Lighting & Sound Care The Entertainment Technology Monthly

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Mirror Image

Madame Tussaud's, New York

Deconstruction?

Xtravaganza at the Kaaitheater, Brussels

Gging Strong

- The Who and Marti Pellow

Going Underground

- The Establishment, Sydney

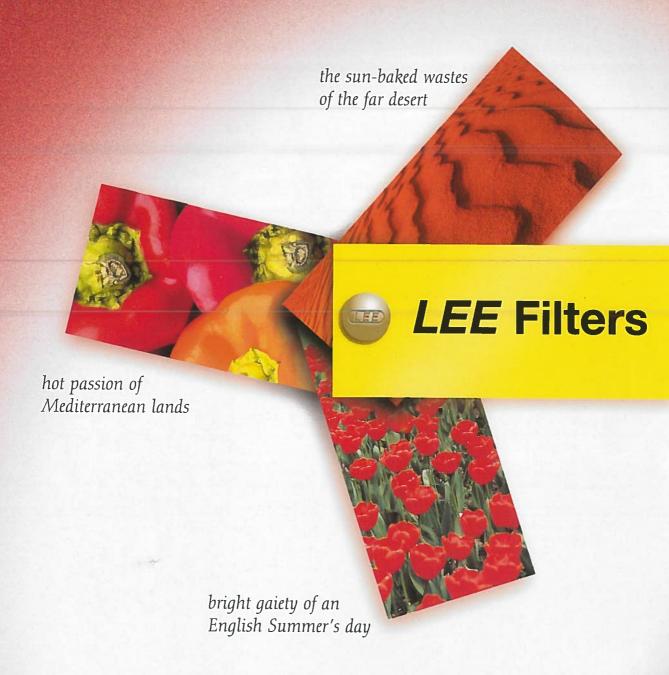
Destination Ireland

- Profile of the thriving club scene

PLASA

LDI 2000

- Highlights from Las Vegas



The Art of Light



Volume 15, Issue 12

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International News Round-Up

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If the HSE decide

there is a need

for change, its

decision could

implications for

every venue in

the country.

have major

Standards Must be a Priority

The recent news of a third accident involving a rigger at Earls Court & Olympia has provided yet another reminder of the need for the industry to demonstrate that it is not complacent, and establish a set of standards by which it can be judged.

This latest accident happened in late September at Olympia, when David Upton of Unusual Rigging caught his foot whilst fitting a banner to the entrance of the Grand Hall and fell 18ft. Fortunately, it didn't cost him his life, but it has left him paralysed, and an investigation is now underway by Hammersmith and Fulham Council.

This latest incident has refocused attention on the two earlier fatalies at Earls Court - the death of Kevin O'Brien, a freelance lighting designer working for the SpotCo, in December 1999 and the subsequent death of David Mott, a contractor working for Unusual Rigging, in June this year. L&SI has contacted both the Environmental Services Department of The Royal Borough of Kensington and Chelsea, the authority responsible for investigating the December fatality, and the Health and Safety Executive, the enforcing authority for the June fatality.

The investigation concerning O'Brien is now complete and the results are currently in the hands of Kensington and Chelsea Borough's legal department who will decide what action to take next. What that conclusion will be is anybody's guess, but the inquest on O'Brien, who wasn't actually an experienced rigger, found that not only

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was he not on the approved list and somehow gained unauthorised access to the roof of the venue, but that evidence of both drugs and alcohol were found in his blood.

The second fatality involved David Mott, who was carrying out remedial work in the roof of Earls Court under the direction of the venue's rigging contractor, Unusual Rigging. The investigation into his death is

being carried out by the Health & Safety Executive, since it comes within CDM - Construction (Design & Management) regulations. The HSE are still deliberating, but are expected to deliver their findings next year.

Both Earls Court & Olympia and Unusual Rigging have been quick to respond to these events, ECO investing over £650,000 in improving safety at the venue. After the first accident, new control measures were put in place, CCTV cameras were installed in the roof and a new card-operated turnstile door system was installed to prevent a reoccurence of someone bypassing the phoneoperated one. More recently, following consultation with the HSE and UR, Earls Court has also increased the number of catwalks, and installed a safety-net system. According to Alan Law, health and safety manager at Earls Court: "This will be a passive system which will operate

alongside the safety line system and catwalks." Following the most recent incident, ECO has also extended working platforms at Olympia and

removed some of the building's canopies.

Unusual, for its own part, is continually reviewing its safety procedures and has been proactive in putting in place systems to ensure that further accidents are prevented. It has also moved swiftly to address one of the key issues in this the lack of a recognised certificate of competency for riggers - by creating its own certification procedure. In addition, it has also begun a programme of random alcohol and drug testing, along the lines of those employed at The Dome.

Such measures will go a long way to addressing people's concerns, but these

three cases clearly demonstrate the need for the industry to work together to put in place some formal standards and qualifications. Since legislation has put the onus on the venue and its control and supervision measures, the venue and contractor, rightly or wrongly, will always find themselves in the loop of blame. If the HSE decide there is a need for change, its decision could have major implications for every venue in the country. As could a proposal currently in place for an amendment to the European Union 'Use of Work Equipment' directive. It deals specifically with falls from heights and, if approved, could also have a significant impact on current working practice. PLASA MD Matthew Griffiths commented: "Best practice is of paramout importance. From PLASA's point of view there is no second option, and we will work with our members to ensure the highest possible standards."

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Peter Barnett

Peter Barnett, a well known face to many in the industry, died at the age of 56 in late November.

Peter, who had a heart problem and had undergone a major bypass operation some 10 years ago, suffered a heart attack whilst at the wheel of his car. He was highly respected across the industry for his knowledge and experience on all matters audio and had been a practising consultant for over 30 years.

He was one of the partners in the firm AMS Acoustics, regarded as one of the leaders in the field of electro-acoustic system design and electro-acoustic measurements.

The company was responsible for the design of one of the largest central clusters in the UK installed in the Grand Hall, Olympia, London, and also handled the design and project management of the stadium sound system for Tottenham Hotspur Football Club. Peter published over 100 papers and articles on many aspects of acoustics and has been an active member of various professional associations.

Trade Shows 2001

As we approach the end of 2000, we offer a few of the forthcoming events that will kickstart the New Year's trade show circuit.

EventExpo runs at the London Arena on the 16-18 January. This is one of the few shows in the events and exhibition marketplace that brings together the specialists in the exhibitions and events industry. If you are involved in exhibition services, event production, venues, live entertainment, outdoor and event services and corporate entertainment/roadshows as a user or as a supplier, then the show should be fixed in your diary. (Tel: 024 7655 9590).

Following close behind is **NAMM** in Anaheim in the US, running from 18-21 January. Organised by the National Association of Music Manufacturers, this is the international trade show for the retail music business and pro audio sectors. (Tel: +1 760-438 8001)

SIEL returns to Paris early next year for its annual outing at the Paris Expo - Porte de Versailles. The show, organised by Reed OIP, will run from

February 4-7 2001. SIEL was principally set up to cater for the leisure venue market, but has now grown to encompass a much broader base of products and expertise. Last year the organisers took the decision to divide the show into two parts - one focusing on entertainment, the other on nightlife. (Tel: +33 1-41 90 48 45).

Following hard on the heels of Siel is Live! 2001 which runs from 7-8 February at its traditional home of Alexandra Palace in London. From companies showcasing the latest in entertainment technology, to catering and trucking businesses, The Live! Show embraces every aspect of live performance production and is timed for the period when most key individuals in the industry aren't on the road. (Tel: 01322 660070).

All these trade shows, plus details of events across the rest of 2001 are featured on the L&SI wallplanner which was mailed with the November issue. Please ring 01323 418400 if you'd like an additional copy.

For more Information, visit www.plasa.org





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SigNET Honoured

The Right Honourable Stephen Byers, Minister of the Department of Trade and Industry, recently visited SigNET AC in recognition of the company's record of achievement for innovation.

In 1992 the company's VA system received two industry awards for design and concept. In 1998, the digital-distributed system (installed in the

largest VAPA site in the world - CLK airport Hong Kong) was granted Millennium Product status by the UK government and in May 2000 the company won SMART Award funding for the development of a new compact networked model.

Stephen Byers represents a constituency in the North East of England and is familiar with the Sunderland Stadium of Light - one of the prime locations in the region to have a SigNET VAPA system. The sound system at the football club has received praise from fans, visiting teams and MPs. However, less well recognised, is the SigNET system of life safety features, control and amplification, which means that in the event of an emergency it is possible to quickly alert and evacuate the spectators from the football ground.



Stephen Byers with SigNET's David Hodge

Blade of Light

London's Millennium Bridge may have its wobble problems, but as a piece of static architecture it provides a strong visual connection between the City and St. Paul's Cathedral on the North bank of the Thames and the newly-opened Tate Modern gallery on the South.

At night, that link is emphasised by a lighting scheme supplied and installed by Lighting Technology Projects. LTP has been involved with the project since mid-1998, and project manager Jonathan Hilton worked closely with lighting designer Claude Engle, who in turn linked with architect Lord Norman Foster's design team. The night-time 'look' of the Bridge, frequently described as a 'blade of light' from bank to bank, is

created by the use of Light Pipe, the only form of illumination employed. A total of 84 8m lengths of TIR Light Pipe 6" units, plus another 10 8m lengths of various 4" units connected to 250W light sources with specific colour temperatures, produce the desired effect.

However, this was a complex project, with problems of tolerances in running sections of lighting across bridge section joins and the necessary allowances for expansion and contraction. The bracketry had to be 'disguised' as an integral part of the structure and the control gear housed underneath the walkway also needed to be placed neatly and away from the sightlines. As for the Light Pipe itself, the tube coating had to allow for light to be emitted from the correct areas, so as to illuminate the walkway and relevant parts of the structure.





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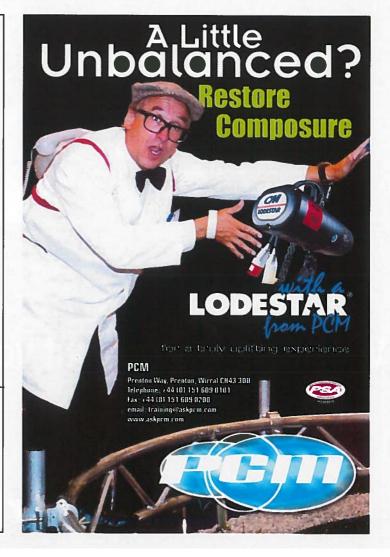
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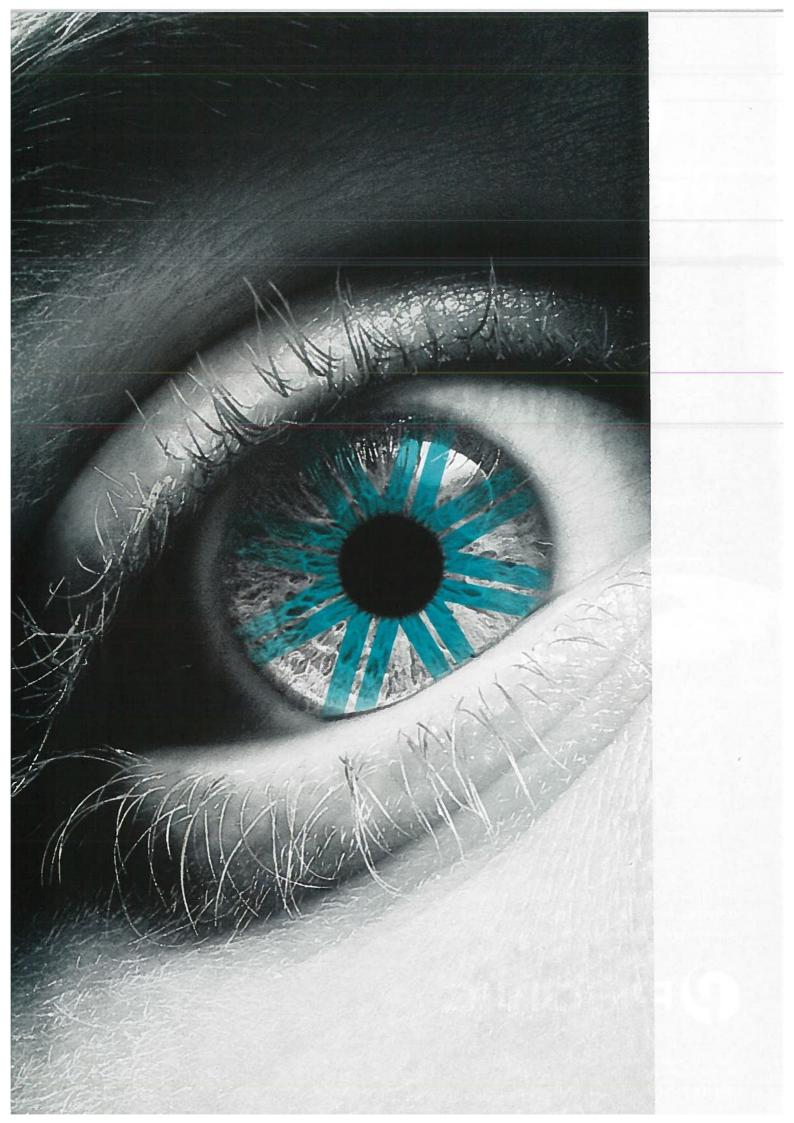


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Napoleon

It would appear that the world of opera is trying to take over the world of the musical: London in early autumn saw two directors best known for their operatic work in action in the West End. Robert Carsen created The Beautiful Game at the Cambridge Theatre, while up the road at the Shaftesbury multiple-Olivier award winning director Francesca Zambello was pulling together Napoleon, an epic-new musical charting the love of Napoleon Boneparte for Josephine through troubled times in France.

To help her, Zambello turned to regular collaborators, notably set designer Michael Yeargan and lighting designer Rick Fisher, who won the 1998 lighting Olivier for his work on Zambello's Lady in the Dark at the National Theatre.

To stage the show, which covers a huge range of locations and times. Yeargan designed a spectacular floor capable of rising, falling, twisting and tilting to provide land, sea or mountains as required; this scenery proved to be something of a technical challenge, requiring international co-operation between scenery makers TMS, engineers Devineau, Jetter Automation, Vertigo Rigging and production managers Stewart Crosbie and Mark Whitemore - along with one programme credit you don't see on many shows: automation interpreter, this the experienced figure of Miki Jablkowska. Yeargan also made the bold decision to extend the French flag painted on the show's frontcloth out onto the proscenium itself, to dramatic effect.

Though the set was capable of many dynamic shape changes, much of the work of defining space and time actually fell to lighting and projection, the projection handled by US designer Jan Hartley working with Production Arts (for large-format

Left, Napoleon's sound designer Martin Levan (right) with assistant Hendrick Maassen.

projection) and Creative Technology (for 35mm projection). The principal images as well as many dynamic movement effects

representing - for example - falling snow or a mountain avalanche, came from three Pani BP2.5K HMI projectors with E\T\C Audiovisuel PIGI single scrollers, two running horizontally and one vertically and all mounted in a carefully-supported, soundproof, air-conditioned box on the Shaftesbury's circle front; fortunately the theatre must be used to such treatment having endured similar on Tommy!

Rick Fisher's lighting then had to work alongside and complement the projection. Immediately aware that this would require careful control of beams, yet still wanting a rig that was as automated as possible (since the set would never be in the same place twice, making it virtually impossible to design a 'conventional' rig that could cover everything) Fisher and his associate and programmer Andy Voller opted for 10 Vari*Lite VL7Bs with their shuttering system.

These were then supplemented by six standard VL7s. Fisher also wanted a washlight that offered similar beam control and so turned to a unit he was already familiar with, having used it on Hunchback in Germany (see L&SI, July 99): the Amptown Washlight with its beamshaping option. The Moving Light Company supplied 24 of the tungsten washlights, as well as six DHA Pitching Digital Light Curtains, six Strand Pirouette PCs and 32

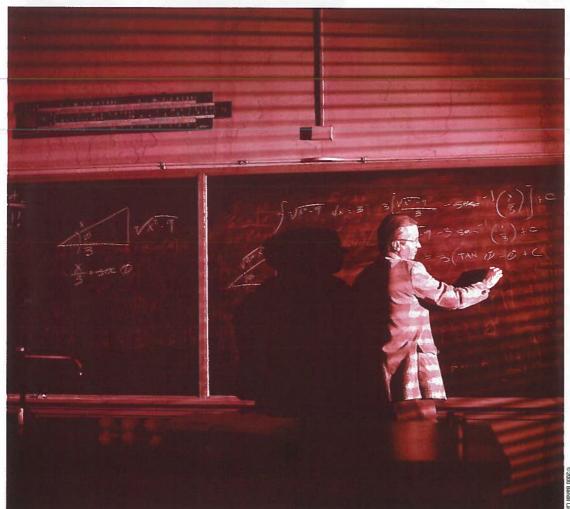
Martin MAC600 washlights, all fitted with City Theatrical spill rings to minimise flare onto the set and projection screens. The conventional rig, including around 100 Source Fours, 46 Wybron scrollers, MDG smoke machines and Spaceball and Viper smoke machines, was supplied by White Light, with the installation masterminded by production electrician Martin Chisnall and moving light technician Chris Dunford; Jason Larcombe served as Fisher's assistant. Control for the entire rig came from a Vari*Lite Virtuoso, making its theatrical debut and seeming to give Andy Voller a new learning curve, but also many new possibilities, including the ability to work in 'blind' mode for the first time on a Vari*Lite console. He also cited the usefulness of the 3D rig display for checking what was happening with lights tucked away out of sight in the sides of the set. Postopening, the show is being run from a Virtuoso tech console since the real thing, sadly, wouldn't fit into the Shaftesbury's tiny control room!

Sound for the show was entrusted to Martin Levan, though scheduling changes left him running between the Shaftesbury and The Beautiful Game at the Cambridge for a time! As a result his associate, Hendrik Maassen, receives credit with Levan in the front of the Napoleon programme. The rig is similar to the Game design, with Tannoy 3836 and T40 loudspeakers used with Meyer UPA-IC and USW-I speakers in the pros system and UPM-IPs and JBL

Control 1s for front fills, side fills and delay. Control is from a Cadac J-type with 63 standard inputs, 33 programmable inputs and 12 motor faders feeding a 14 x 28 matrix; the desk configuration, unusually, pulls them a long way forward in the stalls, to try to avoid the theatre's deeply overhanging circle completely obstructing them from the show! Levan has also used 34 SAS flat-panel loudspeakers around the auditorium as a surround-sound system, these having the advantage of not looking like loudspeakers! Levan's team on the show included production sound engineer Greg Pink, and it is now run by Jane Bloomfield, Tracey Campbell and Kay Jackson. The sound rig was supplied by Autograph. Who said 2000 was going to be a quiet year?



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Related Fields

Lighting students at Rose Bruford College recently completed a project that allowed them to apply their design skills to a wide range of performance genres. Known as the 'Related Fields' project, third year students of the BA (Hons) Lighting Design degree course collaborated with Stage Management and Directing students to create a nightclub environment, an audio-visual performance, a son et lumière and a contemporary dance work.

Each team of four lighting designers, two directors and a stage manager was responsible for taking their production from initial concept to full performance over a period of four weeks. With the first two years of the course focused on theatre, this project represented the students' main opportunity to tackle other types of performance. The work was supervised by visiting tutor Nick Moran, highly experienced in both theatre and corporate events.

The first production turned the college's Barn Theatre into a nightclub. To the rear, a gauze served as a projection screen on which High End Technobeams created rippling, swirling gobo patterns, while VL5s washed the space with congo blues to supplement the UV paint. As the music swelled, the focus shifted more strongly to the gauze, which dissolved to reveal dancers behind, backlit by sweeping DHA Light Curtains at floor level.

The second production also led the audience onto the stage via the auditorium, but this time the atmosphere was very different. Two actors dressed as pantomime-style children (think Jack and Jill) greeted the audience in the foyer, and divided them into groups of 15. The first group

was given a long rope to hold, so that they would stay together in a line without getting lost, and they were guided into the auditorium.



As the lights dimmed, the revolve began to turn with

the audience on it - a slightly disconcerting sensation in a blackout. A soundtrack of music and excerpts from children's television shows from the 1980s was accompanied by projection of images and gobos (Technobeams) onto the surrounding gauzes. Together with the movement of the revolve and VL5s playing over the audience, the effect was a kaleidoscopic montage of childhood memories.

The third production had the audience gather in the foyer of the College's in-the-round Rose who was involved with the slave trade. This story the house. An African tribal atmosphere was created with primitive paintings of wild animals projected onto the walls of the house and outbuildings (35mm projectors directed by VLM

the walls and inside some of the windows (VSFX projectors). At the same time, the lower parts of the buildings were washed with rippling waves of light (DHA animation disks on Source Fours). With the music building, the sounds of a storm

were heard, backed up with lightning from strobing SGM Giottos and High End Studio

The final performance again took place in the barn theatre. FOH lighting positions were used to backlight the gauze (four Technobeams, and a groundrow of cyc floods). This combination produced some remarkably subtle effects, especially when the Technobeams were used for defocused gobo work, sometimes gently animated by a slow rotation. VL5s acted as refocusable specials and the Technobeams gave texture and depth to the back gauze.

The success of the project is in part down to the support from the lighting industry; almost all the equipment used was on loan from manufacturers which included Avolites, DHA Lighting, Electrosonic, Flying Pig Systems, HTS Lighting, Lightfactor Sales, Martin Professional, Power Rent, Pure Productions, Vari-Lite and White Light.

Theatre, before being led through the grounds of the oldest part of the campus - Lamorbey House at one time owned by a Dr Orme of Bishopsgate, was the seed for a son et lumière performance. A number of lanterns were used to light the front of moving mirrors), together with flames running up





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University Challenges Industry to Provide Work Experience for Students

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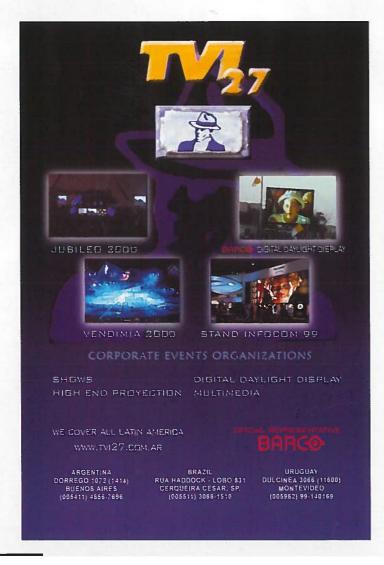
As there has been a major growth in students signing up for the BA (Hons) **Events Management and HND in Events** Management courses offered by the UK Centre for Events Management, at Leeds Metropolitan University ... need for (LMU), the University is practical, as well as looking for around 120 events academic, input to industry work placements for its students next year event management (2001/2002).

Students without previous experience spend 48 weeks working in the events industry, normally with one organisation. A few students undertake two 24-week placements. Students are normally paid a modest salary and, as well as contributing to the day-to-day operation of the business, they are required to undertake a project which will be of lasting benefit to their host organisation.

Martin Wright, senior lecturer at the UK Centre for Events Management at LMU, told L&SI: "There has been a lot of recent media comment about the need for practical, as well as academic, input to event management courses. To date we have received

> tremendous support from the industry. Now is the opportunity for other events organisations to provide that much-valued industrial experience for our students. At the same time sponsor companies will gain the services of a motivated, enthusiastic and very able young person who can bring real benefits to the business."

Organisations interested in offering work placement should contact Andy Jones on 0113 283 5878 (E-mail: thm-placements@lmu.ac.uk). Details are also available on the UK Centre for Event Management website at www.lmu.ac.uk/ces/thm/events.





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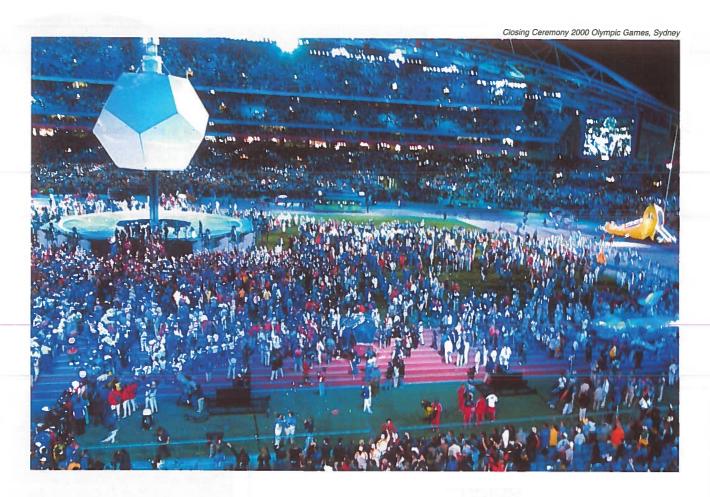
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Lighting Tech Buys Durango

Lighting Technology Group has purchased outright the equity of Durango, the French distributor and service centre for entertainment lighting products. Based just 30km to the west of Paris, Durango currently represents many well-known industry names including Anytronics, Andolite. Lite Structures and Powerdrive, on an exclusive basis within the French market.

Lighting Technology Group's Garry Nelsson told L&SI: "This is a great acquisition for the Group. It strengthens our position outside the UK, where



Pictured from left to right Alan Hewitt and Garry Nelsson of Lighting Technology with Durango's Jean-Francois Cheron and Briaitte Delehaue

channels of distribution have changed significantly in recent years. It allows us to offer a full service facility and showroom in the heart of one of Europe's most influential lighting markets. "We now have the platform to duplicate in France the success we have enjoyed in the UK. With Durango's founders lean-Francois Cheron and Brigitte Delehaye we have chosen two of the most experienced people in the French lighting industry as partners."

In a separate move, Lighting Technology has opened a central London office at the Business Design Centre in Islington. Although the office will represent all areas of Lighting Technology Group activity, it will focus on attracting designers, specifiers and potential end-users.



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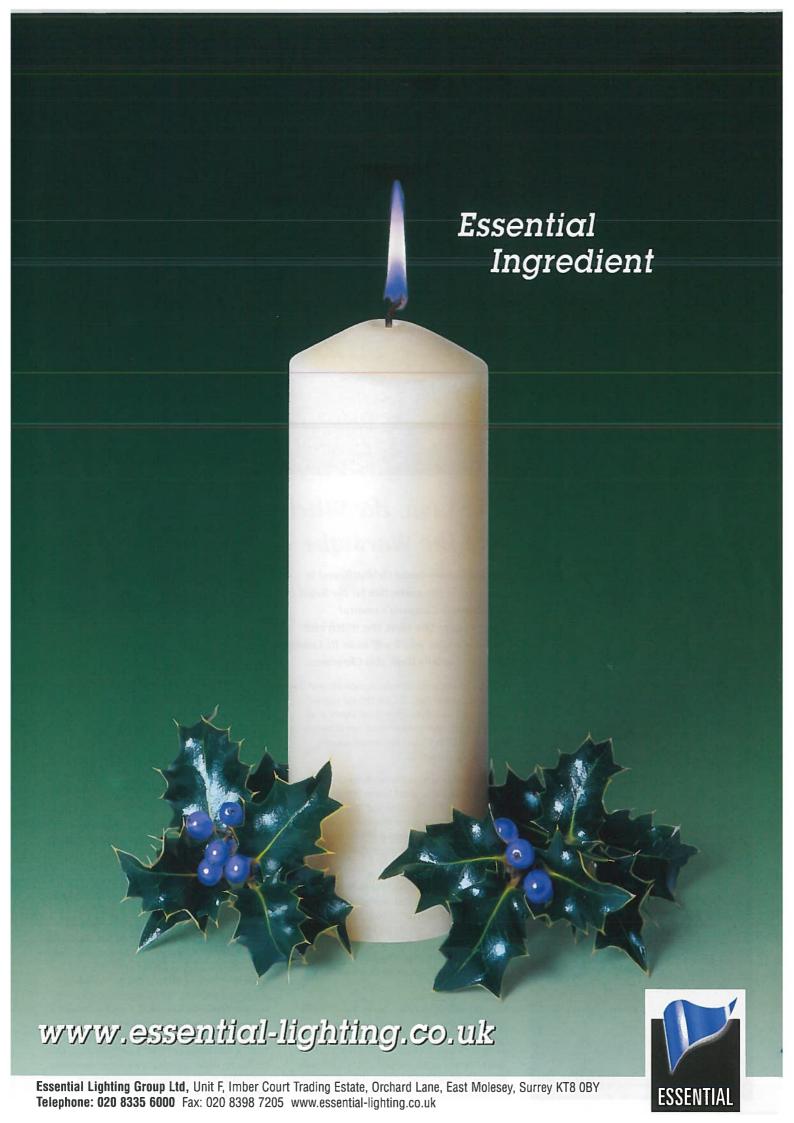
Stagesafe, a company set up to address the training needs of companies in the industry, with particular reference to Health & Safety issues, is now taking bookings for the next round of its Event Health and Safety Awareness Course.

Specially designed for anyone working in the live events industry, the day-long course examines event hazards in detail and covers everything from legal responsibilities to Risk Assessment. The course is open to freelancers, students and groups from companies, venues and student unions, and is fully approved by the Production Services Association. The course runs on the following dates: Bristol (29th Jan 2001), London (31st Jan 2001), Manchester (12th Feb 2001), Birmingham (13th Feb 2001).

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Stagetec Sets up **Distribution Arm**

Stagetec (UK) Ltd has recently formed a new company to handle the product distribution side of its business. The new company, Stagetec Distribution Ltd, will take over the UK distribution of the Compulite range of lighting control and dimming products previously handled by Stagetec (UK) Ltd. It has also been appointed UK distributor for LSC Lighting Systems in Australia. The new company will provide a platform for further development of this side of the business and further enhancement of the dealer network. ensuring that Stagetec (UK) Ltd can concentrate on the fast-expanding sales and installation aspects of its business.



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News Round-Up





The Lion, the Witch and the Wardrobe

Central London-based Orbital Sound is currently in pre-production for the Royal Shakespeare Company's musical adaptation of The Lion, the Witch and the Wardrobe, which will make its London debut at Sadler's Wells this Christmas.

In order to accommodate the complexities of this acclaimed production of Lion, Orbital worked closely with sound designer Scott Myers at all levels to help augment his initial sound design, first created three years ago for the show's original run at the RSC.

Orbital has invested in the revolutionary new Yamaha PMID as a world first to operate as the FOH theatre desk. The potential of this desk as part of Orbital's extensive inventory is set to dramatically change sound design in theatre for both complex sound effects plays and larger musicals.

As Scott Myers explained: "The facilities on the PM ID will enable me to do complex operations simultaneously such as various changes in orchestra colours, quickly yet subtly, difficult changes in foldback mixes, and multi-dimensional sound effect placement. This should allow me to give the audience a first-rate theatrical experience."

From the show's inception, Myers and Orbital's head of production, Andy Robinson, have engineered detailed CAD schematics and produced a new systems design, breaking new ground by way of the use of the PMID. Orbital's in-house editing suite has proved especially useful on Lion. Working closely with Pro-Tools expert

Main picture, from left to right: Orbital's Tim Sherratt, Scott Myers and Drew Mollison at work programming the PM1D

Inset, from left to right: Orbital's Sebastian Frost with Scott Myers in the editing suite

Sebastian Frost, Scott Myers found that the company's vast library of sound effects has enabled him to improve on certain original sound cues. It has also proved an excellent source for creating the new cues that have been requested, such as the supernatural howl when Peter stabs Maughrim.

Orbital's technical support team of Drew Mollison and Tim Sheratt, who have both been in consultation with Yamaha R&D in the development stages, are combining their expertise and embracing the new challenges that this desk has introduced. As Drew Mollison explained: "Although the pre-programming is complex, there is no doubt that the capacity of the PMID is set to change the conventional approach to pre-production and will set a precedent for the future. For The Lion, the Witch and the Wardrobe, we are accommodating 28 cast members and a 14piece orchestra by way of 108 sources through 96 inputs. This includes 28 radio mics and 41 orchestra channels, and at least 16 effects inputs. With 24 Matrix outputs and 14 additional outputs driving the surround system, as well as numerous auxiliaries, this is a tremendous exercise in embracing new technology."





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Wembley Bows Out with Final Concert

Early November saw the final concert at Wembley Stadium before the venue is demolished and redeveloped. Quietly publicised, it passed off with little note in the Nationals, but nevertheless raised a substantial amount of cash for the NSPCC thanks to a host of stars.

Keith Morris, under the auspices of CSS Productions, managed the event, reassembling the team he used so successfully for the British Gas, Maritime Museum New Millennium's Eve event (strange how little we hear of the Millennial events that succeeded). Being November and rather nippy around the towers, this dinner and music show was staged on the pitch, but under cover. Serious Structures provided its Space Building, a giant derivative of the classic Orbit roof, being a curved 'tunnel' 92 metres long, 40m wide, with a max height at centre of 15m. The main feature of the Space Building is the totally transparent side fabric, which meant a lavish lighting display could be staged against the backdrop of the famous Twin

"This event was always going to be very tight on time," commented Morris. "The window for the build and de-rig was only 10 days (seven-day build, three-day de-rig). Scheduling was therefore of prime importance and a lot of time was spent with suppliers and site manager William (Pitso) Pirrie going through this process.

All audio was in the hands of Capital Sound, project managed by Martin Connolly. All Martin Wavefront 8, nine cabinets were flown each side of the stage as main system, plus two sets of delays down the length of the structure to avoid high sound levels for a largely gentrified audience, hung as three cabinet left/centre/right rigs. Front-of-house desks were by Midas and Yamaha, with Gary Bradshaw and Andy May at the controls, while just a single Soundcraft Series Five was used for all monitor duties by John Ormisher and Mick Brown.

Summit Steel handled all the rigging, sound, lights, and some interesting flown decorative elements; not least, two speedway motorcycles and a three-metre tall replica FA cup. The total of 98 of Summit's Lodestar motors underlines the extent of drapes, provided by John Dipple's new company, Softgoods Co, used to convert the interior into a plush club-like setting. The pièce de résistance was the company's new LED star cloth; rated as fives times brighter than standard Pea bulbs, the LED cloth was 25m by 10m, run as



four circuits, DMX-controlled and all fully fadeable.

Lighting was a two-handed affair, LSD and Morris's own Riverside Productions providing a range of Coemar Panoramas and various coloured Halide floods for the architectural lighting of the Stadium proper, designed by Martin Nicholas. The show lighting (all LSD) comprised over 300 moving lights, including 60 LSD Icons, 72 Mac 500s and 20 Cyberlights. Mark Cunniffe programmed and ran the stage show, with collaborative input from Dipple (a respected LD in his own right), Cunniffe being obliged to use two Icon Consoles to handle the huge number of moving lights. Interestingly, the actual physical rig design was by Morris, a double box truss, so too the theme of the exterior lighting - a patriotic red, white and blue. Nocturne Europe provided a five-camera Digital PPU feeding two Barco ELMs at the sides of the proscenium; another four screens were projected onto by smaller Barcos

"At the end of dinner the show stepped up a gear," said Morris, describing the lead up to the finale. "Following a pre-recorded introduction from the PM, Elton John took to the stage for a 40-minute set. As the applause died down, a regimental band entered from the rear of the structure and marched down to form up on the dance-floor where they were joined by soprano Lesley Garret to sing Abide with Me for the last time. "As the music died, attention was drawn to the outside of the structure where the world's greatest footballer, Pele, took the last ever kick which cued a magnificent firework display [supplied by Fantastik Fireworks]."

Considering the windswept Biblical deluge of the fit-up, the achievements of Morris's team are worthy of record. Under appalling conditions, and in a very tight time frame, a complex and extensive production was brilliantly executed, not least thanks to the cooperative efforts of all those involved. It seems that whatever Wembley threw at our industry, it was always overcome.

Steve Moles

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In CODE

The newest destination for UK clubbers is CODE, located at the aorta of Digbeth in central Birmingham. CODE is the first superclub and permanent venue owned and operated by legendary club promoters God's Kitchen.

The stylish, contemporary interior design is by Matt Rawlinson of Raw Design, and the stunning effects lighting design is by Carl Dodds of Making Light Work (pictured with Avolites' Azure console). All lighting fixtures for Dodds' rig were supplied by Coe-tech to installers, Dublin-based Audio-Tek, with the Avolites Azure 2000 control console supplied directly by Avo to Audio-Tek.

The club's main dance floor is overlooked by a balcony, with the VIP area in the 'Gods' at the top of the building, an atmospheric former warehouse, built in the 1930s. Dodds chose a variety of instruments for his high-impact rig, which was to be put in the hands of a specialist team of lighting operators.

The rig consists of Futurelight MH660s, MH640s and eight of the new MH 860s - the first in the UK. These formed the core of the rig and were joined by eight Futurelight SC980 scanners, 16 CC200 colour-changers, four TAS Versicolore spots and eight TAS 1500W Saetta strobes. Additionally, there are four TAS CF6 luminaires, a Coemar NAT TM 4000 and two JEM hazers.



Dodds chose an Avolites Azure 2000 controller plus a Stage Visualiser system for the installation as he needed a console

with the power and speed to deal with an action-

packed lighting rig and the plethora of fixtures. The Stage Visualiser is used in 'live' mode to enable the lighting team to create views from around the club. Dodds says: "The rig design and programming emanates, emits and revolves around the DJ 'God'. With the LJ team located next to the DJ, it was vital to endow them with additional viewpoints so they could achieve this."

Audio-Tek also supplied CODE's JBL sound system which was designed by Santiago Arribas. The six-way system features CVS118HS cabinets custom-built for the club. In the DJ booth, Technics turntables are complemented by a pair of Pioneer CDJ 500s and a Xone mixer from Allen & Heath. Control is provided by BSS Soundwebs run through a Jellyfish remote unit.

Baffle-Only Speakers from Scar

Scar Audio - part of Audio Industries Research - has introduced a range of baffle-only speakers available direct from the factory. These 'ready to play' baffles range from 2-way 12" systems, to 2 x 18" sub-bass bins, surround speakers and studio monitors, are fully wired and tested with drivers, horns, crossovers and tuning ports. All that is needed is a simple box (or flightcase).

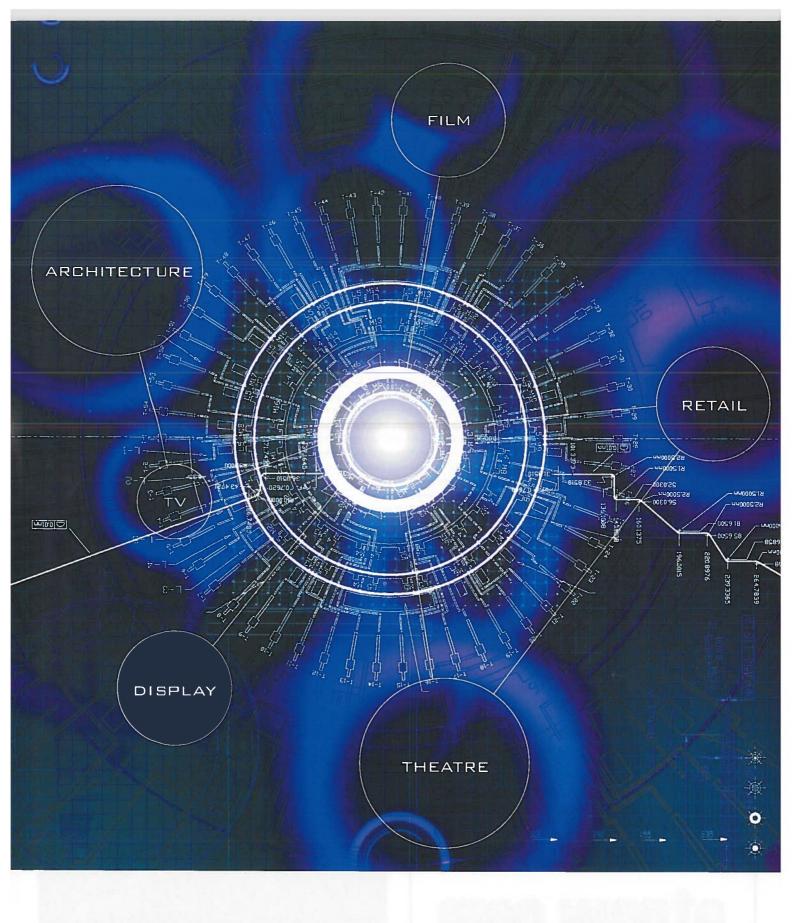
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Hughes Falls Down on Grey Area

Rowland Hughes, one of the brains behind the ShowCAD control package, unintentionally revealed something about the industry when he appeared on ITV's 'Who Wants to be a Millionaire' recently.

Asked by Chris Tarrant whether making lighting controllers was a lucrative game, Rowland's slightly reticent, but transparent, response was: "Not really." This was swiftly followed by a grumpy: "Not according to my bank manager," when pressed further by the TV show's host. This should tell us all something that some of us already knew - the international market for lighting controllers is much smaller than some people imagine when they first decide that they can do a better or a cheaper product than the existing establishment.

As most of the country now knows, Rowland made it to £64,000 and then lost his nerve. When faced with the question 'What official post was held by Earl Grey, after whom the variety of tea was named?', he did a quick calculation and decided to take the money and run. The answer, as every schoolchild will tell you, is Prime Minister.



Rowland has been e-mailing all his friends to thank them for their support during his ordeal by television but, of course, now he has the dosh he should expect to acquire lots of new friends. So, let us be among the first with the begging bowl and suggest a sizeable donation to Light Relief, to salve any pangs of guilt he may harbour for making the rest of us green with envy. In

return. I will promise never to mention Earl Grey in his presence again, but here's a wee picture of the great man to be going on with.

Tony Gottelier

Klark Teknik Revamp

Shuttlesound, the distributor for Klark Teknik products in the UK, has announced a significant change to the way in which KT products are sold in the UK.

Shuttlesound will no longer sell direct to customers and end users; instead, products can now be sourced via a network of nominated re-sellers. Shuttlesound MD Paul. Barretta explained the decision: "Rather than continue to deal direct ourselves, we have carefully selected five re-sellers who are perfectly set up to showcase the Klark Teknik product range. Shuttlesound is still here to talk to anyone who wishes to have a KT conversation, but all sales and after-sales service will be through our re-sellers."

The dedicated resellers are: LMC Audio Systems (London, Birmingham and Leeds), Marquee Audio (Shepperton), Raper & Wayman (London), Northern Light (Glasgow) and Sound & Communications (Dublin).

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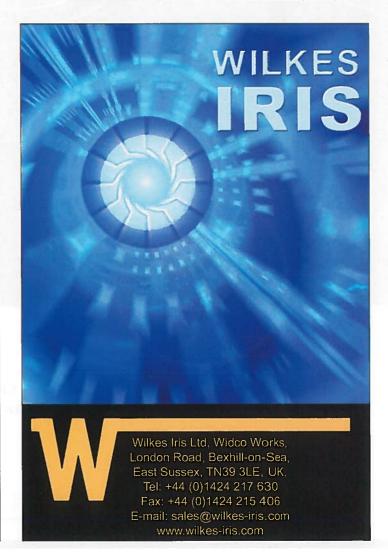
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A Meeting of Worlds - highlights from the Hanover Expo

Expo 2000, the first World Expo in Germany, closed its gates on 31st October after running for 153 days. During its brief lifespan, 18.1 million visitors attended what was almost certainly the biggest event of 2000 and the country's first really major showpiece since the 1972 Munich Olympics.

Expos are massive political, logistical, financial and creative undertakings: the host country needs nerves of steel, deep pockets (the Hanover Expo cost \$1.65 billion), wealthy friends and a pretty extensive run at it (six years in this case). Still, the Germans were fortunate enough to have a head start, this being the first Expo ever to take advantage of existing trade fair facilities which contributed nearly 100 out of the 160 hectares of exhibition space.

The Hanover Expo took on the theme of 'Humankind, Nature, Technology', with over 170 participating countries and organisations (a record number in the history of the event) presenting their ideas for the future. Just under 50 of those countries built their own pavilions, and it is these that dominate the eyeline architecturally and technically they are some of the most challenging structures you will ever see. Appropriately enough, the German pavilion is perhaps one of the most striking, with its facade composed of 2,900 glass elements. Also striking was Deutsche Telekom's dramatically-mounted cube-shaped pavilion - T-Digit - walled entirely in glass, featuring the largest Sony JumboTron LED giant video screen (a massive 207sq.m) and supported by just one pillar inclining at an eight degree angle.



Above, Bertelsmann's Planet m inset, the Dutch pavilion

In keeping with its status on the world map, Canada had the second largest pavilion. Inside, a threedimensional journey took the visitor along a 'river' consisting of 500 screens beneath a transparent pavilion floor, which led to a 360° cinema where a multi-sensory experience was presented using intelligent lighting synchronised to video and sound.

Naturally, some of the major corporate sponsors flexed their high-tech muscles, notably Bertelsmann, the major media group, with its Planet M pavilion and IBM with its Planet of Visions/The 21st Century. In fact this proved to be one of Expo's most popular attractions (which is why the queues grew to epic proportions) offering visitors the chance to stroll through a 'Panorama of Utopias'. Scenery, including futuristic skyscrapers, spherical cities, ancient temples and a unique flying ship, was bathed in ever-changing light. This pavilion also featured a highly complex smoke effects installation - a challenge that was risen to by local manufacturer The Smoke Factory, headed by Florian von Hofen.

The smoke effects system, which had to be fully automated, includes 42 separate smoke machines covering the 16 separate scenes of the display, all controlled via an Avenger Show Controller (more on this particular aspect of Hall 9 in the next issue).

Pavilions at Expos, of course, always try and out-do each other in terms of

> uniqueness. Most however, although having original interiors, are still buildings from the outside. That is, they have four walls and a roof. The Dutch Pavilion, however, was different. The architect MVRDV of Rotterdam gave it no walls at all, so the cinema

at its summit, is sitting on an upper floor held in place by large trees. The level below these featured giant pots, giving the impression that the roots of the trees are concealed inside. Some of the interior spaces for this were designed by MET Studio of London who worked with Peter Phillipson of Future Group Lighting Design for the gobo and colour light effects on the 'flower pots' and Graham English of McClean English to interpret the photographic projections. The sound to accompany this was a mixture of conversations in Dutch mixed into an appropriate cacophony by Tony Frossard of The Sound Experience using standard weatherproof speakers and amplifiers; crucially the mixing was done, live on site, via a 64-multitrack mixer running Ntrack software.

The pavilions, however, aren't the whole of Expoin fact they represent only a small part of the sitewide attractions; providing the detail in between are the exhibition halls, a series of themed areas,







some top-class performance venues, including the Expo Theatre and Preussag Arena (the largest multi-functional hall in Europe) and lots of stage areas on which more than 20,000 events have taken place. Linking it all is a 3km long cable car.

The technical infrastructure supporting all this is understandably massive and whilst we've dipped in and out of some areas, it's practically impossible to cover the ground with any sense of cohesion. Not only are all the venues across the site full of the latest lighting, audio, staging and multimedia systems, but the hundreds of events from major rock concerts to daily cabaret performances, from the nightly festival of light - Flambée - to the 21-hour production of Faust by Peter Stein, all rely on technology to make them successful.

The cast list of companies who have supplied equipment and expertise to the Expo is immense. Indeed, all the major lighting, audio, projection, staging and effects manufacturers are in the technical loop somewhere. There are, however, a number of companies whose role has been more than that of supplying equipment.

German manufacturer Sennheiser was one of the main product partners for pro sound. The company supplied microphones, headphones and wireless transmission systems to ensure that site-wide communications were in the best shape possible. The company also had its own installation at the Expo - an interactive experience entitled 'The Magic of Sounds'.

Martin Professional was one of the major manufacturers involved at the Expo and the company estimates that it provided approximately 60% of all the moving lights. Much of that was supplied by Procon as the general contractor, but also by Martin distributors in the various national pavilions. The contractor responsible for providing all of the audio requirements for the entire cultural and events programme was RockSound, a full service production company based in Hanover.

Another German company - Lightpower Showtechnik - was also a major supplier of equipment and expertise to Expo 2000. Not only did it provide a huge range of equipment from its inventory, it also developed both the conceptual and the technical aspects of one of the most interesting areas, the Youth Media Pavilion. Here,

Lightpower worked in partnership with three major companies - Clay Paky, ETC and Eurotruss. One of the most fascinating areas is Leisure

the Youth Media

Above, IBM's Planet of Visions Pavilion and inset, a 3D schematic for scape - the Youth Media Pavilion

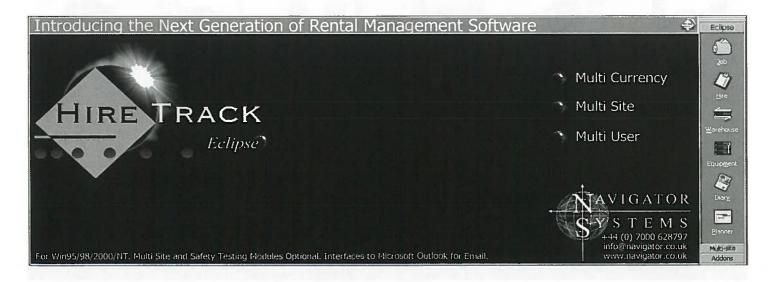
Lounge, at the centre of which sits the 'popscape' LCD sculpture. Visitors control this sculpture by means of a headband which monitors the muscle contractions generated by their facial expressions. The colour and intensity of the lighting changes as a result.

One of the most sustaining images of the Expo was the Flambée show, attracting a nightly audience of 12,000. As has become something of a tradition at Expos, this took the form of a lakeside show, not dissimilar to the giant 'egg' show at the Lisbon Expo in 1998. It incorporated water screens, water cannons, special effects, video projection, eight-channel surround sound, pyro and, of course, a huge assortment of lights including Cameleon Telescans, Coemar 4ks, Clay Paky Stage Zooms and 200k of strobes from which LD Martin Kuhn extracted spectacular results.

Sadly, despite these and the many more real innovations on show, Expo 2000 has had its share of detractors. The 18 million plus visitors were some way short of the projected 40million (ring

any bells?) and it wasn't too far into its run before press reports appeared suggesting it was losing money hand over fist. Some commentators put it down to location, and the choice of Hanover did puzzle some, especially since Rio de Janeiro, Venice and Toronto were all in the frame.

But in one respect, Hanover has gone further than its predecessors, by addressing one of the most common criticisms traditionally levelled at Expos - that of regeneration of the site. The halls, roads and landscaped areas have all been retained, as has the transport access created for the area. Some pavilions already have new owners, whilst others are in the process of negotiating with potential buyers. A small number will find new homes - the Pavilion of Christ, for instance, will be moved to Thuringia where the steel and glass building will be rebuilt at the Cistercian Abbey in the town of Volkenroda. The Preussag Arena will continue to host concerts and sports events but the Expo Theatre is likely to be reconstructed in Switzerland for that country's own Expo02 exhibition.





Live Music Online

www.wembleytv.com is a new on-line development that has been specifically created to be amongst the first to explore a whole host of new opportunities that have arisen from the Broadband Internet revolution.

The site, launched in late November, is devoted entirely to live music, drawing from the strengths of company partners Wembley plc, The McKenzie Group (owners of three live music venues - Brixton Academy, Shepherd's Bush Empire and the new Birmingham Academy), UK concert promoters SJM Concerts, Metropolis Music and one of Ireland's leading promoters, MCD; plus technical partners Virtue TV, Europe's leading Internet broadcasters.

WTV is distinctive in content and style, featuring "as it happens" tour news and a new Pay Per View Broadband Broadcasting Service. This enables the subscriber to watch a performance as many times as he/she likes during a 24hr licence period. Users get not only unlimited access, but also a digital quality transmission, with full viewer interaction in

some cases. By 2004. research estimates that over 40 million households in USA and Europe will be subscribing to Broadband services in other words in excess of 100 million new viewers.

WTV will also offer other services including on-line ticket selling, concert reviews, artist interviews, competitions, auctions - in fact anything and everything dedicated to all aspects of live music. The four venues owned by the partners are being hardwired in preparation for the filming of live music events and other interested venues nationwide are being approached.

Visitors to the site will have access to live concerts, special events, pre-release previews or even a virtual backstage pass to behind the scenes action with camera angles dictated by the viewer!

www.wembleytv.com



Hayden Supply The Ministry

Hayden Labs has recently supplied the Ministry of Sound with a new Rane MP2016 rotary mixers, plus a Denon DN-2600 twin CD player and a DN-M2300R double minidisc player.

The initial audio installation included a Rane MP24 linear mixer - part of the legendary system installed by Richard Long Associates. The original mixer, still residing in The Box, the Ministry's main music room, is in active service as ever, after nine years of hard labour. Hayden Laboratories, exclusive UK distributors for Rane, service the mixer regularly on an annual basis. The ongoing success of this prompted senior sound engineer Mauro Tarable (left) and operations director Nodd McDonagh to approach Hayden Laboratories to supply Rane's latest mixer.

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New York video artist Tony Oursler recently installed his imaginatively-provocative The Influence Machine work into the urban landscape of London's Soho Square. Its trees and architecture proved a perfect setting for this compelling visual and sonic experience.

The



photos: Parisa Taghizadeh

soundtrack from the player. Two of the projectors were mounted on customised 'fluid head' camera tripods, and manually panned and tilted around the park by their operators. One projector was tipped on its side to scroll text vertically up a tree-trunk.

Essentially low-tech in production for a high-impact result, the challenge was not in mind-boggling technology, but in getting the results exactly to Oursler's precise brief. Central to the show was not hiding the machinery. When the video tapes ran out partway through each three hour session, they were simply re-wound and restarted.

Influence Machine

The piece was presented by The Beck's/ARTANGEL Commission. Oursler has worked in video and mixed media since leaving art school in the mid-seventies - when the cumbersome Sony Portapak reigned supreme.

Conceptually, the work - which was simultaneously running in Madison Square Park in NY - is devised from the human attraction to virtual and moving imagery. It explores how this fascination and the technology allow us to enter different psychological states. As a result, giant talking heads, hands and eyes rolled around the trees and buildings. Eerie and ghoulish voices ranted and hissed in the night, interacting with the natural elements and sounds.

Oursler positioned five Sony LCD video projectors around the Park, beaming images onto trees and buildings. Footage included references to some key characters in the history of telecoms and media. Emphasis was also placed on the advent of the telegraph in the

mid-19th century. Source material for the event combined art history with science and spiritualism - the ideas of 'spirits' trying to communicate with the 'living' via tapping, knocking and Morse techniques. It also featured early pioneers of moving image and magic lantern theatre techniques.

The installation was production managed by Simon Byford and Simon Corder - who often team up for more leftfield projects as 'Simon Squared'. The site manager was Ruari Cormack.

The video equipment was supplied by RSVP; the Sony projectors were chosen because they were small, bright and weather-resistant educated guesses pre-empting the schizoid November weather!

Each of the five video 'stations' was selfcontained with its own projector and rackmounted VHS player, small mixer and amplifier, plus a pair of EV S200 speakers for the 'local'



The audio equipment was supplied by Dimension Audio. In addition to the above, four further EV S2000s resided in each corner of the square, emitting a soundscape of weird and interesting communication sounds and voices. The audio source came from a CD player located in the quaint 'house' in the middle of the Square. An

audio feed from the same CD player was sent to a 'talking light box' customised by Oursler which contained a 500W halogen lamp located in the bushes, which pulsed in unison with the

In the house, another audio feed from a Sony Discman was connected to a 200W BC light bulb - the largest they could find - for a similar effect. Also inside was the Spirit Folio Notepad feeding the external light box. Two JBL Control Is were rigged outside the house, radiating outwards into the Square.

The drama of the work was enhanced by five smoke machines, one at each equipment station. This is a difficult production element to get right outdoors at the best of times! Two F100s, selected for their gusto and instant reaction, were supplied by Jon Cadbury at VLPS and used to build up a general haze. Three MiniMists were then steamed in to fill the gaps.

The 'house' yielded a 32A power supply that was more than adequate for production needs. Overnight security was provided by the Westminster Parks Department, who were generally very helpful with this more unusual usage of the space. Cormack and the site technical crew also recruited local resident Billy Connolly for additional overnight vigilance. For the nightly price of a packet of JPS Special, he patrolled the perimeter.

Louise Stickland







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PLASA Welcomes Neil Darracott to Executive Committee . . .

PLASA's Executive Committee has a new face following the recent elections to decide on the line-up for 2001. Neil Darracott (pictured right), design engineer at Total Fabrications



Ltd, now joins the committee, following a closely run contest which saw the final votes cast on December 1st. The elections attracted 123 membership votes in total, compared with 104 last year.

Coming from a rigging and trussing background, Darracott MEng AMIMechE will bring a new perspective to the committee. He joined Total Fabrications at the start of 2000, heading up the design team responsible for the company's awardwinning T2 trussing system; prior to this he worked in a number of fields including broadcasting, lighting, stage machinery, rigging, special projects and demountable structures.

Mick Hannaford (LightProcessor), the serving PLASA chairman, has been re-elected for his second three-year term, while PLASA Treasurer Sammy DeHavilland of Dare Pro Audio/Deco Leisure, has also been voted back to serve a

THE VOTES WERE CAST AS FOLLOWS:

Mick Hannaford, LightProcessor - 80

Sammy DeHavilland, Dare/Deco - 78

Neil Darracott, Total Fabrications - 64

Paul Hinkly, LMC Audio - 62

Peter Walker, NSR - 55

Alan Wick, Turbosound - 53

three-year term. Newcomer Darracott fills the other three-year term, whilst Paul Hinkly of LMC Audio, who was co-opted onto the committee last year, was elected for a further one-year term.

The vote means that long-serving committee member Peter Walker of NSR Communications, will now step down. He has served PLASA for the past six years, and for much of that time, was involved with membership issues, particularly related to new applications to the Association. At the December meeting of the executive committee, chairman Mick Hannaford thanked Peter for his time and hard work over the years. The remaining members of the committee are: Paul Adams (PAI Group), Paul De Ville (Lightfactor Sales), Nikki Scott (Stage Technologies), David Hopkins OBE (Audio Design Services) and Diane Grant (DHA Lighting).

News as it HAPPENS ... www.plasa.org/news

PLASA

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New Face at PLASA

PLASA Publishing has welcomed a new production manager to the team. Sonja Walker, who joined the company in November following the departure of



Nikki Evenden, will be involved with all PLASA Publications.

New Members -

The following companies and individuals have recently joined PLASA.

FULL MEMBERS

Interalia Communications Ltd (UK) is a subsidiary of Interalia Canada, manufacturing digital voice announcers. The company has been trading since 1989.

Just FX (UK) has been trading since 1987 as a supplier of pyrotechnics and effects.

Lite Creations (UK) was formed in 1985 mainly as an installer of lighting systems.

RAT (Music Stands) Ltd (UK) started trading in 1980 as a manufacturer of music stands.

Total Audio Solutions (UK) was formed in 1996 as a distributor, installer and retailer of radio mics, and digital audio equipment.

INTERNATIONAL MEMBERS

Digitronics Inc (Seoul, Korea) is an importer, distributor, designer and installer of lighting, and publishes a magazine called Arche Lighting Art.

Modul Sound Light Music (Istanbul, Turkey) has been trading for over 20 years as a supplier of lighting, sound, trussing and staging products.

ASSOCIATE MEMBERS

Denis Irving (theatre consultant) Australia

Mick Hatch (maintenance/installation engineer) UK

Steve McNeil (theatre technical consultant)

Deborah Keiller (theatre manager) UK

Kelvin Brown (audio engineer) UK

Doug Edworthy (consulting engineer) UK

Alexander Fokichev (company director)

Roy Lawrence (journal editor) UK

Roddy Stewart (company owner) UK

John Allard (television lighting director) UK

Tom Weber-Reichardt (lighting consultant) Germany

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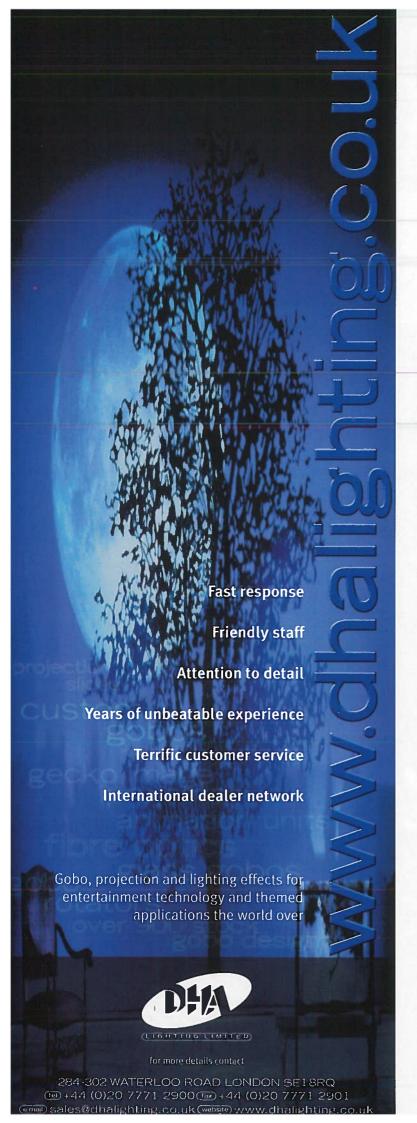
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To the Lighthouse

Outdoor lighting and laser specialists Illuminatum put on an impressive show recently for the re-launch of the New Brighton Lighthouse near Liverpool, part of the 'New Wallasey' regeneration programme.

The council-sponsored project will see £116,000 spent on rejuvenating this historic landmark for the 21st century, including the permanent architectural lighting of the structure itself.





were stationed around the nearby lake. The lighthouse itself was internally-lit with red Codas for the side windows and two Coef MP250s in the central light chamber, creating different coloured effects. The lake was further lit with eight blue and green Sodiums to give it an iridescent glow, whilst five Studio Due City Colors illuminated the nearby fort's walls.

Illuminatum also supplied a 45W YAG laser positioned down one side of the lake, in between the Diablos, run from a Magnum controller. This was programmed by Chris Rowell, and projected graphic effects and images onto the walls of the fort and lighthouse. The Coefs were controlled via a small Coef DMX desk, while the City Colors ran remotely from their stand-alone programme.

The biggest challenge for Illuminatum's crew was co-ordinating the get-in, get-out and technical rehearsals with the tide - which dictated everything - as the lighthouse is only accessible by boat during the ebb. Over the coming months, as part of a council arts project, the lighthouse will be used to flash up various messages in Morse code.

Net Benefits

Star Rigging has installed a new fall arrest netting system into Wembley Arena to improve safety for people working at height during events at the London venue.

The new safety system has been installed into the Wembley grid, which is the largest moving grid in the UK. Pictured is the Fall Arrest Net after being raised at The Who load-in at Wembley Arena.



Both Mark Armstrong and Phil Broad

at Star Rigging have been rigging major live events, including major tours for 15 years. The net is a new innovation, which has gained popularity in the construction industry, attracting the approval of H&S executives across the country. The system ensures that a worker who falls off the grid will be caught, and there are handrails to prevent people falling outside of the grid area. Star Rigging had to adapt the net to suit indoor music applications including making it fire retardant to BS EN 1263-2 standards. The company is currently talking to several other venues about the possibility of installing similar systems.

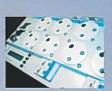


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All Systems Go

Secreted deep in the hostile recesses of Doom Island, the Master of Misery presided over his evil masterplan to destroy planet earth . . . all hopes were pinned on Federal Agent 451 to defeat him.

So went the narrative for Thorpe Park's end-of-season spectacular, a stunning, action-packed amalgam of lighting, sound, lasers and fireworks.

Lighting designer Dave Gibbon (pictured) designed a massive 216 Par can matrix for the project (36 x 6-lamp bars). This was rigged on the island on a tower above his operating 'bunker' which also contained six 48-way Avolites ART dimming systems, Dave himself, his trusty Avolites Pearl console and his right-hand riggerin-chief Chris Henry (Carrot) and Avolites' John

Avolites wrote custom software for the Pearl to allow Gibbon to programme letters, numbers and text for the matrix on a PC - using a mouse

and a grid mimic - and then record them as chases. These were then imported directly into the console and stored, edited and replayed just like normal chases. The software also allowed him to select figures directly from the Pearl's keypad and apply them to the matrix. This saved literally days of programming time and removed the need for a conventional matrix controller. The majority of the show was programmed beforehand at Avolites using a Visualiser system, allowing Gibbon to start the project well prepared.

As part of his brief, Gibbon also lit the Island of Doom, the centrepiece of the action, with eight Studio Due City Colors, also controlled from the Pearl, and a 70kW Lightning Strikes strobe burned into the sky and clouds.

A major challenge was the island location, 300 metres across the lake from the viewing platform. Others included the weather inevitably - and the get in . . . a 100m haul through pure quagmire and sludge at the back of the island, aided only slightly by a 45ft arm forklift vehicle.

The 21-minute timecoded show was run just like any conventional theatrical performance, with a show caller administering cues to all departments. SMPTE timecode from the sound desk, located on the audience viewing platform, was bounced over to the lighting desk via radio link. It was decoded into MIDI timecode before being fed into the desk.

Creative Media Techniques (CMT) co-ordinated the overall visuals and supplied the lasers for the show with Darren Parker Lighting (DPL) from Southend supplying the lighting equipment, LD

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TIMES

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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Trent Quakes Under the Latest Cerwin Rumble



Daniel Carver of university specialist consultants, Section 77, has opted for the new Cerwin-Vega SUB218/T250 Intense stacks for Nottingham Trent University, following a demo of this and other leading brands by John Southee of JPS.

Thus an order for eight stacks was placed with Cerwin-Vega's exclusive UK distributor, Lamba plc. The SUB218 is a direct-radiating twin 18" sub, featuring high-power output down to 32Hz - a combination of deep bass and high power handling. Thanks to its stainless steel bar handle and and wheels it's also portable - which is precisely what the University wanted, since the 1,500capacity auditorium functions as a canteen by day, and the evening conversion includes the eight stacks of T250/SUB218 being wheeled into position - four stacks either side of the stage.

The Intense! T250 mid/high box is divided into two sections which can be operated in bi-amp or passive full-range mode. The mid-bass comprises a 10" horn-loaded driver, the mid/high a large format 2" exit compression driver and the SS11" throat HF driver, featuring hybrid diaphragm technology, handling the top end. Personally recommended for the installation work, John Southee supplied sound - with a 16K output capability - lighting, stage and the triangular Trilite grid for the lighting suspension in a contract that was briefed, designed, commissioned and installed within a three-week period - despite the fuel crisis. To optimise the different EQ parameters and system management JPS picked the BSS FDS-366 Omnidrive Compact.

The final word comes from John Southee, who noticed with horror when he went to present the cheque for the work, that the amount written in for the sound system was followed by the words "and worth every penny." But he needn't have worried - happily it didn't impede the transaction.



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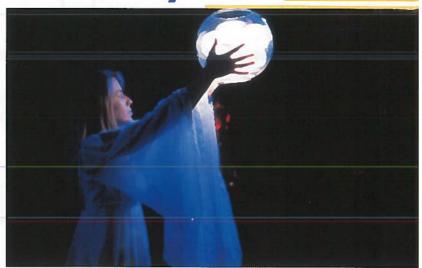
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"Shabbatai, an original rock musical in New York shimmered in a world of mysticism and divinity. Low scrollers on ACL's gave broad walls of deeply coloured light in glossy blues and intense lavenders. The gel strings included Supergel #74, #56 and #170 which painted the actors and costumes with deep, rich bases against which the crisp practicals and keylights set off their faces and hands."



be bright

"The acclaimed revival of Look Back in Anger for London Theatre Laboratory required intense realism - an updated kitchen sink reality of bare lightbulbs and dusty 1950's bedsits. Supergel #11 and Cinegel #3410 provided the dominant sources in three quarter backlight, and a softened fill from sandwiched Supergel 114 frost and double Supergel #04 rounded out the sepia image."





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 at 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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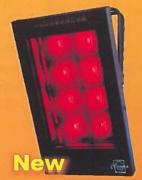
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It's still difficult to think of Performing Arts High Schools without images of multi-coloured leg warmers and ballerinas armed with high octane welders flooding the visual horizon. The movies Fame and Flashdance still have a lot to answer for in terms of how we view formal training within the arts.

A visit to the Brit School in Croydon quickly annihilates those dated eighties images and replaces them with a slick, contemporary vision where leg-warmers (if they're worn) are disguised beneath cool student attitudes and dedication to the various artistic and technical vocations on offer. With the recording industry backing the Brit School, it's no surprise to discover that the music courses are well developed and until recently the school emphasis fell in that direction.

The school's production manager, Caroline Heale, was brought in with a brief that included updating the school's main performance venue and raising the profile of the technical courses. The school has two other spaces that are used for minor performances, workshops and as teaching spaces. The 'Tent' is a large, open space with an ingenious coupling of a truss system and copious quantities of black tabs and the third space, the Garrett Studio, is a 50-seat space, mainly used by the Theatre Department.

The school takes students through GCSE courses with a wide array of subjects available. The MPA (Main Performance Area) is well-equipped for a high school, much to the credit of the technical department. There are 36 100kg point hoists arranged on tracks and controlled electronically. These are usually linked to six flying bars over the main stage and auditorium areas, but the system is flexible. There are also three Hemp bars that are primarily used for teaching purposes and two 250kg winch bars. The space has a low grid height with only 8m from the stage floor to the roof, but this doesn't seem to hamper the creativity of the student set designers!

The sound system consists of a Soundcraft Venue II, 36-channel mixer with 8-way matrix. The PA comprises Tannoy T300 and B400 cabinets, eight T12 monitors with QSC PL2 and PL4 amplifiers FOH. The school has also recently purchased a four-channel Sony UHF radio mic system that is their pride and joy; and there are Shure, AKG and Sennheiser mics in the kit-list.

On the lighting front, the MPA boasts an impressive system controlled by an ADB Phoenix 5, 350-channel DMX desk, powered by 96 channels of ADB's EuroPack, 48 channels of EuroRack and two 12-way Zero 88 ID racks. An XTBA DMX network is also part of the system. For other control issues, the school also has a Strand 430 control desk and an ADB Cantor 48channel desk. The luminaire stock includes ADB equipment, ETC Source Fours, Starlette fresnels, Sil 30s and Thomas Par cans.

Judging by the high technical and design standards the school advocates, the reputation of The Brit School will ascend of its own accord and no doubt we will be hearing of its graduates in due course.

Jacqueline Molloy





L&S Eye

"It's a terrifying experience of nausea and humiliation - you WILL see the powerful character of the man you once held in awe. and nay, even elevated to Godlike status, melt to a glutinous mass as he cries all over the cheque."

Rowland Hughes, who collected a cheque for £64,000 on Who Wants to be a Millionaire (see page 28).

"Love God Needs Viagra."

The chant of the 4 500-strong audience at a Barry White concert in Sydney, where the great man reportedly arrived late and performed with his back to the majority of the audience.

* . . . 'resident idiot' at Lighting&Sound International."

Some might feel there was competition for this title, but the claimant on this occasion is lan Herbert, the idiot, describing himself in a recent issue of The Stage.

GWR and Oxford Sound Co in £1m Deal

GWR Group, the UK commercial radio group, has signed a deal with the Oxford Sound Company, in a contract worth £1m. to carry out the technical fit-out of a new Bristol Digital Broadcasting Centre.

In one of the biggest radio contracts in the UK this year, the Oxford Sound Company will fit out 23 production studios and other technical areas. The deal represents a major investment by GWR Group for GWR-FM and Classic Gold in Bristol, GWR's nationwide programme production unit and GWR



Oxford Sound MD Andrew Rileu (left) is pictured with Tim Donaldson, head of GWR Engineering.

Digital, which originates the Digital Radio stations Core and Planet Rock in Bristol. GWR has found a new base for its Bristol operations and moves to the new home in early summer 2001. The building is currently being converted to house the 23 technical areas.

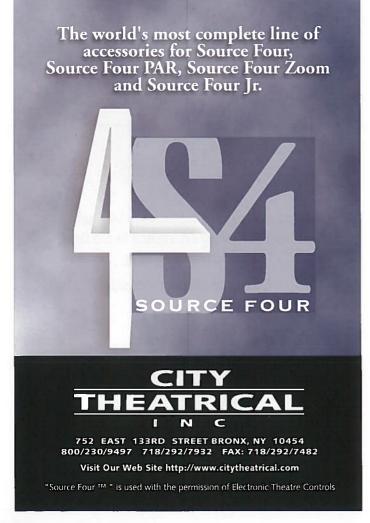
Futurist Wins Leeds Contract

Futurist has won the entire contract for production lighting and entertainment lighting packages for Leeds City Council's new Millennium Square project in Leeds.

The contract includes the supply of Avolites control and dimming systems, together with Martin MAC 500 and 600s and an entire rig of theatrical lighting and special effects. The focus of the contract is the supply and installation of eight laser systems, designed

and manufactured by Laser Electronics Ltd.

which use brand new 2.5W DPSS diode technology, developed in-house by the company. The lasers are also the first of their kind to offer full digital blanking capabilities. The systems do not require three-phase power supplies or water cooling, and simply plug in to a 13 amp domestic supply. These are currently under manufacture and will be installed ready for the New Year's Eve celebrations, which will also serve as the Council's





official opening of the project.



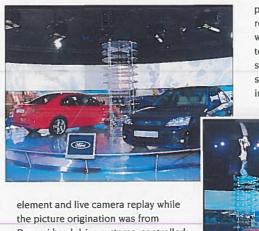
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Car Show

Creative Technology crews and communications systems were out in force at the British International Motor Show 2000 - working alongside leading design companies Imagination and Jack Morton Worldwide (formerly Caribiner).

The highlight was the spectacular Ford Motors stand, dedicated to the launch of the new Mondeo, which dominated Hall 4 of Birmingham's NEC. The centrepiece of their display was CT's fully-integrated audio-visual installation, designed and programmed by Chris Slingsby, head of Imagination's Special Projects dept, working alongside CT's Dave Herd. The presentation combined multiples of 6K PIGI scenic projectors, using double scrollers and rotating double scrollers through 360 degrees, supplemented by eight Christie 7K Roadie projectors. These were mounted onto the circular lighting grid in the centre of the drum, firing out into the 30m diameter auditorium - one projector assigned to each of the four perimeter screens. The 3-chip DLP Roadies provided the video



element and live camera replay while
the picture origination was from
Doremi hard drive systems, controlled
via Dataton, which also interfaced
with the show automation system.
Playback was from a three-camera PPU system,
with desktop video PCs, providing the speaker
support.

On the dealer and press days the presentation was made in a full show format. Tracking screens moved on monorails as part of a choreographed sequence, while dealers watched from their seats inside the theatre 'drum'. As each show commenced the screens moved from their fixed

positions, and each section of the circular screen rotated a quarter turn. The PIGI projectors fitted with the rotating double scrollers allowed images to be moved through 360 degrees at varying speeds, working synchronously with the opening screens to create a series of dynamic moving images. When the show finished, the entire drum

opened up. Creative Technology delved further into their hire fleet, supplying a Toshiba videowall for the first floor cafe area, as well as a number of Pioneer plasma screens.

The Imagination-designed Land Rover stand presented the revised Freelander. Their production manager Francis Mugford in turn contacted Creative Technology who supplied an 11sq.m 10-bit LVP-102D

Lighthouse 10mm indoor LED screen, running continuous product footage off a Doremi. Guy Mapley project managed and Jonathan Sheard was senior engineer. The Vauxhall stand for Jack Morton Worldwide was under the supervision of Creative Technology's head of project management, Jon Hodgson, with a number of 40" plasma displays and VTR playback sources being provided for the opening press and trade days, as the new Corsa was revealed.

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'Shades of white against a dark background'



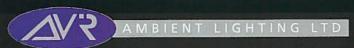


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(This

Letters to the Editor -

Dear Editor.

RE: Lou Reed Review, L&SI October

I read the article about the Lou Reed tour with great interest. I was the original designer for that tour and Mark Risk was my lighting director. After the show was on the road and I had left the tour, Mark Risk adapted the rig for the various venues, filling in as both operator and designer as some often do in these situations.

I was very fortunate to have the opportunity to work with Mark Risk - his artistry and cooperative spirit were of benefit to both me and Lou Reed. The band always expressed that they needed the freedom to alter the show once on the road and Mark performed excellently.

Originally there was another design that Lou Reed and I developed, but after we performed with it, he asked me to alter it and I obliged - no bullet biting necessary - it's my job. After my second pass, he expressed to me that he was happy with the final outcome.

I don't understand why Steve Moles would make a statement implying that I could not "bite the bullet and do what the star asks." Funny, I have a signed piece of paper and a cheque stating I did exactly that. And gosh darn, aren't those the same quartz floods in the colours I specified shown in the photographs accompanying the article! Hmm. Sometimes in this business we designers have to do more than bite the bullet - we have to eat the gun, which I have sometimes done when asked!

Anne Militello

Steve Moles responds . . .

Dear Anne,

Perhaps I should have called you to check certain details, but this was a review of the show and it was not my intention to either defame you, or enter into a long dissertation on the ethics of lighting design. What I had implied in my text was that you had not compromised your personal standards, which in itself is commendable. If you visit England, I should like to meet with you, and if you're agreeable, review your show, which I trust will go some way to rectifying your grievances. Mark told me of your work and was full of praise - I'm sure I won't be disappointed.

Steve Moles

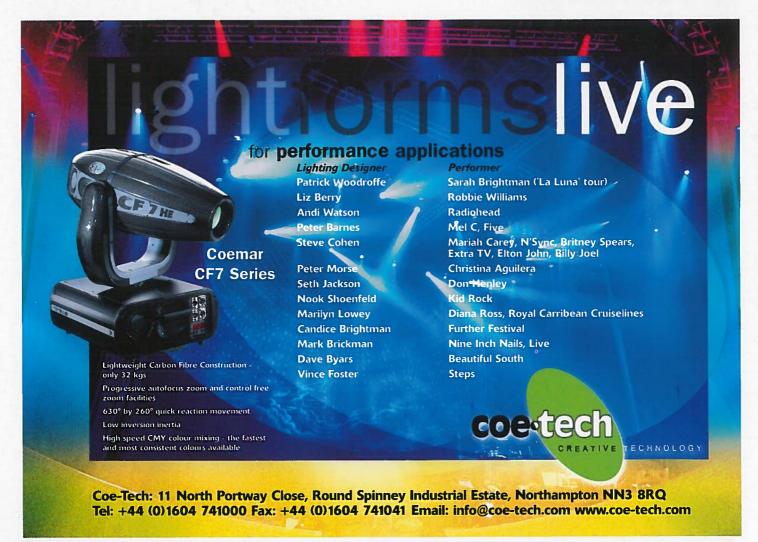


New Fluorescent Lighting Wins Award

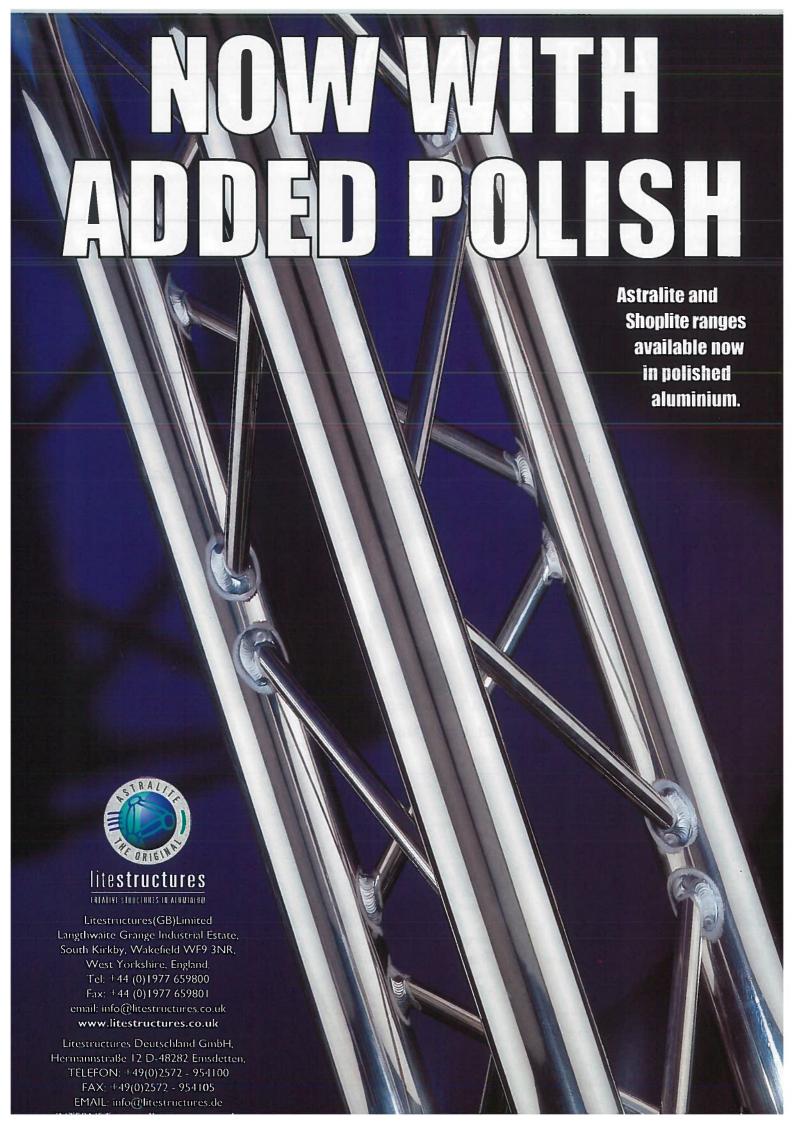
Television lighting director John Allard (pictured left) has won an award for the

development of a new fluorescent lighting system based around a twin 36W PLL light tube. SunStar, now manufactured by AC/DC Lighting of Barrowford, Lancashire, is a cost-effective, highly portable tungsten or daylight balanced fluorescent light. With its hot light output, cool running and low energy consumption, this system is intended for use with television film crews, photographers and exhibition set illumination. The light units are already in standard use with television companies GMTV and This Morning.

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If you're interested in how control systems and computers are used in the live entertainment arena, then John Huntington's latest book will not disappoint.

Huntington in Control

Control Systems for Live Entertainment has become something of a bible for those who seek a better understanding of control systems. In this updated and revised version, Huntington has revised his original work in answer to the changes of the past six years. He covers the new technologies that now operate in the field, although perhaps the most important change has come not in the technology itself, but the level to which it is now being used. Huntingdon addresses the challenge of how to adapt these technologies to purposes for which they were never designed. Covering control for lighting, lasers, sound, video, film projection, stage machinery, animatronics,

special effects and pyrotechnics for theatre, concerts, theme parks, themed-retail, cruise ships, museums, corporate and other events, the second edition includes sections on all major entertainment control standards, methods and protocols, including DMX512, MIDI, MIDI Show Control, Sony 9-Pin, SMPTE Time Code and many others. It also addresses the basics of control systems and data communications, including EIA

serial standards, in addition to offering information on networks for entertainment applications, including the all-important Ethernet.

Huntington also casts his expert eye over system design concepts and case studies featuring realistic problems and practical solutions.

Drawing on his extensive experience in the field and classroom, John Huntington clearly explains everything that goes on behind the scenes and inside the machines to bring bold visions to life in real-world settings.

Control Systems for Live Entertainment (ISBN 0240 803 485) is available from mid-January, price £32.50. Call +44 1323 418406 for details.

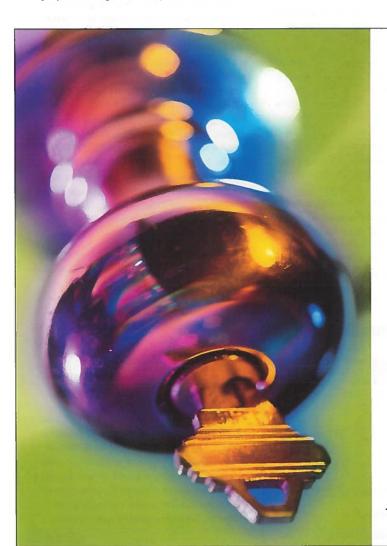
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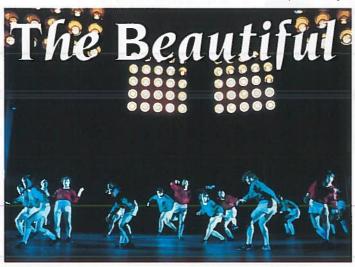
photo: Ivan Kyncl

It's a show made by unlikely collaborators. Starting with the authors: Andrew Lloyd Webber, Lord of the Realm, and Ben Elton, former scourge of the government?

Unlikely, but true; it seems that Elton's enthusiasm for the musical form re-awakened the composer's own excitement. To this mix, add the unlikeliest of subject material, a boy's football team in Ireland in the heights of the trouble. The result is

The Beautiful Game, hailed by some critics as Lloyd Webber's best musical, and drawing comparisons with West Side Story from others.

A creative team was then assembled from the world of opera: director Robert Carsen, designer Michael Levine and lighting designer Jean Kalman. For those familiar with his work summed up, if over-simplified, by describing it as a 4K HMI fresnel in each corner of the stage, plus some low Par cans from the circle front as front-light - Kalman was perhaps the most unlikely choice of all, his style about as far from the brightly-coloured, tightly paced stereotypical 'musical' lighting as it is possible to get! But The Beautiful Game isn't that kind of show. A workshop of the production, staged in what became the show's actual venue, the Cambridge Theatre, used an empty stage with the lighting rig flown up to grid height. The real production simply finesses that concept: fake versions of the side walls were built within the real side walls to give concealed entrances and exits. A fake back wall includes moving panels to reveal the pure, distant countryside in one song, whilst the proscenium arch was distressed further, the floor was altered to allow a petrol-bomb flame effect and drainage for the



overhead rain curtain (both made by Any Effects), and some flown items, including a set of stadium lights, for the big football match number (made by HELL) were introduced. Vertigo carried out all of the rigging, under the direction of production managers Simon Marlow and Stewart Crosbie. The concept was cold harshness, and Kalman followed his normal style to provide it, the shock value when stronger colours occasionally creep through therefore being all the greater.

He did allow associate lighting designer Alistair Grant to introduce him to new tools though: when the moving yoke HMIs he originally sought weren't available in time, other options were investigated. As a result the show became one of the first to use Vari-Lite's new VL2416 washlights, with 14 of the 1200W discharge units with variable beam spreaders in the rig; these were supplemented by 18 VL5Bs, all provided by VLPS in London. Kalman has also fallen in love with the DHA product range on the show: 26 Digital Light Curtains are spread all over the place: in the overhead rig, again flown way up out of sight, on side booms and with one unit even mounted on the lower circle front surprising, but surprisingly effective! The

Cilling

overhead units were fitted with a selection of frosts in their scrolls, allowing their beams to be spread to suit different moments in the show. Also out front, at the top of the midauditorium booms, are two DHA Digital Beamlights; much of programmer Stuart Porter's time at his Wholehog 2 was spent producing cues to nudge these lights around the stage following the actors! Kalman also used 12 Martin PAL1200s to provide shapable beams. This portion of the rig was supplied by

The Moving Light Company, with the conventionals (including around 120 Source Fours, 100 Par cans, two 5K fresnels and five 4K HMI fresnels) from White Light. The installation was masterminded by a team led by production electrician Pete Lambert, and the show's lighting is now overseen by Dave Sadler.

For the audio side of the show, Lloyd Webber turned to a more familiar collaborator, Martin Levan, who has been designing the composer's shows since Cats. Levan's design is based around his familiar combination of Tannoy 3836 and T40 and Meyer UPA-IC and USW-I loudspeakers, with UPM-IPs used as front-fills; the rig (supplied by Autograph) also includes EAW JF200s in the balcony for delays and an EAW JF80 surround system, with all of the loudspeakers driven by Yamaha amplification through BSS Omnidrives. Signals from the 36-channel Sennheiser radio-mic system, the Nemisys Music Gigasamplers (used for sound-effect replay) and Soundscape REd24 are collected at a Cadac J-type console with 47 standard inputs, 24 programmable stereo inputs and a 12 x 24 matrix.

The show also has a comprehensive monitoring system for the band, who provide a diverse range of sounds; the pit has a Crest Century console that then feeds 10 Samson 24-channel mixers! Levan's team for the show included associate Janis Gurr and production sound engineer Mike Walker; the sound is now run by Nick Sagar, Julie Cole and Hyder Khalil.

Between them, the creative team have created a musical unlike any in recent memory: a real, dangerous and politically relevant story told through music. It's not a 'mega-musical', it's not a fun night out (though Elton does inject humour along the way) and it's not (despite its themes being, sadly, quite universal) a show that would necessarily lend itself to round-the-world cloning. But all those things, along with a great cast, are what make it an interesting, challenging and, ultimately, superbly-produced piece of work.

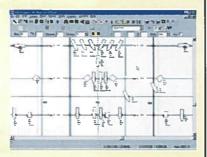
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People News

Tannoy has promoted RIchard

Gainsborough (right) to Director of

Business Development, with
responsibility for the expansion of
products to provide complete
system solutions. Gainsborough
joined Tannoy in 1990 as export
sales manager and was appointed
business development manager two years ago.

HK Audio's UK & Eire distributor, John Hornby Skewes & Co, has appointed **Neville Raine** as its new HK Audio specialist. Raine has worked for JHS before, from 1988 to 1991, and more recently, has had managerial experience with Wharfedale and Fane Acoustics.

Navigator Systems' US Division has appointed Ray Covenant as technical director. Covenant, who has many years' experience in the entertainment industry, will oversee technical support for the hundreds of companies in North America currently using HireTrack Eclipse.

Telex Communications Inc has announced several new personnel appointments within the speaker

and microphone division of its Telex Pro Audio Group. Mike O'Neill has been named vice-

president and general manager for speakers worldwide and for amplifiers in the US. Joel Johnson, previously product manager for Telex and EV wireless microphones, now fills the role of general manager for wired and wireless microphones worldwide.

Arup Acoustics has appointed Colin Waters as head of environmental acoustics. Based

in Cambridge, Waters will build on his considerable expertise in expanding the Arup team that carries out noise assessment and control. Waters' experience includes over 30 years in the field of acoustics, including more than 20 years as the principal of Colin Waters Associates.

Bill Hewlett, the originator of the Icon-M, has left Light & Sound Design. According to MD Dave Keighley, Hewlett has departed to pursue other design ideas, having taken the Icon-M project as far as he could. Although he is no longer a director, he will continue to work with LSD as a consultant. The Icon-M, meanwhile, is now scheduled for release next summer.

Panel, power distribution and lighting bar manufacturer Andolite has appointed **Mick**

Staplehurst as marketing executive. His role will be to develop and market an extended range of products for touring, events and conferences, an area in which he has had many years' experience with SSE, Britannia Row and others.

OSC Audio has appointed Jim (Ski) Skiathitis to the position of systems specialist for the OSC Pro Touring division. An industry veteran with over 20 years of experience in the touring, sound and recording industries, Ski has worked as a sound engineer for a variety of acts from Smokey Robinson to log Cocker.

Ken Berreen has recently joined Fisher
Productions as a lighting project manager/Health & Safety Officer. He previously worked at the
Dome as technical manager for Pro-Design Ltd.
Prior to this he handled the lighting design for a
number of productions and also spent four years
as pantomime LD for the Harlequin Theatre.

Former PLASA Show manager **Nicky Rowland** has set up Circle 8. The new company will offer event management, sales and marketing skills to the entertainment industry and beyond. It has confirmed its first industry contract and will be managing Theme Magazine's Bar & Restaurant Awards.



Asleep in the Stalls...

he arts reporters have been having a gleeful time lately, slagging off Trevor Nunn and the National Theatre - nothing like a good disaster to bring out the column inches. Unfortunately, what's been going on at the National is nothing like a good disaster.

"Word has it that the Plymouth Meat team are at work on the new musical from Jonathan Harvey and The Pet Shop Boys. It should be a treat - I wonder if the Shaftesbury will be free?"

CERTAINLY THERE HAVE BEEN one or two programming hiccups, resulting in rescheduled press nights for the new ensemble company, but even the Evening Standard, which has been calling loudly for Nunn's head, was forced to admit the other week that half of the sell-out shows in London are at the NT. What's more, the unfortunate Mr Nunn is caught in a classic

double bind. He's not delegating enough, say the critics, and he's not using enough young directors. Yet it's the young directors who haven't delivered on *Romeo and Juliet* and *Peer Gynt* and guess who's had to pick up the pieces.

HAVEN'T SEEN the Romeo, but on press night Peer Gynt came over very well, with 35 minutes cut from the advertised running time of three hours, 50 minutes - thank you, Trevor. Francis O'Connor's set of trunks and packing cases (as used by John Napier in Candide, Tim Hatley in Hamlet - what is this, the Royal National Left Luggage Office?) narrows down the Olivier stage so that it becomes more of a thrust.

THE LIGHTING is disappointing, suprising since it's by one of my favourite designers, Paule Constable. The moving lights make an obtrusive

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noise throughout, and if the projections on the cyc are her responsibility, rather than O'Connor's, then it's a shame. Paul Groothuis has assisted the sound for the songs, reasonably enough, but I'll bet he meant the enhancement to be rather less obvious than it is.

MUCH MORE CREDIT goes to the tech team in the Lyttelton for Jeremy Sams's inspired production of Noises Off. Michael Frayn's backstage-frontstage comedy makes tremendous demands on its real stage staff, let alone those pretending to be the stage staff in the manic action of the play itself. So stand up SM John Caulfield, DSM Garth Kelly and ASMs Helen Barratt and Janice Heyes, who have the nightly task of supervising wobbly doors, even wobblier actors and an unfeasibly large quantity of sardines. Rob Jones has had great fun parodying those splendid old Carl Toms sets with the bedroom floor bridge (who's his successor now - Tom Piper? or Paul Farnsworth, whose Mayfair apartment set for the current Fallen Angels looks like something out of the British Museum's Egyptian Rooms?) and Tim Mitchell offers suitably ropey lighting. The whole thing sets out on an eight-date tour next year before moving West - good luck to all.

AT LEAST all the furore at the National has removed the spotlight from Adrian Noble and the RSC, who are the usual targets for the why-oh-why brigade. As it happens, they also had a late press night for Gale Edwards' Barbican staging of The Duchess of Malfi, not one of the best efforts of this fine director. Peter J Davison's usual architectural magnificence was missing too, in a set which looked as if it had been built out of old acoustic hardboard. Mark McCullough, whose lighting for Edwards' Whistle Down the Wind was one of its more interesting features, is also guilty here of missing one of the repertoire's classic opportunities for heavily atmospheric effects. For once, less light would have been a blessing.

MUCH MORE STYLE accompanied James
Macdonald's treatment downstairs in The Pit of

what will become a touring *Tempest*. Regular accomplices Jeremy Herbert and Nigel Edwards have delivered a cool, simple set (enlivened by some neat videos) and a bunch of lighting states which are very much at the service of the actors, who can get on with communicating Shakespeare's last play clearly and carefully. No touring problems likely to arise here.

THAT SAME SENSE of a design and direction team in total harmony is a regular feature of Howard Barker's Wrestling School tours.

Whatever you think of Mr Barker's plays, the effectiveness of their staging by his tame company is undeniable. Tomas Leipzig, who made Und and Scenes from an Execution look so good, has worked wonders again for He Stumbled, using the simplest of materials - the strongest statement is two panels of shining corrugated iron. Billie Kaiser's costumes, too, are quintessential Barker (bowler hats, anyone?) yet stylish enough to form a couture collection in themselves. As for Ace McCarron's lighting, its precision takes your breath away.

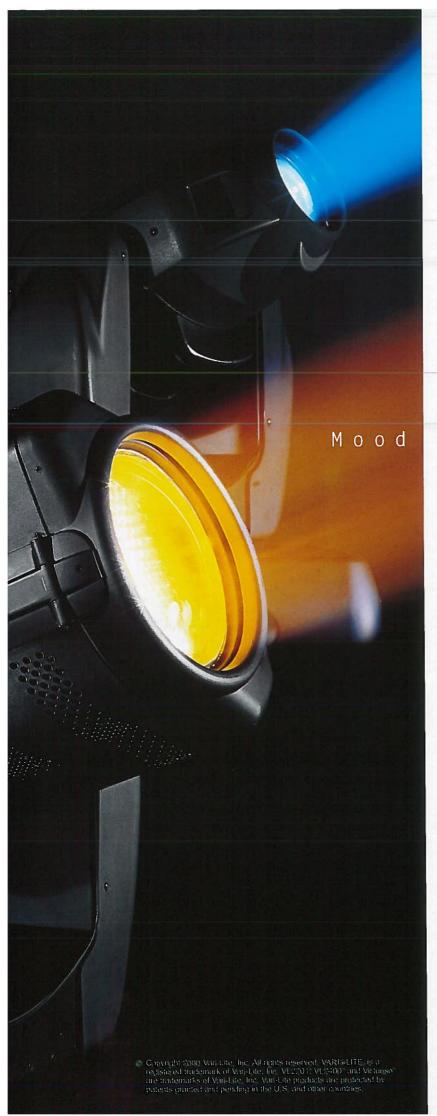
MORE FINE TEAMWORK out in Plymouth, where Gemma Bodinetz, Es Devlin and Adam Silverman for once had a big budget to do justice to a new play, Meat, by an unknown author, John O Davies. They had the main house stage on which to build a three-tier set of epic proportions that recalled that for Peter Stein's Hairy Ape at the National a while back. You have to admire Plymouth's bravery in putting so much into a show that was doomed from the start to thin houses. Those who did see it had a treat.

BACK IN THE REAL WORLD (well, commercial theatre) there's the latest big-budget musical, Napoleon. I suppose it's not all that different from Meat, in that the Shaftesbury is not exactly bursting at the seams with eager punters either. Here I detect a failure of technical teamwork: Francesca Zambello has staged this highly-orchestrated show in a suitably operatic manner, and the great Marie-Jeanne Lecca has supplied appropriate costumes. The problem lies with Michael Yeargan's sets, which rely on a moving metal-frame stage and some rather dry slides to create great historic panoramas.

RICK FISHER does his best to breathe atmosphere into this unpromising setting, but even he can't disguise the two-dimensional feel that Yeargan has imposed on a show that was always likely to get stick for its pretensions, but might have got away with them on, say, a swags and staircases set from Maria Bjornson. Even the swags alone that Robert Jones supplied for Napoleon's predecessor, the unjustly maligned Lautrec, would have created a more apt effect. Word has it that the Plymouth Meat team are at work on the new musical from Jonathan Harvey and The Pet Shop Boys. It should be a treat - I wonder if the Shaftesbury will be free?



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The first surprise: discovering that the building on the

The first surprise: discovering that the building on the Marylebone Road in London, familiar from childhood trips, is actually part of a multi-million pound entertainment empire that now spans the globe.

The second surprise: discovering that the waxwork figures of the great, the good and mere celebrities, vaguely remembered from those same childhood trips and gently derided in the years since, are not only brilliantly executed works of art, but are also completely fascinating to be around.

The third surprise: that, given both of the above, it's taken the Tussaud's Group so long to set up one of their Madame Tussaud's Waxworks in New York, which would certainly see itself as a world centre of greatness, goodness and all things celebrity.

'So long' in this context means more than 200 years - at least, according to Tussaud's publicity material. They are counting from the time of the birth of their founder in 1761; having

learnt wax-modelling from her mother's employer, Philippe Curtius, she later found herself imprisoned with the future Empress Josephine in 1793, a contact that allowed her to model Napoleon after the revolution. Tussaud inherited Curtius' wax exhibition in 1794; she took her show on tour in the UK in 1802, and established a permanent base in Baker Street in 1835. Tussaud herself died in 1850, but her grandsons moved the show to its current Marylebone Road site in 1884 and continued to expand it, the show surviving both a 1925 fire and the 1940 bombing which destroyed 325 head moulds but, ironically, left the figure of Hitler unscathed.

The Planetarium was added in 1958 but further expansion did not come until 1971 when a new exhibition opened in Amsterdam. This was expanded during the 1980s, when the Tussaud's Group also opened the Rock Circus in London's Piccadilly Circus, then dramatically

Rob Halliday Waxes Lyrical on Madame Tussaud's, New York

revamped the London show while at the same time moving into other areas of entertainment. It now owns Alton Towers, Thorpe Park, Chessington World of Adventures and a themed attraction at Warwick Castle, and manages the London Eye. Most recently, new exhibitions have opened in Las Vegas and Hong Kong.

On November 15th, these were joined by Tussaud's New York. The new, 85,000sq.ft museum is located on 42nd Street, west of Broadway, right at the heart of Mayor Giuliani's plan to revitalise Times Square and, from there, the city as a whole. This block is effectively one massive construction site, cinemas and shops all at various stage of completion. Tussaud's light, airy foyer offers immediate respite from the chaos outside, with Whoopi Goldberg present to greet visitors. They then travel up glass elevators to a viewing gallery on the front of the building which allows views down 42nd Street to the water on both sides of Manhattan.

The exhibition then has six areas. 'Opening Night Party' is intended to be a first-night party in progress, New York celebrities ranging from Woody Allen to Donald Trump standing around the central pool of an Italian-style baroque garden. This leads on into a corridor of mirrors -



"No, they don't melt. We've never had a problem with heat!' So says lighting

designer Stephen
Wentworth,
getting the most
obvious question

waxworks out of

the way first."

about lighting

the route pointed out, rather incongruously, by Benny Hill dressed as a tour guide - then through to a section showing scenes from the French Revolution and the history of Madame Tussaud herself. The next section is slightly surreal in that it features a waxwork of a Tussaud's modelmaker making a waxwork of a Tussaud's subject, with a video then explaining the process.

'The Gallery' is a collection of world leaders and other important pioneers

and society figures - Nelson Mandela, John F Kennedy, Albert Einstein, Princess Diana - with the modern 'celebrity' status of such people represented by photographer Annie Leibovitz. Then it's on through 'Sport and Popular Culture', which

works through the 20th Century decade by decade, icon by icon – everyone from Babe Ruth to Bill Gates. The museum also includes an 'immersive surround film' carrying people through a century of New York life, computer generated by Evans & Sutherland but still experiencing some teething troubles on the day we visited.



over years instead of weeks. "You have a plan; you know where the figures are going to go, you have to decide how you're going to light them, much like you'd do for a show, then you have to draw a plan to show where to put the lights. The problem is that by the time you come to focus the show you might not have looked at the plan for two years - I occasionally had to ask them to let me stop for a few minutes to figure out what things were for!"

The designers also approach their designs in different ways. "Mark works completely differently to me," Wentworth notes, "to such an extent that I'm surprised that they like both of our styles! Mark puts one source on each figure, then maybe a second source from the back. I always like four sources - left and right from the front and the back, because although you get a plan for positions, you never quite know what the orientation of the figure is going to be. And Tussaud's are very particular about what the portraits look like - they don't like shadows, not even sculptural lighting - it almost has to look like a photograph. To do this in 3D is quite tricky - they like to be able to see into the pits of the eyes, with no shadows under the nose. And then they always throw in a problem, like putting a hat on John Wayne! I was lucky with him - the light was able to get under it!"

Henderson, for his part, jokingly suggests that Wentworth uses more lights per figure because "he is better at getting money!" before suggesting that the different rooms encouraged different approaches. "Most of Steve's rooms are lower; the Party room has very high ceilings. Having lit the Party in London with birdies and suffered from excess light everywhere, I put ETC Source Fours in because I wanted to be able to control it more to isolate the figures and dress everything else separately. Then we strung pea-lights around the room to disguise the lighting grid."

For New York, both designers relied on their previous experience with both wax figures and the Tussaud's stylistic preferences. "When I started, one person would say they wanted it to look theatrical, whilst another would come along and say 'what's that shadow?', or 'you can't have blue light on the face'. It took me years to work out that you can have colour as long as it doesn't hit the face!" comments Wentworth. Henderson also agrees with Wentworth's comment that "you learn that waxworks don't take a lot of light. It's not like flesh; you have to keep the level down for it to look real, otherwise it starts to look translucent," with Henderson adding that he "tends not to put any colour in the lights at all - everything is generally on check, so it goes to a yellowy tone anyway."

Using this experience - and despite constant design changes brought about by regular budget cutbacks - both designers have managed to inject a huge amount of style into the exhibition. Wentworth even manages to track the progress of a century with lighting in the 'Popular Culture' section: the opening decades are lit in sepia, the history of faded photographs, then it moves to the greys and pale greens that suggest early flickery black-and-white televisions, then on to static coloured lighting for the early days of rock and roll, flashing lights





LIGHTING

"No, they don't melt. We've never had a problem with heat!" So says Stephen Wentworth, getting the most obvious question about lighting waxworks out of the way first. Originally a theatre electrician and lighting designer - spending a long time at the National Theatre, where he lit the superb Peter Hall production of Antony and Cleppatra amongst many others - Wentworth lit Tussaud's Amsterdam exhibition in the eighties and has been lighting their projects ever since, interspersing this with working at CAD

specialists Modelbox. The New York project was split between Wentworth and fellow British lighting designer Mark Henderson, LD of more shows than it is possible to recount, including many acclaimed productions with the Almeida company. Henderson lit the First Night Party and the Gallery and Wentworth the rest.

Wentworth describes the design process for the exhibition as being like a theatrical design, but stretched

Top, a scene from Madame Tussaud's Story

> Centre, the Popular Culture area

Bottom, the control racks, including Richmond's Audiobox, backstage and a mirrorball for the discos of the seventies, a truss-full of chrome mini-Par cans for Springsteen, Tina Turner, Live Aid and the stadium rock of the early eighties, moving lights doing big, obvious, gobo-based waggling for Madonna and Prince and then the fading of saturated dichroic colours for the Spice Girls at the end of the century.

AUDIC

An exhibition full of silent wax figures would be quite a dull exhibition - which is why all of the rooms in Tussaud's have some kind of audio background, these and the systems to provide them designed by Aura Sound Design in London. Recalls Aura's John Leonard: "Originally, Tussaud's called us about a big project and a small project; we were very busy, so we turned down the big project and said we'd do a proposal for the small project. Somehow from that we've ended up doing the whole thing!"

Looking back with the show open,
Leonard is happy with the results they
have achieved. "The sound has worked
really well because the whole concept,
from system design to scripting and
casting the voice-overs, was carried out
by Aura, working with the exhibition's
designer, Caroline Elliott. But, because
we knew there would inevitably be changes,
we designed a system that would give us as
much flexibility as possible."

The system is based around the Richmond Sound Design AudioBox, with four of the original units which give eight tracks of audio replay through a 16 x 16 matrix and four of the second-generation models which have 16-track playback. The 16-track units provide the complex sound montages that run through the 'Sport and Popular Culture' room and bring the century to life with the other four providing sound effects, voice-overs (including, prior to opening, Leonard's voice introducing the French Revolution section; he has now replaced himself with actor Ian McDiarmid, "though I have to say that he does do it in my style!" he adds) and background music commissioned by Aura from respected film, TV and jazz composer Colin Towns to the other rooms.

"Because everything is separate in the AudioBoxes - there is no 'mix down' - we are able to go in and change anything. For example, when they decided to move Cher from the Party room to the Popular Culture room they wanted music to go with her portrait. They finally decided that she should go into the Nineties area, and it only took about an hour to source the music and program it into that cue-list. The flexibility got taken for granted in the end, but I don't think we could have done the show without the AudioBoxes."

Leonard's design also underwent other changes as the exhibition proceeded towards opening.

The 'Popular Culture' room had been

conceived as separate 'pods', each containing a different decade. "When they first spoke to us, they kept saying that they wanted isolation within each cell - you'd only hear the audio for that decade when you were in that cell, and you would hear nothing when you were outside the cells. And we more-or-less achieved that by carefully positioning and setting the loudspeakers, putting in directional loudspeakers to cover the figures who were outside pods, then carefully setting the levels. The next day, the note we got was 'there's nothing to draw people into the cells - could you make it all louder?' So, we did!"

"We had to make certain changes in the soundtracks for the Sport and Popular Culture area for legal and political reasons," said Leonard, "so Bill Clinton's famous denial of them. It does worry me however, what impression they go away with. New York, in particular 42nd Street, is the hardest place in the country to get anything done. Tussaud's is an installation and so was done by the electrical union. We were allowed to bring in a few theatrical union people for the focus."

For Tussaud's, the project was co-ordinated by the unflappable Tim Coucher, veteran of many such projects. "Tim and Mike made the perfect team - no fuss, no screaming, just a desire to get the job finished to everyone's satisfaction," added Leonard.

Under Lay's supervision, the infrastructure for the exhibition, including overhead pipe grids and cabling in the Party and French Revolution rooms and track-mounting elsewhere, was installed. The rig, including ETC Source Fours and Source Four Pars, UL-listed Thomas Birdies and Selecon track-mount profile spots with integral dimmers, and a selection of small moving fixtures from High End, as well as the JBL speakers, were installed and cabled back to one central control room. This features ETC Sensor dimmers run from three ETC LPC







Top, Jason Goldenberg (left) and Michael Ray of PRG with latest trainee, Elle MacPherson

Centre, the Gallery of leaders and pioneers (forgive us, but is that Fred and Ginger centre stage?)

Bottom, waxwork building waxwork

sexual impropriety is missing from the last decade, which is a pity." And neither design nor audio have much representing the 21st Century thus far, but then it would be hard to pick what to include when America can't even decide who it wants to be President!

MAKING IT WORK

"This show wouldn't have happened without Mike Lay," says John Leonard. Production Arts were charged with the practicalities of making the lighting and sound work, and PA veteran Lay was their man on site. He's equally complimentary about the Brits: "They were truly great people and it was good to work with

'Expressions in a rack' controllers through Gray Pathfinder DMX routers, a real Expression 3 taken out to the rooms for programming, the AudioBoxes, the Alcorn-McBride showcontroller, QSC amplifiers, Midi Solutions' MIDI merge and thru boxes, a mini-mixer and Yamaha reverb unit ("We pick up any sound in the hall of mirrors, feed it through the reverb and back down to there just to give some delay and echo," explains Leonard) and a PC used for programming the AudioBoxes through Richmond's ABEdit software, newly-expanded at Leonard's request to be able to deal with four cuelists.

Many of the racks bear what must be the last Production Arts installation labels, given the on-going rebranding at PRG; the audio wiring



The Opening Night - you can pick out the famous faces for yourselves, but just who is Oprah Winfrey talking to the invisible man?

was handled by Signal Perfection Ltd, another PRG company, with their team led by Mark Hoffman and the site supervision handled by Mike Morely. The system was programmed by Jason Goldenberg of PRG, with the AudioBoxes (and the MIDI triggers they send to the lighting consoles to synchronise the moving light sequences to the music) programmed by Aura's Scott George.

With the majority of the build completed, Tussaud's opened for a preview period in October, allowing bemused visitors to wander what still felt like a building site, and technical troubleshooting to take place ("At first we had to turn off the smoke ring firing canon in the French revolution section, because it kept setting off the fire alarm," Lay recalls). With everything just about finished, the official opening took place on November 15th, with real celebrities mingling with their wax copies.

It would be interesting to find out what the guests thought when they found their clones -



since even for those of us who don't have a double on show, it's a surprisingly fascinating experience. At first there's something satisfying about discovering one is taller than action-hero Nicolas Cage (for example), but it's more interesting than that - finding that these celebrities and heroes are real people rather than the distorted, larger-than-life versions that appear on news reports or cinema screens. The detailing is remarkable,

the wax not wax-like until you peer at it in ridiculous close up. And the eyes - it is the eyes that are most remarkably real, aided, nodoubt, by the careful lighting.

Tussaud's New York does feel a little light on content, especially when the film isn't running. But it's fascinating just how many hours vanish without trace as you wander, enchanted, through it.

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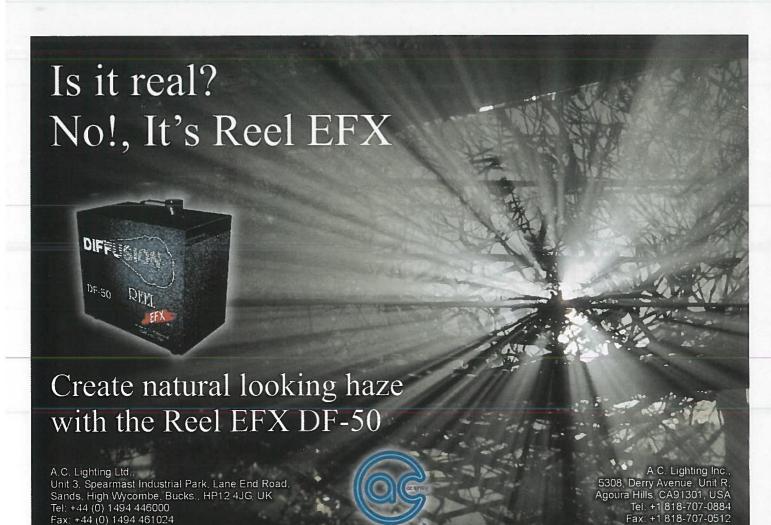
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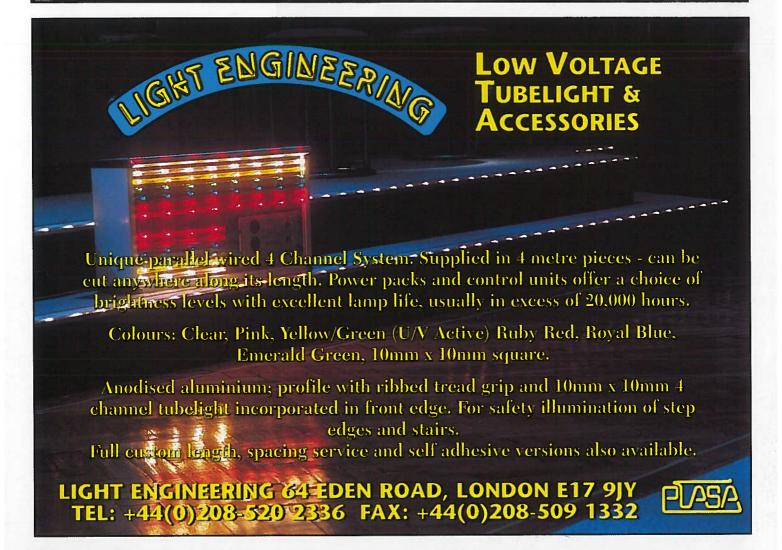


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Construction

Louise Stickland catches up with The Builders Association for their performance of Xtravaganza at the Kaaitheater, Brussels

Left, chorus girls - the image that summed up the **Busby Berkeley** spectaculars of the twenties and thirties

The innovative New York-based company - The Builders Association - was formed in 1994, and has created a succession of performance projects that integrate live action and assorted media technologies. Its members come from a range of creative and technical disciplines from architects to computer scientists and whilst some have theatrical backgrounds, pigeonholing The Builders as a 'theatre company' would be wrong.

The Builders roll history and conjecture together in invigorating interpretations, reanimating drama and production for a contemporary audience, using current tools and technologies to interpret old forms. In Brussels' fabulous Kaaitheater - a centre for international mixed media and experimental productions - Xtravaganza's director and one of the Builders' founding members Marianne Weems explains the ethos of their collaborative format. Technology plays a special role in all Builders' performances.

Their last performance, Jet Lag, ran for two years, touring extensively in Europe and the US, taking the fascinating real-life stories of two complex individuals - Ione yachtsman Donald Crowhurst and grandmother Sarah Krasnoff who used technology to create their own 'spacetime' and find solace, while their grip on reality gradually disintegrated.

Weems is certain that Jet Lag could have continued, but not surprisingly, the team were all keen to get their imaginative teeth into a new project! Spring 2000 saw the foundations laid for Xtravaganza, a project Weems had begun researching two years earlier.

Historical references and retrospectives in performance have been a trendy theme in 2000 for obvious millennial reasons, but Weems has wanted for some time to produce a piece on the history of entertainment, one that traced the roots of multimedia performance.

She also wanted to explore the roots of the large scale spectacle - the 'extravaganza', in essence, events that combined film and live events, dance and music onstage together. Events that used innovative lighting, sound and scenic technologies - from Buffalo Bill's Wild West Show and the theatrical visionaries of the 19th and early 20th centuries to contemporary club culturists and VJs.

The lives of four Americans form the basis of the Xtravaganza storyline - 'Ten Acts Displayed With Moving Pictures'. Steele MacKaye (1842-1894) is now virtually erased from the national consciousness. His many achievements included presenting Buffalo Bill's Wild West Show in Madison Square Garden, New York and a plethora of mechanical stage inventions. His dream was to embody all his technical and artistic achievements in a massive 12,000 seater venue at the Chicago World Fair in 1893 -'Spectatorium' - which was to include many feats of stage technology. Shortly before completion, a stock market crash quashed MacKaye's dream as his financiers pulled out. The almost complete structure was razed to the ground.

Loie Fuller (1862-1928) was world famous for her dances wearing flowing silk dresses which she interactively fused with lighting and projections. She made invaluable contributions

to stage lighting and cinematic technique as a self-styled 'magician of light'. Once declaring she was 'Born in America, Made in France', she lived in Paris most of her life where her eccentricity and creative expression was accepted.

Florenz Ziegfeld Jr (1867-1932) is one of Broadway's greatest showmen and impresarios, glorifier of 'The American Girl' and best known as the genius behind the Ziegfeld Follies revues. He didn't skimp on the production budgets that made his shows into memorable glittering extravaganzas. He presented 83 New York productions between 1896 and 1932 and introduced innovative and imaginative staging and lighting techniques that incorporated film projection and cinematic effects onstage.

Busby Berkeley (1895-1976) created a genre of musical comedy films and was one of the first Hollywood directors whose work became distinctive and indelible. He was a supreme choreographer of dancers, cameras and design elements. Although one of America's most highly paid artists at the peak of his career he disappeared into obscurity in the 1950s and 60s. He was rediscovered by the psychedelic generation in the late sixties, and spent his final years as a revered Hollywood pioneer.

These characters, their ideas and aspirations and their technical acumen are the bricks and mortar of the Xtravaganza narrative. The contemporary cement is in The Builders' stimulating presentation techniques melding interactive moving images, acting, dancing, music and text together in a fluid, 75-minute dialogue.

All members of The Builders are passionate and involved in their projects, and as a director, Weems' intelligence and precision is matched by her commitment to producing structurally unique performance.

The set, designed by architect John Cleater, is sparse, restrained and elegant, consisting primarily of large upstage Panelite steps leading up to a wide screen. Two deco-style 'bandstand' podiums sit each side of stage, complete with Ziegfeldesque 'shields' on the faces. The stairs are a common thread in many

of the extravaganza shows and movies they researched - usually featuring prominently as the performance builds to a grand climax.

The two bandstands

dominate the set,
bringing the nerve
centres of
Xtravaganza's
technology directly centre stage.
Housing video and sound departments
- not unlike a DJ and VJ set-up - on
the stage left podium are the two
video creatives, Peter Norrman and
Jeff Morey and on the right, sound
designer Dan Dobson.

Weems calls them the "engines" of the show . . . it's theirs and they drive it, but not at the expense of the live action. The fusion between live and pre-recorded video, sound sources, music and actors is seamless. As a viewer you lose the sense of perspective of what's real or unreal.

Sounds are a mixture of swirty, cloying, romantic twenties and thirties schmaltz underscored by grating, hard house basslines that move the waistline! Images on screen and onstage unite colour and monochrome, stills and movement, archival and new images and computer-generated patterns and sequences triggered by the movement of actors. Kaleidoscopic on-screen Berkeley-style dance routines are created using samples taken from an overstage camera of the costumes or of performers waving handheld fans. There's never a dull moment.

The video and video system is designed by Peter Norrman who has worked with The Builders, on and off, since 1994. During 97/98 he studied at the Interactive Telecommunications programme at New York University, where he met computer programmer Jeff Morey. Morey's previous work includes web development for mtv.com, various installations and working with kinetic sculptures. This is the first opportunity the two have had to collaborate on a performance project.

Norrman needed as flexible a system as possible. The rehearsal period was particularly short and the organic nature in which The Builders' projects develop, meant that he

needed the facilities to continue to work on the show's video content after the tour had started.

Included in the pre-recorded video is a mixture of archive footage sourced from the Library of Congress in Washington DC, computer manipulated clips, looped clips and various clips shot by Norrman during pre-production. These are stored on two Mac G4s, replayed using two distinct types of software - Final Cut Pro and Max/Nato modular. The G4s are the equivalent to their playback 'decks'. Norrman has

concocted sequences from the archive material that have been manipulated and effected in After Effects and other programmes as well as Final Cut Pro itself. Resolution quality on the big screen has been a crucial issue for video. Unlike a club environment where pixelation is not critical, here a sharp image is an essential ingredient.

All video is outputted from the G4s via their inbuilt Firewire ports. Norrman uses his DV camera as a D to A converter for DV clips going into a Panasonic MX50 vision mixer. The other G4 reads the DV clips in the patch, outputs them via the Firewire port, into a D to A converter, and then analogue into the Panasonic. Other archival clips and their original footage are replayed directly during the show in their original format.

In terms of VJ controlled environments, Nato is currently the nuts! To use a timeworn phrase, the only limit is the user's imagination. Two of the most dramatic moments in Xtravaganza come about via Nato - two performers onstage

> dance and slowly wave their arms in front of the front-of-stage camera while onscreen it appears as a beautiful flowing pattern of fragmented images from different parts of their bodies. Here Norrman and Morey are creating a contemporary, larger than life chorus line effect - from just two people on a relatively small stage!

During the 'Kaleidoscope Dance

(Remix)', the overhead camera feed is captured and turned into a colourful six-way onscreen blue and white swoosh of synchronised shapes, objects and movement hardly recognisable as the dancers strut below in their blue feather hats waving large white feather fans. In the 'String Dance' a solo dancer, technicians and a piece of string turn into a multiple mirrored rotating swirl.

During the finale, they also use a third video source, a conventional SVHS player - it's all very hectic at this point with them taking in Nato images, mixing it with pre-recorded material and looping. The main projector is a Proxima 9300 and there is also a Sanyo Pro UX3 at front of stage.

Norman highlights another advantage of Final Cut Pro in that it allows him to insert clips, change sequences and alter parameters like brightness, colour and contrast on the fly during rehearsal. He can polish the look individually for each venue via software rather than the cumbersome and time-consuming process of re-aligning and tweaking the projector. Final Cut then serves as a method for running sequences outputting via Firewire



Above, scenes from Xtravaganza

Below, creative director Marianne Weems, video associate Jeff Morey and video designer Peter Norrman

The live video scratching is a key to Xtravaganza's specific visual vocabulary. They have two DV cameras onstage, a Canon Optura mini DV at the front of stage, and a Sony VX3 High 8 overhead. There are also two more

computers, a PowerBook and a Mac 8500, used to create the live effects on the DV which is 'scratched' live via a Peavey 1600 MIDI controller hooked into the USB port of the G4 running Max/Nato.

The stunning live video stretching, squeezing, compressing and distorting

is done using Nato, an object-based extension developed by Netochka Nezvanova to the Max data manipulation software. The huge potential of Nato in this type of work was co-designed by both Norrman and Morey, and programmed and implemented by Morey. The latest version of Nato can capture video from an external source, load to disk and playback and output simultaneously – and effortlessly – on a large screen at the resolution they require.



during the show, while rapidly being able to move from sequence to sequence.

Over on stage right is Dan Dobson, sound designer and another founding

member of The Builders. As with video, his soundscape is an eclectic mix of old and new and sound samples from some of the original twenties and thirties material were reworked into a contemporary setting. The underlying vibe is definitely very clubby, but with a difference that's hard to pinpoint! Dobson started the tour using Pro Tools running on a G4 with Apple's industry-standard QuickTime player. Shortly afterwards he installed the Max MSP plug-in to create an even more flexible audio environment in which to work.

He uses five Nord modular synthesisers which can also be audio inputs and have their sound effected and, with DJ culture in mind, a Korg Kaos pad. His mixer is a Yamaha 01D and he also has a Peavey MIDI controller - which can have any of the synthesiser functions assigned to the faders and played live. "I try and be as self-contained as possible here," comments Dobson, in a relaxed mood despite the punishing schedule since the show opened three weeks previously in Frankfurt.

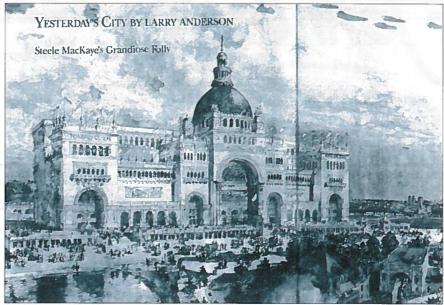
They intend to work towards having a separate mix onstage, but at the moment he sends his FOH colleague and sound associate Robby MacLean a stereo mix from stage. Out front, MacLean runs a RAMSA DA7 digital console for conventional surround sound parameters and two monitor mixes. He receives Dobson's mix, sends him one back and runs all the live mixes and sampling.

They use the Steim Foundation's LiSa (Live Sampling) software for real-time audio manipulation, run off a PowerBook, which has excellent pre-mapping facilities, making live interaction simple. There are six live vocal mixes and McLean samples creatively as they go. Actress Heaven Phillips has a rich, multi-layered voice which MacLean samples selectively and loops so she can harmonise with herself.

The actors also trigger eight samples onstage, sent via an iCube interface that sends MIDI to the PowerBook. He uses the desks scene memories to change the mic EQs and also has two Denon CD players. He's touring a simple FOH rack and running both

outboard compression and the DA7's digital compressors, and a variety of delays. They are touring all their own front-of-house and monitor gear and hooking in to the house speakers at each place. The Kaaitheater is well endowed with a d&b system which sounded awesome, particularly when in full surround sound mode.

Lighting is designed by Jennifer Tipton who also designed Jet Lag's lighting. The biggest lighting challenge for this department, not surprisingly, was video . . . plus an ultrareflective Marley floor. However, Tipton is used to these parameters. Once again she produced a subtle, unobtrusive and very precise design rig with plenty of punch for those big dramatic Hollywood moments!



For the Chicago World Fair of 1893, Steele MacKaye projected the world's largest theatre, his Spectatorium (seating 12,000, with 25 moving stages), revolutionising stage production and anticipating motion pictures. Financial difficulties prevented completion of the theatre, but a scale model was later successfully demonstrated.

On tour, lighting is looked after by associate Erik Bruce. The plot was kept straightforward as they are using house systems everywhere. The piece is lit from a variety of angles, but most heavily from the side, with the steps riser lit from the rear with Par cans and scrollers. They've used an assortment of desks since the tour began, and the Kaaitheater has a Compulite Micron 4D.

The Builders Association debuted this show in Europe as a co-production with Kaaitheater, Le Maillon, Strasbourg and Rotterdamse Schouwburg. It will show at the Guggenheim Museum and the Whitney Museum in New York before touring the US extensively in 2001.

It's refreshing to see an organisation so proactive in multimedia performance today, highlighting the genre's history of innovation, ingenuity and imaginative pluckiness. Maybe it's important not to be complacent, self congratulatory and think we're so clever and unique in this fast developing culture of 'multimedia' the T-shirt has already done the rounds a few times!

"Maybe it's important not to be complacent, self congratulatory and think we're so clever and unique in this fast developing culture of 'multimedia' the T-shirt has already done the rounds a few times!"



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

hristmas is here again, as if you didn't know it. Already I've been sold several Turkeys and my thoughts drift towards stuffing, cheap glitter and trivial pursuits, so no change there. We've studied Marguerite Patten's latest 'Spam - The Cookbook', ready for the big day and I've put

"The wine vintage chart is essential reading . . . more useful list might be which vintage lighting directors haven't improved with age and are frequently drunk now."

all my current favourite production companies in a bowl and given them a good stir whilst making a

THE EXCELLENT STLD diary has arrived and optimistically includes a planner for 2001 (no pencil though). It will come in handy to jot down titles of numbers heard on Humph's Monday night jazz club. The wine vintage chart is essential reading and shows which wines don't improve with age and should therefore be drunk now. A more

useful list might be which vintage lighting directors haven't improved with age and are frequently drunk now. Lots of useful information pages leave me thinking "that's why I always get that wrong."

AMONGST THE ADS, I've uncovered an unexpected nugget, and I quote: "Videssence luminaires are available with tungsten bulbs." I didn't know that. Alan Bermingham's page makes fascinating reading, as ever. He reminds me that I should take into account ageing and dirt. Well, I've taken his advice and bought a stool for the shower. One of the notes on his page has the following: "For large angles of incidence multiply by Cosine of this angle e.g. for 30 degrees reduce by 14% (cos 30 degrees = 0.86)." I was trying to allow for this only this week, Tuesday I think, whilst up a ladder at 1am, trying to revolve one of those hexagonal gel frames. Unfortunately, I think I had left my cosine tables at home on the mantelpiece behind the Screwfix catalogue (this month two 500W floods on a stand for £27.50. Think about it), so another failed attempt to get it right.

LUCKILY, Philips recent ad' does not feature in the diary. Just as well, because once I've worked out its message, I don't think I'm going to like it. It features an ageing actress being attended to by two females pretending to be make-up and wardrobe. The blurb says "Due 'on air' in minutes, and in the right light she'll be perfect. Time to confirm that you're using Philips MSRs." This is clearly somewhere else that I've been going wrong: just as we are about to go on air and the followspot operator hasn't shown, and the director has changed the running order, I must remember to ask my gaffer if we are using Philips MSRs. The unfortunate lady is in a theatre by the looks of it, heavily backlit from somewhere in the stalls, surrounded by trussing with what looks suspiciously like a dead tungsten TV-type lamp foreground right (she's keyed from the left). My point is that the right light will be chosen by some caring individual, possibly even a lighting designer, and in this case will probably be bounced off a piece of poly or pass through some heavy diffusion of some sort. Position, angles and levels are all part of the jigsaw and the actual source will be some way down the list - Screwfix's work light might even do. Come on Philips, your customers know about lighting.

LATE OCTOBER saw me embarked on a perilous journey to Three Mills Studios, only five miles from Soho, according to the brochure. Well maybe, but it felt like bandit country to me. Having established a base camp at Bromley by Bow station, you have to be off your trolley to attempt the north face and walk across Tesco's car park - this is not for faint hearted pedestrians. Three Mills is isolated enough to have been chosen to house Big Brother, a programme featuring a group of unpleasant and disparate

individuals locked in a studio set and forced to live together for weeks on end - just like working on your average soap.

BUT I DIGRESS - "what you? never!" - well hardly ever. Tempted by an offer to "see new ideas in action," I attended a workshop organised by a prestigious group including Screenco and Vari-Lite (the event was covered fully in the November issue). The workshop occupied two large four-wallers and was an attempt to explore new areas with Screenco's impressive large LED and CRT screens, normally used as large displays at events. I thought the hosts missed a trick or two by not having any formal introduction at which they might have explained what their equipment was about and what interaction they expected.

MAYBE I COULD have overlooked this had the acorn coffee not been allowed to ferment in an old five-gallon drum overnight. Anyway, two rescuers turned the morning round for me. First, Adrian Offord showed me the escape route from the loud studio to the quieter one, where at least I could think straight and study the slightly mesmerising patterns and effects on show. Then Ed Pagett made the mistake of asking me what I thought of it all, which led to a fascinating hour of experimentation in the large studio, trying to expose for a reluctant model in front of a very bright, but mercifully controllable, screen. Hit of the day for me was Vari-Lite's Virtuoso console. Yes, it's been around for a bit, but it takes time for me to catch on as everyone knows. Watching me trying to understand the intricacies of a combined blind plotting and control system is like watching a dog playing bridge. It's not so much the fact that he's not very good at it, but just bloomin' amazing he can do it at all.

IF YOU NOTICE a certain lightness in my step this month, it's not without good reason. Having resigned myself to the need for starting a cottage industry - see www.twoh@s@once.com blow me down if the phone doesn't ring allowing me an excuse not to attend the Grantham Job Centre's Christmas party this year. Their e-mail, by the way, is nojobs@all.con. One of the jobs is what I refer to as a 'fire brigade' i.e. get here as soon as you can, as the producers are likely to get completely out of control being stuffed with inflammatory ideas. The second is an ongoing series, a rare beast indeed, using as it does oldfashioned production standards. I'll have to remind myself about them; what was it, multiply the cosine of the angle of incidence? It's no good, I'll have to phone a friend - Brian in Torquay might know . . .







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May 21st - 23rd 2001, Festival Theatre, Edinburgh

Showlight 2001 is an international conference about lighting for the performing arts; principally television, theatre, architectural, concert, and film. The first Showlight was held in London in 1981, followed by New York in 1985, Amsterdam in 1989, Bradford in 1993 and most recently in Ghent, Belgium, in 1997. The sixth Showlight is to be held at the Festival Theatre in the Scottish city of Edinburgh. It includes an exhibition area where over 40 of the leading manufacturers serving the lighting industry will meet and talk with delegates during breaks in the lecture programme.

CONFERENCE PROGRAMME . .

Confirmed speakers include Paula J. Dinkel, Principal Lighting Designer with Walt Disney Imagineering, who will talk about her work for the US giant known for its creative use of technology in its theme parks, cruise ships and theatres. Award-winning Broadway designer Peggy Eisenhauer, well known for her design collaborations with Jules Fisher and currently working with him on the US-production of Jane Eyre, will talk about her work on Broadway. In complete contrast, LD John Rayment, the man responsible for the stunning lighting of perhaps the most-watched events the world has ever seen - the opening and closing ceremonies of the Sydney Olympic Games - will talk about his experiences on this major event.

Other speakers in the line-up include lighting designer Robert Ornbo, who will focus on his work lighting large military and Royal shows and consultant Mark White, who will discuss his key role in the technical refurbishment of the Royal Opera House, Covent Garden. TV lighting director Chris Watts will take delegates behind the scenes of the infamous Teletubbies whilst Chris Blackburn of P&O Cruises will look at cruise ship technology.

Other speakers scheduled to appear include: Karl G. Ruling (DMX 512/1990 in the new Millennium); Nick Hunt (A Play of Lighting; Ian Dow (Lights, Camera, Action... Whoops); Peter Herbert (Alton Towers); Geoff Jones (Lasers, Myths & Facts); Wayne Howell (Control Protocols); Tony Gottelier/Peter Wynne Willson (Future Luminaire Technology - Luminaires sans Frontieres); Paule Constable (Lighting with a Family); Graham Festenstein (Explore @ Bristol, Wildscreen @ Bristol); Bernie Davies (Orchestral Manoeuvres in the Light).

VISITS PROGRAMME . . .

During the event, a number of visits have been planned for the delegates to a variety of locations. One of the key attractions will be a visit to the Strand Factory in Kirkcaldy where Showlight delegates will get a chance to view the latest production techniques employed by one of the most famous names in the industry. Delegates will also be offered the opportunity to go backstage at some of the key venues in Edinburgh and its surrounding areas, including the city's award-winning Traverse Theatre - known for producing contemporary theatre of the highest quality, and commissioning and supporting writers from Scotland and around the world.

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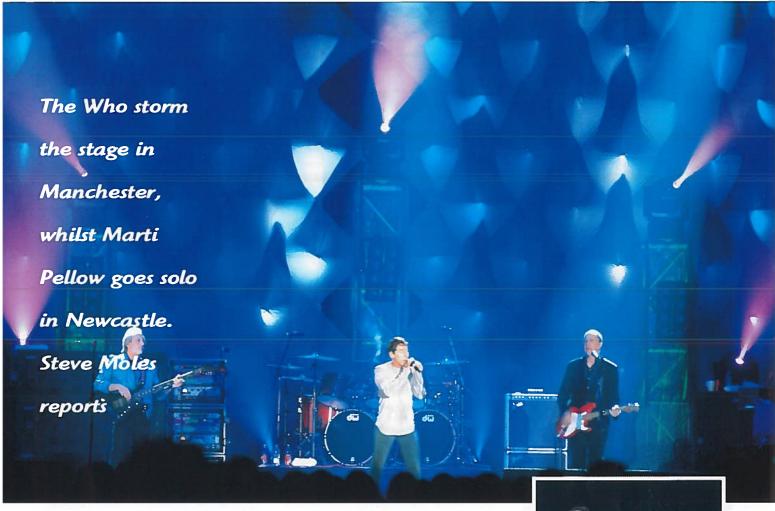
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Going Strong

here's still something very edgy about a Who performance. They may be looking backwards to the fairer side of 50, but they still bring a certain tension to the stage. Unlike the Stones, who rely upon lavish production to cover the cracks, the Who still appear on a simple, bare stage, and grudgingly allow a drum riser.

The Manchester Evening News Arena was almost packed, as full as any boy/girl band concert of recent years, but the audience was a tad different. And they weren't all 40-somethings. On the arena floor there was a large, youthful contingent that contributed heavily to the air of barely concealed menace, not least because several were escorted out for violent behaviour. (Praise due to security for a discreetly-executed eviction).

How do The Who pull it off? 'No compromise' might be the answer. Entwistle does nothing to conceal his permanent Florida suntan and grey mane (or, sadly, his predilection for boomy bass), Daltrey still sings so forcefully that the arteries stand out on his neck like twisted steel hawsers, and Townsend looks like he should be in the potting shed, yet he still flails his arms like a dervish. The 'edge' in their performance comes from the lack of polish: Daltry has trouble pitching sometimes - possibly because his ears still live in the sixties - and Townsend doesn't always solo on cue, not that he misses them, rather that he gets energised by the crowd and adds extra noodles. It is unquestionably LIVE.

"The lighting is a bit minimalist," said lighting designer Tom Kenny. "The band asked for something small, something clubbie. It does look small, but as you'll see, it can be huge." Kenny has plundered three circular trusses from the LSD warehouse; hung concentrically, the largest is just 10m across, and apart from a largely scenic back truss, that's all that's up there. So in a physical sense at least, it is small. "The band know exactly what they want," Kenny continues. "It's always been in Pete Townsend's head that this is theatre. He's proved that in his theatrical ventures so he does know what he's doing."

The one concession to set is a 3D backdrop from Tom MacPhillips at Atomic Design, a multiple rendering of the famous Jean Paul Gaultier pointy bra for Madonna - at least that's how Kenny described it. It can look a bit industrial,



Main picture, The Who at full throttle; inset, Rob Collins and Tom Kenny

like something a concrete architect would use to blight the South Bank, but it's a very useful tool for Kenny. By his own admission the band are all permanently in followspot beams: "they love them, they're lit the whole time. So the moodiness comes from the Icons and Studio Colors." Kenny has little else - an ETC Source Four profile for each band member, a bunch of Molefays for audience blinders, and a set of Pars with Colorams to truss-tone the three circles.

The backdrop, particularly its 3D aspect, does give lots of opportunity to vary the look. Four or five songs into the set, Townsend performs a solo spot with acoustic guitar; Kenny puts a dim red up-wash on the drop, tones the circles smokeypink, and leaves the man bathed in straw-coloured spot beams from the back truss and front-of-house spots. There are other, simpler things, where the 3D works well. Dense, abstract gobos (remember the old VL1 Brain?) aimed from Icons at oblique angles on the circle-trusses.



The really big looks come from Icon shots out into the auditorium, my favourite being for Baba O'Reilly when Kenny, true to his nation, put rich Emerald Green beams out for the repetitive synth' intro. By the time we reached the climactic refrain of Teenage Wasteland, Kenny was switching colours in frenzy, and the audience didn't know whether to jig or rock. In keeping with the minimalist, sixties approach, video was present, but low-key. Nocturne Europe provided a three-camera digital system and a pair of Barco ELM projectors to put enlarged images either side of stage. Directed by Raury MacPhie, this was straight-ahead, no-nonsense stage presentation.

This show is a bit of a coup for Rob Collins, picking up the FOH audio reins from Dave Cobb, but as well as his lengthy Clapton credits, Collins has mixed for Townsend and Daltry's solo outings in the past. "Even so, the opening UK show at the NEC was my first ever with the band, and with this PA system."

In another shift - one some might characterise as seismic - Clair Brothers Audio has been dropped in favour of Entec as PA provider. That's undoubtedly due to some intensive spadework by Entec's head of audio, Dick Hayes, even if he does have Who credentials that go back to 1966. Nonetheless, our Dick was "chuffed to bits" to pull the tour, and who wouldn't be?

To shift from CBA's S4s to a d&b C4 system must be strange: "I was worried when the band first saw the PA that they might think it was too small," said Bobby Pridden, the Who's monitor man, and the man who gave Hayes his first ever job on FOH sound. After 34 years' service, Pridden is the self-proclaimed ears and eyes of the band.

But Collins wasn't intimidated by the new system: "I've been in that position plenty of times before and the Entec guys, particularly Paul Ramsey, have looked after me well. Although that first show was tough, and didn't sound as good as I'd have liked it at the beginning, by the end of the night I knew we could make this work."

One of Collins' biggest problems at the NEC was controlling the low end, a familiar complaint - maybe it's time they tried placing walls behind the grandstands to block off the huge void that surrounds the audience? "But no trouble here," he said, a fact confirmed by Pridden, who despite advancing years and a leg currently as gammy as Hayes' famous limp, walked this huge room during the Joe Strummer and the Mescaleros set, and pronounced: "It sounds great."

Like Kenny's lighting, the sound could be harsh, but this was quite obviously deliberate, as I said about the Stones in the intro', nothing is done here to paper over the cracks. That doesn't mean Collins is a bad mixer, far from it, we just got to hear exactly what

was being done on stage, and the show was all the better for it. That's part of its elusive edge.

During Townsend's acoustic solo spot, it was clean as a whistle, not a hint of a hiss from a lot of gain that kept the PA up to the kind of levels the crowd had become accustomed to in the first few numbers where the whole band was full-on. And when they all played, you had to marvel. Daltrey still uses an SM58L: "He won't use anything else," said Collins, "and with all open monitors up there, I'm constantly fighting for separation." Collins main ace is using the PA as exactly that, vocals firmly on top, music beneath.

Pridden runs an Entec monitor system, the APW 2 x 12" plus horn, (all JBL), with d&bs for sidefills, and has levels sitting around 100dBA, peaking easily to 110, added to which Daltrey spends most of the night in front of Zak Starkey's kit, a preponderance of heavy ride cymbals giving most trouble, so Collins does have problems.

Although the sound is largely uncoloured, both men use small amounts of off-board gear, Collins has both a TLA for Daltry's vocal, and a DBX160x for spare. Otherwise it's bits of reverb for thickening, TCM5000 for drums, H3000 on the BVs. Pridden does similarly, but uses echo (Rev7), particularly for the in-ear (Shure PSM700) systems used by Daltrey, Entwistle and Starkey. "I also use lots of compression - DBX160s for the ears, and the old DBX RMS160s for the monitors. Their sound (RMS160s) is unique, very obviously compressed." As was said, ears in the sixties. Midas takes the honours on stage and in the house (XL3 and XL4 respectively).

But in the end it's down to the band, particularly Daltrey, who, to sustain a performance in front of such a loud band for over two hours, must have fantastic vocal power for his age. With nowhere for him to hide, his is a very physical expression of passion.

s I pulled up outside Newcastle's
City Hall, I could hear the singing
from nearby St James's Park. A

......

home derby between Newcastle and Sunderland promised at least 50% of the local population would be unhappy tonight.

But the capacity crowd in the Hall was there to applaud. It's an English trait to support the underdog, and in terms of depth, Marti Pellow, through smack and booze, has peered further into the abyss than most. If for nothing other than sheer humanity, you have to applaud the man for the Herculean nature of his efforts to pull back from the brink. But that's not why the crowds were there. Like Robbie Williams, who had to do similarly before establishing himself as a solo artist, so too for Pellow. The largely partisan female audience wanted to know if the source of their ardour could cut it on his own?

By the fourth number Pellow looked like Tony Blair giving his Brighton speech; drenched and dripping, at times he looked buggered, and he still hasn't learned to dance, so his awkward gestures only enhance the sense of a compromised physique. But he has a voice. Whatever the ravages of abuse, he hasn't lost that, and house engineer Jim Ebdon was not about to let us miss that fact.

"I'm using a new radio mic for Marti, a Sennheiser 3072." said Ebdon. "They sent it to rehearsals, we tried it, it has a nice flat response, and I immediately decided to use it. I think you have to be very open-minded about these things, we all get a bit set in our ways. You find a drum mic you really like and then use it all the time to the exclusion of everything else. Then someone persuades you to try an alternative and you realise you've been choosing a piece of equipment for the wrong reasons. Just because you know you'll always get a certain sound out of something, doesn't mean there's not another way. There are too many variables in audio so one should always look at new options."

Pellow's vocal runs through an Amek 9098 for compression, as do the three backing vocalists, and Ebdon has a TC Finalyser across the whole vocal Group "just to pull the voices out a bit more," which does the trick, though it's debatable whether the three girl BVs (black Gospel singers of real power) need the support. Pellow has two vocal characteristics that define his singing appeal; a light vibrato on the rise, and the ability to let the note resonate in the front of his head, though most of the time he sings from the gut. Both these relatively subtle nuances were easily discernible throughout the room, and when you consider he's singing against a considerable band compared to the four-piece he used to front, that's no small achievement on Ebdon's part. Whether that's the Finalyser, the 9098, or Ebdon's mix is impossible to tell, but seeing as Ebdon put all the bricks in place, it's his

Ebdon has recently returned from a lengthy stint in the US with Bewitched, where he's been spending a lot of time using a V-dosc system, "and I'm missing it," he said. However, the City Hall is not an easy room - the huge overhang of the rear balcony, the narrow stage, and slightly unsymmetrical side balcony flying points, all conspire to make this room one of the more troublesome compromises of live mixing. That said, the

Nexo Alpha system he has from SSE is probably one of the more malleable systems for managing these problems.

John Ormisher has the entire band on AKG IVM systems: there's 10 of them including horns and BVs, with just a security blanket of four wedges across the front with a general mix in them, but no real level.

For LD Martin Nicholas, lighting Pellow solo rather than with Wet, Wet, Wet raised certain considerations. "Venues for a start. He's been in Arenas for so long now, but truth is, I think he's really enjoying it. I hope he sticks with them when he goes out next year." A reference to the fact that this is a tentative six-venue whizz around the country, just to test the water. "But he's selling-out everywhere, the punters love it, and he's getting great Press."

I should mention that Pellow has been visibly humbled by his experiences; while he doesn't indulge in the typical, US, heart-on-sleeve confessional style, he does apologise for his excesses, and with plausible sincerity.

Katiket

Nicholas has gone for the smallest of lighting systems (LSD/Fourth Phase, to use the supplier's new moniker): there's nothing here to overpower the stage. A curved truss front and rear hold just six Icons and eight MAC 600s on each, the only other lights being a set of mini-moles (four-cell P36) with ColorMags up-lighting the

columns that frame the stage, and a scattering of truss toners. "I had the support for the columns made by Total Fabrications - they're just simple helical spirals of pipe [I wonder if the person who bent them into shape thought them simple?] hung at the ends of the rear truss to hold the drapes."

Drapes come from John Dipple's new enterprise The Soft Goods Company, the columns being a custom job of white cloth, 50% pleated, making for a faux Doric effect, about two metres in "I'm using a new radio mic for Marti, a Sennheiser 3072." said Ebdon. "They sent it to rehearsals, we tried it, it has a nice flat response, and I immediately decided to use it. There are too many variables in audio so one should always look at new options."



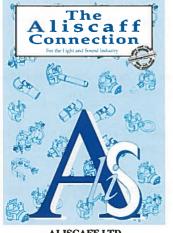
Above, the reformed Marti
Pellow and inset, a backstage
moment with Jim Ebdon

diameter. There are also Silk Flames from MTFX placed to the sides of the rear riser.

Nicholas has a no-nonsense approach to lighting the show - he has a big band to cover and just one rehearsal day, so he brought in Mark Cunniffe to programme the Icon board with a two-handed set of looks; classy colour, gobo combos for the white

backdrop, and hard- or soft-edged washes that cover the whole band selectively in pools, leaving Pellow to a pair of Lycians out front to keep him the focus of attention.

The upshot of that is mainly backlight on the band, the front truss lights being the obvious source to spray the backdrop, but Nicholas rings the changes, sometimes with gobos at oblique angles from the back-truss, and on the songs that deserve a bolder approach, using front and rear to sweep out into the auditorium.



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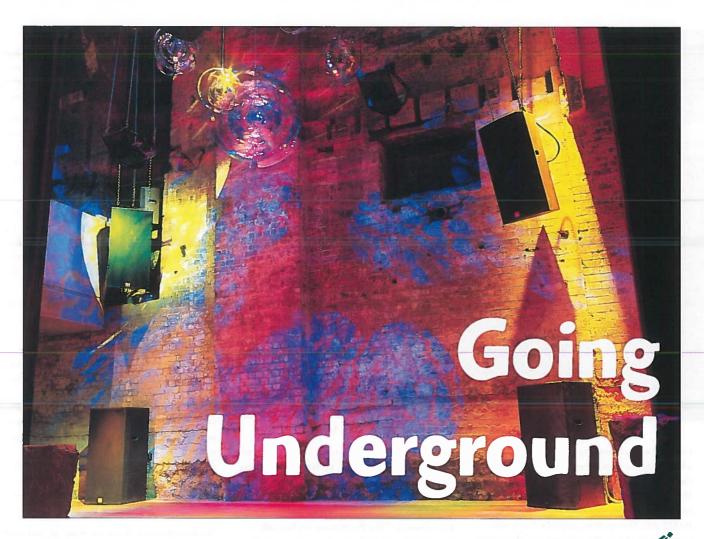
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With the opening of Establishment, the Hemmes-owned Merivale Group now owns and operates three hotels in Sydney. This latest and most ambitious project, size a redevelopment of the historic George Patterson House, features not only a hotel, but retail outlets, bars and an underground nightclub. Catriona Forcer reports

he concept behind Establishment - conceived by Justin
Hemmes - is that this large complex, featuring retail and food
outlets, a club and a hotel, should create for the visitor an
interesting, intimate, eclectic and captivating experience, with each
area quite different from any other. Built around the ruins of the
George Patterson House (which was substantially damaged by fire in
January 1996) the development combines a new six-storey tower
building, together with the conservation and adaptive re-use of the
House.

One of the dominant features of the Establishment is its hotel; with luxury hotel accommodation comprising 33 deluxe rooms and two penthouse suites, its extensive facilities include the Establishment Bar, Garden Bar with Asian kitchen, Tank Stream Bar, Gaming Room, Street Bar, the élite Hemmesphere bar, a private lounge bar, sushi bar, two levels of function rooms (including a Ballroom) and, of key interest to readers of L&SI, Tank - a two-level nightclub.

This underground space combines the original exposed timber columns, beams and huge basalt footings of the former George Patterson House, together with funky, glossy white graphics and the latest in lighting and sound technology. The look has been described as 'Studio 54 meets Paco Rabanne'.

Like the rest of the complex, this is a multi-purpose space incorporating three bars, a dance floor, a VIP area (complete with metallic beanbags) and individual private rooms. Total Concept Projects was the company contracted to install the lighting and audio, with Jonathan Rutledge

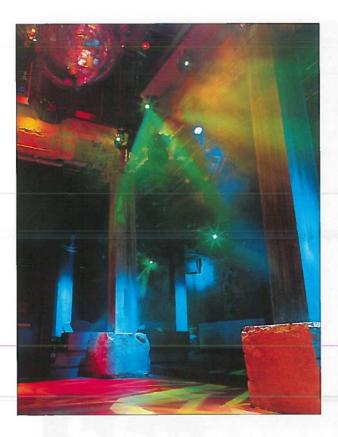
acting as project manager. "The owner was very keen to keep the raw finishes of the timber and brickwork," says Rutledge. "The combination with the modern décor looks really good."

Since there are so many facets to the club, the audio requirements are quite complex, and it fell to Gary Rutter of TCP to design the system. Rutter opted for JBL, from whose portfolio he has drawn a mix of speakers (supplied by Jands), which he deploys throughout the club. "There's a hell of a lot of speakers for what is not really a large space," admitted Rutledge. "There are many different areas, creating nine speaker zones, which all blend into one another. The amount of speakers is to give coverage and good clarity of sound throughout the premises rather than sheer volume."

Hanging the speakers proved a difficult task as every speaker location was different and hence needed a different kind of mounting bracket; then the brackets had to be fixed into varying materials, such as brick, concrete or wood. "Once they were all in location, the tuning of the system took several days and nights," said Rutledge. "Trying to get a coherent sound throughout the entire place, taking into consideration there was reflected sound coming from other areas, took a fair while. Some areas, such as the bars with low ceilings, were straightforward and sounded good immediately. However, the dance floor was a bit of a challenge, due to the sheer height of the space around it."

In the entry lobby there are four JBL SP212s and two JBL SP125 subs, which give a warm sound. To the right are the unisex toilets, which house three JBL MS28s: "Quite a bit of time was spent balancing the zones, so it's not too loud in one particular area," says Rutledge.





* *

Left, Tank's main dancefloor, complete with mirrorball Below, just some of the many JBL speakers spec'd throughout the club Right, the Establishment Bar

system. An unusual touch is that the amp rack room has been made visible to the customers through rose-tinted widows.

Two JBL SP212s provide foldback in the DJ booth where Allen & Heath's Xone:62 - part of its new Xone range - has been installed, along with two Denon DN2600 CD players, three Technics SL1200 turntables, a Shure radio mic and a Sony tape deck.

TCP employed one of Australia's top club lighting designers, Allan Parkinson, to design the lighting for Tank and, for such a small dance-floor area, there is certainly a lot of lighting, dominated by 17 TAS Pro Spots and 10 TAS Pro Washes, sourced from Coemar. "The Pro Washes are basically a fresnel light on a 360° moving yoke, as are the Pro Spots," says Rutledge. "They have multiple colour and gobo changes and strobing effects. For a room of this size it's an incredible amount of lighting. The lighting can range from very subtle lighting effects - the Pro Washes in particular look good washing walls and highlighting timber beams - to powerful moving light shows. "The TAS lights were chosen for their functionality and in my opinion they rate against similar products like the Martin MAC range - they have all the same features."

Adding to the lighting are two Geni Gigastrobes, 12 Par 64 cans, and 16 pinspots for lighting up

the floor at the beginning of the night. "It's important to have a little bit of conventional lighting because moving lights on their own can become boring," adds Parkinson. "When it's quiet, they can use just conventional lighting. That way, the moving lights look even more spectacular when they are turned on."

Justin Hemmes wanted the lighting design to be kept simple and not too cluttered, hence the idea of fixing all of the moving lights to the existing

building walls, columns or beams. The Pro Spots and Washes are either side-mounted or fixed

under the beams. There are two levels of beams and moving yokes, one at medium height from the dance floor and some very high, which gives sweeps of light up into the lower ground floor.

Allan Parkinson came up with the concept of the unusual mirrorballs. There are four 600mm balls and a main 1200mm custom-designed one of concentric rings, all hand-made by Peter Sykes of Syklonic. Another 1200mm mirror ball made of 65mm tiles, hangs above the stairwell.

A simple truss above the dance floor supports the analogue lighting and four of the Pro Spots. Two JEM Stage Hazers provide the smoke effects whilst the lighting control is a Jands Hog 1000. "The Jands Hog 1000 is probably one of the best lighting consoles on the market," stated Rutledge. "It's a good choice for a nightclub with a large light show."

THE BARS & RESTAURANTS

The audio-visual requirements of the numerous bars and function rooms across the Establishment complex were met by Avsound Productions, headed by Matthew Kline. An AMX touch-screen controller controls audio sources, plasma screens, architectural lighting and radio mics throughout the bars and function areas, as well as being linked to the nightclub system. DSP and audio routing is via a Peavey MediaMatrix MM208. Each area has its own CD player, so the styles of music can vary as much as the décor.

The Establishment Bar is the main bar, featuring a high pressed-metal ceiling, original cast-iron columns and a huge rectangular bar in white marble running the length of the space with fabulous overhead modern chandeliers. Large, pale limed trestle tables act as drinking bars, and there is comfortable seating, with modern leather loungers on mosaic-inlaid limestone floors.

In this bar Avsound installed 12 Martin Audio EM76 speakers, a Martin Audio Blackline \$15 subwoofer, four QSC MX2000a amplifiers, a Rane crossover and a Pioneer DJ mixer. Six JBL ceiling speakers are located in the toilets. "It's a difficult room with all the marble," said Kline, "so we used an analysing system to analyse and EQ the room.

We also decided to add a couple more equalising curves for different stages of the room - full, empty or half-full."

The est. restaurant required small speakers just for background music, so 12 Martin C115 speakers were used, plus two C265 subs, four QSC MX1500a amplifiers and four JBL ceiling speakers. A decorative iron screen divides the main Establishment bar from the Garden Bar and Asian Kitchen. The

Garden Bar utilises the remains of the fireravaged building with the original jagged outer

From the entry lobby you pass across a bridge, with the dance floor beneath you on the right; this area is served by four JBL MS112 speakers. This leads on in to the Tank Top(!) bar, which houses five JBL MS112s and two MS28s, plus a MS125 sub. This room in particular has a nice, warm sound, due to the low roof and the carpets. The lounge area has a pair of MS28s.

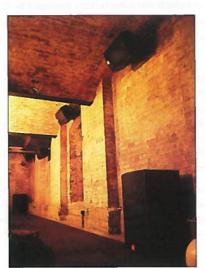
The stairwell is covered by an MSP222 speaker for fill from the entry lounge, giving the customer a feel for what the sound will be like when they reach the lower level. "You're not walking from one sound environment straight into a much louder sounding environment with a dead spot inbetween," Rutledge explains. "The sound is coherent all the way down."

The sound system for the dance floor consists of four JBL VS3215s and four JBL SP128 subs, as well as four JBL 2426 ultra-highs arranged in pairs. "The 2426s add to the crispness of the sound and allow high frequencies to reflect all around the room," said Jonathan. "That way, anywhere you stand, you've got clarity of sound."

In the lounge area there are four JBL SP222s, a JBL 18 sub and another two pairs of JBL 2426s. Rutledge continues: "Again, it's not over-loud, but the coverage was the most important factor."

The basement VIP lounge - also carpeted and low-ceilinged - has a separate DJ set up with five JBL SP212s, five JBL MS28s and a pair of JBL MS125 subs in the corners. A secluded area off the VIP lounge, which can be booked by patrons, has four JBL MS28s with their own separate volume control.

In the amp rack room there are 34 Crown amplifiers, mainly T2000s and T4000s, which run the entire PA system. For processing there are four Rane DA216A distribution amplifiers with four Crown IQ USM810 units looking after all signal processing and routing for the entire



walls topped by a glazed atrium, which enables a view of the 50m high heritage tower as it rises above the hotel. Together with the original cast-iron columns left freestanding, the black bamboo planters and a water feature make this bar a peaceful setting in the centre of the city. Audio in this area is served by four Martin EM76 and two C115 speakers.

The exclusive Hemmesphere is a private lounge bar with low divan seating. An eclectic mix of exotic fabrics and textures give a Middle Eastern/Moroccan ambience to this glamorous space. Fabric-panelled walls, large leather club chairs, plush sofas and a handmade exotic iron screen all add to the look.

"This is the real upmarket area and it required a fairly serious speaker system," said Kline. "It required good quality background music, but also needed to go to higher levels for when a DJ was used. There is also a duo playing a couple of nights a week, so we installed 10 Martin EM56 speakers, three QSC MX150a amplifiers and a C115 speaker for the balcony

Tank Stream Bar is located within the original warehouse of George Patterson House. It has a dark stained timber ceiling and blue stone floors with library-style bottled storage and lilac glass pendant lighting. Again, a good quality audio system was required and so more Martin EM56 speakers were installed.



The Street Bar is situated along the main street frontage and is a deli-style bar providing takeout sandwiches, coffee and juice. A couple of Martin C115 speakers supply background music. No Australian bar is complete without a Gaming Room. This private bar has 21 of the latest gaming machines and, for audio, four JBL 26C ceiling speakers.

FUNCTIONS AND EVENTS

There are two levels of function areas within Establishment, incorporating a ballroom on level two, and three separate function rooms on level three, two of which can be merged to form one large area.

The Ballroom evokes an atmosphere of modern elegance. With its ink-blue carpet, metallic screens, and calacatta marble serving tables, this space can accommodate a sitdown dinner for 120 or a cocktail party for 400. Customised suede chairs, shimmering metallic sheer blinds and an oriental-style reflecting pond with decorative trees add to the sensual décor.

"The rooms are set up for multi-purpose use with three Allen & Heath DR128 12 x 8 Matrix Mixers," says Kline. 16 Martin EM56 speakers and seven QSC MX1500a amplifiers are used throughout the rooms and there are two projector points, as well as a pair of motorised screens. To add to its functionality, a series of droppers come out of the ceiling to hang lighting or projectors from.

Despite Justin Hemmes' determination to give each area within Establishment its own unique feel, there is one thing they all share in common. Hemmes comes from a family which has been involved in the fashion scene for many years. Consequently, style and quality are of the utmost importance to him, and this is reflected throughout Establishment.



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Ton Cathler No Comment...

he well-publicised rift between BEDA, which represents some 800 nightclub operators in the UK, and the rest of the licensed trade, i.e. the brewers, over the Government's white paper on licensing reform, may smack of self-interest, but one has to admit that they have a point.

"The industry itself has been fighting back for some time with a variety of bar concepts - no major operator is without them - but such bars also require an expensive right to operate."

WHILE THE CURRENT

licensing rules are clearly antiquated and less than helpful to the tourist trade, it was also assumed that when and if the 11 o'clock watershed in pubs was abolished in favour of optional 24-hour opening. the behaviour of the punters would improve commensurately. The argument went that it was the rush to 'tank up' prior to the deadline that caused the problem. There is now evidence from a Cranfield University survey. and predicted earlier by Durham University, that the reverse is true and that levels of drunkenness and 'yob behaviour' in Scotland have

actually increased since that country's rules were relaxed a while ago.

BEDA'S IDEA, for which they had lobbied the Government hard, was that there should be a two-tier system for all venues staying open later, including boozers, and they should be under the same tight regulations as exist now for the operators of late-night licensed premises. The Home Office seems to have turned a blind eye to that suggestion. Now, BEDA says that will lead to a free-for-all and its chairman, Steve Thomas, has said that the government's plans will "fuel a yob culture", the point being that nightclubs are better organised and better regulated to contain

this kind of problem, even though they are the traditional recourse for late-night drinkers.

AT PRESENT, the vast difference between the cost of a licence to sell booze at £30 per year, and a late-night licence, which can cost £20,000 per annum, has proved a major inhibitor. Indeed, one wonders if the major nightclub reshuffle of this past year was prompted, in part, by these impending changes. The industry itself has been fighting back for some time with a variety of bar concepts - no major operator is without them - but such bars also require an expensive right to operate.

AT THE SAME TIME, the traditional pub trade has been suffering, largely because they no longer meet the public's aspirations. As one expert pointed out: "Pubs have become a place where people pop in for a quick one, en route to somewhere else." This could explain why a large slab of the pub estate seems to be under the hammer at present - Whitbread are selling their entire portfolio of 3,000 pubs, Scottish and Newcastle relieved itself of 500 units recently, likewise Bass, which dumped 900 boozers in October. Meanwhile Wolves and Dudley, with 2,000 outlets, is reportedly up for sale; while Pubmaster, also with 2,000 is, apparently, restructuring. Weatherspoons are now looking to Ireland for their expansion.

NEVERTHELESS, the brewery industry is a powerful lobby, already hurting from the ludicrous cross-channel trade in contraband liquor of all sorts, they represent 78,000 pubs and 45,000 off-licences - totalling an annual turnover of £35 billion. By contrast, there are only 4,000 nightclubs. Up to now, I have always been impressed by BEDA's highly-successful political lobbying, but unsurprisingly, it has all come apart at the seams in the face of such powerful opposition.

AT THE END OF THE DAY, whatever comes out of this debate, it will all be to do with which

venues offer the most attractive atmosphere to the public, and English pubs have a heck of a long way to go on that score. However, there are also signs that BEDA may have been lobbying the wrong people and, having dropped their natural friends in the brewery industry, that they should now be canvassing Local Authorities to support their cause. Several Authorities have already declared open hostility to the White Paper because it will be expensive to instigate and to administrate, and because of the anticipated threat to their constituents.

PERVERSELY, Chorion, the nightclub and bar operator, are fighting a concurrent battle with the Westminster licensing authority to preserve longer operating hours in the area covered by that Council. Chorion has won an application for a judicial review of the authority's plan to restrict the number of new public entertainment licences in designated 'quiet zones' on its patch and to limit closing hours to 1am, to make life more comfortable for local residents.

I AM HAPPY to report that Light Relief makes good progress with a number of inventive schemes proposed by PLASA members and associates for raising funds.

SHORTLY AFTER the PLASA show, I had a meeting with Ian Kirby of G-E-T.com, the new industry Web resource, who agreed to encourage companies, logging equipment onto the auction section of their site, to contribute some of that equipment to an on-line charity auction in favour of Light Relief. GET very kindly kicked things off by contributing a Palm Pilot, the auction for which has now completed. Currently, Entech Sound and Light have given a Martin Centrepiece which should raise several hundred pounds.

THE LIGHT RELIEF auction will be an on-going feature of the GET site with sellers being encouraged to contribute equipment to the cause. So, you may not think that you have anything of value to sell but, as Ian Kirby says, everyone must have an item of redundant or exhire equipment that would be worth £50 to somebody else. And every £50 counts to Light Relief. Anyway, readers should get registered on G-E-T.com as bidders at the auction.

NEIL RICE of Opti telephoned to suggest that others could follow their example and, instead of sending Christmas cards this year, give money to Light Relief. Any firm, or individual, who follows this example will be acknowledged here and on the PLASA website. We are also encouraging ever more innovative fund-raising ideas from PLASA members. What's yours? If you don't have one, and you are feeling seasonally generous, you can just send big cheques, made out to Light Relief, care of the PLASA office.



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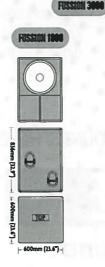


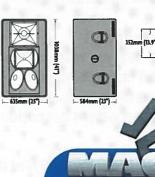
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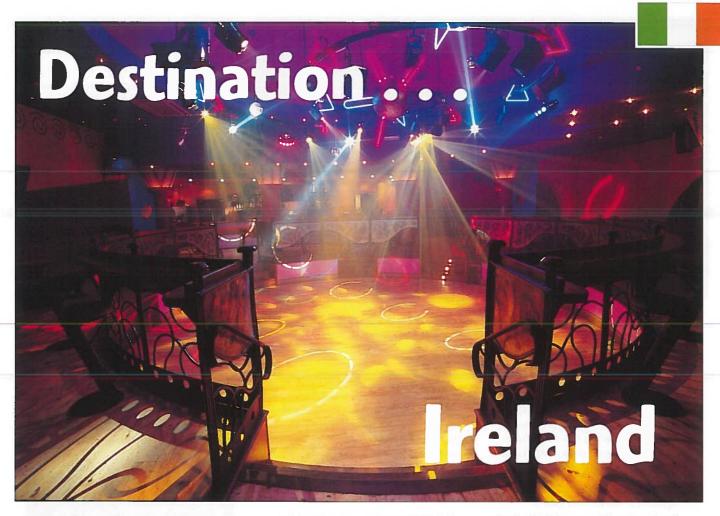
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The club and live music scene is thriving in Ireland and it's got nothing to do with Guinness. Jacqueline Molloy talks with the companies mining this rich seam

Ireland has a vibrant history dotted with controversy, violence, passion and intrigue. With a population of five million, Ireland at its longest is only 302 miles and at its widest 189 miles: it boldly defies the cliché 'size matters', particularly where the arts and entertainment industries are concerned. Prehistory findings have indicated that Ireland, after Iceland, may have been one of the last places on earth to be inhabited, meaning man has only roamed across its breathtaking landscape for the last 10,000 years - a mere speck in the history of humanity. The country's voracious appetite for the arts suggests that they are making up for lost time with a passion.

Playwrights such as Oscar Wilde and Samuel Beckett are universally known, as are novelists of the calibre of James Joyce and Roddy Doyle. Seamus Heaney is the contemporary voice of Irish poetry and won the Nobel Prize for Literature in 1995. Prominent Irish names in the world of film include Oscar-winning director Neil Jordan and actor Liam Neeson.

But it is perhaps the genre of rock music that has catapulted Ireland onto the populist international stage with the likes of über band U2, Van Morrison, The Corrs, Bob Geldof, Sinead O'Connor and The Cranberries among the most prominent of Ireland's exports. A souvenir from Ireland today would just as likely include an item of music paraphernalia as it would a piece of Waterford Crystal!

It is not surprising then to find that one of the biggest growth areas in Ireland is the nightclub and live entertainment industry. Clubbing has always been a part of the Irish nightlife scene, though in the past clubbers haven't exactly been spoilt for choice. I recall visiting Belfast in the early eighties and traipsing out in snow that was almost knee-deep to make the obligatory Saturday night pilgrimage to one of the few clubs in town.

Even then, in spite of the elements, the place was heaving. The Irish certainly have a legendary knack for partying and this has evolved into big business with state of the art 'super clubs' opening all over the country. Scott Willis, from Exciting Lighting and Décor, a company based in Bangor, near Belfast, described the Irish club scene as being 'as good as Ibiza'. EL&D offers services within two main disciplines, primarily feeding into the licensed venue market. It undertakes complete installation services for lighting, sound and A/V, in addition to offering interior design services. Its work on several of Ireland's premier venues has led to award-winning designs and installations.

Formed in 1979 by owner Harry Filmer, the company has grown to match the increasing needs of a buzzing and booming industry. EL&D work in both the South and the North of Ireland on a variety of major projects which reflect Ireland's current status as one of the fastest growing economies in the world. In 1998, a leading Southern hotelier told Willis that around 70 plus hotels would be built by the year 2000 to accommodate Ireland's flourishing tourist trade. His prediction appears to have been accurate as hotels, live music venues, pubs and clubs are being developed all over the country.

Until two years ago, the majority of Southern Ireland's clubs were based in hotels to satisfy the gaming law, which stated that to operate at night a club had to serve food. The demise of that law has given greater freedom to the club industry and enabled them to satisfy the massive demand from punters to have access to the latest trends in clubbing.

EL&D has certainly contributed extensively to this and has been involved in around 100 venues. Club Oto in County Cavan in Southern Ireland definitely qualifies for super club status with its capacity of 2,500. The purpose-built venue was once a car park and opened in December 1999 after £2.5million was spent on it. EL&D was responsible for the complete interior design of the club, in addition to the sound and lighting installation.

The sound system includes six Court C2H mid/high cabinets and six Court D5B 2000 sub-bass units controlled through a B55 Omindrive system controller and powered by Crest amplifiers (CA18 and CA6). Additional processing includes a Rane ME60



Title page, Club Oto in County Cavan. Above, the National Events Centre located at the Gleneagle Hotel in Killarney. Below, two views of Vortex nightclub at The Country Club in Dunshauglin

graphic EQ, whilst the DJ booth features a Trantec radio mic, two Denon DN2000 Mk3 CD players and a Formula Sound FSM-600 mixer. Lighting includes Genius Topscans, Rainbow scrollers and Clay Paky effects projectors with control via an ALS Enigma Micro 1024-channel desk.

Other prominent projects include the Vortex nightclub at The Country Club in Dunshaughlin. This is one of EL&D's flagship venues with a £1.8 million spend, the company providing interior and exterior design and build, plus the sound, AV and electrics installations. EL&D is noted these days for its stylish and slick interior design services and has transformed numerous pubs, clubs and hotels into venues answering client's needs and dreams.

As a five-man operation, the company works on two-three major projects at a time, whilst employing various contractors where needed. It isn't tied to any particular brand and puts the need of the client uppermost. Its commitment to the clients pays off as the company's repeat

business parallels the growth of the club industry.

Down south in County Cork is where Lighting Design and Production Services is based. Headed up by Grant Collie (see Profile - page 98) the company operates as a technical support business aimed at the venue and corporate presentation industry. Recent projects include the National Events Centre in Killarney, where LDSP were responsible for supplying and installing all of the venue's audio, lighting and A/V systems. The NEC is the largest venue in the Republic with a permanent stage and has a maximum capacity of 3,000.

The venue, situated alongside the picturesque 25,000 acre national park in Killarney, was opened by the Irish Prime Minister in May of this year. Adjacent to the venue is the beautiful Gleneagle hotel, which has been owned by the O'Donoghue family since 1957. The family are also the owners of the NEC, which has, somewhat unusually, been funded entirely by private financing.

AC Lighting supplied a great deal of the equipment for the installation and Collie worked with Leeds-based Jonathan Walters to devise a lighting system that would satisfy the venue in all of its possible guises. The overhead stage lighting system is based around three 16m runs of Vision 52cm truss with three CM Lodestar motors supporting each truss length. The trusses offer complete flexibility of layout in order to accommodate

the wide scope of shows which the venue will be home to.

The lighting system consists of a solid base of conventional fixtures, essentially to supplement the equipment brought in by touring shows, but the needs of

smaller shows have also been allowed for. The rig is based around ETC Source Fours Pars and ellipsoidal fixtures, which include fixed beam and zoom. Strand Cantata F Fresnels and two Lycian followspots complement The ETC fixtures.

A total of 72 3kW and 24 5kW Tivoli dimmers from Robert Juliat have been installed and control is via a Strand 520 console which features 250 intensity and 250 attribute channels with DMX54 and DMX512 protocol. A comprehensive DMX512 distribution network has been installed with output connectors located around the entire venue at floor level, stage height and on the flyfloor.

DMX512 inputs are located in the control room and onstage to permit different console and control equipment to access the complete control network.

It became clear early in the planning stages that the layout of the main auditorium would need to be highly flexible so that it could be quickly transformed to meet the everchanging demands of a multi-purpose venue of this size. Collie devised a solution that utilised sections of 30.5cm triangular truss suspended on half tonne CM Lodestar motors and fitted with drapes and hung throughout the auditorium.

By adjusting the hanging positions of the trusses, or in some instances removing them completely, the desired layout of the room could be achieved - quickly and effortlessly. A

permanently-rigged truss allows the balcony section to be completely isolated from the lower auditorium to permit simultaneous events or to hide the lower area whilst shows are being loaded in.

Also on LDPS's current agenda is a new nightclub and live music venue which is part of Mustang Sally's, also based in Killarney. It's probably clear by now that Killarney boasts a thriving entertainment scene and is a hub for



tourists, particularly Americans. The new dual level club section of Mustang Sally's has opened this month and no doubt will reach its 900 capacity in the Christmas season.

The theme and style of the club is industrial in design with the emphasis being on sound and lighting, rather than décor. The design sees a fixed stage of 8m x 4m with a height of 900mm off the dance floor. Soft masking completes the stage and provides some wing space. Technical control is from the upper level, where there are two separate outlets for connection of a removable DJ box which will mimic the control booth facilities.

Show control allows for a push button change from live entertainment to nightclub mode. AC Lighting (North) supplied the lighting with Mike Falconer from AC co-ordinating all of the interfaces required to enable the Wholehog 2 console to be utilised for a centralised operation. Falconer has also been responsible for the initial programming. The lighting system is based around Martin Professional's Mac and Mini Mac ranges and all circuits return to a centralised Socapex patch panel to allow visiting acts to easily add to the rig.

PCM and Harkness Hall are responsible for the flying systems, which include a motorised system above the dance floor, with a circular and box truss that will move independent of each other to provide flexibility. The two companies are also collaborating on a control interface between their systems and the Wholehog 2. The sound suppliers are Mikam Sound Ireland and the system is based around an EV X-Array system with all speaker systems motorised.



Quantum Audiovisual supplied the audio-visual system which provides for the projection of live and recorded events with a screen hung to the rear of the stage. There is also provision for up to five near-broadcast quality cameras, plus vision mixing. Laser Grafix have supplied a laser system which includes a 3kW laser mounted to the rear of the stage, with a second scanning head positioned on the balcony. All of the above

companies are closely involved in the design of the space and LDPS's goal is to enable a single technician to control all house systems via interfacing.



Beta Systems is

a long-established Southern company who also supplies and installs into the burgeoning Irish club scene. Recent projects include a large club complex in County Cork called SG-1. The venue consists of four areas with SG-1 occupying the bottom floor. Beta Systems is the exclusive distributor in Ireland for the Mackie Fussion System and has installed no less than four Mackie Fussion 3000 stacks, plus two ART 300As for the DJ box, to equip the venue with the power that the Kavanagh brothers, who own and run the club, wanted.

The SG-1 system also includes two Technics MK 11 turntables, two Mackie Fussion stacks, an 1820 mixer and CDN 34 twin CD player (both from Numark), 16 RCF Monitor 8 speakers and two Matrix Audio STR 2000 amps. On the lighting front there is a hefty system which includes a Futurelight Dominator, four TAS TX 360s, four SC 780 scanners and MH 660 moving heads (these



Above and left, The SG-1 nightclub, part of a large complex in County Cork.

Below, Docs nightclub in Limerick, which caters to a demanding student population

also from Futurelight), eight Versatile units from Coemar, 12 Par 56s, an Anytronics Linear strobe, 30 Neon Arcs and two Griven Kubos. Dimming comes from a Pulsar Datapak. To add a dose of atmosphere an Antari Z1500 Smoke Machine and a Heavy

Beta Systems has also been involved with Docs nightclub in Limerick, which is very much a 'leading edge' club not least because it has to

Fogger are also installed.

satisfy the demands of the large student population. The company has also worked on Cubans nightclub in Cork, another popular venue. Club Meka is part of the redevelopment of the Abbey Court Hotel in Nenagh, with the club designed by owner JP Ryan and his wife. It has the look and feel of a European club and an extensive kit list with

sound kit from RCF, Technics and Numark.
Lighting and other equipment includes some
familiar club names - Coef, Coemar, Anytronics,
Litestructures and Antari.

The face of Ireland is changing; it has a cosmopolitan flavour that dominates the nightlife regardless of which city you find yourself in. Dublin is one of the most popular tourist destinations in Europe and whilst it's not quite common place to see the hardy Japanese or German travellers in Belfast, that day is surely fast approaching.

The 'troubles' in the North of Ireland may have deterred the tourist in the past, but doing business there, particularly in the entertainment industry, has never been a problem. Grant Collie feels that from a technical viewpoint, Ireland is one nation with crew and equipment regularly moving freely around the country. In the past, when venues and businesses have been bomb-damaged, crowds have gathered to see what equipment could be picked up cheaply. It's a sad commentary that devastation also produces good business for some: it's true what they say about every cloud . . .

If you thought Ireland was all about Guinness by the roaring fire in the local pub - think again! Once you've downed a pint, it's up the road to the nearest club. Once inside, you could be forgiven for thinking you were in any major city, except of course, the charm of the Irish still sets the place apart.



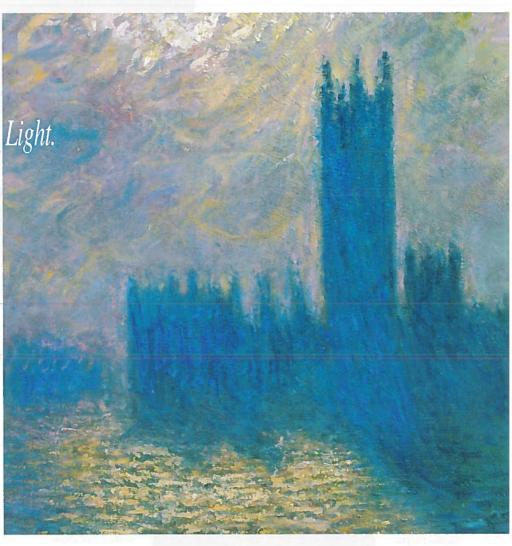
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Las Vegas 2000



Lee Baldock and Steve Moles report from LDI, Las Vegas

his year's LDI was, we are told, the biggest and the busiest LDI Show to date, with more exhibitors than ever before and record-breaking attendance, topping 12,000 in the first two days alone. The



TRADE SHOW

show floor of the Sands Expo & Convention Center certainly seemed very busy for the most part - as did the rest of Vegas, mindbogglingly over-booked and bursting at the

One of the few really high-profile debuts at the show was from Vari-Lite in the form of the Virtuoso DX console; this brings the for sale option to the

Virtuoso control platform family - the daddy of which was launched at PLASA last year. Using the same operating system, the Virtuoso DX supports up to 2,000 luminaires and contains eight built-in DMX universes in a smaller package. Added to this is a new offline



programming software package - Visionary 3D which allows the creation of Virtuoso show files without a console or a lighting system. Also from Vari-Lite were two new luminaire configurations. The VL2202 is the 700W version of the 2201 spot, boasting double the light output. The VL2402 wash luminaire, also 700W, comes in the same compact

package as the 2200 series, and offers the same beam control technology as the other members of the 2400 washlight series.

Martin Professional added to its recent success in the PLASA Awards (for the new MAC 2000) by

collecting the LDI Architecture Lighting Product of the Year Award for its Exterior 300 - an economical alternative to the Exterior 600. This is a CMY colour-changing unit in a weatherproof (IP65) housing. Its wide flood beam makes it suitable for short-throw use where space is limited. Features include built-in light sensor, memory presets and DMX control, as well as manual beam-shaping functions and the same full-range continuous dimming as the 600. Other items from Martin included the company's first strobe product, the impressive Atomic (3000W, 5600K).



The other big lighting gong - the Entertainment Lighting Product of the Year Award went to Coemar for the very impressive and muchpraised CF7 HE, receiving its first major US showing, courtesy of US distributor Tracoman. There was also a world launch from Coemar, that of the mighty CF18, an 1800W automated spot. Features include

450° pan by 230° tilt; 16 gobos plus open on two superimposable wheels, four indexable prisms and full CMY colour-mixing.

> LDI saw the official launch of a purposeful re-branding by the PRG Group. Now all lighting companies within the PRG organisation will not only operate under one banner -Fourth Phase - but will offer a fullyintegrated service across the US. Wisely, PRG have determined that the LSD brand name was too valuable to lose, and have thus made them part of the new marque.

Furthermore, it was also announced that the longawaited Icon-M, with a new improved, high output source, will become available in 2001, and to underline the importance of the Fourth Phase rebranding, will be available from all US

> Clay Paky, represented by US distributor Group One, was showing various new lighting effects, including the new Astroscan, which played an impressive part in Clay Paky and Pulsar's award-winning

stand at PLASA, and the latest additions to its sleek range of Display Line image projectors. These include the V.I.P. 150 PFC and PRO (both with the HQI-T

150W lamp); the V.I.P. 250 ALO ST, meanwhile, combines the features of the ALO model with the compact body of the S.I.P; the V.I.P. 300 PFC and the V.I.P. DIA PFC

have the same features as the standard 300 and DIA models, but with significant energy conservation (400VA instead of 800VA) from an internal power-factor corrector condenser.



Clockwise from top, Elektralite's president Jack Kelly (left) with Keith Dale

The Pulsar line-up of Steve Unwin, Paul Mardon, Jane Monk and Andy Graves

In the pink: a Martin Pro trio of Kristian Kolding, Troels Volver and Pio Nahum

Vari-Lite's Rusty Brutsché (centre) and Charles Reese with the Virtuoso DX

Also on the Group One stand was Pulsar, showing the Masterpiece 216, for which Pulsar is now offering all users the latest Chase Generator software free of charge. This allows the creation of complex chase sequences from just a single scene

The other lighting brand under the Group One banner in the USA is its own Elektralite range of universal lighting controllers. New for LDI was the CP20, which joins the CP100 and CP10XT in the CP range, and is designed for both moving fixture and conventional dimmers, with hot keys for instant access to fixtures, cues, chases and macros, as well as colour, gobos and special effects. Control of up to 24 fixtures of 24 channels each is possible. Incidentally, whilst on the Group One stand it was good to catch up with Keith Dale, late of Celco, who announced at LDI that he has taken on representation of the Elektralite range outside the

US (see news last issue).

Blackout-Triple E, whose clever, space-saving Chaintrack drape system received such a good response at PLASA, was even more pleased with the response at LDI, where it picked up the Best Rigging and Hardware Product Award. David Edelstein reported that Chaintrack had received an incredible response from visitors to LDI, but was naturally cautious as to how this

would convert to sales. As always, the next few months will tell.

Flooring specialist British Harlequin (in the Stateside form of American Harlequin) was the winner of the LDI Widget of the Year Award, for its handy carrying bag which enables heavy rolls of flooring to be

transported with relative ease.

ESTA also presented two Dealers' Choice Product Awards: this year the Expendable/Widget of the Year Award went to City Theatrical for its Image Multiplexer attachment, whilst the Equipment Award went to Interactive Technologies for the Figment DMX - a new class of







handheld DMX moving light consoles with troubleshooting features, based on the successful Palm operating system.

ESTA's Dealer's Choice Awards, presented on the eve of the Show, give ESTA's dealer

members a chance to recognise the manufacturers that provide consistently good customer service throughout the year. Different Awards are given for each of three company sizes: 1-6 employees, 7-25 employees and over 25 employees. The winners of each category were, starting with the smallest -Doug Fleenor Design, Lex Products Corp and Apollo Design Technology.

The Manufacturers' Choice of the best dealers recognised the following three companies, again in order of size - Indianapolis Stage Sales & Rentals, Musson and Stage Equipment & Lighting.

There's another award to mention - the annual Wally Russell Award for lifetime contribution, which this year went to Stan Miller, chief executive officer and chairman of Rosco Laboratories.

Aside from its continuing saga with Color Kinetics, as mentioned in last month's news, Artistic Licence is now offering a custom design service for LED luminaires, as well as successfully showing its other products, including the Common Sense interface (this has since

won an EDDY Award from Entertainment Design magazine), which converts virtually any type of data into virtually any other. Also new, the Snap 1024 lighting controller (1024 channels through two DMX universes - and a 'snap' to programme), and the Preset 6 and Preset 12 - no-frills DMX output lighting consoles.

Avolites America gave the US debut of the London-based company's latest additions to the ART dimming range, recently launched at PLASA, the ART 6000 and ART 2000 24-channel. Avolites America also report excellent sales of Avo's Azure and Pearl consoles this year.

High End Systems found itself the topic of conversation on the show floor, due mainly to its 'VertiGo'-tagged periscopic mirror heads (developed by WWG) which were being demonstrated on stand, attached to two highoutput Barco projectors. With the aid of software developed for High End by Richard Bleasdale of Serial and MIDI Show Control, these systems are

Clockwise from top, the City Theatrical team of Brian Byrne, Lori Friedlander, Gary Falls and Patrick Eagleton

ETC's Mike Lowe (left), Mark White (centre right) and Adam Bennette (right) joined by White Light's Bryan Raven (centre left)

Strand's Richard Bunn, Peter Rogers and Phil O'Donnell with the new SLD dimmers

Artistic Licence's Tracey Patterson (holding the Common-Sense) and Chris Chew (with the Snap 1024)



capable of keystoning images during panning and rotation. This was not a finished product, but a 'concept'; nonetheless, the possibilities for moving projection drew comparisons with LSD's Icon-M: size, of course, is another issue - a case

of horses for courses. Other news from High End was the launch of the new x.Spot. This MSR 700 short-arc lamp-based luminaire boasts a high light output and wide zoom (11° to 45°) with steady aperture and flat-field focusing.

Expect it to ship in early 2001.

ETC was publicising the latest addition to its ETCNet 2 networking systems - the ETCNet 2 Video Node, designed to allow access to lighting information from any point in a venue. It allows staff to view remote displays of the

same information available at the main console. Cues displayed on the Node monitor can also be edited from any node, using ETC's Remote Focus

> Unit or a PC keyboard. ETC was also introducing new developments from the Irideon stable of architectural fixtures. Among these were the AR50 interior washlight and the AR6 fully-automated recessed luminaire.

Strand Lighting's new SLD dimmer series was shown for the first time in North America. Designed to interface fully with Strand's

ShowNet Ethernet system, the SLD dimming system provides a wide range of inputs - including two DMX and 12 analogue - as well as presets for their

Altman had a number of new and improved products. Its Shakespeare profiles have increased light output, thanks to new highly-engineered reflectors. The Star*Par has also

been upgraded and now includes a metal ring that allows lenses to be interchanged without the use of tools. New was a series of architectural and TV lights based around the 10,000-hour CDM lamps, which include specially-produced proprietary ballasts to optimise the lamp performance.

White Light and White Light USA (together with architectural lighting arm Enliten) were getting a good deal of attention for the Enliten Exhibition Par, a 575W MSR version of the ETC Source Four Par. The company reports that General Motors have purchased around 1,000 to light its touring motor show stand. Also from Enliten was the 150W HID Source Four profile and the Callisto weatherproof

company, Stage Technologies, still riding high on company's new Pathway three-dimensional flying the US market for the first time.

Celco, on the stand of distributor Applied Electronics, was showing new developments for the Ventura software (v.3), the main feature of which is a powerful new effects generator. Also new, the Platinum, a clever box and software system which will allow your DMX lighting board to control moving lights, conventionals and dimmers.

Selecon introduced further models to its range of fixtures. The Acclaim Axial Ellipsoidal now offers interchangeable beam angle choices of 18°-34° and 24°-44°, while the Astral Axial offers the same

> range for long-life display luminaires, ideal for retail and leisure applications. Selecon also introduced the Pacific 5.5°-13° Very Narrow Zoom this will provide a beam diameter from 9.5ft to 20ft at a 98ft throw.

CITC is never short of innovative ideas for special effects products. Among the

clutch of products on show this year was the Stratosphere haze machine. This powerful unit with on-board DMX offers a completely residue-free operation, and does the work of six DF-50s suitable for venues up to 60,000 capacity, say CITC. Also available is the Aqua Stratosphere - a waterbased non-glycol hazer for shorter-lasting haze.

Navigator Systems, UK-based creators of the HireTrack Eclipse rental management software, is now the leader in its field, with its sophisticated systems used worldwide. At LDI, Navigator announced a strategic alliance with Ian Kirby's online production resource G-E-T.com, the aim being to help companies market their rental equipment to the hire market by developing a fast, industry-

> targeted online search and product request platform.

The big news from Bandit Lites was the announcement that WWF have bought WCW, the implications of which wrestling fans will understand immediately: "We already light nine live show days a week," said Richard Willis of Bandit,

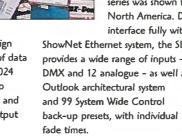
"hard to see where they can fit more wrestling shows." Bandit are currently busy with tours by Offspring, Moody Blues, Deftones, and Incubus; and have a big production out with Carmen, a major Christian act.

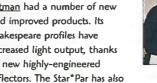
A discreet booth from Westsun this year, but a lot to say. They currently have lighting gear out on tour with Britney Spears and N'Sync, and are coservicing the Dixie Chicks and Don Henley tours with VLPS. Westsun also provided the kit for the Elton John special at Madison Square Gardens in November.

British Optical's Michael Bridgman was having a good show, displaying samples from the company's extensive range of optical components. Many of these fill the innards of the world's most advanced intelligent lighting fixtures, which could be seen elsewhere on the show floor.

A new on-line resource for the entertainment production industry introduced itself to the world at LDI. Shoptick.com aims to provide a one-stop-







Adjacent to White Light was another London the PLASA Award for Product Excellence which the system collected. Pathway was being introduced to

shop for information, sourcing, scheduling and marketing. The information will include manufacturers, facilities, crew and production companies, as well as business management tools and technical support.

<u>TMB</u> always manages to bring something new and interesting to the show. The Hungaro Flash range might not revolutionise the world, but these DMX-controlled, high-power, linear tube strobes will certainly attract those who haven't got huge budgets; lots of bang for the buck. Also

prominently featured were two items seen recently at PLASA; the ETC Source Four derivative – the PowerPAR 575 and the Acutek hoist controller. Of most interest to American users was this eight channel controller's high level safety features; E Stop is rated level 4 (there is no higher rating), while the

remote handset and individual channel mains protection conforms to Germany's rigid TUV standards.

LA-based <u>Premier Lighting</u> introduced the timeand cost-saving Transparent Image Projection Accessory (TIPA), which can be used in conjunction with existing light sources and allows users to project full-colour images at reduced cost. The TIPA box, which includes the image holder and cooling fan, fits into 7.5" x 7.5" gel frame ears and sits between a flood light source and a Source Four lens tube.

German smoke effects manufacturer <u>Look Solutions</u>, represented by <u>Theater Effects</u>, had a world launch on show - the Unique smoke machine. This DMX-controlled unit offers independent and variable control of both pump and fan through 99 discrete

steps, allowing a wide range of effects from the faintest mist to a thick fog. All other parameters are also microprocessor-controlled, and the Unique also offers continuous output up to 50 hours.

<u>Gray Interfaces</u>, shortly to change its name to Pathway Connectivity, showed a

DMX/Ethernet gateway branded Pathport, which offers existing DMX equipment all the benefits of a powerful Ethernet data distribution capability. It's also ACN (Advanced Control Network) ready. The Pathport boxes are easily installed, fitting into a standard double-gang electrical box.

Le Maitre introduced the Surefire digital control system for the pyrotechnics market, featuring a 16-channel programmable controller, 16-channel remote slave module, and a 48-channel airburst slave module. It utilises one controller which can be connected via data lines to up to nine remote slave modules. Also available is a Surefire desktop programmable unit with 16-channel control unit and encoder, which allows the operator to programme and recall all show cues.

Le Mark proved again that the simplest ideas are often the best, with the introduction of its new Grid Rule, a customisable self-adhesive vinyl measuring system. Now you can have a bright,

durable and accurate measurement indicator on your stage floor, truss or wherever else you'd like one.

<u>Doughty Engineering</u>, again exhibiting alongside Dutch partner <u>Prolyte</u>, introduced the Strata Mk II and Zenith Mk III

winch stands. These now incorporate a unique self-locking secondary safety system and an option of two different base arrangements.

Stardraw's David Snipp was announcing a tie-in with the Klark Teknik Group at LDI, which basically means that KT's endusers will have free access to a reduced version of the Stardraw Audio package, which now has the capacity to control external hardware - for example, KT's DN9848 processor. 'Stardraw for Klark Teknik Group' also offers

control of Midas' Heritage consoles, and can be had from the web - www.klarkteknik.com.

How can you ignore a name like <u>Magic Gadgets</u>? Behind it is a low-profile group of inventors who came to LDI with their new Flicker Generator which comes in 2k, 4k and 6k versions, and is designed to work with those natty 12v garden lighting kits that you see in Innovations catalogues. Magic does a lot

of custom work, and is represented in the UK through Keylight.

The Goddard Design DMX 2 now comes with more

memory and a muchextended battery life. New software 'Player' gives show control capability to the DMXter, although limited by speed of access to function, it does make for a suitable device for playback of wellscripted shows.

The V252 from <u>Cerwin Vega</u> is a pokey twin 15" full-range

cabinet aimed squarely at the portable DJ market. HF comes from a bi-morph drive (piezzo) fitted with Cerwin's proprietary spherical wave-guide giving 70° by 70° coverage. "A budget box," said John Davies, "it's rated at 600W continuous, 1200W peak." Also new, the LR 36 is a reasonably compact single 18" sub. The folded horn, reverse loaded device boasts air-cooled driver and continuous handling of 750W @ 8 ohms. Measures just 36" x 24" x 26".

McCauley have produced one hell of wedge - the SM950-2. The box boasts a 15", 10" plus 2" integrated point source drivers, yet remains remarkably slim and low profile. Potential for bi- or tri-amping makes the wedge highly useable; coverage is quoted at 80° by 80°, max SPLs 136dB peak. Also heavily featured the new McCauley X-ten.sys, a two-box, trapezoidal PA system. This is a system designed for the growing club scene in the US.



Skjonberg Control's indefatigable Knut Skjonberg has just completed a control system for Branham's that looks after 12 K/S winches running at a terrifying 40mph. Not surprisingly, this is for a Spielberg production. SC's

have also just completed a seven lift control system install for Disney in Tokyo; each lift rotates as well as rising, and the controller also handles two 7ft trolleys that travel at 500ft per min. Hmmm.

And to keep things topically Las Vegas, Skjonberg Controls has also recently installed a four-floor custom wire winch system for the Oriole Restaurant at the 'Vegas Mandalay Bay hotel. The winch system is to transport the waitresses from kitchens to customers! Only in Vegas.

Two significant announcements were made by <u>Tomcat</u>. First was the availability of <u>Brilliant Stages'</u> expertise in the US, and second was the forthcoming opening of Tomcat's supply depots on both coasts of the USA. Tomcat's CEO, John James said: "These will probably be in California and

somewhere up the East Coast, expect an announcement early in the New Year. Our home base in Midland, Texas, currently carries \$1m in inventory, so you never have to wait for a production run when you place your order."

Steeldeck deals in a variety of staging products for the US market, providing something to suit pretty much every pocket.

Their latest additions are the SmartStage range from Canada; the main advantage of this, apart from strength and its general ease of use, is the fact that it comes in Imperial (8ft by 4ft) rather than metric increments. Also available is Tetradeck, the neat and very portable rostra system from Owl in the UK. Birch ply decks fit to scissor-type expanding frames that, although manufactured in lightweight aluminium tube, provide a 1 tonne per metre support.

A nice little techno' innovation from <u>Clear-Com</u>
<u>Intercom Systems</u>, the EFI is an Ethernet or LAN
system that outputs to MUX FL1 equipment. Apart
from the obvious advantage of being able to tap
into the increasing number of exhibition and public
buildings already laced up with Networks, the EFI

Clockwise from top, Stardraw.com's Randell Green

and David Snipp flank Klark Teknik's Dave Webster

A Total Structures line-up of Chris Cronin, Peter Johns and Ian Coles

On the Tracoman stand, l-r: Gerard Cohen (Tracoman), Bruno Dedoro (Coemar), Marcel Fairbairn (Tracoman), Robert Mokry (Tracoman), Michelle Shirton and John Saunders (Abstract) and David Sullivan (Tracoman)

One for the Tomcat album: John James, Mitch Clark and Juan Luis Perez, with Adrian Forbes-Black (Tomcat UK), Tony Bowern (Brilliant Stages) and Gina Crichton (Tomcat UK) in the front



Clockwise from top, Paul Toms (left), Greg Smith (Navigator USA) and Richard Cresswell of Navigator Systems, with Ian Kirby of GET

On a roll: Harlequin's Monica Arnott and Bob Dagger with their Award-winning carry-case

On the Avo stand, I-r: Brad White and Cathy Steel of Avo America, visitors Nelson Ronda and Samuel Caban, Steve Warren (Avolites UK), Robert Steel (Avo America) and Roberto Bento (representative for Mexico)

system also encodes data to facilitate additional information, such as remote station identification.

Total Structures is sister company to Total Fabrications in the UK, and equally innovative. The Omni-Connector is a fork-end connector that can fit to any truss type, the fundamental difference being that it can be swivelled to allow an almost infinite variety of angled connections. The fork-end fitting is mated to the truss by means of a stainlesssteel insert within the ends of each cord, the connector attaching by means of a lengthy and fine-pitched thread. The threaded fit gives the ability to rotate the fork-end to any angle in 360 degrees, and the fine thread gives an astonishing strength rated to

27,000lbs (naturally users will need to de-rate truss loads to those permitted by the actual truss specs, but as a 27,000lb connector exceeds every truss in the standard cord diameter tube, this should not present any problems).

The Vestax PDX 2000 is a turntable designed for the rigours of intensive DJ work. A high-quality, high torque DC motor and precision tone-arm combines durability with performance. Also on show the new CDX35, a modular CD player for DJs featuring reverse function, ultrapitch (50% each way) plus Start and Break adjust.

C-Audio's Pulse amplifiers were introduced some time ago in Europe, but are relatively new to the US. This range of amplifiers is aimed squarely at the pro-touring market. Brand new for the US, the GB Series is a range designed with the semi-

pro touring band and install market in mind. Wellknown in the UK, this keenly priced amp should raise plenty of interest in the US.

The Crest Audio ST and LT power amps come in 2000, 1500 and 1000W versions (2400W in 4 ohms, 1800W, and 1300W respectively), the main difference being switching or linear power supplies. Both series are aimed across the market at clubs, DJ. pro audio, and the installation market.

Nothing new to offer in the amplifier range from BGW, but its latest 19" gang-able rack systems for the install market proved popular. The racks have all the features and parts inventory you could require for the most demanding of installations, and come in a wide variety of options.

> graphic EQ. The FLS 'feedback locating system' an LED above each band on a 15-band graphic (or 31 band) - gives instant visual reference to what's 'taking off' - an ideal tool for the inexperienced engineer. Now patented by Peavey it is fitted to many of its integrated mixer/amps, and also sold as

a stand-alone unit. Also from Peavey, the RQ2300 live console and GPS range of amps.

ETA Systems is a mains conditioner maker, with particular expertise for the entertainment market. The PD 420VS is an 80Amp complete power distro' system with sequential turn-on/off for fault-free regimented power regimes, any combination of the



four mains channels of 20A. The largest mains system from ETA is currently a 140A unit, and the company is aggressively approaching the European market where it has modified a range of its existing 19" rack mount conditioners to conform

to CE regulations.

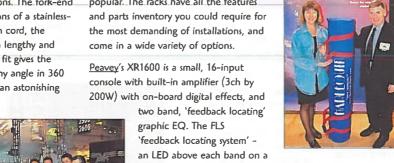
The new 'under balcony' WT UB speaker from Martin Audio attracted much attention. The prototype on show clearly demonstrated the aesthetic considerations that have been made in designing this unit: a sleek curved front and half angled rear make this an attractive cabinet for style conscious venue owners. Inside this relatively small cabinet lurk a pair of 6.5" and three 1" soft dome HF units in line array, producing a very wide 120° coverage. With installs very much in mind, Martin

> has made this a switchable 1st, 2nd pair system, so that four cabinets can be daisy-chained on a single cable, yet controlled as separate (dual zoned) speakers.

Featured for the first time at LDI was Nexo's PS8 speaker, the tiny two-way high-power unit designed for use with the LS400 sub. With neodymium drivers on both the 8" low/mid and 1" HF, the PS is extremely

low weight, yet produces high quality sound up to a peak 122dB peak. The PS8's asymmetric horn has progressive 50° to 100° vertical, and 55° horizontal coverage, and can be rotated and set through the four cardinal points.

The EVO system from JBL is designed specifically with installation in mind. The exterior finish, black or white, is aesthetically pleasing, but it is the system integration that makes this product most attractive. Evo comes as a complete system and features automatic digital control for room EQ, feedback suppression, internal delay settings, and full amplifier dynamics.





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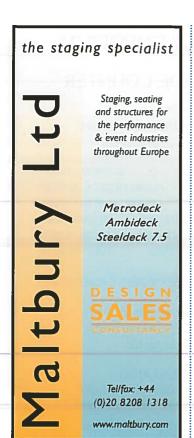
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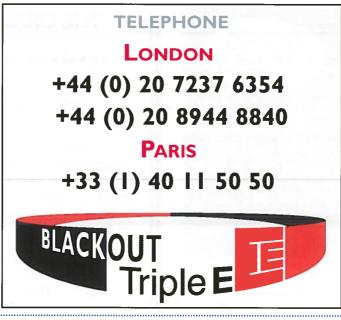
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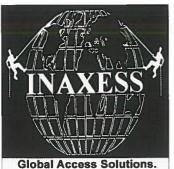
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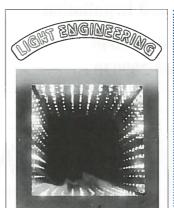




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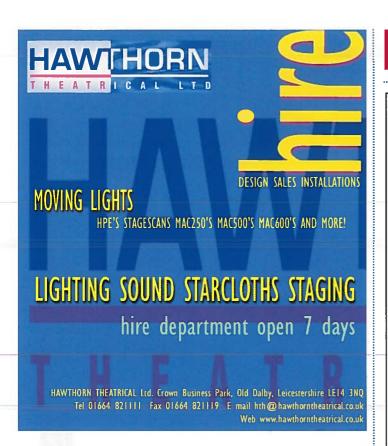
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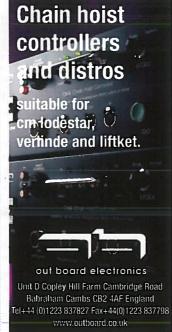
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Job Ref: 1331/1 Senior Video Engineer, Location: Chessington Salary: to £30k plus benefits.

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Job Ref: 506/2 Project Manager, Based - London Salary £20-25k (Neg)

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Job Ref: 250/1 Service Engineer, Location: Berks Salary: £18-23K + Company Van

This leading supplier of sound and lighting systems to the theatre, TV and education markets is looking for an experienced electronics service engineer to work in the workshop and 'on-site' repairing and maintaining a wide range of equipment, including computensed lighting control systems and digital dimmers. The successful applicant will be self-motivated, flexible and keen to work on his or her own initiative. The candidate must be computer literate, a good organiser and keen to learn new technologies. A clean driving

Job Ref: 250/2 Installation Electrician, Location: Berks Salary: £18-23k + Company Van

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A leading supplier of sound and lighting systems to the theatre, TV and education markets is seeking a qualified electrician capable of working to the highest standards. The successful applicant will be capable of managing both staff and materials to carry out electrical installations of sound and lighting systems throughout the UK. Must hold a clean licence. Salary dependent upon age and experience.

Job Ref: 250/4 Project Engineer, Location: Berks Salary: £14k

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Job Ref: 1322/1 Service Engineer, Location: FRANCE Salary: £14500 (FF12000 per month)

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Job Ref: 1330/2 Northern Sales Representative, Location: Field Based Salary Neg with excellent commission package.

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Job Ref: 1330/1 Internal Office Co-ordinator, Location: Hampshire Salary £15-18k

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LESI Talks to the Industry Trend-setters

eltic blood runs deep in the veins of lighting designer and theatre consultant Grant Collie. He originally trained to be a vet in his native Scotland, but graduated from animal care to lighting (which offers up a number of joke possibilities, but we won't go there) with a brief audio flirtation in between. These days he is busy carving out a successful career in his adopted

Jacqueline Molloy
meets with
lighting designer
and consultant
Grant Collie - the
man who swapped
paws for Pars

home in the Republic of Ireland, living and working from a farmhouse in the idyllic-sounding Knocknagoun, some 20 miles from Cork.

Rural Ireland conjures up wonderful images of impossibly green landscapes framed by the rugged coastline that surrounds the tiny island, but once night descends, it is also home to a booming entertainment industry.

Grant describes the Irish scene "like a cottage industry with a thriving international flavour." He finds the professionalism in the entertainment industry second to none with a lack of arrogance and cynicism that makes it a very pleasant place to do business.

He has been based in Ireland for seven years and was the original chief LX on the now infamous *Riverdance* production at the Point Theatre in Dublin working alongside LD Andrew Leonard. Previously, he had crewed at various theatres in and around Edinburgh before heading to London where he took a "short" lighting contract at the National Theatre; in fact it ended up lasting two-and-a-half years.

He then took to the road with Joseph and The Amazing Technicolor Dreamcoat, which became

famous for carrying one of the biggest touring rigs of the time. Up until to this point, moving lights hadn't particularly figured in Collie's work, but since Vari*Lites featured prominently in the Joseph rig this was his baptism of fire. Following his run on Joseph, Collie adopted Ireland as a permanent base, though he still pursues consultancy work on an international basis which has taken him to both New Zealand and Australia.

His love of lighting has also taken him to Cyprus and, as a consequence, Beirut. Both came about as a result of his work with the only production company in Cyprus at the time – Papadopolous and Schinis: "I was teaching local television technicians how to light at a time when entertainment technology was in its infancy in Cyprus. We were one of the first companies to tour a show into Beirut after the violence had quietened down."

Collie was not alone, having travelled to Cyprus with crew from Ireland which led to a memorable experience for one of the technicians. It started out well enough when he was collected from the airport by limousine to crew a show on the Greek Cypriot side of the green line at Famagusta. During the performance, when the Greek Cypriot President was onstage, soldiers hiding on the Turkish side appeared to shoot out a searchlight above him. Actually the lamp just blew of its own accord, but for the crew technician it completely wiped out the five star limousine treatment of earlierl

Despite the occasional incident, Collie and his colleagues found Beirut to be a fascinating experience. "The people just loved the shows - we produced a big sound and a good lighting show and there was no pretension, regardless of who you met. You could easily find yourself sitting next to the guest of honour in a venue, whilst nursing the lighting desk on your lap!"

Touring in other countries has proved much more challenging in Collie's view, where local safety standards have occasionally been somewhat lacking:



"Training and safety are constant undercurrents of my business practice and I co-ordinated the first European masterclass in rigging with 'Dr Doom' and colleagues from the US in Scotland in the early nineties. I'm looking at working closely with the PSA and existing trainers to properly equip technicians here in Ireland to cope with all that is new in European Law and practices."

Collie's passion for standards has taken him further along the route of venue consultancy - a move

driven by his own experiences of touring venues designed by consultants who'd never actually had hands-on experience in the industry. "All the project engineers we use on venues are working technicians who understand the hardware and appreciate the difficulties associated with getting shows up and running."

With such a wealth of experience, it's only natural that Collie's own company - Lighting Design and Production Services - has been involved in several major technical design projects for venues across Ireland. He gets a great deal of satisfaction out of seeing technicians he has employed to consult on projects subsequently being hired by the client to stay on and work at the venue once a project is complete. "The crew here in Ireland are of a very high standard; they're enthusiastic and working in an industry that's booming. There is a lot of talent around."

Collie's consultancy and freelance work has seen him undertake a diverse range of projects: in the past he's lit President Clinton during one of his Irish visits (for Lighting Design Associates) and currently he is designing a new 900 capacity 'state of the art' live music venue and nightclub in Killarney – Mustang Sallys. When there is a gap in his schedule his 17-month old daughter Jenny (pictured above) helps keep him occupied and grounded!

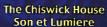


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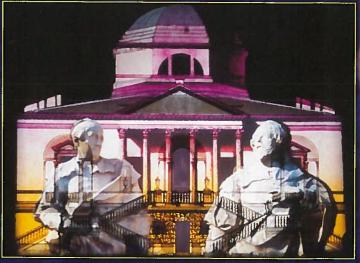
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