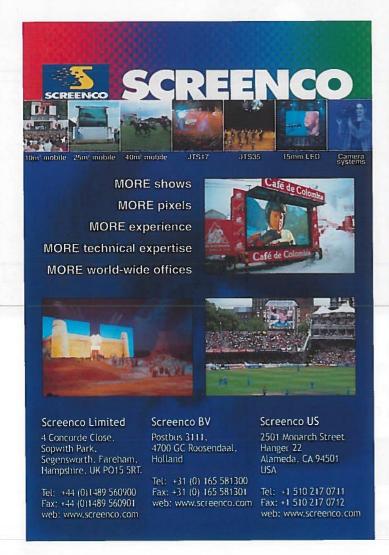
Inset, the BLMC manufacturers' showcase

must be aware of more than just the inside of a theatre.

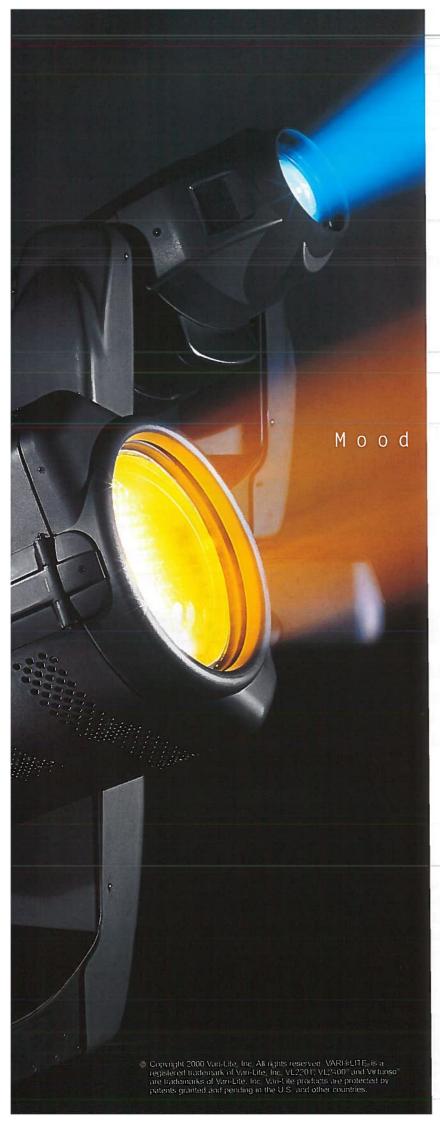
There was time for play as well. For me, the high point was the optional tour of Radio City Music Hall, and a performance of the Christmas Spectacular. Not only did this fulfil a life-long ambition of mine,

but we were treated to the unexpected pleasure of a personal tour by Ken Billington and his assistant, Jason Kantrowitz. Ken has been LD for Radio City's Christmas Spectaculars since 1979 and worked with theatre consultants Fisher Dachs Associates during the \$70m refurbishment of the building earlier this year. To hear him talk of both the building and the productions with such passion was an absolute delight, and the Christmas Spectacular was well, spectacular. Our thanks to everyone at BLMC for an enlightening three days.

Lesley Harmer









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Power to Light

Battersea Power Station became the focus of attention for Londoners as the capital geared up for its festive season. By sheer scale alone, this famous brick behemoth cannot be ignored, but this year it was even more eye-catching, cloaked as it was by a striking, yet sympathetic lighting presentation by Midnight Desian.

Dave Bryant of Midnight Design thought manna had fallen from heaven to be offered such a broad canvas as the Power Station: "I knew immediately I wanted to create a design that reflects the power and majesty of the architecture," he said. "The sheer scale of the building exterior has made this a very challenging project."

In keeping with Bryant's constant search for innovation, Midnight Design is the first company in the UK to purchase the latest Studio Due City Beams from Coe-Tech, included as part of the design. "The City Beams are ideal for the upper reaches of chimney plinths," explained Bryant's project manager, Martin Toms. "Dave has kept the chimneys proper a bright white using the tight-beamed Philips Arena Vision, the lower plinth is lit with City Colors, and the more collimated output of the City Beams covers the upper plinths perfectly."

Bryant's design lights each chimney and plinth at four opposing points from five metre high towers on a 30m perimeter of the building, with a further tower within the now roofless turbine chamber. "Each tower doubles as a weather-proof shelter for all the power distribution," continued Toms. "We have over 22km of mains cable running around the site, and all the links for the Avolites Pearl which controls the sequence of colour changes." The colour changes are subtle, blue/green to red/amber to open white, taking just two seconds every 10 minutes.

One of Bryant's more spectacular effects is the interference between the colour-changing lamps and the battery of 84 MBI floods he has lighting the vast flanking walls between the plinths. "The MBIs create a predominantly blue cast," he said, "but when viewed alongside the dichroic blue of the Coe-tech lamps, the eye perceives them as more a magenta/mauve. Conversely, when the plinths are red, the walls appear a more intense blue"

Such trompe l'oeil effects are entirely appropriate for this lighting event - the Battersea illumination signposted the site as the host for the Christmas and New Year presentation of Quidam - the latest magical extravaganza from Canadian circus phenomenon Cirque du Soleil.



Cyrano wins it by a nose...

The Cyrano produces 50% more light than other followspots from Robert Juliat.

Designed to combine high power with ease of use, Cyrano is designed as an operators followspot. Offering precision control of the fade through a rotary 'throttle' style handle mounted close to the colour changer and variable soft glass diffuser.

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- · Easy two man lift for touring.
- · Lots of pretty pink writing.



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News Round-Up



Embassy Gives Malta First Multiplex

Malta's first multiplex cinema has opened in Valetta. The Embassy was originally built as a single-screen cinema in 1952, but the new complex now forms part of a complete shopping centre

and fast food court - set in a prime location in the island's capital.

Designed by Fitch & Co, owner Mark Zammit confirmed that the combined film, food and fashion development will have cost

Embassy Ltd around £9 million. The cinema features Martin Audio purpose-designed sound reinforcement throughout the six theatres. These were recommended to Mark Zammit by cinema consultant Mike Beeny.

Mike Beeny explained: "Embassy were very keen to have state-of-the-art sound and stadium seating, so during a visit to the UK, I took them to the 20-screen UCI Cinema in Trafford. The



biamped Martin system represented almost exactly what they had decided to opt for." The result is a combination of biamped Screen 4s, with a dedicated crossover, and SUB Is - in either one or two-box configurations depending on the room size.

Lyric Theatre, Hammersmith

In our piece on the Lyric Theatre, Hammersmith, which ran in the November 2000 issue, we had a moment of madness and took it upon ourselves to rechristen the head of sound at the theatre. The HoS is of course Nick Manning and not Luke Manning as was stated in the article.

CompuDim 2000 Goes Mobile

Compulite Systems have been at the hub of hightech development for the entertainment industry for two decades.



The company has recently released a mobile version of its popular CompuDim 2000, which supports all previous features. Designed for theatres, opera houses, TV studios and concert halls, CompuDim 2000 is an intelligent, high precision, fully digital dimming system. Due to its modular design it is possible to offer several cabinet configurations up to 96 dimmers. The dimmers offer both DMX and/or Ethernet communication with status reporting either locally to the control module or to the Compulite console.

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News Round-Up



Celco Trio

Celco has entered the New Year with a trio of new product developments.



The Ventura console has had a software update. Version 3 incorporates an easy-to-use, yet powerful, effects generator, WYSIWYG mode for cue programming and MIDI/SMPTE (previously a chargeable upgrade). The software can be downloaded free of charge from the restyled Celco website at www.celco.co.uk

The company has also extended its control range with the Platinum (pictured) - a powerful 1024 channel PC-based lighting control system for generic and moving lights. The Platinum utilises a stable Windows NT environment and features include connection to any DMX-controlled desk for playback, drag and drop patch features, unlimited number of presets, cues, sequences, and a graphical shape editor for pan/tilt movements.

The Fusion 2000 is a new 12 x 16 amp rack-mount digital dimmer which complements the existing Fusion range. The specification includes two extra non-dim auxiliary channels, 30 memories and three sequences for standalone use. Fully flexible soft patch, choice of dimming curves and Socapex/Harting outlets are fitted as standard.

Celco - tel +44 (0) 20 8699 6788

Coe-Tech Expansion

Coe-tech has moved into a new, expanded HQ in Northampton.

The new building features new demonstration facilities and showrooms, and will allow for the integration of the sales team with the general administration and financial divisions.

Coe-tech's sales operation has expanded so rapidly in the last two years that the company outgrew the previous site it occupied for eight years. This is just the first stage in Coe-tech's comprehensive expansion plans which are scheduled to unfold over the next five years. In addition to the Coemar, Studio Due, TAS and Futurelight lighting fixtures now established by Coe-tech in a range of pro lighting applications, the poly optics, fibre and flow neon side of Coe-tech's business is fast expanding.

Midas Ceases Production of XL3

Production of the Midas XL3 console has finally ceased with number 1000.

The very last XL3 to be manufactured, rolling off the production line last month. The XL3 has had a long and varied history over its 10 years of production. The first ever XL3 users were rental company Electrotec who took a prototype out on tour with heavy metal rock band Motorhead - before the console was even launched. However, the first XL3 off the production line went not to Electrotec, but to



famous London venue, The Forum, in Kentish Town, where it still serves as the FOH console. The last

console, serial number 1000, along with numbers 999 and 998, has already been shipped, via Midas' Belgian distributors Ampco Belgium, to a large Belgian full service production company, Philing Live, who also have subsidiaries in France.

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News Round-Up



OptiMusic: Bringing Interaction to Light

In the run-up to Christmas, L&SI's Lee Baldock visited the offices of OptiMusic to learn more about the success of its versatile OptiBeam system . . .

Born from an idea to create a musical instrument consisting of multiple beams of light, played through movement and dance, the OptiBeam is a system by which beams of coloured light can be used to trigger sound, or other effects. When the beam is bounced back from a reflective surface, it triggers a pre-programmed action via MIDI. The system - one of the 'Millennium Products' so designated by the Design Council - consists of the light unit itself, which can be either the standard seven-beam version, or a single beam; the dedicated light-to-MIDI control box [OM-1] and any MIDI keyboard, sampler or sound module, to generate the sounds.

From there, it can become increasingly complexing groups of OptiBeams in sets of up to 32 units can be programmed via PC to produce up to 99 sequential or simultaneous steps apiece. The MIDI signals can be converted to virtually any other protocol, including DMX. Alternatively, you can place a reflective sticker on the floor beneath a

beam, and reverse the operation to trigger when the reflected beam is broken - in this way, a person or

object passing through the beam will trigger a cue.

The inventor of the system is Guy
Sigalov (inset, left), a talented
musician and innovator; working
alongside him is commercial director Mishka Klotz
(inset, right), and between them, they look after
R&D and commercial development from their base
in North London. They are joined by Anna Priestner,
special needs co-ordinator.

Applications for OptiBeam's use are pretty endless, once you start to think about it. Mishka Klotz says: "The very fact that there is so much potential means that we have to be very focused in order to identify which markets are ready to take it on board first." In the first case, this turned out to be the Special

Needs market - the colourful and musical nature of the system proving ideal for therapeutic purposes. But the service doesn't stop at product level: Anna Priestner works with clients to produce detailed therapy session guidelines designed to maximise the beneficial effects of the system.

From there, the system has since developed to find its way into a variety of entertainment and lesiure

environments. One of the company's most recent projects was for the VIP opening nights of Cirque Du Soleil's Quidam show in London. For Cirque, the company was creating an 'interactive corridor', in which a series of bizarre cues would be triggered by anyone passing along it. Another

recent development is the MAD (Movement Activated Display) System, which develops the idea of the reflective stickers into specially-created reflective logo stickers, which give customers in retail and leisure environments the opportunity to trigger series of cues in any combination - light, sound, video, odours, etc. The keyword used by OptiMusic here is 'empowerment' - as Klotz says, it is empowering to be offered this much direct, visible control of your environment. For the client meanwhile, it's a hugely flexible, easily changeable, very low maintenance attraction.

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News Round-Up



New Year Honours

The New Year Honours list has once again recognised the work of several people in our industry.

Michael Northen, Life President of the Association of Lighting Designers (ALD) was awarded the MBE in the Queen's New Years Honours list, for services to Theatre. Michael was the first professional Lighting Designer and has been in the industry for many years, designing for over 300 productions at venues including the Royal Opera House, the Royal Ballet, Glyndebourne Opera House and RSC Stratford.

Also collecting an MBE was Barbara Turner, director of the Apollo Theatre on the Isle of Wight. Matthew Bourne, famous for revolutionising Swan Lake with an all-male cast, and the artistic director of Adventures in Motion Pictures, is appointed OBE, whilst theatre impresario Bill Kenwright collected a CBE for his services to stage and film.

New Software from High End

High End Systems has announced a new feature for its line of automated lighting products.

Called Internal Effects, the feature allows an endless selection of pan and tilt movements to be accomplished with even simple control systems. The present Macro channel is used to support and control the selection of Internal Effects. The leature may also be used with lighting desks such as the Wholehog II, which contains an on-board Internal Effects Engine. The software is available for download through the company's website - www.highend.com

Showmagic 3.6

The latest version of ShowMagic, the sound and lighting control system, was released in December. New features include a device library for RS232 control - plain English commands can now be used for devices listed in the library (VTRs, switchers etc); extra support for laptops (Sunlite USB DMX device); new MIDI control features for external audio processors; 'Latest chase takes precedence' option; lighting control output through DMX, PMX and MIDI simultaneously and an updated fixtures library.

Showmagic - tel: +44 (0)1405 740393



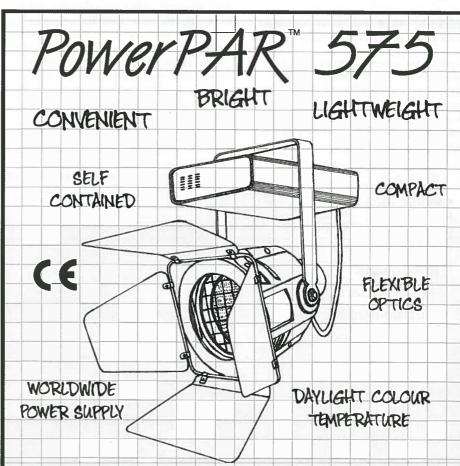
Autopilot II Released

Wybron has introduced the next generation of its innovative Autopilot system.

Autopilot II is a 3D tracking system that turns moving lights into automated followspots that track performers in real time. This latest version is now

'plug and play' simple and set-up is virtually automated and viewable in three dimensions on a laptop. Web-based enhancements give operators the power to use, adjust, monitor and even diagnose system performance from the laptop. The system also has expanded memory capacity that allows users to control up to 75 moving lights.

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News Round-Up

(TIMES)

Yo! Below

Simon Woodroffe's new 'Yo! Land' in London's Farringdon Road, Clerkenwell, is the new home for the company's HQ, as well as the site of the latest Yo! Sushi (featuring a 2,100ft-long conveyor belt which carries dishes to up to 200 diners) and Yo! Below operations.

Yo! Below, situated behind Yo! Sushi, provides punters with a rather unusual blend of food, live DJs, Manga videos, massage and singing waitresses. This strongly entertainment-led venue, designed by John Isted, has sourced its show technology from the newly-created Marquee Installations, with MI's Mark Brown responsible for the design and supply of the system.

"Farringdon combines the best elements of previous sites we've worked on, with visuals becoming an ever-increasing part of the landscape. For instance, we've now upgraded to the superior quality of plasma displays," said Brown, adding: "It was clear that they wanted the best technology available and the key element is



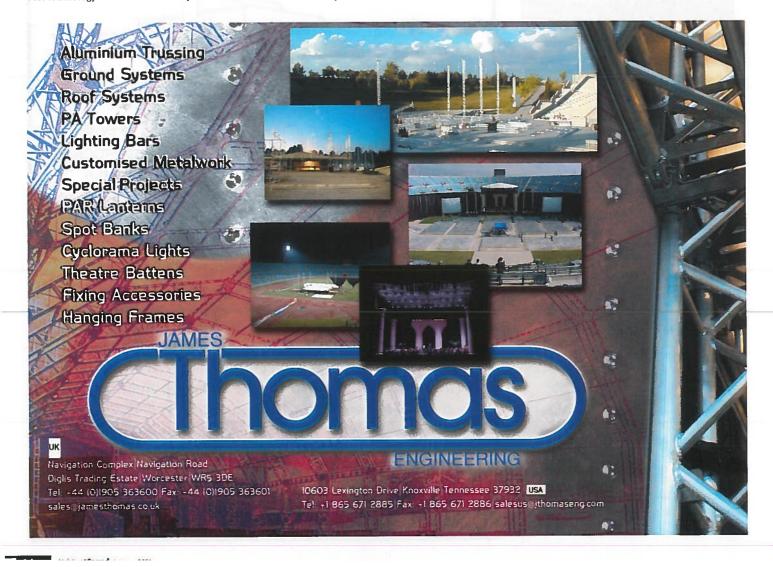
that since the entire trading area in Yo! Below is a performance stage, we needed to achieve even sound coverage."

The components of the system, therefore, had to be carefully selected for their effect on the soundscape. Sennheiser radio microphones are supplied to the performers who strut down catwalks between diners, while Sabine feedback exterminators ensure a clear signal, and a combination of QSC amplification and six tried and trusted RCF Monitor 8s handle the delivery, sourced either from the Technics SL1210 decks, minidsic or Numark CD players at the DJ station, or from the live performance.

The DJ is served by a pair of JBL monitors, but nevertheless, with the highly reverberant surfaces of the interior fabrication, much complex equalisation was called for when it came to tuning the sound system. The PA is split into four zones - three in Yo! Below and one on in Yo! Sushi, where the full-on RCF Monitor 8s have made way for two clusters of four Monitor 5s, providing a more mid-ground sound. Switching between the different areas is done via a Cloud Electronics Z4 zoner.

On the AV side of things, a pair of 42" Fujitsu plasma screens are complemented by a mixture of Hantarex monitors showing the semi-pornographic Japanese Manga cartoons, cut with live activity (non-pornographic, we assume) from two fixed camera positions, encoded onto DVD. Promotional information is stored and played back from a digital video disk, custom-supplied by Marquee Installations.

Yo! operations director, Robin Rowland, said: "Marquee Installations took a loose brief for Farringdon, and using lessons learned from the first Below, radically improved the design and performance of the system. Their installation was innovative and swift; they've used good kit which works well."



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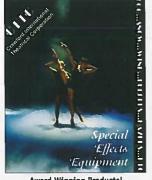
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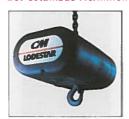
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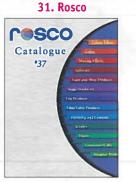
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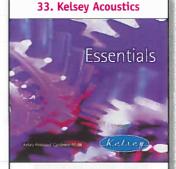
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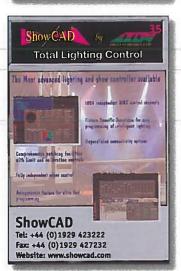


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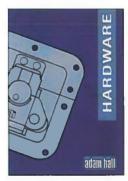
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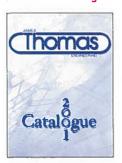
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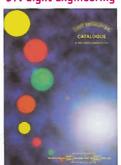
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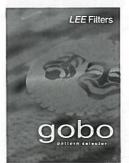
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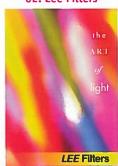
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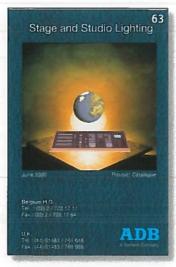
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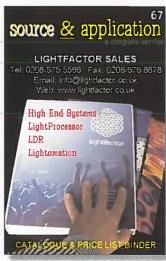
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Pail Ward.

When we heard that Phil Ward was about to vacate his editorial chair at Pro Sound News Europe, we couldn't allow him to head off for an easier life as he'd intended, so we invited him to join the team at L&SI. This is the first instalment of a regular column addressing the issues concerning the audio side of the industry . . .

NOT ACTUALLY being able to hear rock performances has been the slightest drawback, in reality. In the pursuit of sound reinforcement - a properly combative term, that - itinerant concert staff have risked, and lost, life and limb in a thankless struggle. Widely-ignored health and safety regulations are only now beginning to have any meaning on the live circuit, for years acting as the equivalent of resident parking permits in the Amazon.

flexibility if the act was the centre of the known universe that night. Why, if the support act has its own puny little drum kit, put it over there in the shadow of our twin bass drums. There'll be a microphone over there somewhere.

BUT SUDDENLY there are a great many more

BUT SUDDENLY there are a great many more festivals, and a lot more television shows, and no small amount of odd occasions in between that combine the two in a live, bubblegum-sponsored link-up sort of way. Where once rock gods could toss down great bolts of decibel onto an awe-struck horde, now most acts have fleeting bit-parts in a gigantic television programme. And it's very difficult to discern the gods from the mockers, these days.

Audio

File

tuned over many years, and no need for

ENTER INNOVA SON. Based in Brittany, this French manufacturer has developed live sound routing and mixing systems which do indeed acknowledge the relative simplicity of live events: plentiful inputs, stagebox, EQ, crossovers, effects, monitoring. But they're digital. And because of that, two coaxial cables and a couple of 7U racks gives you enough processing and routing flexibility to do several Eurovision Song Contests in a row - no rewiring, no intervening soundchecks, no pauses for psychotherapy.

THIS HAS COME ABOUT because the Innova Son Live Series is based on broadcast-style signal distribution networks, which the company is also good at. But while studios have been taking advantage of the digital matrix for some time even music studios, egad - live people just don't do this sort of thing. For a start, you have to select a channel before using it; and then you might have to decide what it's going to be used for. Very broadcast.

COULD IT BE, though, that the broadcast mould is the right one in which to cast tomorrow's live productions? If the infrastructure of entertainment technology continues to encircle the performer with digital delivery media, surely the solutions hinted at by Innova Son - and Yamaha's PM1D, of course - are the ones which will best keep the customer satisfied. Whether the customer is in the audience or corporately emblazoned across the videowall, you decide.

LIKE I SAID, it's a plug-eat-plug world out there.

"Where once rock gods could toss down great bolts of decibel onto an awe-struck horde, now most acts have fleeting bit-parts in a gigantic television programme. And it's very difficult to discern the gods from the mockers, these

days."

world out there.
Ever since the loudest female choir in history performed to four Liverpudlians at Shea Stadium in 1965, the battle has been on for the stage to give the audience at least as good as it gets, if not better.

ONE CONSEQUENCE of this fight has been a dramatic increase in the number of wires looped incongruously around buildings best disposed to traffic planning meetings, or the exchange of grain between merchants. It's

hard for us to imagine now what the sound of grain being tipped was actually like close up, but it was undoubtedly a lot more coherent than Uriah Heep in the middle of 'Gypsy'.

IT WAS FLEETWOOD MAC's engineer, Dinky Dorson who, in 1970, first trailed a multicore cable - made by Belden - through the audience to what became known as the front-of-house position. Engrossed in his subject, he created a system which had to get all of the mic inputs and DIs from the stage box to the mixer, and back again via equalisation and crossovers to the amps and speakers.

ADD IN MONITORING and effects, and you have an arrangement handed down from father to son in labyrinthine analogue coils. Once in place, apart from making the suppliers of gaffer tape very happy indeed, the system works perfectly for any given band. And all is well - as long as there are no other acts on the bill, no need to broadcast the event, and no other type of work that the PA company has to do to make ends meet.

THE GREAT PA SYSTEMS of the eighties became almost organic parts of the acts they followed around the world. Every eventuality was prepared for, but they were from a list of eventualities which crews get to know about their artists, like alert parents. There was no need for a huge amount of modularity to be built into the rig if the system had been fine-



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Firing on all Fronts



Steve Moles Reviews Tom Jones and Savage Garden

hat a change three years can bring. A successful album, Reloaded, saw Tom Jones collaborate with many talents drawn from the panoply of modern popular music - everyone from Cerys Matthews to Van Morrison, by way of Neil Hannon and James Dean Bradfield. What it's given him is an arsenal of new songs - quality ones - which he can now use to punctuate the classic canon that epitomises his show.

With one exception - an appalling rendition of 'Daughter of Darkness', which he himself admitted was completely flat - this was a show filled with great songs and excitement. Whether it was the gloomy prospect of spending the next 20 years playing Vegas, or the persuasive arguments of his son who now manages him, this is an artist who has re-invented himself in a major way. Cherished and revered for standards like 'Delilah' and 'Green, Green, Grass', he now has something equal on offer and maybe one reason why this is claimed to be one of the biggest-grossing tours of the autumn season.

SOUND

Some things change, others don't. Tom Woodcock has been mixing Jones long enough to know precisely what's best left untouched. One prime example being the presence of a Concert Sound PA (EAW KF850 series), and just two racks out front (Woodcock's own) containing five 4-channel Klark Teknik 504s, and a couple of 990s. "Just for reverb on the BVs," he said, "and the Abba trick on their voices if the room's a little boomy, to make them sparkle a bit more." And he uses a trusty old Yamaha PM4000 desk. "I just hope someone keeps making analogue consoles," he commented with feeling, not that he's averse to digital



CONCERT/

control: "No, that's why I have a Lexicon MRC (MIDI Remote Control), just so I don't have to reach over and change four things at once between songs. But, truth is, this show doesn't need a lot of things processed - the compressors are there mainly for the guitars, just to manage that human factor, in case they get carried away."

Concert Sound's systems man, Adrian Fitzpatrick, had a lot of the hotter mids pulled down on the system graphics, a typical box EQ for that extremely efficient mid-range in the EAW PA. But during the band sound check a deep rumble appeared in the low end, stimulated by the bigger toms. The addition of a 1.2msec delay on the lows took it right away. Neat. The fact that Jones doesn't sound-check will surprise noone, but the revelation by Woodcock that he doesn't even warm up hisvoice before the show makes you wonder how a man of his power can sustain that incredible output for so long. In terms of projection he's easily on a par with an opera singer.

Woodcock uses a Beta 58A on a Shure UHF system for Jones - no problem there with gain before feedback, obviously, but he had an interesting observation to make. "Even with the small amount of gain needed, and the relatively low on-stage sound levels, all sound gets into all mics at sometime. You can't gate everything, you can't duck soft melodic sources, so all that delayed ambient sound, the din of the mix, comes in somewhere." That interested me, because it made me wonder if it's one of the elements that makes for a truly live show, subtle, but present? Could that be why, with so much of what comes through the PA nailed tightly down, that the boy/girl band concerts - when you can hear them above the screaming - sound too much like the CD and lack a live sparkle?

The reason for the relative low levels on stage is Jones' use of in-ears (Shure 700) and also for the BVs and horns (Shure 600). Nonetheless, there are still plenty of wedges up there, and despite Ed Ehrbar's assertion that his job on monitors (with a Midas XL4), is the easiest on the tour, it's not all plain sailing. "I do have to get his voice exceedingly loud," - so loud, in fact, that Woodcock claims if you don Jones' Futuresonic IEM plugs and sing into the mic, "it'll make you go weak at the knees and feel dizzy." One reason for this is that Jones, apparently, doesn't like to hear the room. "It's a comfort thing. I use a DBX 160SL just to smooth him out - he doesn't like to hear compression at all." Both men assert that despite years of high volume, Jones retains an acute ear. "He hears processing and doesn't like it. A while back we did a theatre that had Meyer monitors and the first thing he said was 'they've got limiters on them."

LIGHTING

Where sound stays constant, LD Eric Swann has rung the changes. Compared to the last tour, this is much more the biscuit for arenas. A complex grid, something not unlike a checkerboard 2D outline of a Stealth Fighter in plan view, is packed with Pars and moving lights, each square having a white full cloth across it. Swann trims the rig high (12m), and with only a black backdrop between it and a minimal stage set (two 5ft high risers for BVs and horns) there's a lot of space. But fill it he does.

"I've only got about half the show fully cued," he admitted. No small achievement when he reveals that his Vari-Lite Virtuoso desk is new to him. He has been fortunate in a run of multiple dates in Cardiff, so three sleepless nights sees him with a comprehensive package, even if he is still finessing the second half of the show. "I have to say the learning curve was pretty steep, this one more than most, it has so many things. Command line key pad for Strand users, Hog stuff, Artisan stuff. I've used the Artisan a lot so there are elements that are familiar to me - at least I can build up my sequences in the same order."

Despite the trials of his somewhat brutal initiation, Swann is a fan of the Virtuoso. "I really love the desk - its features are endless. You can label everything, get information out of the desk, see what the lamp thinks it's doing." His feature du jour is the ad hoc groups, "really useful for programming on the fly. If you're in the middle of the show you can 'select all the lamps on this person,' or 'all the lamps in this colour', and the desk understands what you're doing."

Swann's rig is supplied by LSD, but the musclepower comes from Vari-Lite: 39 VL2Cs and 44 VL5s, all Arcs except six on the floor. His use of all the lamps is very creative, the checkers of the truss are reinforced by coloured four-lamp strings of ACLs along their edges focused



straight down and parallel. For 'Sometimes We Cry' he found particularly soft smoky hues of pink, red and something around a fern green, projected as cones, that meandered gently across the dark space above Jones's head, that were just the perfect combination for the song. Several times he did something so simple I'm surprised I've not seen it before; he occasionally completely filled the huge surface of the black backdrop (easily 60m across and 20m high) with repeated gobo patterns, making the show enormous.

Which brings me neatly onto the video. PSL supplied the cameras, projectors and PPU, the show being run by one of the industry's more searching directors, Chris Keating. Small screens (16ft x 12ft), were flown barely 8ft above head height of those on stage, placing them almost level to the performance. This unusual position gave two positive by-products; when Swann splashed his gobos all over the blacks, because the screens were downstage of the lamps, they became beautifully framed. Secondly, the audience were able to casually glance across from stage to screen - so much kinder to the eye than flicking vision up into the heights.

This was not a creative milieu for Keating, 'keep the camera on the money' being the imperative here, but he kept it interesting. Look out for something more radical when he goes out with Westlife in 2001.

PRODUCTION

A quick note on production. My old friend Alan Spriggs, one of the gentlemen of the industry (and this despite a brief career as a pro wrestler a few decades ago) is holding the reins for promoters SFX. Whatever the concerns of the industry at large about big conglomerates taking over the business, many will know Spriggs, know he runs a tight ship with a gentle hand, and thus, at the business end at least, the corporate mass hasn't cast its shadow here. Thanks also to Sandy Bataglia, Jones's long-time tour manager for making L&SI as welcome as any member of the crew.

n a nutshell, Savage Garden are a Rock Boyzone. This is no 'song and dance band' - these guys write their own stuff, have something of their own to say, and know how to present it. The Manchester Evening News Arena was as packed as it had been a month earlier for The Who, but the atmosphere was decidedly different. This was not 19,000 hysterical girls, but a mass of happy young and pre' teens.

For all their teen appeal, Savage Garden are not without their virtues, musically, lyrically and ethically. The bold one-liners of their recent big hit 'Affirmation' go a long way to setting out their stall. Combatting the negative messages of fashion magazines is a theme repeatedly promoted by lead singer Darren Hayes.

SOUND

Veteran Australian engineer Colin Ellis has a job on his hands: "I've been with the band since the start. My biggest problem is with the vocals - he [Darren Hayes] doesn't project." This is a big problem. It's not just about lyrical definition - Hayes' voice is very distinct, mellifluous, nasal, androgynous even - what he lacks in power of delivery he more than compensates for with character and sheer weirdness.

An inhabitant of Tasmania, Ellis had the opportunity on his home turf to try a new EV X-Array, just as the band's career took off. "A little local company had just got some. It had just the vocal punch I needed." He had one other consideration to make: "I also needed versatility. We would be working a range of venues - clubs, theatres, arenas. X-Array is easy to rig, especially in a system where directionality is so important, and it ground stacks easily."

Which saw Illinois-based DB Sound become the main contractor.

There are two other 'naturals' in Ellis's box. "We're doing an endorsement deal with AKG, so its mics are on everything. For vocals I'm using an 880." The other is his choice of Midas Heritage desk, and get this: "I could have gone for an XL4 but I didn't really need a fullyautomated console. The Heritage has the Midas pre-amps, and besides, I really liked the colour." Who says the marketeers at Focusrite, Opal et al aren't smart? And God bless an Aussie for having the gall to admit it. Monitors are run by Scott Pike, a long-time Audio Analyst man who's seen plenty of action courtesy of Bruce Springsteen. The band and BVs are all on Sennheiser in-ear systems, which is Ellis's saving grace, the only thing he has to contend with from the stage is drums, and even they have a Perspex shield. Mixes are many (36) and complex: Pike uses the new'ish ATI monitor board (See Cher, this time last year), the need for such a multiplicity of mix facility coming in part from a rackful of SPX reverbs - an indulgence maybe, but why not?

LIGHTING

I'm a fan of the Willie Williams/Bruce Ramus cooperative, but even so this has to be their best yet, and bodes very well for what this fertile design team is planning come the muchheralded U2 tour of 2001. That, however, ignores the position of Sean 'Motley' Hackett, whom readers of this magazine may recall being at the sharp end of lighting for INXS. Like Ellis, he'd been with Savage Garden since the kick-off. "I'd just done some of their first shows when Michael Hutchence died, and the door closed on that part of my career."

I've known Motley since he made the trek from Australia over to London in the mideighties and knocked at the Vari-Lite training door. He's always been a lighting enthusiast, a characteristic I note he still retains, and was never short of ideas and vision. So it must have been doubly hard to bear when the Ramus/Williams concept took honours last March when the tour commenced. "I could be bitter," he says philosophically, "but actually it's been great for me. I defy any LD not to become a little stagnant working in isolation. Willie and Bruce see things differently to me - I've never programmed a show with guys that are this real before." Enough of the praise, Motley's point is well-made, and his pleasure in what he's now doing seems genuine.

As will be evident from the photos, the key element of the Bandit Lites rig is the coloured rope-light frames. Bright and simple, they are



powerful beyond belief, and as Motley says: "This can be like standing in Hong Kong. Hey, City Councils have been using these things at Christmas for

years, they've been staring us in the face, it just took someone to notice."

Bandit also supply a 60-lamp system of High End's Studio Colors and Martin Pro's MAC 500s, plus assorted strobes, ACL powered open white Police lights, and four-cell Par 36 strips, which Motley runs from his desk, the Hog 2, plus fader wing. "A great desk. Originally, I programmed all the moving lights in the 2, while Bruce did all the rope-lights on an Echelon (the Jands/Hog

Cover page and far left, the Voice from the Valleys - Tom Jones. This page: Savage Garden with sound engineer Colin Ellis inset

derivative). Everything is on a separate channel - 180 in total. When it came to the tour, Bruce and I transferred the whole thing into the Hog - he'd read the cue numbers and I'd build them into macros, Virtual Masters if you like."

That might sound an obvious move, but Motley emphasised the importance of the collaboration between himself and Ramus at the programming stage, particularly Ramus's adherence to paper recording all his cues. "I've worked out that if an individual tried to create the entire show from scratch, it would take seven days, working 12 hours a day."

Despite the potency of the rope-light frames, the show never overpowers the band, however, there was a little something in reserve: when Williams and Ramus asked Motley to programme in an open white blast into the audience for the finale he found untapped reservoirs of power. It's just the whitest, brightest thing I've seen. Bit like the band really.



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En Cathor No Comment...

t seems that Martin Professional is unable to shake off its propensity for controversy, despite the change of management that has done so much to

> restore its image to the mainstream.

"So, whatever happened to the buy-back clauses that I understood were fundamental to the NMEC's decision to buy all this equipment rather than rent? Several suppliers must be heaving a huge sigh of relief."

AN ALLEGED £1m black hole in the UK accounts, dating back to 1999 (see our report page 6), is blamed on the former Financial Director of the Maidstone-based subsidiary and his assistant, who are accused of fraud. It should be noted that this 'fraud' is not embezzlement, and therefore it may turn out to be more a matter of grossly overstating the realité, than of plundering the cash box. We shall see.

WHILE, AS OFFICERS of the company they would have been the responsible individuals it must, nevertheless, be a considerable

embarrassment to Martin's current team of professional managers for such events to have occurred at all. What happened to the Group's internal audit and security systems that enabled such an event, or series of events, to go unnoticed?

IN A YEAR WHEN MARTIN have already been forced to write-off close to £5m against the Vari-Lite patent action, this disturbing news cannot have been a welcome Christmas present for CEO Kristian Kolding.

o Bob Schacherl, like his erstwhile colleague, Richard Belliveau, is quitting the High End boardroom for pastures new (see page 32).

IN BOB'S CASE IT MAY PERHAPS literally be 'pastures new' for, unlike Belliveau who remains a technical consultant to the corporation, the ex-president of HES may have something more agricultural in mind to occupy his time. In the clipped terms of the press release, the dapper Schacherl, who has given 23 years to the firm, is off 'to spend more time with his family and to pursue personal interests'. Often in similar circumstances such phraseology is a euphemism for 'going to set up in competition', or at least 'going to join a competitor'.

IN BOB'S CASE, I BELIEVE that he may have other ideas in mind; after all, he remains a shareholder and so, like Belliveau, he is locked in, at least for now. In any event, his loyalty to the company he built up would remain fundamental to the character of the man that I know. Over a very convivial and relaxed dinner during SIB last year, Bob told my wife that he hankered after dabbling in a bit of viticulture and even emigrating with his family to Australia for the purpose. And I have another witness -Nils Thorjussen stand up please.

IT WAS RATHER APT THAT HE SHOULD reveal this dream at Rimini, for it was here, through a close friendship that Schacherl had developed over the years with the original proprietor of the Taverna degli Artisti, a much-favoured hostelry in the city, that the seed of his enthusiasm for the fruit of the vine had first been sown. By the way, however bizarre this may seem, there is a precedent. When Mick McManus left Le Maitre it was to set up a garden landscaping enterprise.

WHILE BOB WILL BE GREATLY MISSED both in the industry and by his colleagues at High End, personally I look forward to sampling a first bottle of Chateau Schacherl. By the way, while

other appointments are mentioned in the above press release to cover Bob Schacherl's erstwhile responsibilities in the international customer relations area, there is no mention of who will succeed him as President. Significant?

n a previous piece about the infamous Dome and, in particular, the alleged shenanigans in the lighting department, I foolishly referred to a reported Public Accounts Committee's estimate of the cost of Mark Fisher's central show. The figure was humungous and I suppose that I should have smelled a rat; nothing is ever straightforward in the matter of government statistics, or any damned statistics if it comes to that.

MARK HAS POINTED OUT TO ME that his actual budget - which included both a mindboggling list of prior works and all production and operating costs for the entire show covering a period of three years and 999 performances amounted to no more than £5 per head, per visitor to the Dome. "This was good value," adds Fisher. "70% of the cost was day-to-day running, cast and personnel. The capital cost for the technical equipment and scenery for the Dome show compared favourably with that of a typical major tour such as U2's Popmart."

ON THE SUBJECT of the hapless Dome, I note that the details of the auction of its contents were announced over the Christmas period. Looking through the list of equipment up for grabs, it seems to include all the lighting and sound equipment, including the Coemar fittings used for the external roof lighting feature designed by Patrick Woodroffe.

SO, WHATEVER HAPPENED to the buy-back clauses that I understood were fundamental to the NMEC's decision to buy all this equipment rather than rent? If this notion has now been jettisoned, several suppliers must be heaving a huge sigh of relief.

NOT SO THE RENTAL COMPANIES, I suspect.

The emergence of a vast amount of used equipment back in the marketplace may serve to depress rental rates even further, which is something they could all do without; pay-backs are already being squeezed close to the pippopping point. It was feared that the same thing might happen after the Olympics, with a vast pile of equipment with nowhere to go, but in the event that was all soaked up by Procon whose pockets seem to be bottomless. Then again, there is all the AV and other entertainment technology from the Hanover Expo that will be finding its way back home. Batten down the hatches guys!



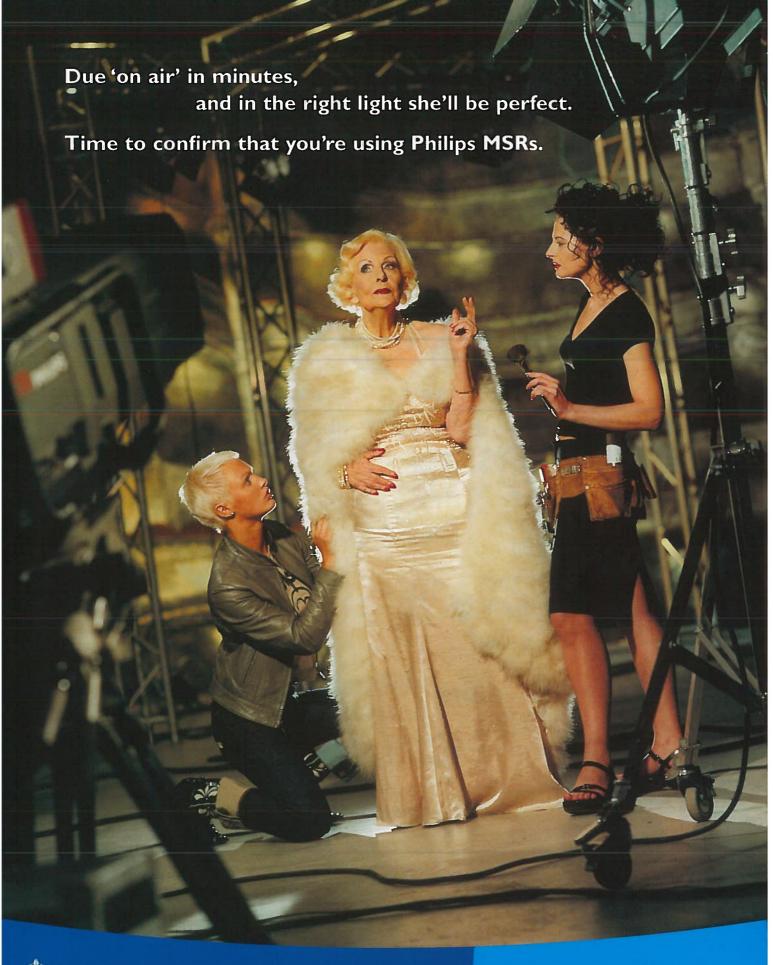
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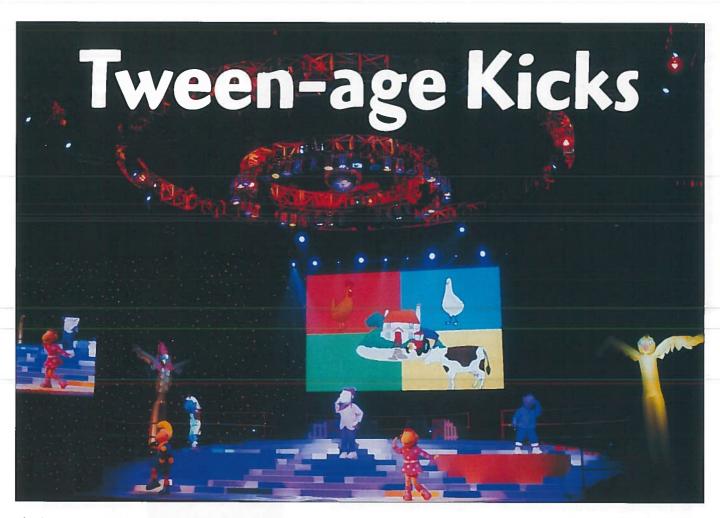
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As the Tweenies prepared to open their first show at the NIA in Birmingham, they had already sold 220,000 tickets for the 84 scheduled UK shows in seven weeks, with a further 100,000 sales predicted. Graham Brown caught up with the production on the (slightly nervy) dress rehearsal day

Readers with children between the ages of two and seven will be familiar with Milo, Fizz, Bella, Jake and Doodles, collectively known as the Tweenies. The TV show went on air in September 1999, and has appeared twice a day, five days a week, ever since. The characters are already achieving pop star cult status with this youngest of target audiences, and that can only increase as they take to the road in the most sophisticated live children's production ever attempted.

The success of the live show has come as no surprise to the show's creators, who comprise a partnership between the BBC (and BBC Worldwide), programme producers Tell Tale Productions and D.C. Entertainments who are the live marketing brains behind the operation. "We set out from day one to create a TV programme that would translate into a new format of live show," explained Tell Tale's Will Brenton. "The characters were designed to work in a variety of environments, including the Arena show format."

The motivation to devise a brand new style of event was undoubtedly the desire to bring the show to the largest possible audience, and this Arena tour has sold out within two weeks of going on sale! Love 'em or hate 'em, with the TV show broadcast in 43 countries, a comfortable three-year lifespan is predicted for this live show.

Numbers aside, the team saw no point in doing the 'traditional' type of theatre show format adopted by other Children's TV shows. "The programme is aimed at 3-5 year olds," explained Karl Woolley, managing director of Tell Tale. "We recognised that younger and younger kids are getting access to pop music such as Westlife and the Spice Girls, so they are used to seeing that sort of package. That's the combination we've set out to achieve. The

content of the show was pretty easy. We decided not to make a show around a story, but to treat the characters like a pop band - so this is the Tweenies 'live' in Birmingham."

As the show took shape the creators started to consider the first challenge of how to successfully produce a show that was accessible to a numerically large, but physically small audience. "This led us to the halfarena format," explained Dan Coleman, managing director of DC Entertainments. "It is important that an audience of three feet tall aren't over-awed by the sheer scale of everything. So we have opted for a halfarena scenario bringing the stage to the middle."

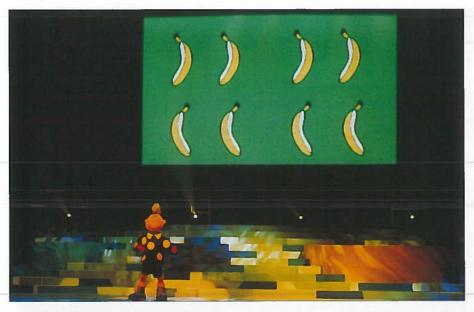
At this stage the promoting partnership, with their TV and theatrical background, talked to several production companies before employing Event Productions & Safety Services, with managing director John Probyn having been highly recommended for his abilities in the rock and roll production genre. "It's been a mutual learning curve for everyone," Karl Woolley continued. "Everyone knows this is a bit different, something that has never been done before. That has included a few challenges along the way. But the result is worth it!"

John assembled the production team with some familiar faces around him: Light & Sound Design, Star Hire, Screenco, Star Rigging and Fly By Night, along with Canegreen to supply the sound; then began the practical brainstorming. The first challenge was getting the new production team's mind set into why things have to be a certain way. Both the attention to aesthetic detail involved with film and theatre-style presentation, and the requirements imposed by 5ft high performers dressed in costumes with restricted movement and very limited vision, necessitated a very precise working environment.

The second challenge was getting the promoter's partnership to realise that this was a touring rock and roll set up, rather than a TV studio with everything to hand. "It was like rock and roll meeting TV/theatre head-on on the M1 at 100mph!" said John Probyn.

The nature of the characters has shaped many of the production decisions, so Karl and Will explained how Tell Tale Productions employed the services of Neil Scanlan at Performance





Above, Banana Tweenie (God knows which one this is). Right, John Probyn Tweenie, MD of Event Productions & Safety Services. Below, Pete Hughes Tweenie, the front of house sound engineer. Right, the massed ranks of Tweenie operators who thanks to a Playstation-style hand console are operating the 'heads' backstage

Animatronics Control (PAC), of Babe and 102 Dalmations fame, to develop the Tweenies TV programme characters; it was logical that he then worked on the (very expensive) live heads. The system was based on a simplified version of the PAC animatronics system used in the film world. There are 20 servos in each head controlling the facial movements, with each head weighing in at 12kg.

"The animatronics were never driven this hard in the TV studio, so there were some subtle alterations made from TV to live in the way the things are driven," Karl explained. "With the luxury of studio retakes gone, time was invested in refining the animatronics to improve reliability, and the computer firing them is a different animal now."

The movement of the live heads is controlled by a team of operators located backstage. They are lined up in front of a bank of monitors



watching and controlling their own characters through a Playstation-style hand console, under the collective orders of showcaller Trish McClenagham.

There are two actors who alternate playing and operating each Tweenie character through the tour. Each is around five feet high, and has to wear a 12kg animatronics head on their shoulders, along with a movement-restricting costume which they can only see out of when the character's operator has its mouth in the

open position! Easy! Which is why doubling up offers a couple of obvious advantages. Firstly, with three shows per day, a rotation system avoids exhaustion and dehydration; secondly, the backstage operators know the script intimately, providing better co-ordination.

At this point in proceedings Roger
Barrett of Star Hire had significant
input into creating the best possible
stage. Based on the geometry of the
Tweenie Clock, Star Hire designed,
manufactured and installed the multi-coloured,
multi-layered stage. This spectacular focus to
the centre of the arena is far more complex
than a first glance suggests. Star Hire brought in
Terry and Dee Hubble of the Performing
Platform Company to manage the project
build, from the laser cutting of the plywood
stage platform (with no two pieces the same),
and its subsequent painting and installation.

The stage had to slope towards the audience for visual impact and to keep the front of the stage at a reasonable viewing height. This was achieved through oversized coloured steps to take account of the characters' scale and lack of mobility. "The safety of the actors was a prime consideration," explained Barrett. "So it's quite a gentle gradient. We also added curved, brightly-coloured safety rails around the back of the stage for safety."

To maintain the immediacy of the TV show for the live audience, the stage incorporates three hydraulic lifts which enable props and characters to appear quickly on stage. "We've filled the underbelly of the stage with engineering," explained Barrett. "The two lifts towards the front of the stage have very low headroom, so we had our work cut out to design and custom-engineer them to be safe for the costumed characters to use with inbuilt safety systems."

Unusually for an Arena tour, the entire stage has to be transported, due to its highlycomplex construction with hundreds of nonidentical pieces. As well as designing and building it, Star Hire supplied the logistical expertise to get the show in and out of venues quickly. Star Hire's other significant input was the 'Tweenies Rocket', which delivers the characters onstage for the show's grand finale. Constructed using traditional boat-building techniques, the rocket also had to accommodate the Tweenies' lack of mobility and vision, as it (hydraulically) flys in through the split video screen amid smoke and flashing lights to land on the stage, and following a rousing version of the Tweenies' No1 song, carries the stars off into the stars!

The stage has a star-cloth wall behind it, flanked by flown LED screens, which are used largely for camera shots of the action. There is then a further central LED Screenco screen, which carries pre-recorded footage to complement the live action.



The principal production criteria for the image magnification was a screen that was sufficiently lightweight to rig, flexible enough to work within the parameters of the mothergrid and tracking design, and with the agility to be rigged/derigged rapidly. Screenco's 25mm LED screen, met these

requirements to the letter. The 40sq.m split centre-stage display was configured in 8 x 5 modules flanked by a pair of 18sq.m screens either side of the stage. These are fed from three Screenco-supplied camera relays - one fixed and two roving. The company also supplied the portable production unit, based around a Grass Valley vision mixer, which Ray Shaw used to process the material routed to the flanking displays.

As mentioned, the central screen is on tracks and split in two for the spectacular arrival of the Tweenies rocket. John Probyn's lighting designer, Mark Cunniffe brought in long-time compatriots Light & Sound Design, who supplied a lighting rig most bands would kill for. "We've used some of LSD's circular rigs," Cunniffe explained. "We knew the show relied heavily on the use of video, so I programmed with that very much in mind, and the LED screens help me enormously in terms of light spill."

The rig consists of 34 LSD Icons, 30 High End Studio Colors and 10 Studio Spots, some conventional Molefays, colour-changers and the obligatory mirror ball. "I've tried to get as many rock and roll-style effects into the show as possible. It's saturated - it has to be as it's a kids' show - the characters are primary colour costumes so the lights are lots of pinks, blues, greens and lavenders. I like it actually - it's nice to get a bit camp in my old age!"

Tour rigger Phil Broad from Star Rigging bears the brunt of the work thrown up by the half-arena format, as the stage is effectively in the centre of the space - not an area normally used for rigging. "From my side it's like doing an in-the-round show without the mother grid," said Phil. "I'll be underneath the scoreboard in Manchester and Sheffield with 60 rigging points to contend with!"

The Canegreen sound system, which Andrew Frengley designed, was fairly modest but effective, reflecting the fact that levels required for the young audience are never going to be too high - but a system giving good distribution was vital. The Meyer system chosen comprised a row of MSL4s (five-wide) per side, a pair of MSL2s in the front truss with just vocals, with UPAs and UPNs for subs under the stage. Further UPAs are used in the house as delays.

Pete Hughes, front-of-house engineer, 'mixed' a playback, comprising a stereo music feed, with six other tracks of vocals and special effects to add the 'live' feel. While the entire show is prerecorded, there is a lot of interaction and audience participation, so that live feel is essential. There are pre-recorded soundbites like 'clap your hands' to be thrown in at any point by the Animatronics team to help achieve this



their heroes are on stage! I can let fly a bit for the special effects such as the rocket sequence!"

"The system

delivers good

coverage," Pete

said, "so I keep

the sound at a

volume, but

loud enough to

screaming when

be heard over

the kids'

Canegreen's Andrew Frengley has also designed the comms system, which is a TV system adapted for touring use, and which provides four (and a half) rings. Within that system there are three channels of Motorola systems that interface between the Clearcom multi-channel system and the three Motorola systems. At the technical heart of the show sits Chris Saunders of Black Big Ltd who looks after the hard drives running the whole thing.

Two DPS Velocitys video hard drives run the timecode into the Akai DD-8 audio hard drives that fire the whole show, and a DV CAM machine that backs everything up. Saunders says: "I was delivered all of the video tapes onsite and then had to marry the timecodes on the audio hard drives with the time line on the hard drive, which took a little while! Now it's all

done it's a case of push 'go' and hope it all works, with a couple of tape loops on standby should it all fall over!"

Just prior to the dress rehearsal it was also decided that the timecode generated from Saunders' machines could also drive the lighting desk, and the timecode now provides a visual reference for Trish McClenagham. "This has clearly been a big learning curve for me," admits Saunders, "and a lot of the other people on the team as two very different cultures have come together."

As John Probyn summed up: "Rock and roll sets are not necessarily that pretty close up, and they don't need to be as they are viewed from distance, often in the dark. TV cameras and theatre audiences tend to be less forgiving, and the set is more integral to the experience. The designer's theatrical background demanded precision, and they are used to being able to make changes as a production takes shape, which is one thing in a studio or theatre, and quite another in an arena with a touring set-up! To be fair to them, when they saw the scale of the set they started being more sympathetic to the challenges we faced."

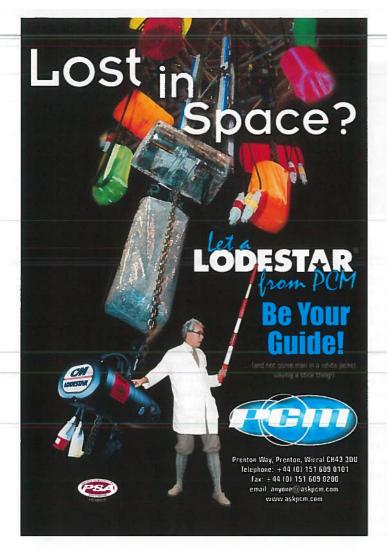
In the end the marriage of TV, theatre and rock and roll has worked incredibly well, with a fastmoving, fun, spectacular visual show the kids loved. I couldn't help thinking this is all incredibly high-tech for five year olds!

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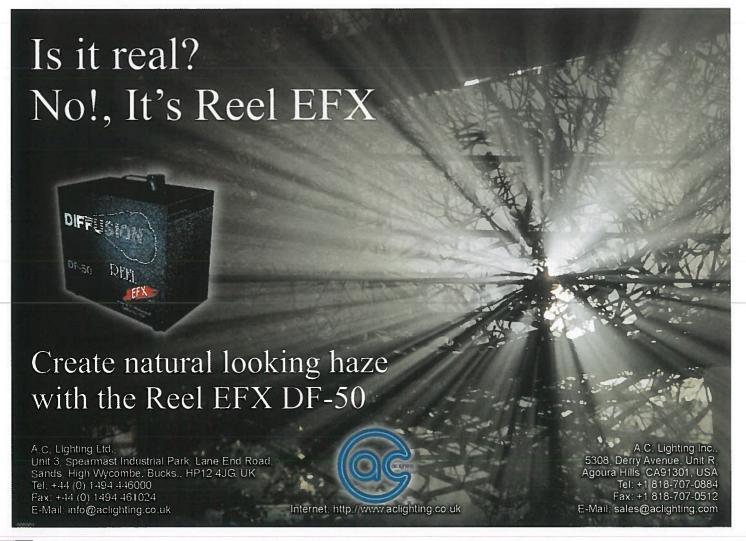


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Outofthe Closet



The recently-reopened
Sadlers Wells Theatre
played host to the
RSC's production of The
Lion, The Witch and
The Wardrobe over
Christmas - and was
also the first sighting in
the UK of Yamaha's
new digital mixing
console. Mike Mann
spent an evening in
Narnia...

o introduce an untried piece of equipment into a successful production might seem risky. When the equipment concerned is central to every audio path, the sound designer could be accused of foolhardiness. But when the addition of new technology means a complete re-think of the entire sound system, isn't this just asking for trouble? Scott Myers, who took the final decision to base his sound design for Lion around the Yamaha PM1D, says not. "I love using new technology - and this show presented an opportunity to put the desk through some pretty intensive testing. Because I'd done this production before, I could try out the Yamaha in relative safety." The console, along with the rest of the audio system, was supplied and engineered by Orbital Sound.

The tiny size of the mixing position required for Lion (a mere eight seats) belies the complexity of the production, but as Myers explained, he was determined to prove that real savings could be made without compromising the audio design: "Jim Douglas, our production sound engineer, just about managed to keep smiling as we moved in. There is literally no room on either side of the board. Sadler's Wells had allocated 18 seats for sound control - by keeping to a tight footprint we have saved the production something like £20,000." Apart from the PM1D's control surface, which communicates with understage racks via 200 metre SCSI and coax connections, the only other occupants of the control area are a MIDI keyboard for manual sound effects and an input/output rack, provided in case the need for front-of-house sources should arise. Myers and the team were pleasantly surprised by the reliability of the PM1D, which had never before been used in anger. "In fact, we did

have one hardware fault, during a technical rehearsal," recalled Myers. "One channel didn't work; but in repairing it a wire was broken which caused a much more serious problem. The guys fixed it unbelievably quickly - the second half of the rehearsal went up just five minutes late." One interesting realisation from this was that the Yamaha design uses a large amount of distributed processing - a fault in one area of the console does not affect other signals.

Incorporating the PM1D into the system has reduced the outboard list to nothing. "There are none of the usual BSS or XTA processors and system controllers - all the EQ, delay, dynamics and effects are onboard. In fact, I wouldn't normally be able to include eight effects processors and 24 equalisers within the budget for the show." Myers explained that he had not been able to exceed the Yamaha's capabilities - although with a 28-channel radiomic system (which is larger than that which was used by the RSC in Stratford and the Barbican) and a multi-instrumental pit band, every one of the console's 96 channels was in use. "We had two weeks' pre-production time with the console at Orbital," Myers stated. "Unfortunately, although this helped us to get acquainted with the board and the system, the only time that you really know what is needed is when there's a cast waiting for you to get it right!"

The PM1D is running the show using pre-release software; even though Yamaha's R&D department had finished the first full release by the time that Lion opened, it was considered unwise to re-program the desk at the last minute. As a back-up, Orbital had supplied a system that would get the show out of trouble should the worst occur. "We have an O2R coupled to three BSS Soundwebs, which mimic the delay and processors contained in the output section of the PM1D," explained

Title page, Sally Dexter and Jonathan Broadbent in the RSC production of the CS Lewis classic (photo: Donald Cooper)

Right, Orbital's Tim Sherratt, Scott Myers and Drew Mollison at work programming the PM1D

Below, the PM1D input/output racks

Below right, the upstage d&b C7 stacks

Drew Mollison, who looked after the production for Orbital. "If we had to switch over to the back-up we would have a very simplified set of effects, without the surround feeds, and would be able to get vocals and the band where we need them to be." Additionally, vital foldback mixes are maintained, so that even the unlikely event of a major console problem should not prove a show-stopper.

Working in Sadler's Wells presented Myers with its own challenge. It is the first time that he has designed a show for the new building, and he appeared unimpressed by its design. "This place has one of the strangest acoustics I've ever had to deal with," he explained. "In performance, a huge amount of sound is lost in the house. I'm not an acoustician - and certainly not an architect but most sound people would walk in here and wonder why anyone would want to build a theatre that was lined with metal." His difficulties with the room were exacerbated by the short production time in the theatre itself, and limitations on when the sound team could make a noise. "The first time that we really got to hear what the show sounded like was at the first preview - and it was terrible!"

Unusually for a musical, the shallow thrust stage required the removal of the pit - meaning that the 15-piece band was sited upstage right, below the back of the stage rake. This, and the requirement for music loudspeakers in close proximity to give the illusion of a (central) onstage orchestra, provided some additional headaches. "We've been fairly successful in creating the image that was needed," claimed Myers, who used two upstage stacks of d&b C7 top/C7 sub/E18 cabinets for the upstage localisation, while further C7/B2 combinations in the orchestra proscenium. Vocals were handled by a traditional A/B system (where

adjacent radio mics are fed to alternate pairs of

speakers to avoid

violent phasing effects), this time using d&b's C6 cabinet, of which Myers is a devotee. The A/B pairs are located in the left and right proscenium and overhead in a centre cluster. Amplification is d&b throughout, with P1200A and P1200Als feeding the larger enclosure, while the E3 cabinets were driven by E-PACs.

E3 front fills are built into the stage edge, and Myers has used the same cabinet for the circle delays. Sadly, the restricted budget precluded the use of upper circle fills,

so Myers adopted part of the in-house system to deal with the upper levels of the theatre. For surround effects, E3s were deployed as lower, upper and rear wall left/right pairs, allowing convincing atmospherics and spot effects. This was one area where Myers had to compromise in order to work on the show's musical content: "The effects took something of a back seat

because of the difficulty of getting the upstage orchestral sound right," he explained. "Having said which, Ricardo van Crugten (no.1 operator and Myers' right hand man during production) understood what I was looking for and we were both hopping round the console within a short time." Myers uses Akai S6000 samplers, keeping each original track separate to enable him to modify effects in situ. For example, the air-raid siren that heralds the start of the show involves four separate recordings, which are staggered to enable Myers to lengthen or shorten the effect during rehearsals.

Myers' confidence in van Crugten's judgement is such that, unlike many sound designers, he is happy for his operator to make changes during the show's run. "If the show changes - as it inevitably will - I want him to have the freedom to adjust things for the better."



One facet of this production that will immediately impress the seasoned West End theatre-goer is the natural vocal sound of the spoken word. Far from having to acclimatise to the sound of over-amplified voices, the audience is left completely convinced that spoken parts are not reinforced at all. At Sadler's Wells, as at the National Theatre, this is an extremely sensitive issue; but,

as Drew Mollison points out, the original intention was not to reinforce actors' voices. "We did not want to have the cast leaning too heavily on their microphones - but because they started from a point where they had no

help, everyone on stage is working very hard to project. The only reason that we have to add a very small amount of 'lift' is that the audience (consisting mainly of children) is a noisy one."

It is a challenge to stage a show where the original story is on almost every bookshelf in the land. It was therefore imperative to assist the audience's suspension of disbelief by providing a thoroughly plausible and enveloping audio image. This was achieved with a degree of subtlety not often seen in musical theatre - a tribute to Myers and the Orbital Sound team, who could so easily have fallen into the trap of treating The Lion, The Witch and The Wardrobe as just another kids' Christmas panto.



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

here are a number of interpretations you can apply when the voice on the other end of the phone says, "You won't know me, but what's your immediate availability?" A) Someone has pulled out at the last minute because it looked like a no-win job, B) Messrs Pearce, Kenyon, Davey and Gain (sounds like a firm of solicitors based in Devizes) are all busy, or C) The production manager missed 'L' for lighting on her checklist. Anyway, the words 'scraping' and

"The aforementioned law firm all have laptops and an umbilical cord to WYSIWYG, but I defy them to produce a plot in half an hour on a rickety table covered in congealed bacon butty remains and coffee slops, ah the glamour of it all."

'barrel' come to mind and I get the call.

FOR MY PART, the ability to say no to a job has never been high on my list and I've got the scars, mainly from hot barndoors, to prove it. Actually it's a bit of advice I pass on for what it's worth. Maxim number one: never accept a job which has a recording, or better still. transmission date more than 48 hours away. This guarantees that the client is desperate and will be eternally grateful to you for

pulling them out of the mire. Meanwhile, you apologise for the dark holes, uncoordinated cues and unprogrammed moving lights, none of which, you point out, would have been a problem had you a bit more lead time.

ANYWAY, a few weeks before Christmas I found myself on a fire brigade job with certain similarities to the above scenario. Twelve hours later I was at the NEC on an arctic morning to plan, hire, rig and focus in 24 hours an, as yet,

completely unknown brief. I had been assured that the trussing was already up (yes, I wondered too, who specified it) and that a big local lighting hire company was on standby to satisfy my every whim. Juice was not a problem - there was plenty - but who had decided on the size of the mains, when I hadn't decided what gear to use yet? Don't panic Watty, the NEC have unbustable supplies, though at a price. Maxim number two (students please note): last minute jobs have expandable budgets climbing ever up in an exponential curve. This is turning in to a masterclass!

INCIDENTALLY, the trussing was in place as promised but (when I've finished the course maybe I won't be surprised), it was built from tubing about three inches in diameter! No, I didn't measure it; maybe it was 75mm, but who cares if the Goddam barrel clamp won't go round it - the rest is academic. Following a brief from a harassed production manager permanently patched to two mobile phones, I retired to a grubby table in a draughty public space near the motorbike show to draw up. Yes I know, the aforementioned law firm all have laptops and an umbilical cord to WYSIWYG, but I defy them to produce a plot in half an hour on a rickety table covered in congealed bacon butty remains and coffee slops - ah, the glamour of it all.

SO, HAVING DECIDED ON A RIG that is just about in the land of the possible, given we are now less than 20 hours from hanging the stuff, I call the hire company who, you will remember, are standing by. Oh no they're not. I get tales of woe and empty shelves and no crew. Would I mind if they don't do the job! Under the circumstances, I do mind. At least it's another first; usually hire companies either duck and weave, or failing that, tell whopping great lies about what they have in stock - generally they're not over keen on you going elsewhere. Most have enough stealth and cunning to cobble a kit together somehow - trust me to get the only duck that can't swim.

SO IT'S OFF TO MANCHESTER, it's only 80 miles up the M6 through the dreaded roadworks to Playlight, where Chris Wroe and the team work most of the night to furnish me with a paddle and an exit route from the creek. At eight the next morning, two truckloads of gear go up on auxiliary pipes beneath that 'orrible trussing and Jim Hogg driving the Wholehog starts to make it sing. Yes there's a gag there somewhere, but having just done another panto-based job with Bob the Builder as gaffer, I can't think of it. Looking back, the HB pencil plot sort of worked; we only doubled our mains requirements twice during the rig (God bless Bob Peck at the NEC) and the crew were inexhaustibly cheerful. Result, happiness.

MY WILTSHIRE CORRESPONDENT will be disappointed if I don't moan about something (the above doesn't count), because then he would have nothing to moan at me about! I'm still fed up with things that tell me that what I'm watching is not for real. I've had a go at wheels going backwards on film, and those strange mics on stalks that we have to pretend aren't there. Isn't it hard enough coping with shadows from glasses without attaching more ironmongery to the act's face. On New Year's Eve we had Jools Holland doing the 'Seeing in the New Year' show in London and another in Liverpool at one and the same time. Surely on this show the clock should tell the truth for once. I, for one, feel a bit of a twit raising a glass to a week old tape in a machine in TV centre.

IF I'M GOING to make a New Year resolution this year, it had better be to not let old prejudices fester on too long. I guess it was years ago now that I did a show in that subterranean studio under Channel Four's stylish building in Horseferry Road. I have been licking my wounds ever since, as the team there were happy for me to do whatever I liked providing it didn't involve shifting any lights. In some ways I could see their point, as the grid was a spring pantograph system. These are an invention of the devil and can variously do serious injury to the fingers of the unwary spark or take off in to outer space with the speed of an intercontinental ballistic missile as different weight lamps are loaded. Successful separation is usually reported by space control as the 2k parts company on impact with the first floor offices. "I say Jeremy old bean, what are they doing in the cellar."

HOWEVER, there are creative limits if you have to make do with a 'Time and Place' rig to light a sit com. So it's good to report a new (to me) regime at work with an enthusiastic crew and more than enough kit to manoeuvre as the show evolves. As in most studios these days, the management has yet to learn that TV production doesn't stop on Friday at five when they close the canteen. So with a Saturday rig, malnutrition soon sets in; thank goodness for the greasy spoon round the corner.



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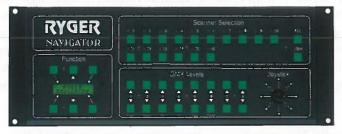


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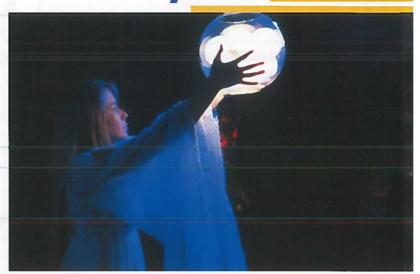
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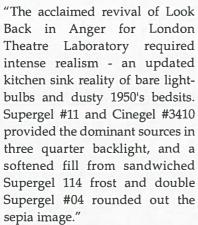
be moody

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be bright







etnege



David Taylor is a director of Theatre Projects Consultants, the world's leading theatre designers, and lights shows in the US and Europe. His recent credits as lighting designer include seasons for Theatre Royal, Plymouth and at the Watermill Theatre, Newbury as well as tours with Wayne Sleep, shows for the Gate, Tricycle and Orange Tree Theatres and Susan Bloch Theatre New York, New Jersey and for San Jose Rep.

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Standards

Standards – an albatross round the industry's neck or a spur for better things?

Steve Moles talks with PLASA, ESTA and

VPLT about their work in this area

hanks to Mr Murdoch we all know the incendiary story of the trusty English Banger no longer qualifying for the name of 'sausage'. Nor, thanks to a low cocoa content, does our chocolate warrant that title: rather, the EU proposed it should be called 'Flavoured vegetable fat' - yum yum.

Like Don Quixote, it's easy to poke at windmills, believing them to be dragons, when you're short-sighted, but there is a serious point behind the EU's attempts to level the playing field for manufacturers throughout the common market. After all, was not the strongest argument of the UK fuel protestors their justifiable grievance that truck drivers on the continent paid far less for their fuel than their UK equivalents, making our firms uncompetitive even on their home turf?

Thankfully, for those engaged in the technology market, especially the event end, the definitions of what constitutes a product or service are more empirically verifiable, and more likely to be agreed internationally. After all, digital is either on or off - isn't it? If it's that black and white, then why do ESTA (North America), PLASA (UK) and VLPT (Germany) spend so much time developing the codified documents we all need to work from? What exactly are they spending the time on?

Despite a certain amount of common cause, not least a collective desire to simplify standards across national borders, all three organisations have quite different priorities. For individual members of these organisations, especially the many who contribute passively or indirectly, it's useful to understand the wants and needs of the others: what do they do, and why do they do it?

Karl Ruling, the technical standards manager of ESTA (The Entertainment Services & Technology Association) sees their issues clearly. "The positive reason for creating standards is to make it safer and easier to do business." No argument there. "But, what people may see from outside is that we often seem to be preoccupied with little projects: we've just developed E1.3 for 0-10V analogue control, for example. Who does 0-10V these days? Well, if you're the guy getting spec's from

ISSUES IN A STATE OF THE STATE

Disney, where there might be hundreds of units and they want them all controlled by 0-10V, then of course you care. It's a matter of

perspective." That's fair comment, we're all

guilty at some time of working in a vacuum.

That established, Ruling is also concerned with the process. Most will be aware that the path to creating a standard is potentially long and tedious; there are pitfalls along the way, but it's not without its rewards. "People's products are like their children - they're always wonderful," says Ruling. "Standards all have a bearing on their product and maybe their livelihood, so it's difficult to criticise without them becoming defensive. When they come to us with a standards project, if they are willing to put in the time, then we'll run with it. But it serves nobody's purpose to come up with something that's poorly written - that tiptoes around the subject. So we do have to stop people picking up their toys and going home."

Having drawn attention to the very human considerations that have to be made, Ruling drew two highly illustrative examples of why anyone should bother in the first place. "We recently had enquiries from manufacturers in the EU who wanted to bring their portable platforms into the US. They wanted to know if there were any existing regulations of which they needed to be aware."

ESTA discovered that although there was guidance available on slipperiness of flooring, and on the provision of handrails for such

platforms, there was nothing structural about loading. "This is what the

- in essence if the thing collapses the absence of a standard doesn't make it any easier to litigate against the manufacturer, but that absence does make it a lot harder to defend yourself." Ruling is quick to point out that a Standard is not designed as a means to defence: "Its purpose is to keep you out of Court in the first place." Now there's a very singular justification.

manufacturers were concerned about

Without going into great detail, if, as in this instance, a number of manufacturers are interested, then a Working Group is established. They report to ESTA's Technical Standards Committee, and as the process develops the findings of the Working Group are put to public scrutiny through review.

Ruling's other example is the avoidance of duplication: how exactly do the three organisations avoid replicating and complicating one another's work? "We're currently working on a standard for lighting stands; called 'Boom & Base Assemblies' - its official designation is BSR E1.15. A member of the US Rigging Working Group originally requested it. Again, that might seem a trivial subject, but soon after we started we had an Email from a guy in Australia. Here's putting simple non-motorised lighting trees - flat base, threaded pipe assemblies - onto rolling dollies. It makes them taller than he's comfortable with." Again, who's to say this issue isn't as valid as any other? But it's the evolution of the project that's important.

"At the last meeting Joachim Stoecker from CAMCO was there, and he pointed out there was already a DIN (German) standard for this. So we decided to take a look. Since the market is now so global we don't want to write a standard that's incompatible for no good reason. Maybe we do need to write a different standard, because what's established elsewhere is unacceptable, but we don't want to do that out of ignorance."

So, is there already a formalised process that makes each Standards organisation look to see if there's anything existing





"People's products are like their children, they're always wonderful. Standards all have a bearing on their product and maybe their livelihood, so it's difficult to criticise without them becoming defensive."

elsewhere? "Well, I don't think anyone would disagree with that as an idea, but currently the Standards process is slow enough that no-one wants to address that right now," said Ruling. There is, however, a gentleman's agreement, typified by the recent issue of the British Standards for Aluminium and Steel trussing and towers, BS7905 Pt2 and BS7906 Pt2. "Both of these closely parallel ANSI E1.2, but then Peter Hind (of Total Fabrications) served on both committees."

That's all pretty positive, but what of the other organisations? VPLT is literally the Professional Light & Sound Association of Germany; for them, the issues are quite different. With the German industrial culture having already spawned the DIN standards as a wellestablished mechanism, VPLT members were more concerned with the standards of people working within the industry - their levels of proficiency and qualification - rather than issues of equipment and event technology. I make a point of using the phrase 'event technology' as Florian von Hofen, chairman of VPLT, was at pains to stress the need to differentiate between 'event' and 'entertainment'. "Entertainment does not have a positive image in Germany; when Mercedes Benz launch a new car they do not want some

clowns from the entertainment industry, they want event specialists." To natural English speakers, that may be a subtle distinction of terminology, but as we grow more global we have to make allowances for the nuances of other languages and cultures. What sensible-minded UK production company would lightly throw away the chance to provide a service to a client like Mercedes, solely through ignorance of that one key expression?

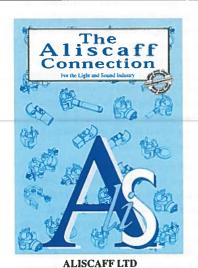
But the preoccupation with working standards is what concerns VPLT: "We needed our industry to develop and be respected. It was not taken seriously," says von Hofen. The industry, it would seem, had been handicapped by an equally well-established professional/ vocational education system. "Effectively, if you weren't professionally qualified you were nothing. In Germany, we have the Dual System; for three years after you leave school you work for a company three days a week, and spend two days at training school, paid for by the Government. Final exams are overseen by an independent body - the Chambers of Commerce - and those who pass qualify as Masters of their trade."

This lack of qualification presented two problems, explains von Hofen: "Those who worked in the industry, and had done for many years, felt worthless. By the same token, many good people who were attracted to the industry didn't join because of the lack of professional qualifications."

This is historical information, most of VPLT's hard work in the area has now been completed, but it's worth noting their achievement. The official process to validate the profession started back in 1997 and involved consultation with Unions, Employers, Specialists, Government Agencies and people from within the VPLT organisation, all under the auspices of a Government lead body. "And all parties must agree." No qualified majority voting there then. "That process was preceded by VPLT creating its first training courses a year earlier. We have now established an Event Academy and receive on average 1,000 calls a month from people wanting training. There are already 10,000 qualified specialists, many of them 'Roadies' who have passed through a shortened version of the full three-year process." Not dissimilar from APL (Approved Prior Learning) courses here in the UK, but inevitably more rigorous and precise.

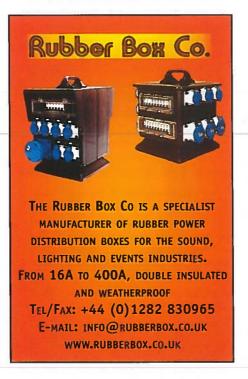
VPLT is now about to return to its roots. "The original purpose of VPLT was to represent manufacturers and suppliers," explained von Hofen. "In the early years we concentrated on the concerns of dealers and manufacturers. Then the rental service companies joined, becoming the largest group of members, bringing their own problems and concerns, not least professional qualification. Now we have done the urgent work we will return to the standards side for manufacturers. The Academy becomes independent on the 1st Jan 2001; thereafter VPLT will have a new focus." Although von Hofen wouldn't be drawn on exactly where that focus would be, we can expect more active participation from this organisation in the area of trans-national standards, and judging by their work so far, that will be a welcome and useful contribution.

Finally, where does our own organisation, PLASA, sit with all this? Tim Cox, the PLASA Standards Officer, had this succinct summation. "There are two main roles for us - firstly, as a



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source of information, getting hold of it and passing it on to members, and secondly, representation. That is, sitting on, and contributing to, bodies who make the standards that can or might affect our members." Cox highlighted a significant difference between PLASA and ESTA: "They actually run a standards programme, controlling the process, then eventually having the standard accredited by the American National Standards Institute (ANSI - which doesn't actually write anything). Here that role is taken by the British Standards Institute; they provide a secretariat, funded largely by the DTI, and if we want to write a standard we do it through them." The BSI standard for trussing mentioned above, for example, was

written by a committee of experts, while BSI performed the secretariat function.

But the major issue for Cox at the moment is altering the stance of PLASA: "Historically we have been reacting to things, now we want to be proactive. A classic example is the Stage and Theatre Luminaire standard, which is being revised at the moment. All standards get revised from time to time. The stage luminaire safety standard was written in 1989, so obviously a lot has changed since then. An important part of the revision process is getting input from our members, but that's harder than you might think. All members receive Standards News each month, and to encourage more feedback, we are trying to re-shape the content to be more than simply technical, and aim it at the MD, as well as the R&D department," commented Cox.

But this reactive posture has also been promulgated by the surge in regulation from the EU that peaked in the last decade: "If a manufacturer spots an existing standard that doesn't make any sense, we will put forward comments on their behalf. A membership of 430 or so companies, gives our contributions additional weight." Readers may be interested to learn that PLASA employs specialist consultants on some committees, including at European standards overview-group level, which has influence at EU Commission level.

And, proactively, what are the looming issues for PLASA members? "The next big thing will be environmental legislation. There are drafts before the European Parliament now, mainly about re-cycling. What type of plastics you use will be a big consideration by around 2006/8. In manufacturing terms that's not too far off."

"Standards are a very useful tool in gaining competitive advantage. Those who choose to ignore them, and go for the cheaper imitation, will, in the long run, chew upon gristle and fat."

> "Also the use of hazardous substances in products - to mitigate against landfill leaks into the aquifers - has already seen draft legislation that will no-longer allow the use of lead solder. That will have a massive impact on our industry." Before you all rush off and panic Cox has reassuring information on this front. "A lot of work is already being done by the big companies, like Philips and Siemens, plus there's a lot of DTI-funded research going on. That will help, but there will still be a need to change some manufacturing processes."

> PLASA has also recently created the Associate Membership category, which allows individuals,

consultants and technicians, to have a voice at the table. "This will bring more requests for help from individuals, front end users, and that's what we'd like," said Cox. Would that perhaps form a virtuous circle between manufacturers and developers, users, and standards generation? "Well, it would certainly mean we could look further down the chain of supply and use, and we welcome that. As we said, there's not enough feedback."

It would be wrong to think the concerns of one organisation aren't shared by the others; all three share comparable postures on all the examples given above. Just as ESTA was keen

to assist European manufacturers wishing to trade product in the US, so too,

PLASA and VPLT are keen to see US product ease into European markets, after all, they both state 'support for dealers' as part of their role.

But, to paraphrase Monty Python, apart from 'avoiding litigation in the first place', 'getting professional qualifications' and 'influencing and preparing for forthcoming regulation', what have standards ever

done for us? Let's return to the dear old sausage for a moment. No-one in their right mind disputes that German Wurst is great, or heaven forbid, that we should all eat just English bangers or American Hot Dogs.

The debate hinges around quality - you get what you pay for, and the strength of wellestablished and policed standards, is that they're something we can all adhere to, to our own benefit. As Tim Cox concludes: "Standards are a very useful tool in gaining competitive advantage. Those who choose to ignore them, and go for the cheaper imitation, will, in the long run, chew upon gristle and fat."

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Asleep in the Stalls...

here was a fascinating sideshow, literally, going on during the RSC Barbican staging of The Duchess of Malfi that I mentioned in my last column. Downstage left was a small surtitling machine, a metre and a half wide, on a stand which gave it a height of about two metres, displaying the text of Webster's play as three lines of LED, each about 5cm high. This small screen was perfectly legible even from where I sat, diagonally opposite from it on the far side of the Barbican's substantial auditorium.

"As well as the full text, the screen notes sound effects. This is of special interest to the deaf members of the audience, but in other respects has much wider implications."

WE WERE WATCHING a

demonstration of Stagetext, a system for the hearingimpaired which can add immeasurably to their appreciation of what is going on onstage. Originally developed in the US by a court reporter, Donald de Pew, and tried out on Broadway (with the help of the Theatre Development Fund) in 1997, the system

was brought to this country last year by Peter Pullan, Merfyn Williams and Geoff Brown, who formed Stagetext after they saw an open-captioned performance of Antony and Cleopatra at the RSC in 1999. Geoff and Merfyn are profoundly deaf, Peter is hard of hearing.

THEY WERE ABLE to buy the basic equipment with a grant of £15,000 from the ADAPT Trust, but the project has also cost a lot of their own money. Under the present system, Stagetext

works from the theatre company's prompt script, which will arrive as a Word document. This is then converted for the screen, using a software programme called Eclipse NT, from Advantage Software in the US. A variety of sophisticated text manipulation and editing routines is used to prepare the text for display on the LED screen, an Adaptive Microsystems 'Alpha' unit, via an interface from Visual Communications Inc. The Eclipse software uses serial communication, and transmits a full line of text every time the operator touches the 'transmit' keystroke.

THE VALUE of this equipment to the hearing-impaired community is obvious. As Peter Pullan points out, induction-loop systems work only for those with mild hearing loss, while only one in a hundred of the hearing-impaired actually understands what those marvellous signers, such as Wendy Ebsworth (whose performance can sometimes be more interesting than that of the actors she is interpreting) are actually saying. 'Putting up a sentence in advance,' says Peter, 'means you can actually have the sensation of hearing the words.'

A KEY MEMBER of the team for any performance interpretation is, of course, the keyboard operator, who must, according to Peter, be not only deaf-aware but, more importantly, in love with the play that is being presented. An ideal operator is someone who understands the importance of pauses, and can hold back lines that should not be seen in advance of the action - or clear the screen altogether at that point. The master text screen, which the operator sees, contains more than what is seen on the LED screen, so that awkward moments can be avoided and the element of surprise respected. This also gives the operator a chance to cover for any actor error, though nothing much can be done about those nightmare moments when an actor misses a whole chunk of a scene. In Malfi, there were moments when those reading the text were at an advantage, such as that when Bosola visits

the Duchess in disguise. Tom Mannion's physical and vocal transformation was so great that only his name in front of the script line gave the game away.

AS WELL as the full text, the screen notes sound effects. This is of special interest to the deaf members of the audience, but in other respects has much wider implications. A high percentage of the RSC audience, for instance, are foreign visitors, who may not have a full command of spoken English and can supplement their understanding - and their enjoyment - by seeing a written version of what they are hearing. The school parties who flock to see performances of set books can learn more from having the text simultaneously available, and even the regular theatregoer can find it useful.

AS AN INVETERATE NODDER-OFF, I was glad on several occasions to catch a line or two that had escaped me, and when I was fully awake it was helpful at times to check on some of Webster's more obscure language. However clearly an actor speaks - and standards are high at the RSC these days - there will be unfamiliar words that look a lot more plausible when read. My personal preference, on this experience, would be for four lines of text to be shown, rather than three, since that allows for an occasional glance at the screen, without drawing the attention away from the stage action.

THERE IS A FURTHER USE for this system, which could give it great international potential. Quite apart from the benefits it can bring to the hearing-impaired, the simplicity and portability of the equipment opens up great possibilities for simultaneous translation. The acceptance of surtitles in opera has made great works in unfamiliar languages (how's your Czech, or your Hungarian?) accessible to wider audiences as a dramatic event rather than a mere concert, and the presence of good surtitling at events like the Edinburgh International Festival is beginning to open up the work of the world's great theatre troupes beyond local boundaries.

WITH A STAGETEXT set-up costing around £10,000, relatively modest festivals and even touring companies with international ambitions can consider its acquisition, and the opportunities in the hire market (always assuming you can find that theatre-loving operator) would seem to be enormous. The Stagetext team are hoping to serve their hearing-impaired constituency first, and it's good to know that as a result of the test runs with *Duchess of Malfi* in London and *The Secret Garden* in Stratford, the RSC will be buying their own equipment - with a four-line screen, too. But there's a much bigger market out there, which is well worth exploring.

STAGETEXT can be reached on 020 7624 2161 or by e-mail to enquiries@stagetext.co.uk

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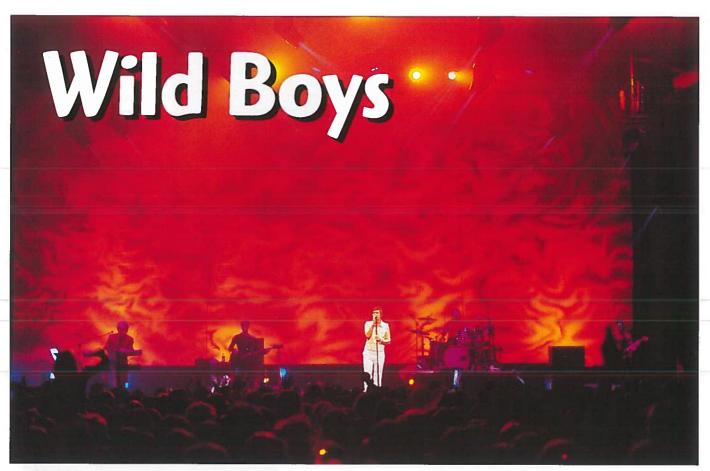
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The stunning opera gauze

Mike Mann spent an evening with eighties legends Duran Duran on their Pop Trash tour

"This is really a postscript to the band's American tour," explained LD Alex Reardon. "We've completed six weeks playing sheds, and finished with a week at the House of Blues in LA - which was a bit odd - it felt a bit like Groundhog Day towards the end." For this tour, Reardon was blessed with a wide-open brief - Le Bon, Rhodes and Co know him well enough to trust his judgement. "Even though I effectively have carte blanche, I've tried to keep the rig very simple," he explained. "Almost all the rig is in the air - I got very bored with the idea that some LDs have that you have to light from the floor." Reardon configured four straight trusses and a variety of drop pipes to create a vague oval - but designed so that the only place where it appears to be symmetrical is down the centreline of the venue.

Each drop pipe carries an LSD Icon; the rest of the rig (all supplied by LSD) comprises Studio Colors, Icon Washlights and a large number of 8-lights, 4-lights and MiniMoles, all fitted with Wybron scrollers. Local followspots were used at each UK venue, and Reardon carried quantities of gels for these that were designed to be a shade or two lighter than the primary colour of each cue on stage.

The long trusses - which contributed to the feeling of a larger-than-usual stage, were arranged in modules to suit the largely static performer positions. Each band member was lit by a trio of Studio Colors, plus a pair of Washlights and a 4-light - Reardon had been able to optimise their positioning so that each group of three luminaires occupied a single section of AutoTruss. On stage (despite the LD's antagonism towards floor lighting) each performer was backlit by a MiniMole at 45 degrees to their backs, while additional MiniMoles were used for the three principal (downstage) band members. Upstage, a huge opera gauze, designed by Alan Chester, was flown. The mottled design, which enabled

Reardon to dispense with the ubiquitous tab tracks, was extremely effective and flexible to light - which begs the question why this traditional technique is not used more extensively on tour?

To complement the theme of the Pop Trash tour, Reardon had wanted to dress the rear of the stage in giant bubble-wrap. Tour Manager Mark Ward eventually located Inflate, a London-based company that specialises in translucent inflatable products. Though more accustomed to producing novelty eggcups and backpacks, the company created a system of large pillows, fed from the top by compressed air. The design enabled the rigging crew to clamp off unwanted lower sections and trim the backdrop to the correct height, while Reardon asked for holes to be made between adjacent squares. "Without the holes, the entire thing would have acted like one giant sail in the American sheds," he explained, adding that while Inflate had no previous touring experience, their knowledge of materials and handling proved invaluable.

Reardon is a confirmed LSD fan, and explained that this has as much to do with the Icon console as the luminaires themselves. "With a Washlight I can get anything that could be done with a VL5 - but I have a great empathy with the Icon desk. Between this and a Wholehog, I feel I can do anything - even with the limited programming time that our budget allows. Version 5.0.2 of the Icon software is very funky - it cures a lot of the old problems that we had running non-Icon lights."

Duran Duran has always been a very visual band - most people in their thirties would remember the lavish video productions used for 'Rio' or 'Girls On Film' - but for the current tour, a departure was required. Gary Oldknow of Deep Visual has worked with Reardon for the last three years on Duran Duran's live visuals, and the two claim to work in perfect harmony when it comes to creating a look on stage. "Gary's a lovely guy - barking mad, of course, but lovely nevertheless," said Reardon. "He's created unique videos for every song where we use the screen (slightly more than half the set), and we spent a lot of time in production rehearsals to make sure it works." In the USA, the screen, masked to form an oval, was flown in for a segment of three songs, then out for a further three in a repeating sequence - but set list changes for the UK tour meant that rather more flying in

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are developing a system that they term 'Augmented Reality'." and out was required. "This wouldn't be a problem - but the budget wouldn't stretch to fast winches," explained Reardon. "Even with normal motors at double speed, it still takes 40 seconds to bring the screen in. I have to be very careful with my timing!"

Gary Oldknow had the unenviable task of creating 13 original videos in three weeks before the start of the tour - and was relieved to realise that for the UK gigs the band was not expecting to turn up for soundcheck. "At least this gives me time to fine-tune the editing!" he said. Although Oldknow was not required to produce any live pictures (in the

USA each shed has its own in-house

vision system), he was joined by a trio of brave pioneers who are developing a system that they term 'Augmented Reality'. The system, which is still very much in its infancy, was first seen by band co-founder Nick Rhodes in the States, who persuaded AR developer Jarrell Pair, a

university graduate and a professor, to join the band on the road.

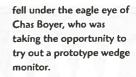
Still looking somewhat fazed by the whole experience, Pair explained that the system takes live video and manipulates it in real time - producing, for example, a moving 'lava lamp' effect for audience shots. Most spectacular, though, is the introduction of virtual characters that can interact with the live video objects. Using a piece of printed card as a target, the system can track the movements of a performer and make the

simulated character respond to real-time movement. Despite constant problems with ambient light level changes, the audience was treated to a pas-de-deux from Simon Le Bon and a virtual Elvis Presley, and was enthralled to see 'Big Girl' walk among them and grow in height as they cheered.

"What we have produced for this tour is the result of four months' intensive work," explained Pair. "And even though we're still in the early stages it's been very valuable to be able to use the AR system in a real environment. We've learned a lot about light levels and what will or won't work." The system, he added, has

applications in a multitude of interactive scenarios both inside the entertainment sphere and beyond.

While Kevin Pruce handled Duran Duran's Britannia Row-supplied Turbosound system out front, monitors



Co-developed by Britannia Row and Turbosound, the 15" + 2" unit was clearly up to Boyer's expectations. "This is the first time out for these new wedges," he explained, "and they really work well. We have had some outstanding evenings

on stage and everyone likes them so far. I really didn't like some of the earlier Turbo' wedges, but using these with Flashlight sidefills is a winning combination." Incidentally, Boyer pointed out that he had tipped the Flashlight cabinets onto their sides to make use of the exceptionally narrow vertical coverage of the box to reduce spill upstage and to front-of-house. Boyer's console is a Midas Heritage 3000, from which he generates four IEM mixes, as well as three sets of wedge feeds, and three lines to the band's drummer. These last



Top, FOH engineer Kevin Pruce; left, monitor maestro Chas Boyers and above, the prototype Turbosound wedges

three mixes contain the band, sequencers and click track, and are fed to a Spirit Folio Notepad mixer at the drum kit. The radio IEM systems are all Shure PSM 600s - and though Boyer reported some RF frequency planning problems, he prefers the sound of the 600 to the newer PSM 700. Microphone choice was largely Shure - though lead singer Simon Le Bon's vocal mic was a Sennheiser SKM3072-U. "I have to say that this mic really does it for le Bon - it totally fits his vocal style," claimed Boyer. "The mics have taken a couple of knocks on tour and they've lasted fine - and I like the little

details such as the recessed on/off switch."

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Going to a Duran Duran concert these days is an unusual experience - from the way Le Bon and his cohorts use the stage, it is tempting to imagine that they are still touring a 1980s stadium production. The illusion is supported (and even enhanced) by larger-than-life lighting and Alex Reardon's 'letterbox' stage design. And despite the band's inordinate success in the mid-eighties, they have managed to evolve rather than reinvent their music. "There's a great atmosphere on the road," commented Reardon, "with few egos. The crew and the band have a good rapport and anyone has the right to stop a prima donna fit if they see it coming!"

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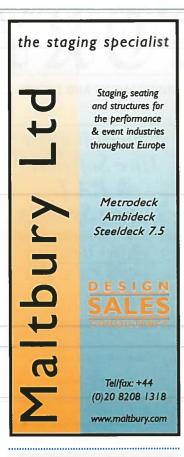


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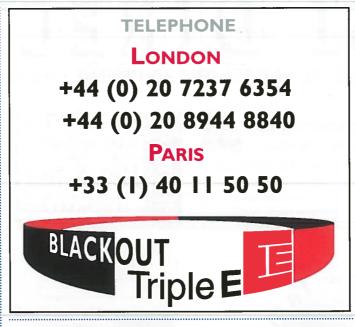
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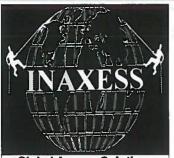
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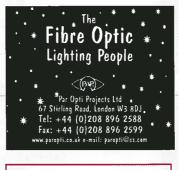
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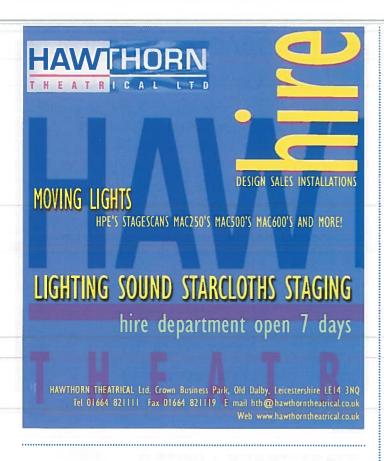
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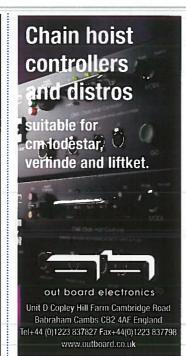
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L&SI Talks to the Industry Trend-setters

hile some lighting designers specialise in design for rock or theatre environments, or build a reputation for architectural lighting, Anne Militello has excelled in just about every conceivable discipline; from theatre to theme parks, from club to opera and from film to architecture, nothing seems beyond the scope of her abilities. The key to her success is that she is, first and foremost, an exceptionally talented artist.

Lee Baldock speaks
to lighting designer
Anne Militello

We met for lunch at The Venetian, Las Vegas, during LDI: Anne had a dual purpose for being in Vegas that week - her design for Pearl Jam was in action at the MGM Grand the day

after the exhibition closed. At that time, her stunning architectural installation for New York's 42nd Street Studio on Times Square had been winning enthusiastic praise from all quarters; she was shortly to head to San Francisco to light Sam Shepard's *The Late Henry Moss* - but before that, she was back off to New York, where the BBC were to film a documentary about her work.

Growing up in Buffalo, New York, Anne displayed very early an artistic flair, and was naturally attracted to theatre. After school, she took to hanging around Buffalo's theatres, volunteering to help with whatever was going on. "I loved the atmosphere of these places - the illusion," she recalls. By High School age, her love for the arts and her strong desire for creative expression led her to specialise, and she enrolled at the State University of New York at Buffalo, taking courses in acting and lighting. It was during her time here that, through friends, she first became involved with touring work ("I would tell my mother 'I'm just off with Steppenwolf for a few weeks!"").

After High School, Anne moved to San Francisco and between touring with the likes of Carlos Santana and Eddie Money, took lighting jobs in rock clubs. She hoped that crewing would be a

stepping stone to design work, but the touring scene in the late seventies was just too male-oriented. Anne recalls how on one tour she was spotted playing around on the lighting console during sound-checks, and her obvious skills were noted. "They went and told my boss, and he immediately fired me," she says - and is sure of the reason. "I don't know

how to put this nicely, but he didn't want to stop getting laid. The control desk was his ticket."

Following this knockback, Anne approached Bill Graham, promoter at the legendary Fillmore in San Francisco, looking for work at his company, FM Productions - and was turned down. "He said he didn't want me getting hurt, but I knew it was crap. I was good at my job . . . I just don't like being told 'no'I"

At about this time, a chance meeting with the playwright Sam Shepard at a party in San Francisco led to Anne rediscovering her love for theatre. "He told me he was a truck driver who wrote plays," she remembers. "He asked me to read a play he had written, and I loved it." Although once again filled with enthusiasm for theatre lighting, the ambition to light a live tour remained.

Theatre led her back to New York, where she stayed for 13 colourful years, lighting avant garde off-Broadway productions, and taking lighting jobs at venues such as Studio 54, CBGBs, The Rock Lounge and The Ritz. The success of her work took her to Broadway, lighting Cuba and His Teddy Bear, which starred Robert De Niro; at the same time, it also introduced her to environmental and architectural work: "People would see my lighting in the theatre, then ask me to light their shopfront or their restaurant." Aside from her work with Sam Shepard, she also collaborated on a number of projects with Cuban playwright Maria Irene Fornes - someone who left an indelible impression as both teacher and mentor.

The spell in New York ended suddenly when, to everyone's surprise, Anne swapped the creative



freedom of the Big Apple for the corporate ties of the Big Mouse, returning to California to spend four years with Walt Disney Imagineering. "I enjoyed it - it was a good time," she recalls, "but I wasn't a good corporate person." But it was mainly an artistic limitation that shortened her stay with Disney, as she reveals: "Theme parks are not a well-rounded art form - you can't explore the dark side of

emotions, which I like to dol"

In 1996, Anne established Vortex Lighting, based in Los Angeles, and has since completed many varied and successful projects under the Vortex banner. Her lighting design for Tom Waits' Get Behind the Mule tour in 1999 received a fantastic response; it used a combination of intelligent and antique lighting fixtures - some 40 or 50 years old. Anne says: "I'm not really impressed by gadgets - I'm looking for effect, and low-tech effects can be just as impressive. Equipment can be distracting. I'm fond of hiding lights so that people can't see what I'm using - it should all be about the magic and the atmosphere."

Get Behind The Mule led directly to design work with Lou Reed, but certain differences - I'll leave it at that, although Anne is far more entertaining on the subject - have put an end to that relationship (Mark Risk had taken over the reigns for Reed when we reviewed the show last October). And then along came Pearl Jam, a band who, in contrast to Reed, she describes as "Sooo nice! Well-adjusted, reasonable people." Among her other varied lighting credits to date are The Amazing Adventures of Spiderman at Universal's Islands of Adventure in Florida, the Avalon Hotel in Beverly Hills and Industrial Symphony No. 1 for film director David Lynch. With a string of awards to her name (and doubtless more to follow) and a reputation as one of the most talented designers around, Anne Militello is undoubtedly now firmly in the control

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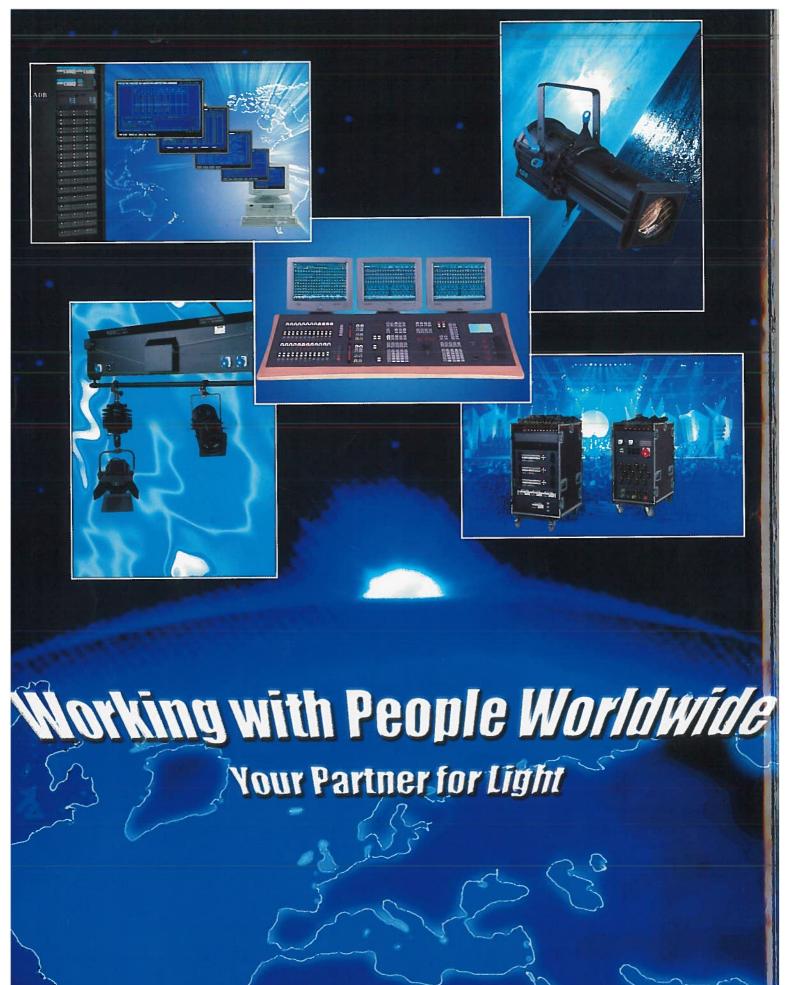
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Kernick Industrial Estate, Penryn, Cornwall TR10 9LU, UK

- f +44 f01870 7556250
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