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- The Big Ticket - the game show to end them all?
- Pacific Bar Café: 42nd Street's £7m box of tricks
- Audio Shoot-Out at the Barbican Conference Centre
- Man and the Millennium: L+SI exclusive interview with Mark Fisher
- Frankfurt's finest - review of the Musik Messe
- Genesis and the Corrs on Tour

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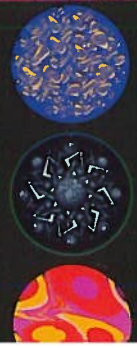


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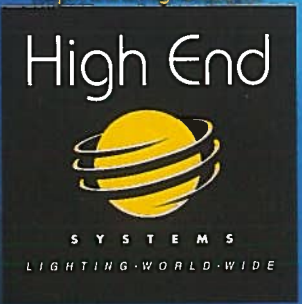
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APRIL 1998

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



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Vari-Lite Production Services Expands

Following the success of their offices in Chicago, Las Vegas, Orlando, Nashville, Atlanta, and Brussels, Vari-Lite International have announced the opening of another Vari-Lite Production Services (VLPS) operation in London. VLPS London will see Vari-Lite Europe, CPL and Theatre Projects join forces to provide an integrated lighting equipment and service package, featuring Vari*Lite automated products and conventional lighting equipment.

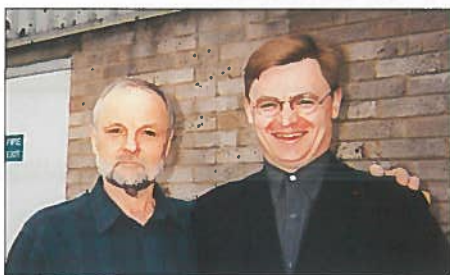
Bert De Haes is the newly-appointed general manager of European Operations for VLPS. Working from Belgium, he will supervise and develop VLPS operations throughout continental Europe (including London), the Middle East and Africa. De Haes was involved in the expansion, acquisition and reorganisation of various companies as chief executive officer of D&D Entertainment Techniques Holding, the parent company of VLB until its recent purchase by Vari-Lite International, Inc.

Brian Croft, managing director of VLEH told L+SI: "De Haes is the perfect person for this job. He is instinctively pan-European and has considerable experience with the growth of companies internationally."

Executive vice-president of Vari-Lite Production Services, Loren Haas, commented: "Our global strategy is to create VLPS offices in multiple locations around the world as appropriate, ensuring that we provide our clients with the same high standards of service we are renowned for."

Croft pointed out the benefits that clients can expect from any of the VLPS offices. "VLPS means that we can offer our customers a complete package of conventional and Vari*Lite luminaires, as well as staging and sound where appropriate."

From the 1st April, the trade name Concert Production Lighting (CPL) will cease to be used



Brian Croft (left) with Bert De Haes.

and Vari-Lite Europe Ltd will exist purely as a legal entity. However, Theatre Projects will retain its specialist identity and trade name. Alan Thomson continues as managing director of TP and at the same time joins Haas, Croft and De Haes in developing and implementing the VLPS network, globally and regionally.

A number of re-appointments have been made to facilitate this expansion; David March becomes general manager for VLPS London, Carol Croft from CPL, still supported by Mick Healey, takes over management of the VLPS 'sales' team and Jim Douglas assumes the position of dealer network manager, responsible for existing dealers and developing new dealer opportunities.

'Late News ...'

Apologies to our readers for the unusually late arrival of the March issue of L+SI. The hold-up was caused by a combination of factors - we won't bore you with the details - and we are pleased to be resuming normal service with this issue.

2000 Meltdown

A unique service has been launched to help small and medium-sized businesses beat the 'Millennium Bug'. The news will be especially welcome to larger companies seeking to solve the problem among the smaller firms in their supply chains.

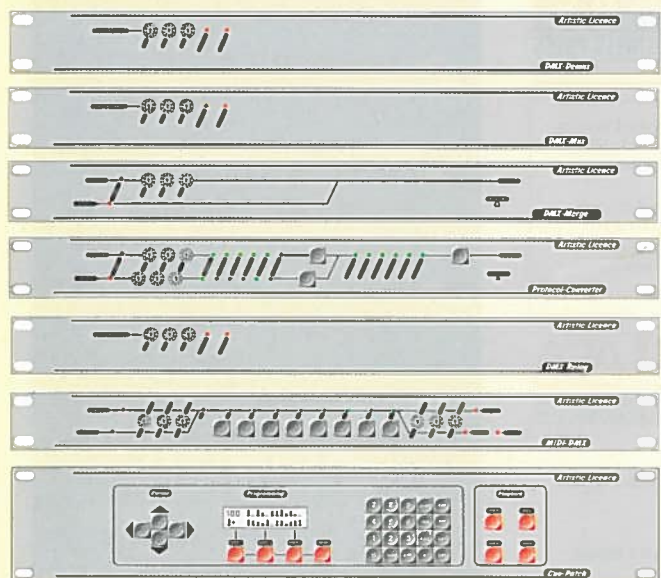
As the Government becomes increasingly worried that smaller businesses are failing to respond to repeated warnings, the main banks have already started demanding proof from their small business customers that they will not be affected by the Year 2000 crisis: those that are not risk having their overdrafts and loans withdrawn next year.

The Year 2000 Support Centre, run by a consortium, publishes guidebooks and 'survival packs' specifically designed for owners and managers of small and medium-sized firms. The Centre also operates a fax-back service which supplies information and articles 24 hours a day. The Year 2000 problem arises from the fact that many computers - including PCs - and software programmes record year dates as two digits. Faced with '00', systems either assume the year is 1900 or simply refuse to recognise the year.

The Centre's director, Mike Kusmirak, told L+SI: "Many smaller businesses feel that the problem is something that will pass them by, but they're wrong. Lots of systems are going to be disrupted for a while - systems controlling invoicing, payments, stock, the supply of goods to fulfil orders, etc. Many small firms are part of larger supply chains. If the company at the top gets into trouble, then everybody down the chain will be affected. Businesses can be destroyed without owning a single computer."

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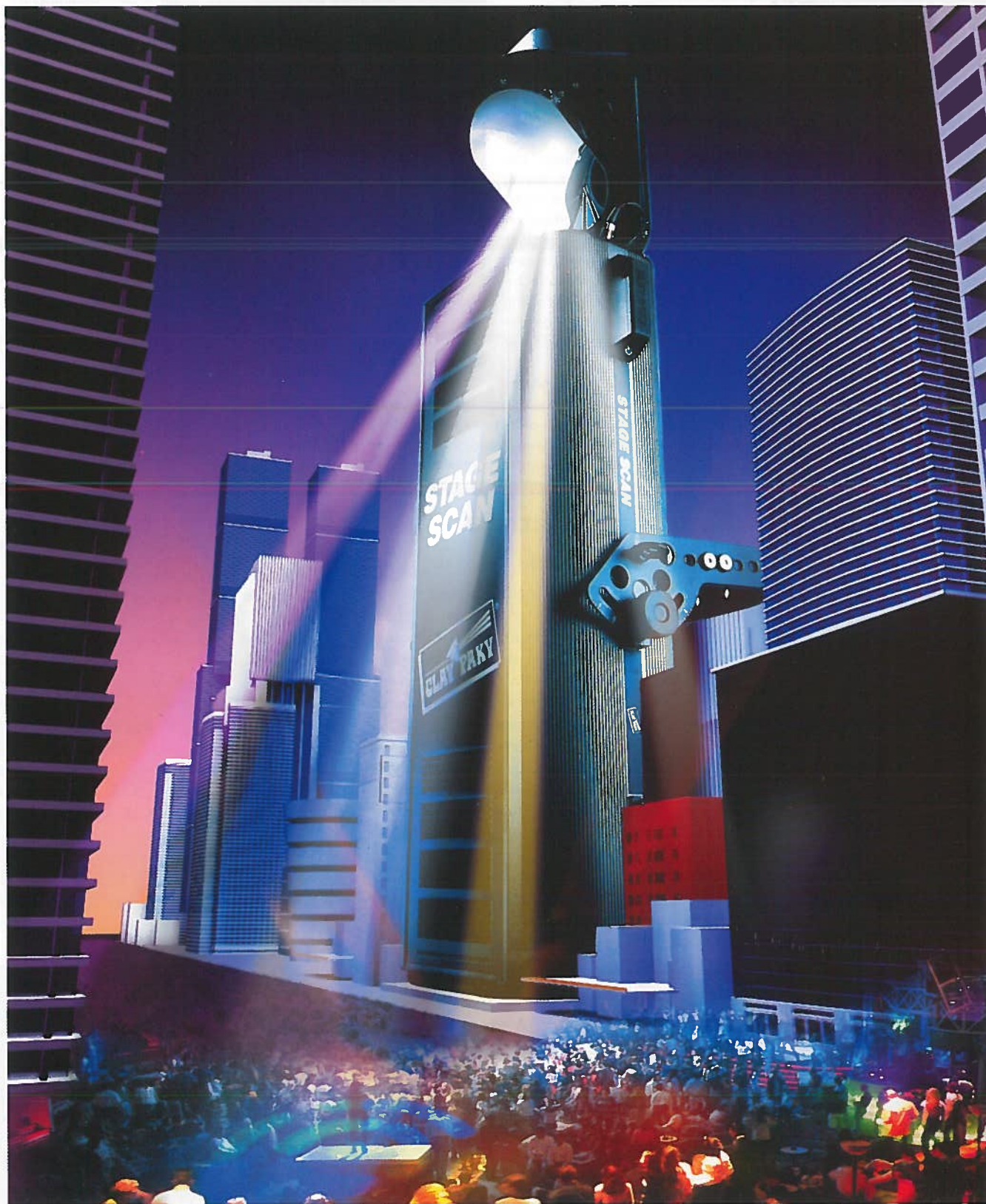
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PROFESSIONAL SHOW LIGHTING

NEWS Shorts

PLASA's Italian equivalent, the **Association of Italian Discotheque and Theatre Equipment Manufacturers, APIAD**, is changing its name to **APIAS** to more closely reflect the broadening market that the association now serves. APIAS is to stand for the Association of Italian Manufacturers for the Entertainment Industry.

Laser Grafix were recently contracted by Laser Creation & Marketing (LCM) to provide a spectacular laser show featuring a full-coloured laser, a motorised gauze production screen, mirrorballs and remote effects mirrors, at The Equestrian Centre in Abu Dhabi, United Arab Emirates, for the Abu Dhabi Combat Championships.

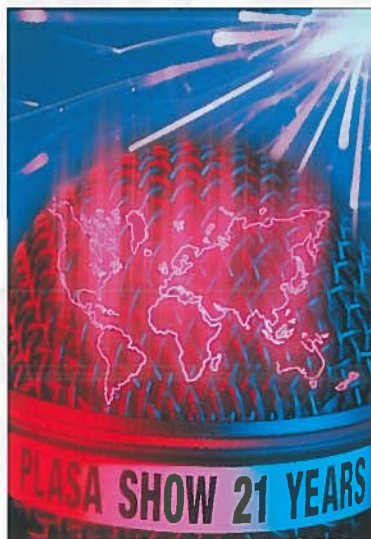
Navigator Systems Ltd recently exhibited their award-winning rental software HireTrack at the Frankfurt Musik Messe with their German distributor Audio Network. Representatives met existing and potential customers. Several orders have already been received as a result of attendance at the fair.

PLASA's 21st

The 21st PLASA Show, taking place from 6th-9th September at Earls Court, London, promises to be the biggest PLASA show to date.

With a number of new sections covering all aspects of entertainment technology, the show will embrace an increasing number of target markets, including retail, leisure, education and the growing installer marketplace. Additional themed and featured areas will also be included to reflect the growing numbers of themed bars and clubs using lighting, sound and display equipment.

PLASA Chairman Paul Adams commented: "The entertainment technology industry is witnessing a convergence. In order to stay ahead of the competition, many shops, cinemas and restaurants are now attracting customers through the innovative use of



lighting and sound, installing the type of equipment more commonly associated with live events, nightclubs and theatre."

Approximately one quarter of all visitors to the PLASA show come from outside the UK, making PLASA the recognised international arena for industry buyers and sellers. This has encouraged co-operation from organisations such as ESTA (Entertainment Services and Technology Association) and the NSCA (National Sound Contractors Association) from the United States to provide dedicated pavilion areas for their members.

To celebrate the 21st PLASA event, PLASA and P&O will be hosting a banquet at the Natural

History Museum on the opening Sunday night of the show. Ticket information is available from Suzy Parish at P&O Events, telephone 0171-370 8229 or e-mail plasa@eco.co.uk.

National Theatre's Modernisation

Paul Hamlyn Week at the Royal National Theatre in mid April marks the completion of the front of house redevelopment work as the theatre opens its doors to thousands of first-time theatre-goers. Funded by the National Lottery through the Arts Council of England, extensive alterations - designed by architects Stanton Williams - have been in progress since January 1997.

The backstage and technical redevelopment work will begin shortly and will be spread over a period of three to four years. The Paul Hamlyn week is designed to attract first-time visitors to the theatre and a variety of the National's work is on offer including Peter Pan, Oh What a Lovely War, London Cuckolds and Not About Nightingales. Production and technical staff will also be contributing to special offstage/onstage talks for young people who are interested in working in theatre.

University for Industry

In a recent green paper, the Department for Education and Employment outlined its plans for the University for Industry and foreshadowed the publication of a Pathfinder Prospectus, which is now available. The University for Industry is a new kind of organisation, which will boost the competitiveness of business and enable individuals to improve their employability. Working with businesses, education and training providers, it will use information and communications technologies to make learning products and services widely available.

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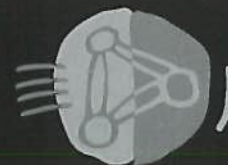
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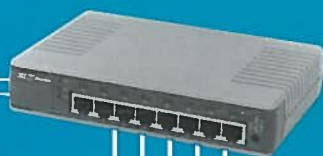
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Gearhouse Acquires BOJO

International presentation hardware and services company, Gearhouse Group Plc, have announced the acquisition of BOJO Productions, one of Australia's leading event theming companies. The company will be relaunched as Gearhouse Themeing Pty Ltd and will retain BOJO's existing staff and assets. Former BOJO manager John Bond has been appointed managing director of Gearhouse Themeing and the company will continue to operate from BOJO's former Gold Coast premises.

The use of theming at corporate and entertainment events has developed significantly over the last few years and throughout this development BOJO has been at the forefront of the industry. In the last three years, it has developed a close working relationship with Gearhouse Australia, a relationship which has culminated in the acquisition of the company.

BOJO Productions' founder and owner Lloyd Bond told L+SI that he was delighted that the Gearhouse Group had made the commitment to theming and the acquisition of BOJO's theme sets, props and creative concept assets. The marriage of the creative skills of BOJO with the resources and experience of Gearhouse Australia will inevitably bring considerable benefits to the existing client base, as well as offering potential development in the future. The ability of the two companies to work well together was ably demonstrated at the 1997 Queensland Tourism Awards, held at the Cairns Convention Centre. Entitled 'The Crystal Rainforest Experience', the two companies transformed the venue into a rainforest, complete with 2,800 living plants, waterfalls and even a tropical downpour courtesy of one million rain crystals. Lloyd Bond added that the company had developed a close association with the Gearhouse Group since it began operations in Australia and he would act as a consultant to Gearhouse Themeing in addition to his other Theme Corporation projects throughout the world.

Turbo's Distributors

Turbosound have confirmed the appointment of two new distributors. Asia Arts Engineering have become the sole distributor for the Sussex-based company in Hong Kong and China, while Bon Studio SA have been confirmed as the company's official distributor for Greece.

A complete Turbosound PA system has been supplied to a new venue, The Farm, in Zoetemeer, near the Hague. The venue includes a 1,000 capacity main hall, as well as five rehearsal rooms and a recording studio. The system was supplied by TM Audio Holland, and consists of four THL2s, four TFL718 sub-bass enclosures, a THL811W centre cluster and six TFM300 floor monitors, controlled via a BSS Audio FDS388 Omnidrive loudspeaker management system from a DDA C58 console.

One of Oslo's key venues, Rockefeller Music Hall, has expanded with the addition of a new

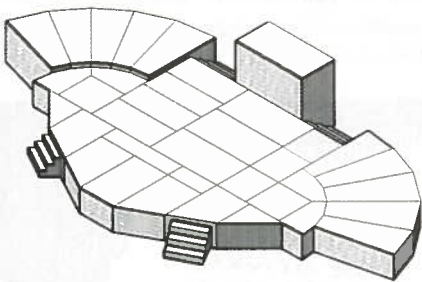


Wing Lee and Fanjun Kong of Asia Arts Engineering are flanked by Martin Capp of Expotus (left) and Sean Martin (right) of Turbosound.

club within the complex. The club, called the John Dee, features Turbosound's HiLight speaker systems throughout. Another Oslo venue, the Victoria Theatre, has installed a mix of Turbosound's HiLight and Impact cabinets for a range of purposes including cabarets, TV productions, talk shows, disco and live music.

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Club Tropicana

The spirit of Havana's *Club Tropicana* came to the Royal Albert Hall recently when Harvey Goldsmith and Bill Curbishley promoted a two week season which was for the most part a sell out.

A tried and trusted production team comprised Capital Sound Hire, who fielded a Martin Audio F2 rig, Light & Sound Design who spec'd a system of Icons and Washlights run from an Icon desk and PSL with the video support. This production experience was also reflected in the personnel on duty - namely production manager, Roger Searle, lighting designer Simon Sidi and board operator Tom Nulty. The sound engineers - monitor and front-of-house - were part of the Cuban production.

The musical featured a flamboyantly-attired cast of over 120 people (plus band) and turned the austere RAH into the original nightclub of the late thirties and early forties. The main Royal Albert Hall stage was used as a performance area, flanked by a large staircase leading to a rainforest backdrop. Outfront, a catwalk thrust its way into the auditorium, linking to a small round stage, and on either side the band created the strong Latin dance vibe in perfect counterpoint with the camp cabaret effect provided by the wonderful costumes. The tables dotted around the auditorium represented the expensive seats.

PSL provided two 16 x 12 screens either side of the stage, with two Barco 9200 projectors. The screens were fed by four cameras, three with standard lenses and one at front-of-house with a 36X long lens. Aside from the pre-show advertising all the video action was live. PSL's director was Matt Askem and the engineer was John White, with a camera crew consisting of Derek Eastwood, Andy Bramley and Bruna Fionda.

For Capital Sound, the contract represented more of a design challenge, necessitated



inordinately long cable runs and meant overcoming the communications barrier between sound man Andy May and the Cuban engineers. Nevertheless Tag, Cap Sound's project manager, stuck manfully to his task and reported the show as being extremely well received.

With the majority of the dressing left in from *Madame Butterfly*, Cap Sound rigged the F2 system conventionally, using the standard Albert Hall configuration. "We were restricted by the lighting," explained Tag. "Had we attempted a centre cluster we would have had to hang it so low to miss the lighting rig that we would have killed the sight lines."

Thus they rigged to front and side points using F2 bass and combis in the front corner, with two sets each side of the choir stalls and a further two of each hung from the side points. "The monitor board (a 40-input Soundcraft SM12) was situated next to the loggia boxes (since there was no room on stage), and the front-of-house mixer (50 channels of Midas XL200 and sub mixer) was set

back to just in front of the boxes - directly behind where it would normally be situated," explained Tag. "Because the set was so big and so wide the cable runs were just phenomenal."

The band comprised viola, two violins, double bass, electric bass, four saxophones, trombone, cello, lots of percussion, regular drums and some keyboards - all performed live - and Capital Sound lent four Shure radio mics (four head mics and six hand-helds).

To process the sound they provided proprietary modules for the FOH rack, including a BSS FDS-388 Omnidrive management system, KT DN360s and DN60s plus an array of PCM70s, SPX 990s, BSS DPR-404 comp/limiters and 504 quad gates. And for monitors there were further SPX 990s, DPR-402 comp/limiters and Drawmer 201 dual gates. "Everyone was happy with the show," remarked Tag, "promoters and artists alike. And from our point of view, despite the difficulties caused by all the obstacles, it was a very successful production."

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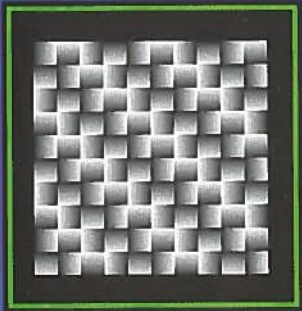
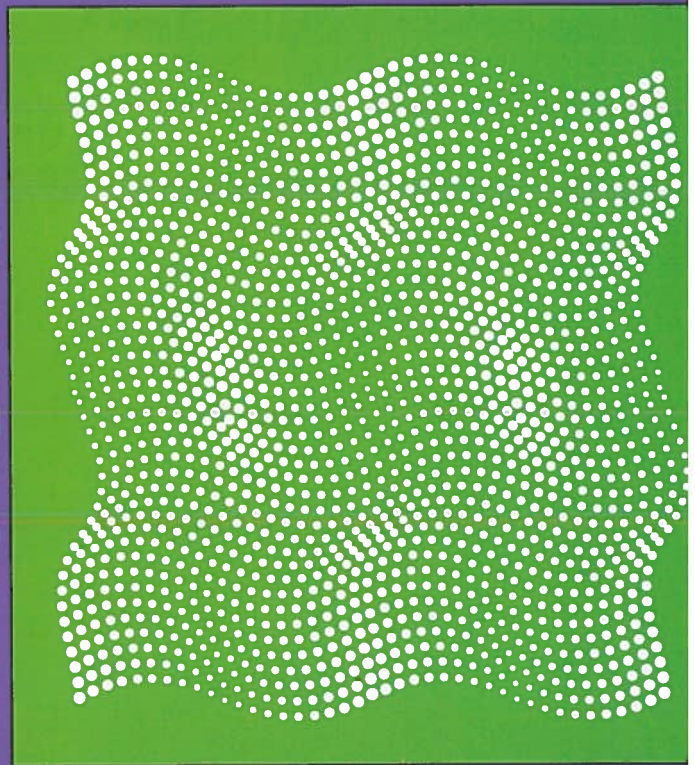
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CONTEST WINNERS

WINNERS

"Dot Wave"
Cris Dopher
New York University
Grand Prize Winner



"Parquet"
Cory Kringlen
University of Washington



"Swirl"
Bryan Naegele
Denison University



"Plasma"
Jennifer Nelson
Cal Poly Pomona



"Star Lines"
Timothy Kruse
University of Northern Iowa

Vari-Lite congratulates the winners of our College and University Gobo Design Contest whose artwork is now available as a VARI*IMAGE™ Purchase Only gobo. Many thanks to all the students who submitted designs. Vari-Lite will begin accepting artwork for the 1999 contest in December of this year.

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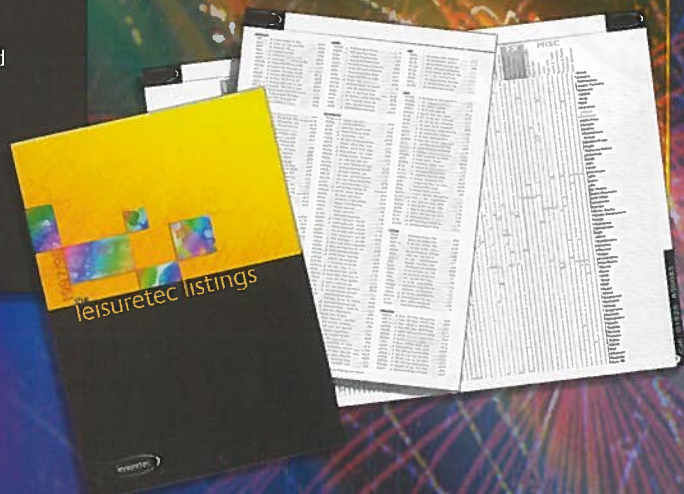
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Lee Filters - Making Light Work of It

Lee Filters offered a unique invitation to three of the UK's leading lighting designers recently presenting them with the opportunity to design their own filters, in their choice of colour, at the company's laboratories in Andover. Rick Fisher, David Hersey and Mark Henderson duly took up the offer - and the results of their endeavours? The start of the new 700 series of 'designer' filters.

Each lighting designer was invited to spend a day with the Lee Filters 'Wet Lab' at their disposal. Working closely with Alison Chetwynd, research and development manager for Lee Filters, and her team, they mixed and blended, fine tuning each colour until they achieved the effect they wanted.

First to take up the challenge was Rick Fisher. Arriving with a good idea of the filters he wanted to create, there was no delay in getting 'stuck in'. The first job was to blend the dye and produce a hand-coating - a type of trial filter - a difficult and skilful process requiring a certain deftness of hand. After a number of re-tries a successful hand-coating was made, and then checked for colour quality and consistency before being placed in front of different luminaires in the Test Lab. Achieving the right effect on skin tones was difficult, and it took a number of re-mixes and changes to the dye to achieve the desired result.

David Hersey arrived well prepared with a list of five colours, and spent a hectic day creating different dye mixes to produce his filters. Well known for the use of low powered lighting in his designs, he was keen to see how the filters worked at varying power levels. By the end of the day he had produced a range of six colours which combined existing colours from the Lee filters range, and colours he recreated from memory.

With only a small piece of paper as his guide, Mark Henderson came with one particular colour in mind. Along the way to producing this effect, he created four other colours, from a deep red, through to rust. Ultimately, time overtook him, and the work he started was completed by Alison and her team, and the 'muddy' brown he wanted was finally produced.

With the growing use of HMI lamps in theatre, Henderson was also interested in producing a filter that could achieve the HMI effect using tungsten lights. The initial attempts produced unusual effects on skin tones, with the first filters resulting in a rather fetching bright red. But after some reformulation, Henderson and the Lee Filters team, successfully produced a filter which



Rick Fisher 'fine tunes' the mix.



The art of making a hand-coating: Eddie Ruffell, Alison Chetwynd and David Hersey.



Checking the quality: Mark Henderson, Paul Topliss and Alison Chetwynd.

closely emulated the required effect.

But the story doesn't end there. All Lee Filters' products undergo a very stringent quality control process, and before any of the filters could go into production they had to comply with these standards. Last, but not least, came the naming of the colours and the 700 series now boasts such colours as Blood Red and Bastard Pink. So, if you're curious about what exactly these colours look like, all will be revealed at this year's ABTT at the end of April.

Other leading lighting designers from around the world will be invited to Lee Filters over the coming months and years to add to the exclusive 700 Club. Look out for the results in the future.

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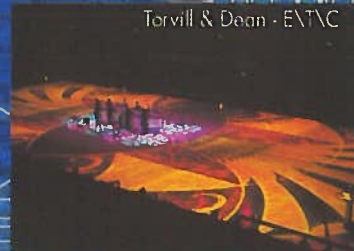
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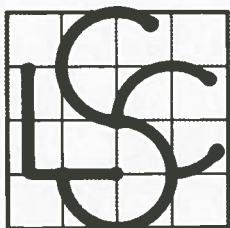
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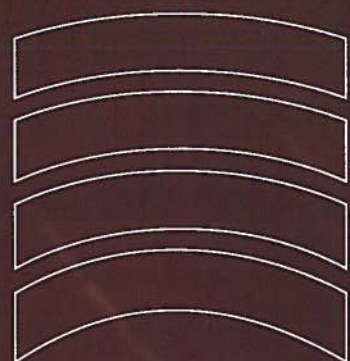
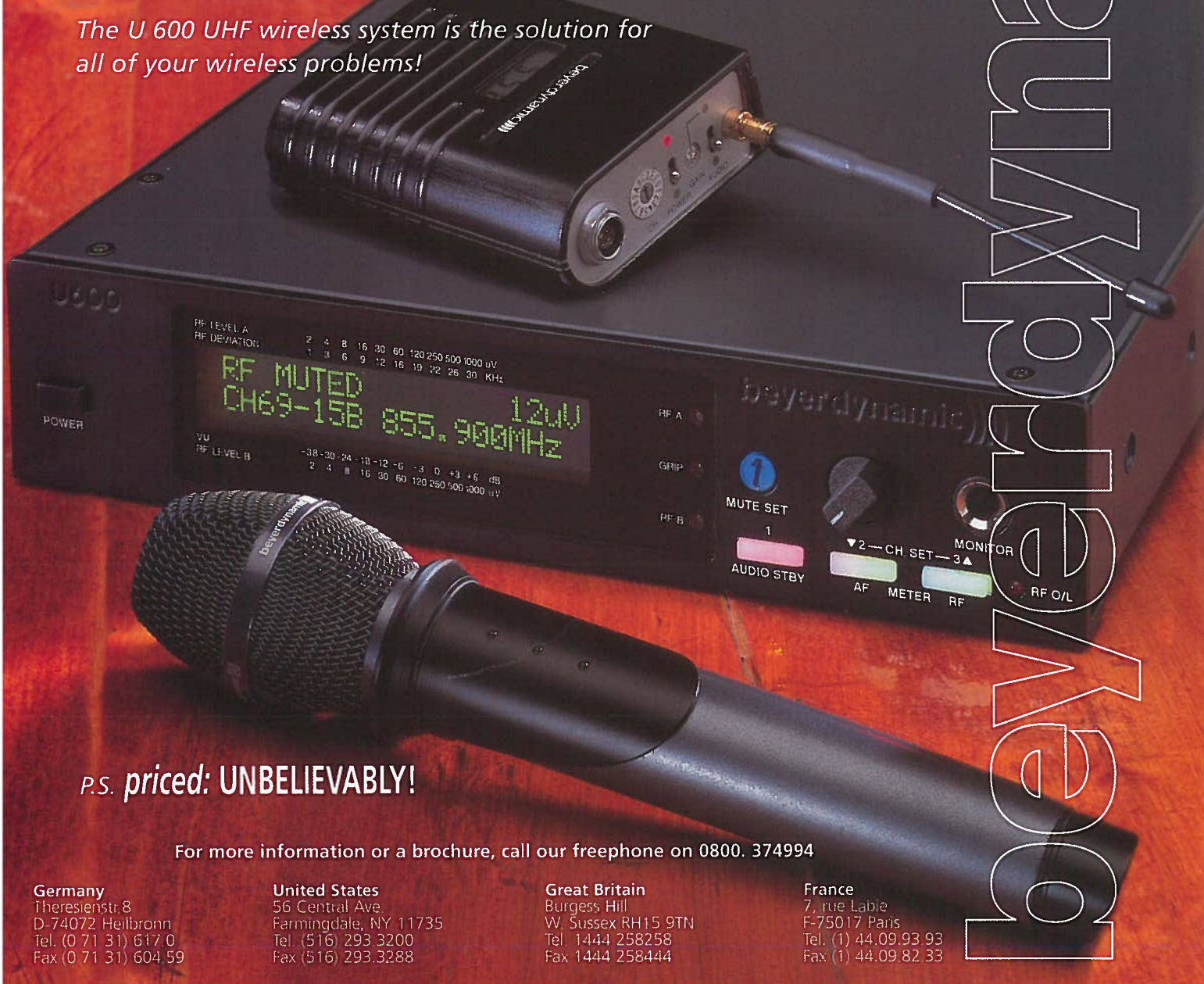
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Fox TV Bank on Strand



Fox Sports is a new cable-based division of Fox Television, which is carried in all major US TV markets. Their regional feed system covers a nationwide range of sports events and news. The key to expanding this new cable service and consolidating operations on the 20th Century Fox film lot in LA's Century City has been the construction of two new production studios. This facility also serves as the switching and satellite uplink centre for the Fox TV broadcast network and Fox Sports. Strand Lighting has had a long-term relationship with Fox Film studios as well as Fox Tape, providing a large installed base of control consoles and rolling dimmer racks on most of the film sound stages. As a result of this, Strand were invited to work on the new complex and became involved in all aspects of the design, including the addition of rigging. Originally conceived as a 'dead suspended' complex, Strand suggested that savings could be made by reducing the overall height of the building without reducing the working height of the studio. The studio was able to purchase a pod-style motorised rigging system, increasing the flexibility of the studios, and still realise a significant saving on the overall project. Additionally, the rigging system greatly reduces the turnaround time required to install and light new sets for the different shows produced at the facility.

In order to minimise voltage drop across these large 80ft x 100ft studios, the dimmer racks are located at the grid level, minimising the cable runs. The client took delivery of the control system prior to move-in to allow staff to familiarise themselves with the system operation. The flexibility of the 500 Series console software, with its ability to switch between Tracking/Lightpalette operation, and GeniusPro's presetting approach was also a key benefit. Control signals are distributed around the studio to allow control of effects devices and automated luminaires and colour changers. Strand Lighting have fulfilled the same specification for both Studio A and B, namely eight CD80 SV dimmer racks, loaded with 712 dimmers, system-wide control programmer and 16-button remote station, 520 Series console, with 600 channels and 400 attributes, two colour monitors, a mini keyboard and hand-held remote, and four console receptacle stations.

In addition to the lighting control system, Strand supplied 30 Iris 4 cyc lights and 30 pole-operated 2K Castor fresnels with pantographs. The fresnels are used as key lights and can be quickly refocused using the pantographs in combination with pole operation.

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NEWS Shorts

Maltbury's stage systems were used to show off the latest creations of fashion designers Bella Freud and Sonja Nutall at London Fashion Week recently. A low-profile catwalk, photographers' tiers and extensive flattage was installed for Freud's Autumn/Winter collection, attended by 700 people in the Napoleon Suite at the Café Royale in Regent Street. For Nutall's collection, Maltbury provided black drapes and custom-built pure white canvas tops for the surface of the 70ft long catwalk in St John's and St Peter's Church in Kensington Park Road.

ETC Europe is holding a series of training days to be held at The Guinness Club in London this summer. The programme of courses throughout June and July will cater for beginners as well as the more experienced. The course costs £15 per day and those wishing to attend should call ETC in London on 0181-896 1000.

The Flames, The Flames . . .



Special effects company MTFX was recently commissioned by the Northern Ballet Theatre Company to design and manufacture a full-scale working bonfire effect for their latest tour - *The Hunchback of Notre Dame*. This was required to produce a flame on stage 1.5m high and 1.2m wide. To conform with the local fire regulations, the structure had to have auto electrical ignition. The fire was controlled throughout the performance via a fail-safe dead man's switch, which, when released, extinguished the fire. Due to the flooring required by ballet, special insulation was required to prevent heat transfer to the floor.

The company has also recently purchased the rights to manufacture and distribute products formerly available from Formis - Tim Douglas. These include a wide range of glitters, rose petals and dry rain, along with eight different types of snow and packman snow and wind machines.

ESS at Lloyd-Webber's Birthday Bash

Andrew Lloyd-Webber's recent Birthday bash at his Berkshire estate, Sydmonton, required the use of a marquee of immodest dimension to accommodate the 500 showbiz guests. Consequently, the Really Useful Group arranged for elements of Edwin Shirley Stages' record-breaking temporary structure, BFR, to be assembled in the grounds.

The 26m by 45m (internal) structure included a 360sq.m mezzanine floor to provide a separate bar area above an enclosed kitchen, and a 20m wide clear panel in the wall of the structure to give the guests spectacular views over nearby Watership Down.

A brand new production management and consulting team for live events, ShakerMaker are undertaking the organisation of another birthday event for Lloyd-Webber, this time at the Royal Albert Hall this month, where Michael Ball, Antonio Banderas, Sarah Brightman, Glenn Close and Elaine Page are among the stars due to be performing songs from Lloyd-Webber's stage musicals. The event will be televised by Carlton Television.

ShakerMaker's production team includes Lee Eld and Craig Becker, along with producer Jeremy Sturt and performer/writer David Pearl.

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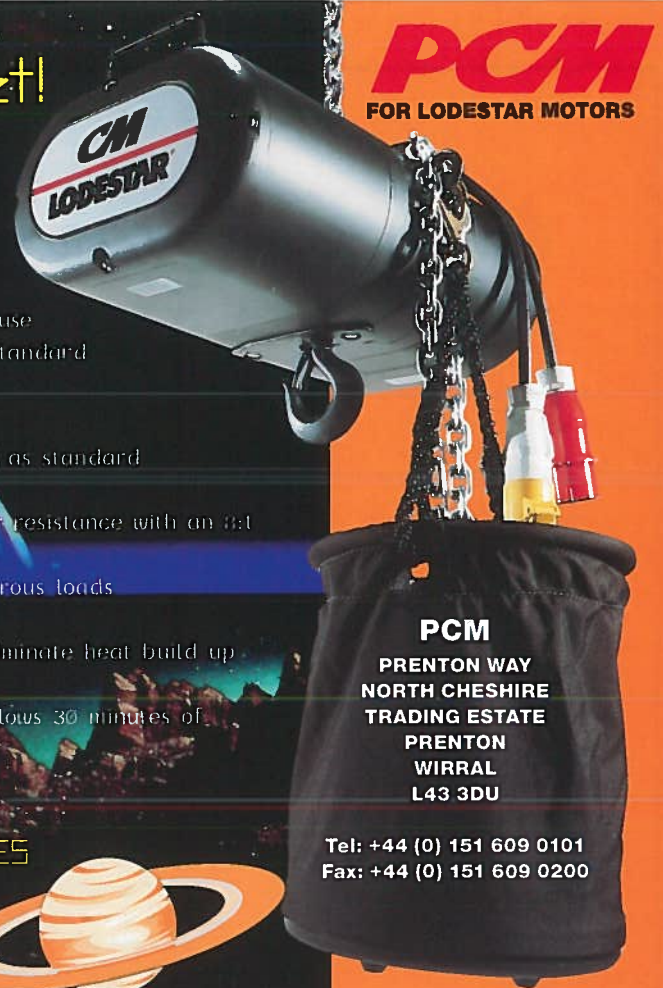
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Procon at RSH Awards

Procon were involved in the 11th annual RSH Gold Awards event held at the Ostseehalle in Kiel, Germany recently. RSH is Germany's biggest private radio station, and the awards are held each year in conjunction with Germany's second TV channel, ZDF. Musical acts appearing at the show included Backstreet Boys, Genesis, Chris Rea and No Mercy, among others.

Procon supplied the lighting and rigging for the show, including over 260 moving lights on a rig which included moving truss elements. A wide range of moving fixtures were used, based around a core of Martin Professional's MAC 600s (100), MAC 500s (75), RoboColor Pro 400s (51) and PAL 1200 projectors (10). Other fixtures used within the rig included 20 Studio Colors from High End Systems alongside eight NAT TM2500s and four NAT TM4000s from Coemar. Control was divided between four Wholehog IIs with two expansion wings. For the conventionals, which included over 450 Pars, used mainly for audience lighting, a Celco 90-way Gold and a Celco 30-way were used for control.

The sound system, supplied by Crystal Sound GmbH, consisted of 36 stacks of d&b 402s, with six 702s as down-fills, eight B2 sub-bass cabinets and six 602 near-fills. Front-of-house was a Harrison HM4 (36/8/2), with processing including Lexicon 300 and TC M2000 reverbs, a BSS 402 comp/limiter, Meyer CP10 parametric equaliser and a Klark Teknik DN27 equaliser. On-stage, monitoring was supplied by Nexo PS15 and d&b 1220 wedges run through a Midas XL3. A total of 24 Sennheiser UHF microphone systems were used, in conjunction with eight Shure systems.



High End Capital Infusion

High End Systems Inc is currently ramping up to an increased 1998 production schedule for several new product lines. The company's R&D team has introduced six new products for the entertainment and architectural lighting markets: the Studio Spot is a hard-edged complement to the company's award-winning Studio Color automated wash luminaire, the Technobeam family of automated luminaires now includes the Technobeam, Technoray and Technopro fixtures, whilst on the architectural front there are the EC-1 and ES-1 luminaires.

Additionally, the company completed a financing arrangement with Generation Partners, a \$165 million private investment firm with offices in New York and San Francisco.

NEWS Shorts

Radio mic manufacturer **Audio Ltd** has augmented its European distribution network with the appointment of Professional Sound Systems (PSS) as distributor for Norway and Spain. PSS, already responsible for Audio distribution in Denmark, will run the Spanish territory from newly-built premises in Madrid, while the Norwegian market will remain under the supervision of the company's Copenhagen HQ.

Rental company **Stage Electrics** have invested in 16 channels of beyerdynamic U400 UHF wireless systems for their hire stock. Each receiver features PLL synthesised technology with 32 selectable frequencies in the UHF band along with a multi-function display and easy access to all parameters via just two push button controls. The half 19" rack units are complemented with matching aerial distribution units.



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NEWS Shorts

Celco lighting boards are continuing to prove popular in Germany. Distributors Focus Showtechnic confirmed at the recent Frankfurt Musik Messe sales of an Explorer EPX to Harry Ratzler's rental company, Movie Light in Ulm, while Licht und Ton of Dortmund will be using their own newly-acquired Celco Pathfinder to control architectural lighting. Meanwhile two sports bars in Groningen, Holland, have been equipped with Celco M9 videowall controllers. They were purchased by dealers MSL from Celco's Dutch distributors, Wytec BV.

Restaurant giants Planet Hollywood have chosen **Tannoy Professional** loudspeakers for installation in a number of their restaurants throughout the world. The latest to be fitted with Tannoy speakers is Planet Hollywood Dublin where 86 CMS65 ICT ceiling speakers and 16 CPA5s have been installed by Sysco of Mitcham.

Phlippo Buy Wavefront



Pictured (left to right) are Ampco owner, Karel de Piere, Tom Phlippo and Martin Audio's Rob Lingfield.

Belgium-based pro audio rental company Phlippo Audio, a division of Phlippo Showlight, purchased 20 stacks of Martin Audio's Wavefront 8 Compact system during the recent Frankfurt Musik Messe. The order was placed through Martin's distributor Ampco Belgium.

Tomcat Increase Production Capacity

Tomcat (UK) Ltd has relocated its offices and production facilities to Bromborough on the Wirral Peninsula. Following a year of growth, Tomcat purchased a 15,000sq.ft manufacturing facility at Croft Business Park which, according to company President Mitch Clark, will enable the company to more than triple their production capacity and workforce in the UK.

The new address is Tomcat (UK), 2 Skiddaw Road, Croft Industrial Estate, Bromborough, Wirral L62 3RB. Telephone 0151-482 3100.

Pains Fireworks Opens Dubai-Based Company

The UK's longest established fireworks display company, Pains Fireworks, has set up a new company in the Arab Emirate of Dubai, sponsored by the Al Kazim Group, in response to increasing demand for its displays throughout the Middle East. Heading up the operation is David Sandiford RN, ex Naval Attaché to the British Embassy in Dubai who was appointed general manager.

The company has built up strong connections in the Arab world designing displays for the royal families, major corporations, National Day and Eid celebrations, along with high profile sporting events and private social occasions. Working closely with the authorities, Pains has become the only fireworks company in Dubai permitted to set up a dedicated storage facility for pyrotechnic material. By the end of the year, the company plans to train locally-recruited operators who will then work alongside their UK counterparts until they gain full certification from the company and local authorities.

Pains is also working closely with the Dubai Police on the development of legislation to govern firework importation and storage, as well as the setting up of best practice codes and a licensing scheme for fireworks display companies.

Back in the UK, the company has recently opened a new Midlands office in Burton-on-Trent after identifying the area as a major growth market. The company plans to target professionally operated Bonfire displays and organisers of major summertime events.

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Tailored Systems for Rothwells



Avocet Engineering Services have installed the complete entertainments system at Marston's Rothwells venue in Manchester. The building's listed status meant that Avocet had to provide hidden cabling and removable bracketry solutions for the sound system installation.

The company installed their own 'Integrity Acoustics' brand of loudspeakers, with customised finish to blend with the interior of the venue. The system comprised 10 x 400F and 12 x 600Bi speakers. Amplification is from Matrix Audio's STR range of amplifiers, situated in the basement of the venue. The DJ booth includes a Denon 2000F double CD player, two Technics SL1210 decks and a Citronic mixer, while monitoring is provided by an Integrity 150F DJ monitor.

The lighting system includes four of Martin Professional's RoboScan Pro 518s, six RoboColour Pro 400s, and a Destroyer X250 effect, as well as an Optikinetics Terrastrobe with dedicated controller.

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Sarner Opens US Office

In response to increasing demand from the American market Sarner International, the London-based specialists in themed visitor attractions and heritage experiences, has opened a North American office. Based in Northern Virginia, the new facility is headed by Patrick O'Kelly. He has been researching the state of Virginia, building a network of contacts at a variety of levels and exploring potential sites and partners for a 'Virginia Experience'. The potential of Sarner's work has already attracted the attention of some key players in the United States with several showcase projects on schedule to be confirmed by the end of 1998.

O'Kelly brings a wealth of experience to this position. Most recently he was president and equal partner of Groupware Corporation, a successful Canadian educational software development company which produced many award-winning programs under contract to the Ontario Ministry of Education.

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NEWS Shorts

Autograph Sales has been appointed UK distributor for Belgian company **Avenger's** universal show-control system, which has applications across the entertainment, presentation and leisure industries. Avenger's product range is based around the **Conductor** - a hardware mainframe that can be supplied with various interface options, to suit a range of duties in theme parks, theatres, museums, exhibitions and multi-purpose venues.

Portuguese distributor **Caius Tecnologias Audio e Musica** have recently supplied a **Turbosound TMS** system to **Costa Rica**, a well-known salsa band in **Viana** in Northern Portugal. The sale, which was handled by **Paulo Novo** of **Viana Music**, comprised 12 **TMS-4** full range enclosure units and four **TSW-721** sub bass enclosures.

Stageline at Student Olympics

Stageline of Nufringen, Germany, was responsible for the presentation of the opening ceremony at the Student Olympiad, held recently in the Palermo Stadium in Sicily.

Stageline won the contract to organise the show only shortly before the event was to take place, effectively leaving only eight days to prepare. The brief stipulated lighting supply and design for each of the individual stages and presentation areas, as well as a decentralised, compact, digitally controlled sound system for the entire area. The system had to be as small as possible to maintain TV camera sightlines. Stageline, working under manager Oliver Klein, was also responsible for providing the transmission system for the respective television crews.

The system supplied included an EAW JF80 speech system, with KF650, SB850 and SM400 monitoring system on the centre stage. Mixing for front-of-house/monitors was a Midas XL3 console with 16/16/3 extension section. Lighting for the centre stage consisted mainly of 36 of Martin Professional's MAC 600 washlights, along with 72 Par 64s, 24 Controlite PML 1200s and a Thomas eight-light Blinder. Spotlights were from Clay Paky and Strong, while eight Clay Paky Golden Scan 3s were in use on the main stage. Control of both stage lighting systems was via MA Scancommander consoles, and dimming was also from MA.



Apogee in Vegas

Apogee Sound of California has custom-designed 62 speakers and subwoofers to be synchronised with a \$30 million water fountain ballet at The Bellagio - the newest hotel on the famous Las Vegas Strip. The \$1.4 billion hotel has been built by Mirage Resorts Inc, who also own several other famous Vegas attractions, including The Golden Nugget, Treasure Island and the Mirage.

The fountain ballet will involve hundreds of thousands of gallons of water shooting up to 250ft in the air. The Apogee spec was chosen from among a number of manufacturers' designs. The system includes 31 each of the custom-made, weatherproofed MTO-30-SX full-range speakers and the MTO-31-SX subwoofers.

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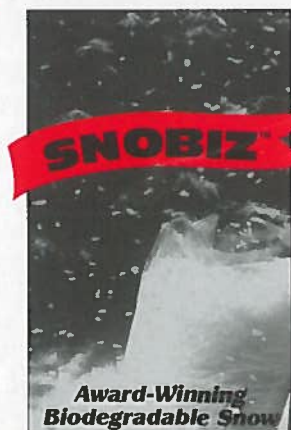
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Tour Tales . . .

Every company we've spoken to over the past month has lamented the current state of the touring market. Opinions as to the cause centre on two themes: firstly, the recent fashion for festival events across Europe in the summer is sucking out the talent; and secondly, the record companies have failed to put back into the business what they have taken out for the past decade.

There's no doubt that last summer a huge swathe of bands found it far more lucrative to tour the festivals - no production costs, small entourage, fixed fee - but if this continues as a trend where will the new talent come from? As to record companies, Bryan Grant at Brit Row summed it up: "For the past decade all we've seen them do is cash in on back catalogues - repackaging the same old material in 20 different ways. We're reaching the point where there's nothing to take the place of the old bands."

A prediction: by my reckoning, sometime next year there will be a flowering as second generation bands - akin to the likes of Led Zep and Bad Co - emerge from the rubbish. As Oasis self-combust and bring the Beatles plagiarism era to a close, there seems to be no shortage of groups rushing to fill the gap.

So what is happening out there . . . ? **Entec** have provided a system for a showcase gig by Tony Mortimer, ex of E17. They also continue to service TFI Friday with sound gear and will shortly be doing likewise at the London Weekend studios on the South Bank for the Jo Wiley Show which will

be on-air weekly for the following 12 weeks. Chris Trimbley will be chef de jour, mixing for a proposed one headline and one up and coming band each week. Apparently the live element of the show is judged by a panel of four invited guests. Entec also have a d&b system out with Freddie Starr at the Carlton Studios in Nottingham. On the touring front, Entec will put a system out with Curve in April.

Wigwam have the Spice Girls (good reviews for the opening shows in Ireland apparently), and also Massive Attack, the Levellers (subbing some of Entec's d&b 402s) and Chris Rea on the road. But what's really eating up their PA stock is the ever-expanding *Lords of the Dance*. "They just keep opening more shows," Chris Hill reports.

LSD currently have out on tour Yes, 911, The Corrs and Kula Shaker. How about that for a broad mix of styles? And they are, of course, main contractor for the Spice Girls. LSD also have gear out in Eastern Europe, where LD Tom Kenny is lighting Plant and Page. Coming up are Janet Jackson and Judas Priest.

Capital Sound are currently servicing Gary Barlow's tour, moving around Europe with obvious success. An arena tour for November has already been announced. They also had the only UK arena tour of any stature out earlier, that by Ocean Colour Scene using a Martin Wavefront 8 system, which is also what you'll find in France where boy band Worlds Apart have been selling out for three months. **Brit Row** have Flood and Flashlight systems out with James Taylor, Portishead in the US, Lovebaby, The Channel 5 chart show, and they also have a second stint with

man of the moment Robbie Williams who is touring shortly and has announced an Albert Hall show to top things off.

Canegreen are keeping cheerful with The Corrs, Spiritualised, 911, Jimmy Nail and they have the Dylan/Van Morrison double-header to look forward to. They also seem to be doing a vast amount of corporate work at the moment. **CPL** meanwhile are waiting for the tide to turn, but then they have little cause to fret with hardy annuals like the 'Stones and Genesis on tour, otherwise Mick Healey reports rather sparse mid-Spring fayre: Worlds Apart in France and Matchbox (who they?) going out in April. Take it as read that Vari*Lites are everywhere.

Neg Earth are also leaning on their trusty stalwarts. Would you believe Tribute to the Blues Brothers is now in its seventh year? NE are also with *Riverdance*, about to depart Oz for New Zealand. In the UK they have Chris Rea, Propellerheads, New Model Army and Spiritualised. **Bandit Lites UK**, in the form of Tony Panico, are now keeping the lights burning on *Lords of the Dance*, plus the Good Food Show, Good Homes Show and the WWF event at Nynex. Panico is busy nurturing an up-and-coming band called 'Electrasy' who have a five-album deal with MCA. Not a bad idea, with the way things are at the moment.

As for my prediction, don't forget that when I went to see Baby Bird in May of last year I fully anticipated seeing a lot more of that talented songwriter. Pass me my rose-coloured spectacles someone.

Steve Moles



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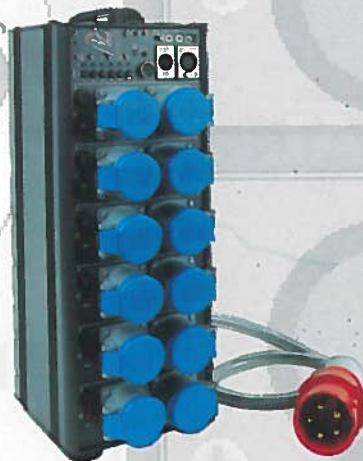


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NEWS Shorts

An *Electrosonic* 3x3 videowall with *Imagestar* processing has been installed at the Salem Baptist Church of Chicago, where the size of the congregation can often exceed 1,600. *Progressive Communications Inc* supplied and installed the videowall.

Peavey Electronics won two *Making Music* awards during the *Frankfurt Musik Messe*. The awards were given for the *Best Power Amp* (the *CS 800S*) and the *Best PA Speaker* (the *HiSys 6XT*).

MA Lighting have recently moved and can now be contacted at *Dachdeckerstr. 16, D-97297 Waldbuttelbrunn (Gewerbegebiet), Germany*. Telephone: +49 931 497 940, Fax: +49 931 497 94 29.

C Audio Awards



Pictured (left to right) are *Audiopole's* *Valerie Castel* and *Bruno Bertrand*, *C Audio's* *Glen Harris* and *Xavier Visseur*, also of *Audiopole*.

C Audio honoured their top distributors with presentation certificates during the *Frankfurt Musik Messe* in March. Earning the award for the most promising distributor was *Total Audio* of Holland, who have reported excellent sales during the nine months of their distributorship. The top award, however, went to *Audiopole* (formerly *Harman France*).

Harman Pro GmbH Joins Audio Export

The *Harman Pro Group* has sold the distribution division formally known as *Harman Pro GmbH* based in *Heilbronn, Germany*, to *Audio Pro Heilbronn*, a new subsidiary of *Audio Export Georg Neumann Heilbronn*. This sale completes the reorganisation of *Harman Pro's* wholly owned distribution in Europe. *AKG* and *Studer* distribution in Germany will remain wholly owned and continue to operate from *Munich* and *Berlin*.

High End Systems To Teach Class at LIPA

High End Systems is once again teaching an advanced level concert lighting class in August at the *Liverpool Institute for Performing Arts (LIPA)* in *Liverpool*. The two-week course, held from *August 3rd-14th*, is open to anybody interested in furthering their knowledge of stage or concert lighting. Attendees will gain practical experience of *LIPA's* intelligent lighting equipment, which includes the *Studio Color* automated wash luminaire, *Cyberlight* automated luminaire, the *Trackspot*, the *Dataflash AF1000* xenon strobe and *Status Cue* lighting console.

This is the third year *High End* and *LIPA* have teamed up to offer this *International Summer School* class. *High End* programmer *Vickie Claiborne*, who taught the first session, returns with a full agenda to help the class achieve professional level training. At the session's finale, students will programme and illuminate a show featuring many of the art school's rock bands in the *Paul McCartney Auditorium* at *LIPA*.

All classes are taught in English and students must be at least 16 years old as of *July 1st, 1998*. There is no upper age limit. *High End Systems* is a supporter of the school, which was renovated and reopened as an accredited performing arts college in 1996 with the help of *Sir Paul McCartney*.

For further information on the summer course e-mail summer.school@lipa.ac.uk, check the web site at <http://www.lipa.ac.uk> or telephone *Rick Welton* at *LIPA* on *0151-330 3002*.

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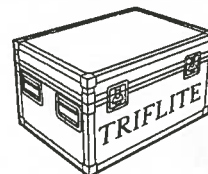
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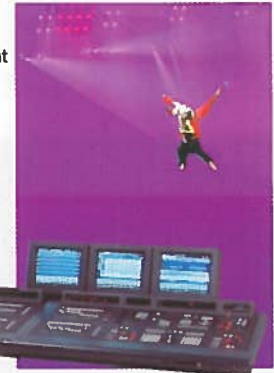
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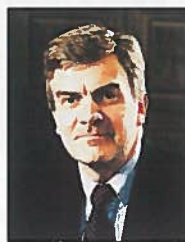
NEWS Shorts

Turku City Theatre is the first installation in Finland to take delivery of a Cadac F-Type live production console, installing the console in the theatre's main auditorium. Supplied by distributor Sounddata Oy, the F-Type comprises a 60-input console and the specification includes 52 of Cadac's Super VCA modules with dual mic inputs, delivering a total of 104 mic inputs.

Theatre Vision's moving light production department are currently supplying 24 Martin MAC 600 wash luminaires for Theatre Clwyd's production of Rape of the Fair Country which is part of their South Wales Residency Season at the New Theatre in Cardiff. The production then transfers to Brussels. Due to an extremely tight schedule for the show's moves to Cardiff and Brussels, LD Nick Beadle decided to replace over 100 conventional lanterns from his original rig and replace them with the 24 Martin MACs.

People News

As part of VDC's progressive expansion programme **Bill Woods** has been appointed to the new position of European sales manager. Formerly with Shuttlesound, and more recently Turbosound, Woods' experience will allow the company to concentrate on expanding the domestic and export markets.



Bill Woods.

Coco Swanson has been appointed as operations manager for Cue Pro Audio. Her past audio experiences include recording voice-overs for Festival Radio in Brighton.

Vari-Lite Production Services have appointed **Coral Cooper** as their new customer support manager following the departure of Derek Jones. With many years of technical knowledge gained through touring, television and film work, she will lead a team of trainers to provide training courses on Vari-Lite products.

Adrian Black has joined Tomcat (UK) Ltd as a member of their sales team. With several years' experience in supplying trussing to the entertainment and leisure industries, Black will bring a wealth of knowledge to the company.

Having been technical manager at Richmond Theatre for six years and production manager for Criterion Productions PLC, **Geoff Summerton** leaves at the end of April to join Imagination as production manager.

Dave Winfield, formerly of Le Maitre, has now joined Leisuretec.

Flying SmartRacks and Source Fours!

The new touring production of Phantom of the Opera will seem all the more ghoulish this spring when the production team use ETC Europe's SmartRacks and over 250 Source Fours in what promises to be the most complex lighting rig the show has ever seen. SmartRacks will be flown with Howard Eaton patch boxes to create a compact and versatile dimming system which will travel easily from venue to venue, without the need for constant re-patching. The idea of flying the dimmers was originated by freelance production electrician Alistair Grant, who had previously flown ETC SmartRacks on the Les Miserables national tour. Ten 36 x 2.5kW SmartRacks are being permanently installed on to two service trusses and fed into Howard Eaton patch cabinets stage left and right. The trusses will be flown to the same height as the rig with short cabling, to speed up installation.

In addition to dimmers, the rig contains 259 ETC Source Fours. Being light and compact they, like the SmartRacks, have proved to be well suited for touring. Following rehearsals at Three Mills Studios in Docklands, the fit up began on April 6th and the production opens on May 7th at the Theatre Royal in Plymouth, before embarking upon a national tour which will see it reaching out-of-town audiences until the millennium. The lighting design on Phantom is by Andrew Bridge who is assisted by associate lighting designer Mike Odam, from Theatre Projects. Nick Harris is Cameron Mackintosh's production manager on the project.

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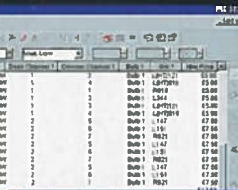
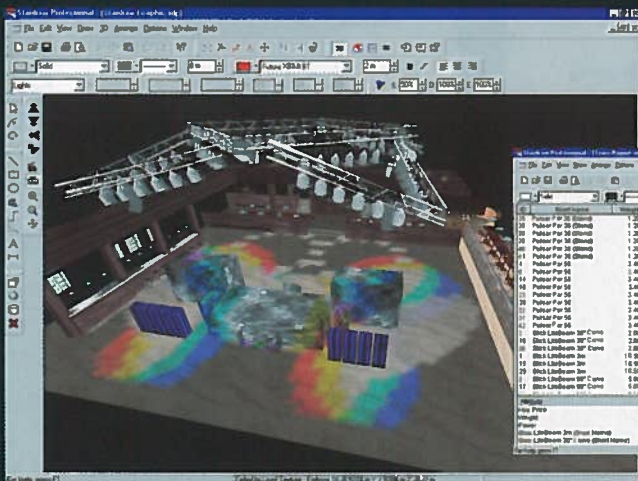


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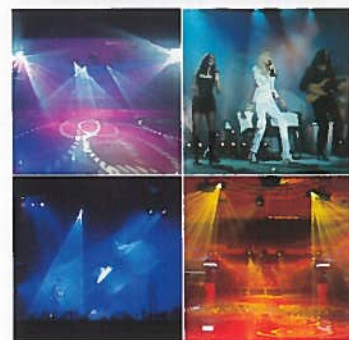
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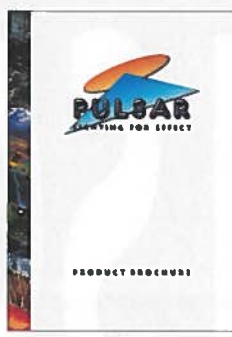


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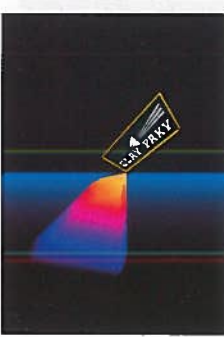
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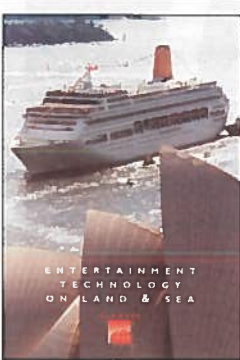
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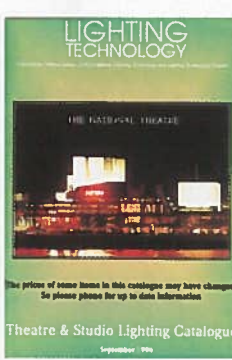
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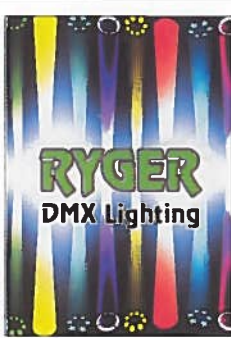
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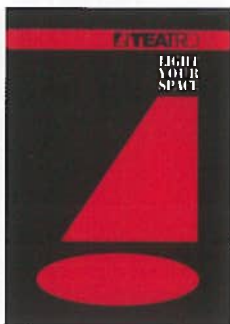
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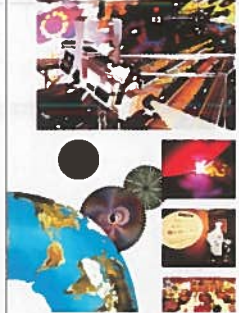
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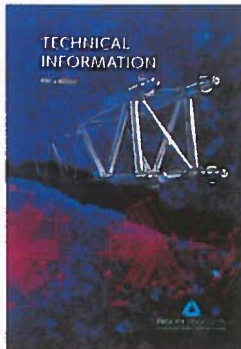
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LOTTERY MADNESS

Ross Brown reports on the production, the politics and the palaver behind the new National Lottery Big Ticket Show - the game show to end them all



Who wants to be a millionaire? I always thought that was a really stupid question, catchy song, but crazy sentiment. What was Cole Porter thinking of when he wrote it? Anybody who says that they wouldn't want to be a millionaire is either already hideously loaded or probably unstable - and it's this wanton desire for folding stuff that the National Lottery has tapped into since it began over three years ago.

It's become an institution, a part of the country's heritage, creating millionaires and putting more than a few thousand tenners into the hands of its players. The live draw and the television show built around it, was always going to be a popular programme, peak-time viewing on a Saturday night grabbing viewers into the schedule and (hopefully) keeping them away from the opposition. So, what did the BBC bring us? A combination of music, good causes and Mystic Meg. I've often wondered how many people tune in at 7.55pm, watch the draw, pray for their six numbers, only to tune out, shreds of lottery ticket at their feet by 8.01pm? A good proportion I would think, which is the reason for the recently-launched Big Ticket show which, in theory at least, gives people something to watch around the draw itself. By now you've probably seen it but for those of you who haven't, it's a combination of larger-than-life games, mammon and Anthea Turner. Enticing, I'm sure you'll agree.

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Simple enough, and apparently pretty damn boring - that is until you see the set and play the games. Think of the biggest, largest, noisiest, most colourful extravaganza you can - and then scale it down a bit. The Big Ticket is big, the set design is impressive and the production values unquestionably impressive

but the show itself? I'll reserve judgement for now, having only seen the first show by the time of the deadline for this piece.

One of the biggest surprises is that the show is pre-recorded a week in advance. Once you think about the scale of the games involved in the show, this is actually pretty obvious. The size of the props involved would mean a live show lasting for around two hours and gaps measured in quarter of an hour gaps between set-ups.

Before the BBC switchboards are swamped with complaints, the actual draw itself is a live inject, with Anthea Turner popping out of the recording of the following week's show, jumping into whatever outfit she was wearing last week for continuity, starting the draw, reading out the numbers and then dashing back into this week's outfit and continuing filming for next week. Complicated? You ain't heard nothing yet.

There are in excess of half a dozen production companies involved in actually getting the lottery show onto the screen, a bi-product of 'Producer's Choice', but the number of those involved who can use the tag 'ex-BBC' signals that the recent shake-ups at the BBC have probably changed very little.

The show itself is shot on J-stage at Shepperton, a massive hanger of a building one-and-a-half times larger than anything at television centre with its sprawling 15,000

square feet used to maximum effect, as anyone who has seen the show can testify.

The original non-transmittable pilot was produced last July in that well-known television studio, Holland. Apparently, the Dutch have a very similar show, with the BBC team taking it over to adapt the format for British audiences. Designer Chris Webster is the man responsible for the Big Ticket set, whose initial brief was 'come back to us with some thoughts' when he began on the project in December. All agreed that the use of lifts in the Dutch show was something they wished to import but it was up to Webster how this was integrated.

The most striking thing about his final design has to be a glass wall measuring 50 x 100ft and incorporating 8000 glass bricks into its 13.5 tonnes. Not the kind of thing one comes up with everyday, but a perfect vehicle for some impressive lighting effects and a backdrop on which the popular lift game could be performed.

Designs in hand, Webster went to London's Brilliant Stages to come up with the goods - within an extremely tight budget - with the company's Charlie Kail and Gareth Williams co-ordinating the work. With a CV including U2's lemon, the Stones' bridge, the Spice Girls (the set and not the band, one presumes), and the sushi trolley featured in a recent Microsoft advert, Brilliant Stages' experience in such things is unquestionable. So, easy job then was it? "I'm as happy as I can be - it was very last minute," says Williams. What, the BBC flies by the seat of its pants? Never, not Auntie. As bad as the rest of us? Fantastic.

At the end of the day, Brilliant Stages was

given a grand total of one week to set the whole thing up - starting with the basics, like covering the bare concrete floor with chipboard and lino before anything could go in. And then in went the Toshiba video truck, mounted on a wheeled deck with a battery-powered drive mechanism which, using its in-built tiller arm, can be moved like a standard pallet truck; the three interlocking rolling risers; the safe unit and spinner, which uses hydraulic rams to rise to vertical out of the floor; and the glass wall. Surprisingly, it took only two days to build the steel structure the wall is built onto. Once bolted to the studio grid and the floor, a simple bosh, bosh, bosh saw all eight thousand glass bricks silicined together and the thing complete.

As viewers will know, the wall is used for the regular lift game, where contestants move up the structure by answering questions on an-board computer. Using a variable speed drive and an inertia reel safety, Brilliant Stages supplied all the hardware and software needed to run the system.

And so to the lights. With an air of inevitability, lighting director Martin Kisner used a combination of Martin MAC 500s and 600s as the main studio rig. "They're very good and very reliable, I would have liked 100 to light the entire show," he says. In the end, he had to settle for 20 500s and 38 600s, which are controlled via a Compulite Sabre board. Add to this, 15 Iris 4 cyclites, a further 10 MAC 600s to wash the floor from

behind the wall and 10 500s in front and the standard Par 64 bars - and the main set-up is complete. Kisner's rationale was simple: "We are in there for 16 weeks, got to try and light for every eventuality." And, on present evidence, he seems to have succeeded.

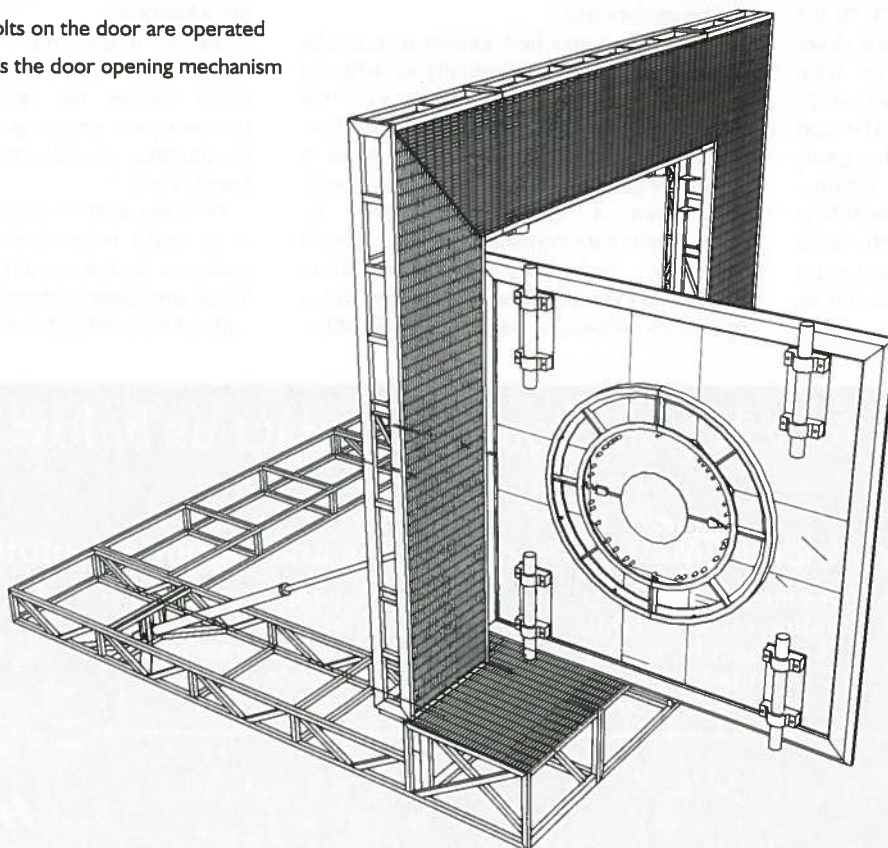
"It all went fairly well," he adds. "Because of the extremely tight rules on recording the show, it takes a long time to get it in the can. The production will definitely get better as it goes along - the second show looks a lot better, you learn as you go." Kisner's sidekick on the show was Will Charles, whose more recent OB experience (Festival of Remembrance, BAFTA, Royal Variety and the Olympics) proved invaluable in the set-up. "Things were very vague, even one month ago," he says, adding weight to the 'the Beeb is as bad as the rest of us' argument.

The actual installation and supply of lighting came from Elstree Light & Power (ELP), an approved BBC contractor for 12 years, having worked on Top of the Pops, Children in Need and Big Break in the past. ELP's Tony Slee was the man responsible for the installation: "Martin Kisner had reasonably concrete ideas



Charlie Kail's design for the hydraulically-operated safe which features a flat riser with a mesh top. The whole safe fascia rises from horizontal to vertical.

The four safe bolts on the door are operated hydraulically as is the door opening mechanism



of what he wanted - in the end it all came down to practicalities." And, so rumour goes, an extremely tight budget. He adds: "To be honest, it was all pretty standard actually. I'm very happy with it - but more importantly the BBC is happy with it!"

This 'bog standard' installation included (deep breath): 14 x 6 lamp bars, 28 x 4 lamp ACL bars, three Pani followspots, a 90-way Celco Gold lighting console, three Avo TV 48 x 5kW dimmer racks, two Avo TV 72 x 4kW dimmer racks, four Avo 12 x 2kW dimmer packs, three 24 x 16amp distribution racks and a massive 6460m Socapex cable. But there was a problem - the lifts and how to light them. Enter David Morphy of Cirrolite, whose previous form includes little known productions like the new 'Avengers' film, the latest Bond ('Tomorrow Never Dies'), 'Evita' and Mission:Impossible. Cirrolite's solution was simple - tungsten. Before our lighting specialists begin to run for cover, screaming 'colour balance' - the tungsten floor tubes used special Kino Flo tubes which recently won an Oscar for technical achievement for their colour balance.

Unlike the lighting side, sound and vision was provided by one company - the BBC. Sorry, Carlton 021. BBC OB pitched for the work but, in these enlightened days of open Government, consumer choice and competition, lost out to Birmingham-based Carlton 021. Managing director Ed Everest explains the timetable: "We've been involved for around three months. For the first show, the cables were rigged on the Tuesday, the technical run-through followed on Wednesday and Thursday, with the first recording on Sunday and the first 'real' show recorded the following Saturday."

021's unit one recorded the game show, with a combination of 10 Sony BVT 70 IST cameras and assorted hand-helds for the close-up action. Sound was handled by John Clements, 021's head of sound, whose 25 years of experience began with ATV and 'Lunchtime with Wogan' - something he openly admits to! Having dominated the lighting, Martin stepped in again, with one of its MACH PA systems used to, in Clements' words, "work the crowds up." Personally, if I'd just got a grand for attending a television show I'd be fairly worked up in the first place.



The sound is captured by a set of 14 Micron radio mics (a set of 28s and a set of 69s, if you must know), with M77s used for the personals. At the moment it's all controlled by an Amek desk, but this will be changing to a Soundcraft S2 in a few weeks. Why? "Because I managed to wangle one," says Clements. "There's nothing fancy," he adds. "The only tricky thing was adapting to the different games. In some games they can't wear radio mics."

So, it hasn't all been plain sailing, but Clements' biggest nightmare so far coming has been putting talk-backs into the tanks used during a game in the second show. The sound is split between the PA and the control trailer, with everything being subbed down to a DA88 for dubbing at the editing stage.

Of course, the pre-recorded game show plays only a small part in the proceedings and, as far as the millions watching the show will be concerned, it's merely the padding around the important part - they want to know the numbers! Unlike the previous show, the Big Ticket has two draws, one using the traditional lottery ticket and one using numbers revealed on the scratchcards.

For some reason best known to Camelot (who, of course, had absolutely no editorial input in the show whatsoever because that would be against BBC rules) and John Birt's boys, the home draw is presented by a computer-generated host. Known as Bernie and given a Liverpool accent by impressionist Kate Robbins, it uses the latest in computer technology imported from Hollywood to be performed in real-time with a minute 25 millisecond delay between Robbins'

words and actions and the production of the character on screen. According to one source (who in time honoured fashion wished to remain nameless) every aspect of Bernie can be changed, including (for some unknown reason) the size of her nipples. God knows why - but it's possible - and all in real-time! The mind boggles as to why Hollywood's latest is used to create Bernie, considering the home draw is also pre-recorded, but used it is.

Two mini-discs are being used by Carlton 021 for the live draw, to generate the musical stabs when the balls pop out and, as the show is recorded in an empty room, an Akai 300 sampler provides the audience applause! A smooth operation naturally - oops, the first home draw, watched scrupulously by Camelot, used the wrong balls and, eventually, cost the Lottery giants a fortune when they had to honour two sets of numbers. Ho hum.

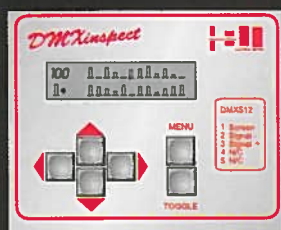
This was the last thing that the BBC and Camelot needed, as anybody who has seen a newspaper in the last two months will know. Politicians and pressure groups have been up in arms over the programme and no article on the Big Ticket would be complete without a swift mention of this.

The rules by which the BBC is governed are strict and, according to many, have been breached constantly by the Big Ticket show. Why? The rules state that: "A competition must not risk being interpreted as gambling or a lottery. The Lotteries and Amusements Act may be contravened if a viewer competition is based on a game of chance and some sort of donation, purchase or contribution is made to enter." Of course, purchasing a two pound scratchcard, lining Camelot's swelling pockets, and winning or losing £100,000 on the spin of a wheel does not - in any way - conflict with this whatsoever.

And so it goes on: "The BBC needs to maintain its editorial independence and must never convey the impression that it is promoting any service, product or publication. Programmes should not normally broadcast brand names."

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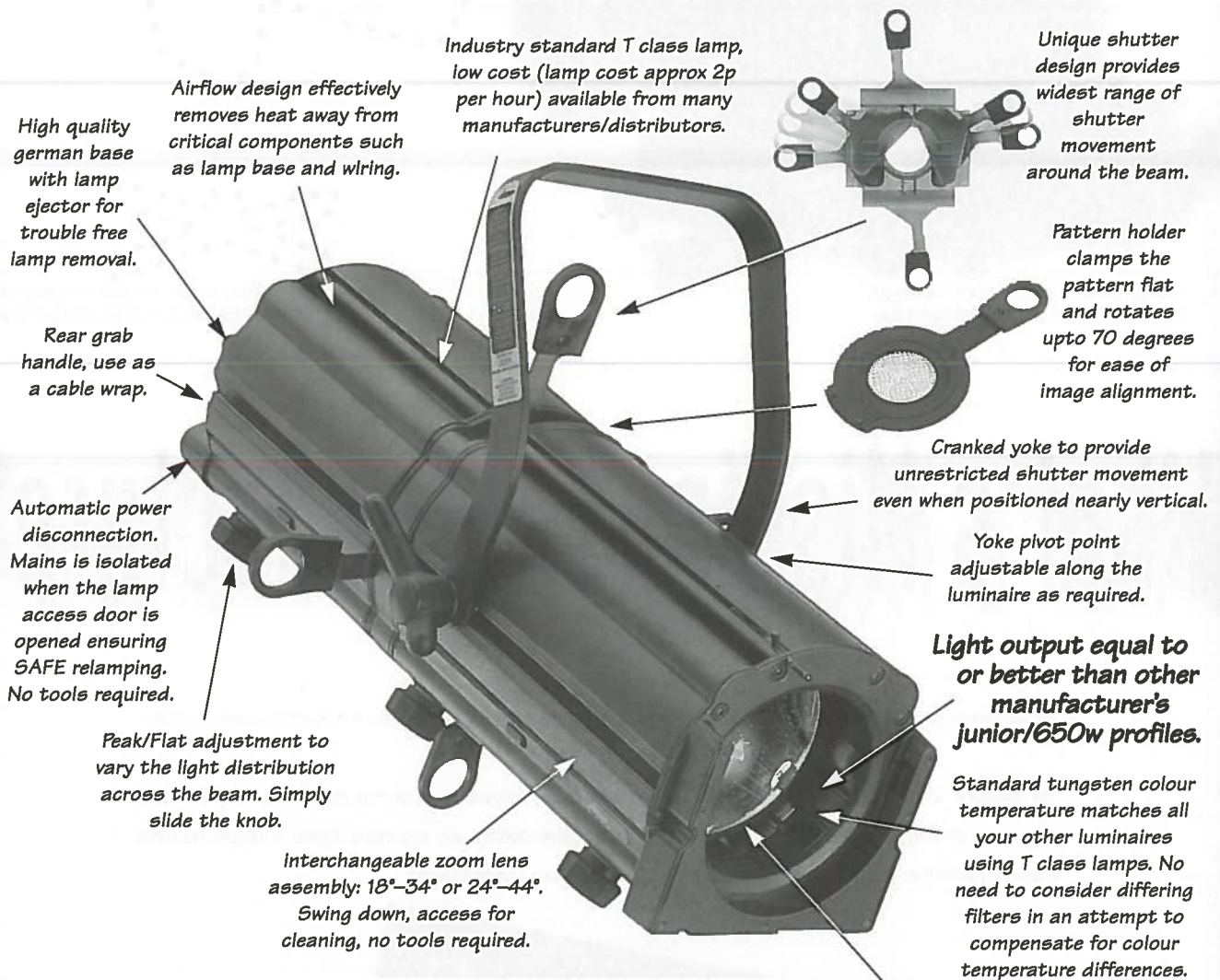


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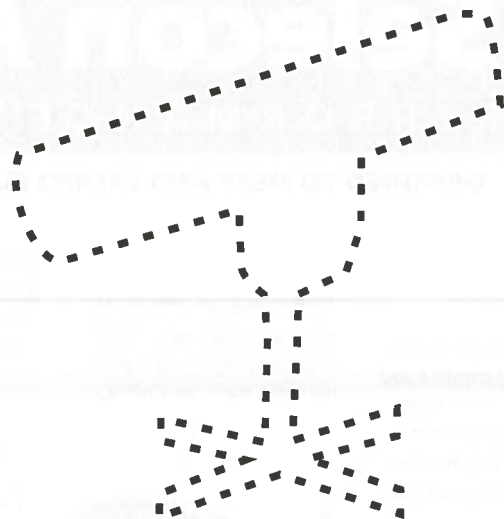
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NORTH PACIFIC

Steve Moles finds a perfect balance of aesthetics and function at 42nd Street's latest establishment - Pacific Bar Café - in Newcastle

On Northumberland Road at the heart of Newcastle's bustling city centre stands a sheer vertical wall of glass. It transects the line of five storey commercial buildings that stand shoulder to shoulder along its north side. Modern, confident and unashamed, the glass edifice reeks of the late twentieth century.

Technologically accomplished, ruthlessly appointed to its function, and yet for all this it sits comfortably amidst its neighbours. The five storeys of glass are traversed by four exterior catwalks. At a mundane level they serve to relieve the need for special cranes and jibs from which to wash this vitreous cliff face, but in so doing they neatly match the architectural motif of the surrounding buildings. For all its thrusting modernity, Pacific Bar Café (there is no 'The') is sensitive to its environs and heritage, but like the Angel of the North it speaks volumes for the personality of its society. This report may inherently be a feature about a new public venue filled with the latest technology but it might also be an exhortation. Check out the price tag, £7m, then go and look for yourself. Just a few steps from the second busiest Marks & Sparks in Europe and immediately adjacent to the City Hall, this is a downtown bar and café like no other.

The first thing to understand is that this is not a club. It closes at 11.00pm sharp, operating within the conventional pub licensing hours. But it is open all day, serving breakfast from 8.00 in the morning. The reasons are clear: for such a heavy investment it needs to be operating close to capacity (1,000 persons) for most of its opening hours. In the traditional sense of 'city centre pub' such a target might appear unachievable, but the Pacific Bar Café presents a very different face to its clientele and not just by its striking exterior.

"It was 14 months from the time the plot of land was purchased to the opening in March." So said Rob Hutchinson of Sunderland-based Innovation, the company responsible for specifying and installing all the audio, video, and most of the venue's lighting. "The Newcastle-based Napper Partnership were the architects with



The glass-fronted exterior of Pacific Bar Café.

Graham Dodds leading the project. But it's really Dave King who conceived the place."

To put this in context, 42nd Street Bars are the owners of PBC in the shape of Nigel Vaulkard, who now counts the Pacific as his eighth establishment in Newcastle, with two more in Whitley Bay. Dave King is a director of the company.

"Dave's got a creative background," continued Hutchinson. "He went to college

and studied graphical design, or something like that. He's been involved with 42nd Street for 12 years or so. He excels in that he designs from the bar out, largely because Dave has worked as both a barman and a pub manager. Because of that experience he looks at what the bar has to provide in terms of the way it works and delivers, and then from his design background he can impose a stylistic theme over that."

It's a telling statement. How many 'modern' venues have you been into where the stylist has held the upper hand at the expense of function? Where the staff are harassed, demoralised and stressed because the place looks great, but fundamentally doesn't work? In the two hours spent at the Pacific in Hutchinson's company, we explored every nook and cranny, frequently bumping into staff bustling about their business. They were never less than courteous, something we've come to expect even in the lowliest burger joint, but more than that, they appeared to be having a good time. Five weeks from opening is long enough to get jaded about any new place, even the Starship Enterprise, but not this lot.

"A good example of Dave's understanding are the refrigerators behind the bars. They're all full-height and glass-fronted for presentation and access. But if you look behind there's a whole chilled room from which to load them." And indeed, clearly visible through the open rear of the bar fridges is an en suite chiller room of such dimension that it contains enough

drinks to satisfy even the thirstiest Saturday night Toon Army. The dimension of the chillers is matched only by the ice machines: "Nigel majors in ice," chimed Hutchinson, "they never ever run out of ice in any of his establishments."

There are other neat ideas that really make this place sing - table and waiter management being the most visibly sophisticated. A button at the centre of each table instructs the diner to press it for service. A battery powered transmitter beneath the table routes the call to an appropriate waiter





via his or her lapel-worn vibrating pager which alerts them to the call and also displays the table number via LEDs. A simple enough idea, the paging system is backed by some well-planned management software. Thus waiters placing or processing orders at the servery are bypassed in favour of ones free to serve. The system also implements higher management functions, and if button pests think it funny to repeatedly press the device, their calls are ignored, not by the waiter, but by the software. Of course, the truth is that service is so snappy that only a Neanderthal would wish to be a pest, and such clients are generally excluded from entry in the traditional fashion. The only surprise is that with all this burgeoning technology the 200lbs of beef in a tuxedo hasn't been replaced by intelligent doors that selectively exclude lower orders of pond life. One day, no doubt.

But what of the lighting and sound? Rob Hutchinson and Innovation have almost as long an association with 42nd Street as Dave King: "We've put equipment into most of his venues, but this is a lot different." To put you in the picture, you have to recognise the way the interior has been deliberately organised to be interesting to the punter. There's hardly a straight wall in the place, bar counters snake through drinking areas that break and lobe like the out-pourings of an amoeba. The decor is redolent of a brand new Hyatt or Marriott hotel: lots of granite, especially bar tops and the fascia to the ground floor portico, coupled with heavy use of stainless steel embellishments and maple wood detail. Motif is uncluttered and minimalist: the steel work apart, the only item of decorative feature that exists purely for aesthetic reasons - rather than combining with a function - is a collection of acrylic cones and cylinders which provide a continuity between exterior and interior atmosphere. Hutchinson had the acrylics made up: "The largest is three metres tall, the smallest just 150mm and they hang inverted beneath fibre optic sources above the bar.

"Other than the bar cones, all the larger ones are fitted with some very clever neon colour changers that we've developed at Innovation."

Hutchinson was covetous of the colour changer: he explained that, having explored the Patent route he found it wanting and preferred to keep the workings of the device under his hat, so to speak. But they are bright, even the exterior cones around the portico giving off enough light to give a readable deep mauve in afternoon daylight.

The dominant feature of the bar is a spectacular curving staircase that dramatically weaves its way through the three levels of open public areas (there is a fourth in the basement below). As any avid armchair Attenborough will recognise, the staircase's inspiration comes from a spinal column, possibly the pygmy shrew, where complex appendages to the vertebral column interlock, giving immense strength to something apparently light and delicate. "Clifford Chapman is probably the best staircase man in the world," enthused Hutchinson. His admiration at first appeared founded on that regional pride all North-Easterners seem to have, as Chapman is based in Washington, the same bank of the Tyne as Hutchinson, but the story unfolds: "He's a specialist in glass and steel stairs and travels all over the world. He's designed stairs for Joan & Davidson in Bond Street, Connecticut and Paris, and more recently for Burger Christiansen in Copenhagen."

The Pacific's own piece of staircase artistry came in at a modest one-third of a million pounds, a hefty chunk when viewed against the total two million spend on the interior, but then as Hutchinson said. "Even Clifford's impressed himself this time. He actually comes in each week to have another look at it."

The stairs and their elegant banisters provide the pattern for the steel embellishments of the decor alluded to earlier, found on bar fronts, doorways and tables. Curving rib-like with flat polished metal fronts and pierced by lines of acrylic eye-holes, each is fibre-optic fed and changes colour synchronously with the many cones. In fact, fibre-optic is the prevailing light source: small rows of 5mm terminations festoon along the ceiling line immediately above each bar creating gentle halos of illuminated glass above discrete tables in quiet

lagoons. Even in the futuristic washrooms down in the basement small apertures - perhaps 20mm across - broach the floor with a twinkling amber glow. Aside from the fibre systems and cones, which are everywhere, the only other noticeable lamps are a sprinkling of LoVo Halogens, and a clutch of eight Martin MAC 500s set into two steel and chrome chandeliers flanking the central entrance. Lighting control is from a pair of Pulsar Masterpiece Replay units, one for environmental lighting, one for the MACs. The 90+ colour boxes scattered throughout the building which feed the 4,000 optic heads are analogue controlled via a Pulsar D to A unit and Mode Electronic dimmers, while the Innovation installed units run DMX from Pulsar Datapack dimmers. (There's currently some problems with the colour system for the bulk of the fibre network, inconsistency between terminations in the same harness being the case in point. These snags are being addressed, but that's why the names of their origins are singularly absent herein).

As this is a pub and café rather than club, it's the sound and video media that really excels. Innovation were once again responsible for both these technologies. Not immensely complex, the video system is nevertheless exhaustive and, in keeping with the decor, very dramatic. Throughout the lower floor 21" Philips screens tilt down from above the bars suspended by yet more elegant stainless steel bracketry from Chapman, while on the top floor, five hanging clusters of 28" Sèleco screens entertain the diners. The real eye-catchers are six 42" Fujitsu FST Plasma screens festooned around two vertical stainless and chrome poles that run through the open atrium area of the first two floors. These are not lightweight items, yet Hutchinson has been able to retain the simplicity of single pole support "thanks to the indulgence of Fujitsu, who gave me a trashed screen to work with as a model for designing the necessary mounting."

All screen images are fed from the expected variety of sources - Sony VCR machines, satellite TV, and a Kaleidolight system for advertising and effect generation, Innovation providing their own proprietary matrix vision switcher which is dual function, also working as a matrix for the audio and its various sources. The entire audio system is from Bose (Innovation are an accredited Bose Professional dealer): in total, 26 502A Panarays, six 502B Acoustimass bass units, and 24 203s. The whole speaker system is driven from a rack of 10 Crown K2s supplied by Fuzion, prominently mounted on the AV perch above the main floor: "Dave wanted the amps to be seen, an idea which I didn't particularly like at first," explained Hutchinson. "However, I would have chosen Crown to drive the system anyway and the K2 styling really looks the part, especially as we were able to specify colour to key with the existing decor."

Interestingly, Hutchinson has built a fan-driven cooling frame onto the rear of the rack and mounted the amps with 10mm gaps between them, in spite of their claims to be a solely convection-cooled device. But then with a 15 hour per day, seven day per week workload, why not? Despite the dispersed nature of the system (there's also a bunch of

Freespace Model 8s in the washrooms), configuration is simple: "It's only broken into three audio zones through a Formula Sound ZM-243," said Hutchinson, "but with levels kept relatively low, the need for a more complex set-up is not really warranted."

Certainly true during my visit, when a mid afternoon crowd were being treated to good quality background music; but I'm not sure what intelligibility would be like with something more demanding like an on-screen sports event commentary trying to compete with an excited, noisy audience. Perhaps fixing the sound at a lower level encourages the audience to restrain their outburst so they can hear John Motson's pearls.

As with so much of what Hutchinson and King have conspired to achieve, operation of the media system is effortless through thoughtful use of automation. A 200-disc Denon DN1400 is linked to a PC-based Rolec CD index which has been laboriously loaded with a full catalogue of every disc and track, with cross-referenced categorisation, e.g. rock, pop dance, easy listening, whatever. Thus the audio system is programmed for 'early day', 'lunch', 'special event' and a host of other settings that delineate sound levels in each zone and the music type to be delivered. Integrate this to the video display, providing the appropriate sound track when necessary, and subordinate routines for the lighting system and you have an environmental control sans pareil. Naturally this leaves the Pacific's management with a system they can turn on and off, and know how to run, but have little idea of what's happening within the technology to make it so.

All the convenience of a car, but little clue as to what's going on under the bonnet, so to speak. "That's why we won't provide an installation service outside of our immediate geographical area," explained Rob Hutchinson. "It's all very well saying 'oh, you're only an hour away from London on the BA Shuttle', but try making that work at 9.00pm on Sunday."

Apart from the simplest of installs, say a couple of lights and deck, Innovation always provide a service contract with what they do and stand by their equipment specs: "It's one of the great things about working with Dave King on a project such as the Pacific - we both agree that easy maintenance and reliability of equipment is just as important as aesthetics."

And that's possibly the essential point - there is a balance between aesthetics and function. Planned like this, the functionality is largely submerged, the technology subtle and the aesthetics rest easily amongst them. It's a point that often goes right over the head of the user and a nice anecdote from Hutchinson



Rob Hutchinson of Innovation.

"And that's possibly the essential point - there is a balance between aesthetics and function."

illustrates the fact that all is essentially subliminal: "When the place was about to open we received the obligatory visit from the local Magistrates. They stood outside, admiring the glass frontage when one of them

called attention to the sunscreen and maintenance walkway, a typical piece of exquisite French engineering by Brise Soleil. 'It'll look lovely when all that scaffolding comes down', she said."

But then some people thought the Angel of the North would never fly.

photos: Sally-Ann Brown

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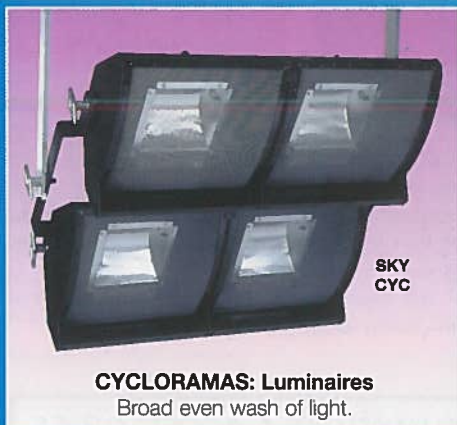
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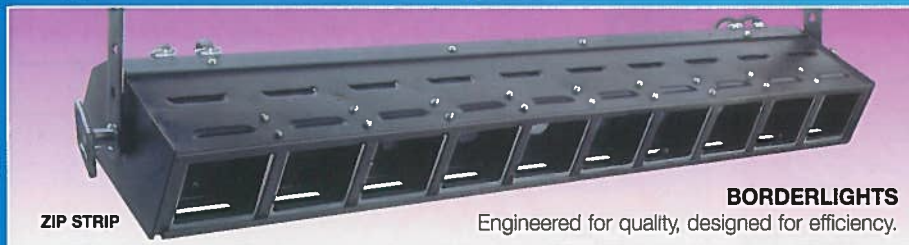
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APPLIANCE OF SCIENCE

The Concert Hall at London's Barbican recently upgraded its audio system following exhaustive product comparisons. Lee Baldock finds out who emerged the winner . . .

Renkus-Heinz is probably not the first loudspeaker manufacturer's name that would spring to most people's minds when thinking of prestige auditorium sound installations. There are, shall we say, others. But it seems that this perception may be the single biggest barrier to the company's product being accepted as a first-class auditorium standard. As the recent system choice taken at the Barbican Concert Hall in London has demonstrated, Renkus-Heinz are at least as deserving in this field as any of the names that you might more readily find on the tip of your tongue.

RH were one of seven well-known manufacturers who took part in a meticulously planned shoot-out at the Barbican Concert Hall, in order to discover which system was most suited to the very specific requirements of the venue. It was the determination of the Barbican that the choice of loudspeaker system must be based on a fair and thorough appraisal - and be seen to be so - that saw Richard Nowell, an independent audio consultant, called in to design and oversee the series of tests.

To be fair, 'shoot-out' is far too rough and ready a term to do justice to the process that Nowell designed. A more scientific term would be preferable. Nowell describes how he approached the task: "Part of the design brief was that the Barbican Centre wanted to prove a number of systems within the space, and it was absolutely crucial that there was visibly an even playing field. So the first part of my brief was to design a series of tests and administrate and implement them. At the end of that process, by liaising with the technical department, I needed to come up with a recommendation of which speaker system would be the most suitable, and a design brief of how to specifically use that system."

So how does one go about providing an even playing field for seven of the world's foremost loudspeaker manufacturers to compare their wares? Firstly, Nowell wanted to prove that any given system would be capable of dealing with the wide variety of performance styles that are staged at the Barbican, from solo piano to contemporary piano with processing and possibly tape playback, to full-blown orchestra and choir, to modern jazz and contemporary pieces - not to mention awards ceremonies, readings, blue chip AGMs and the occasional film screening.

Nowell selected a variety of different sources, including live radio mic on stage, a lectern pair on stage, spoken voice, voice and piano, string quartet, an orchestral piece and a contemporary jazz piece, which seemed a fairly representative cross-section of the venue's range. Nowell continues: "Each participating team was given 10ft of stage space and 10ft of truss and asked to provide an

example, or pair of examples for coupled pairs."

Nowell had defined different areas of the system - the upper level cluster, the lower level cluster, a stereo system which was added onto the proscenium arch because it was felt that it would

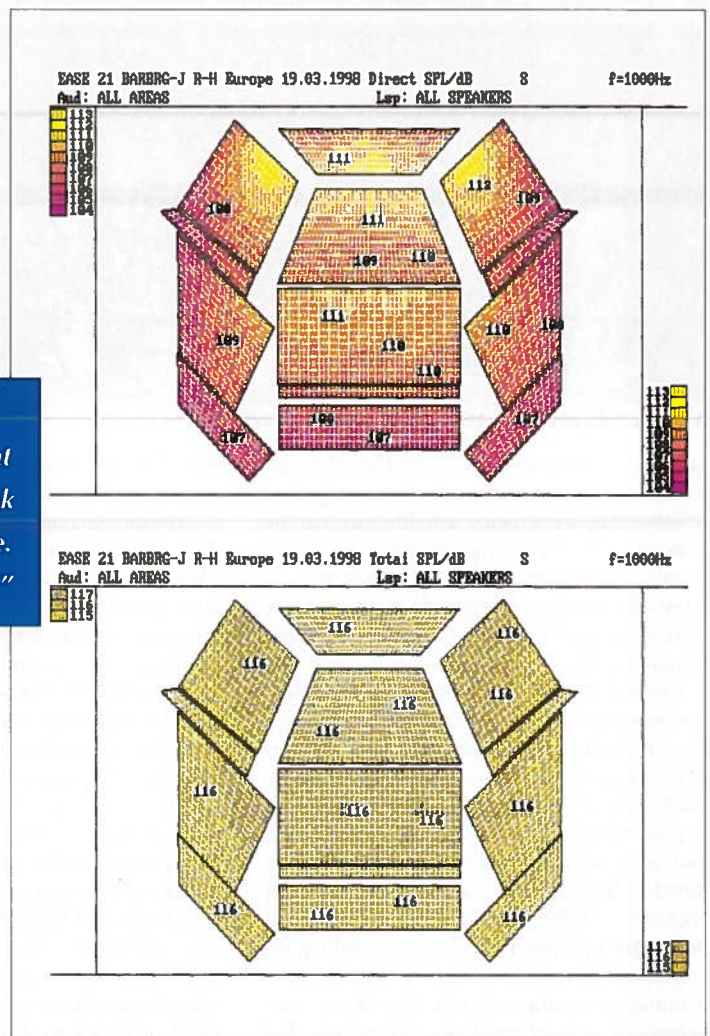
"If you find yourself at the Barbican, take a careful look at the beautifully-crafted light-oak cabinets flown above the stage. It's a paint job to be proud of."

be useful, and a frontal system which is hidden in the lip of the stage extension.

This extension to the thrust of the stage was, incidentally, probably the biggest headache of the whole project. Part-way through the specification process, Nowell was informed that the stage was going to be extended by six feet, which inevitably meant that the suspension point where the central cluster had previously hung was no longer usable. The new cluster - whatever it may be - would have to come forward, too. Nowell explained: "The centre cluster idea had to be maintained because a lot of what's done needs a point source - I would say probably 40-50% of the work that goes on is blending acoustic instruments with a reinforced vocal or solo instrument, so the point source was crucial."

The trouble was that the point at which the cluster would need to hang was directly beneath a sliding gantry, so Nowell came up with a solution in which the gantry was slid over the auditorium, the cluster would be hoisted from the uppermost joist, then tied-off from the lower, allowing the gantry to slide back into place between the two. With barely a few millimetres of leeway, precision was critical. After making other alterations to the specification to accommodate the new thrust stage, Nowell began the project.

"I asked each manufacturer to provide examples of the speakers they felt would be most suitable. They came in and set the system



Above: RH's EASE graphics illustrate the remarkably even Direct SPL coverage (top) and the Total SPL coverage of the system.

up and we gave them whatever help we could - we had a rigger on site to assist with rigging and they were given the whole day to get themselves comfortable. Each manufacturer was given half an hour to talk to the technical team about any or all aspects of their system and propose solutions to the problems that I presented them with, while the technical team were free to ask questions of each manufacturer."

A series of highly formal tests were held, in which a sample audience (including technicians and orchestra members) had to respond to a questionnaire while each speaker system was sampled in turn using each prepared source. Nowell explained the method: "We brought each system up, without EQ, one after the other to the point at which it started to feed back and then backed it off again. The same was done for each different type of source."

He continues: "The manufacturers could set their crossovers however they wanted, but I didn't want any EQ. I had an independent engineer operate the console so there was no



A concert in progress at the Barbican Concert Hall.

question of different levels, and at all stages throughout the process they were asked whether they were happy with the way that the systems were behaving, because obviously there's a problem in that some systems are more efficient than others, and so an apparent increase in level may well affect the perceived response of the system."

This was the first time that Nowell has had the opportunity to conduct tests in this manner. The emphasis on fairness to all manufacturers is the prominent feature of his test format. Audio Projects, the exclusive UK distributor for Renkus-Heinz, supplied the system that was ultimately selected. The company's managing director, Steven Hall, said of the shoot-out process: "From a manufacturer's or distributor's perspective, it's not something we particularly like to do. It's not the issue of winning or losing, it's just that it's a very expensive, very labour-intensive process. But in reality, providing it's done correctly, then it's probably the best way of achieving the design objective results. We've done a number of shoot-outs and it's very interesting to see how potential clients set up shoot-out scenarios. They're either very detailed or they're completely haphazard - there doesn't seem to be much in between. Often the terms are not

fair for all manufacturers, so what we appreciated about this one was its fairness."

Nowell also pointed towards the problems to be overcome with this type of comparison: "When I initially contacted the manufacturers and asked if they were interested in being involved in the tests, there was significant resistance from some of them, because so many people had been bitten before. It wasn't until I had produced the proposed spec for the tests that the attitude changed. I was surprised by a lot of the reaction."

The crucial task of the system design fell to Renkus-Heinz's Peter Child. He began the company's tender process with a complete design of the auditorium on EASE software, which allowed them to more accurately assess the situation: "To fit within Richard's specification, we changed our original idea slightly, so instead of having full-range cabinets on the top tier, we had separate mid-high and low boxes, which actually gave us a slightly better result within the computer model."

Nowell had specified that he wanted the central cluster to provide a seamless point source and, using EASE, Child was able to demonstrate graphically that their intended cluster would provide just that, with no discernible lobing. Later, when the Renkus-

Heinz system was chosen, Nowell increased the number of cabinets he wanted to include, keen to provide the utmost flexibility for the venue's technical staff. Again, Child was able to quickly demonstrate that the larger system could feasibly be installed without detracting in any way from the integrity of the system originally specified.

As well as the actual demonstration of the systems, the manufacturers were allowed a chance to make a presentation to the technical team. As we are all doubtless aware, people's perception of brand names can be an all-too-often important factor when it comes to choosing a system for a particular application. As Stephen Hall reveals, the range of varying presentation techniques at this stage of the process showed a tendency among some to depend too much on those perceptions.

"It was interesting for us to see the different styles of presentation. Some were basically taking the line that their product should be chosen because it was so popular, while others went into immense technical detail. We took a fair amount of time in showing the team our computer presentation and talking about our product. We've got some very special technology, and we were trying to impart that information to the team. That was met with some scepticism by certain members, particularly with reference to our HF design."

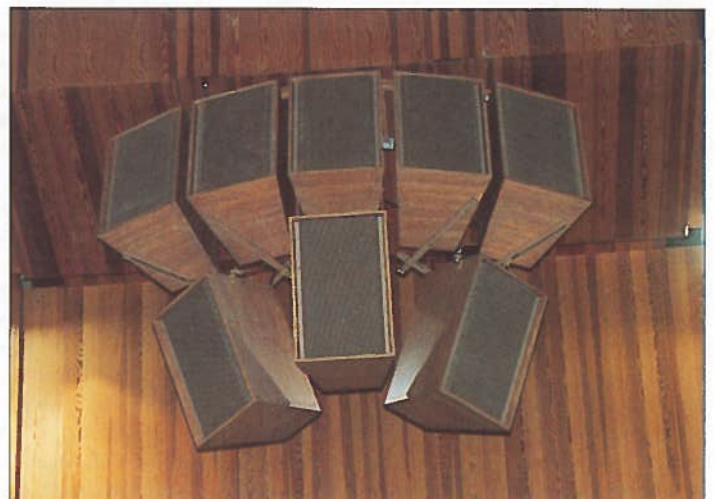
Needless to say, the final decision was based upon a far more scientific criteria than some imagined. It was up to Nowell to collate the views of the technical staff and the responses on the sample audience's questionnaires.

Nowell recalls: "I literally grabbed the technical team as soon as the last test was completed and took them to a quiet room, where I asked if they had to choose one right now, which would it be? As a follow-up to that, the questionnaire responses were collated, and that seemed to pretty much back up what the technical team had said and what my own personal view had been."

After the four days of testing, it must have been satisfying to Nowell that there was one identifiable system that seemed to stand out. Seven different systems of the highest quality had been thoroughly tested for their suitability to a specific set of client requirements - it was surely the fact that these requirements were so specific that the subjective hurdles of brand



Pictured left to right - Steve Ramsden (Barbican assistant technical manager), consultant Richard Nowell, Stephen Hall (Audio Projects) and Peter Child (Renkus-Heinz).



The two-tier central cluster, consisting of three CE-3TMHA long-throw mid-highs, two CE-3TLO LF cabs and three CE-3TAs.

perception and personal taste were overcome, allowing one particular system to rise to the fore.

Nowell continues: "The thing that sold the Renkus-Heinz system was that it is very, very consistent - throughout its range. One of the big problems here is that the mix position is barely 50% of the way back in the auditorium, so it's possible to stand there and not be able to hear the upper level of the cluster. So you need to be confident that what you are hearing is also what the people in the balcony are hearing."

Of the left-right stereo system, Nowell said: "I have to say, we were very pleasantly surprised by its performance - it's actually far more usable than even its figures suggest. The boxes on the pros arch have an enormous dispersion and, given where they are placed, they shouldn't work. But they do. You can have a mic effectively dead in front of them on the front edge of the stage and you will still get enough level out of them. It makes no sense, but it works."

The surprising performance characteristics of the Renkus-Heinz boxes are due to Renkus-Heinz's proprietary technology. Peter Child elaborates: "There is something special in the co-entrant design (Renkus-Heinz's patented CoEntrant Waveguide Technology), in the way we combine our mid- and high-frequency drivers, where the mid and high share a common throat and a common horn. It provides very, very good pattern control."

Stephen Hall continues: "The usual story from our competitors is that our horn technology can't work - all it can do is distort, which is not true. Whenever we go into a shoot-out scenario, everybody says it'll distort, but it doesn't!" CoEntrant Waveguide Technology combines midrange and HF drivers through a common throat and horn, in which some clever geometric voodoo makes for a true point source with low



R-H's diagram showing the combination of mid and LF drivers in CoEntrant Waveguide Technology design.

distortion, high resolution and the remarkable consistency that so impressed Nowell.

Now daily emitting the benefits of this technology, the hall's new system consists of a two-tier central cluster, the top tier of which is made up of three CE-3TMHA long-throw mid-high and two CE-3TLO low frequency cabinets. The CE-3TMHA is a long-throw mid-high cabinet containing six 6.5" midrange drivers and six 1" HF drivers in a CoEntrant format that, with natural time alignment, combines the output of all the mid and high drivers, giving tightly controlled dispersion from 350Hz up to 18kHz. The CE-3TLO is a horn-loaded cabinet

that extends the low frequencies down to 60Hz.

Making up the lower tier are three CE-3TA three-way loudspeakers, each cabinet containing two 1" HF drivers and two 6.5" midrange drivers in a CoEntrant format. These provide a true point source, with natural time alignment and tightly controlled dispersion. Providing the low end of the cabinet's performance are two 12" horn-loaded woofers.

The stereo system consists of two custom-built CE153/125/TA cabinets per side, carrying the same CoEntrant top sections as the CE3TA, but with a single 15" woofer replacing the two 12s. Two LR2A dual 18" subwoofers, one either side of the pros arch, provide the extreme lows. System control and protection is provided by four X14 and one X12 Renkus-Heinz controllers and power from 13 P2801 amplifiers, also from RH.

A final touch was carried out by London-based scenic contractor Souvenir Studios: the magnificent wood-panelled interior of the auditorium has been carefully reflected in the new cabinets, which blend perfectly with their surroundings. If you find yourself at the Barbican concert hall, take a careful look at the beautifully-crafted light-oak cabinets flown above the stage. It's a paint job to be proud of.

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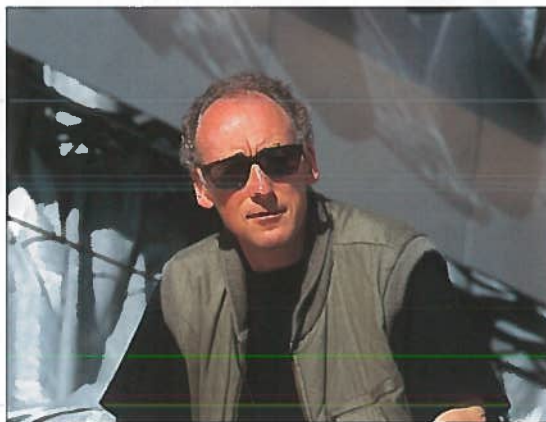
As rock and roll's premier set designer, Mark Fisher, takes charge of the Dome, L+SI looks at the man, the millennium and the maybes

It's hard to imagine any reader of this magazine not having heard of Mark Fisher but if you haven't, you soon will. His not inconsiderable talents in set design, and his less tangible skill for transforming spaces, have been harnessed by Mr Mandelson to aid inner-Dome enhancement. It's refreshing to talk to Mark about this project: he is a Millennium enthusiast and provides a very solid rationale to justify the Dome's purpose, but how he came to be involved in such a public position is perhaps of more interest.

Apropos of nothing, he claims to have been born on the anniversary of Hitler's birthday shortly after the end of WWII. Although born in Kenilworth the family had decamped to sunny Cleethorpes before Mark had chance to form any lasting affection for crumbling red-stone castle. A long, stable childhood by the sea - his father a teacher at the local primary school, his mother a housewife and mum - saw him conform to the norms one might expect from 50's England. "Oh yes, I spent a lot of time making things, collecting, drawing, painting, and I blew a lot of things up."

In an early indication of how far Mark's personal aspirations might lead him, he developed quite quickly beyond the usual 13-year-old boy's delight of sodium chlorate, Tate & Lyle and a piece of old copper tube. "I graduated to making my own nitroglycerine," he enthused. Thankfully, he kept it stored in a box wedged in a branch, and one night it self-ignited and felled the hapless tree.

It wasn't all Swallows and Amazons, but pretty close to it: "I was in the shooting team at school and used to sneak the occasional .303 bullet up to the art class where I removed the cordite and used it to make rockets." But he also found time to help build sets for the school play and, more importantly, finished school with good qualifications in Maths, Physics and Art, which under some mild encouragement from his art tutor lead him to apply to the Architectural Association's School of Architecture. "It was a five-year degree course,



Above, Mark Fisher and opposite, just some of the many tours he has designed.

plus a practical year in the middle. These were exciting years. I became interested in technology, temporary lightweight structures, inflatables. The first really big structure of this type had been built for the Montreal Expo' in 1969."

Along with his fellow students he begged and borrowed materials and began experimenting, "We went and found people who wanted something; a window display, an exhibition piece; anything that gave us a way to learn how these things worked."

Not quite the bomb-making of his youth, but listening to him speak, just as exciting and no less engaging. In 1970, Mark "fell in with a bunch of hooligans" and was invited to take some of his inflatables down to the Isle of Wight Pop Festival and whilst there met the set designer for *Jesus Christ Superstar*. Graduating in '71 he went on to make inflatables for the *Superstar* show that year and later for the Barry Humphries stage show. In his own words: "I scratched a living doing silly things," but needs must and he also returned to the college as a teacher for three years.

Both elements to his early years in work proved significant; the teaching because he met with Jonathan Park, an engineer who also taught; and the dalliance with various pieces for West End theatre because it brought him

into contact with Aubrey Powell of Hipgnosis and ultimately Pink Floyd. "After the debacle with the Pig over Battersea, Aubrey wanted someone else to take over and approached me."

The famous flying pig for the 'Floyd's early extravaganzas also drew in Park, he providing the engineering solution to how to rig and fly the beast. A fractured start, the two men didn't work together again until '78 for *The Wall*, but ultimately went on to form the ground-breaking partnership that was Fisher Park. But that element of Fisher's life is well documented.

What of the future? "Well it might seem odd to people, but I still consider myself as an architect. That's possibly a legacy of my teachers at college who were members of Archigram." (A profoundly influential architectural movement founded in 1960s Hampstead. Archigram followed the tradition of radical modernism enunciated by the likes of Nietzsche. The group chose to expand architecture out of the realms of elitist aesthetics to embrace all forms of culture, particularly the Pop culture of that era, and also drew heavily on the frontier technologies being used to explore Space and the Oceans.)

"That's why I'm interested by the big outdoor shows, it's about being able to take a form of culture on tour, things with a real architectural content, things that can transform a derelict site. Sets like *Steel Wheels* and *The Wall* are all characterised by trying to attack the coffee table sort of stage you see used by someone like Jackson, someone who doesn't really care about these things. When you look at my work, things like *Pop Mart* or *Voodoo Lounge*, at a functional level they're identical, yet they all look completely different."

There's no doubting the passion Fisher has about what does, and he's still quite obviously fearless when it comes to dicing with volatile materials. As for the Dome . . . what was it Nietzsche said? "Whoever wants to be creative must first annihilate and destroy values."

Maybe he'll blow it up.

Interview by Steve Moles

Body of Evidence

The 14 intended exhibit areas within the Dome are still the subject of discussion to a large extent, but there are things we have been told. We know, for instance, that a 10-storey figure of the human body (sex to be decided: perhaps indeterminate) will sit in one area, housing an exhibition on medical science and biology.

Visitors will walk in through the figure's back, travel in a lift up to its head to look out of its eyes, and descend and leave via the foot. Photographs of one million British children will cover the figure's thigh.

Another exhibit will examine the future of work and learning, and will allow for up to 400 visitors to tour the site wearing virtual reality headsets which will enable them to visit classrooms and work environments of the future. The area

devoted to religion and spirituality, its gravitas brought crashing down to earth by the name 'Spirit Level', will concentrate on showing the rites of passage as experienced by peoples of different faiths. This area was originally to have included a large pyramid constructed from glass and PVC, although this particular exhibit looks set to be rejected for being 'too pagan'.

The Dreamscape exhibit will take visitors on a journey along

a river of dreams, riding on a bed (capacity 16). While the effects are likely to be stunning, the ride itself will be of the gentler variety, having been tagged a 'floatercoster' and a 'pink-knuckle' ride.

Passengers will float out through an open window, through a flock of sheep, fly over London and dive beneath the oceans. The 'Serious Play' exhibit will incorporate multimedia shows on themes of sport and leisure.

Show Me a Dome

"People are going to get a shock coming into the Dome. Few people in the world will have been in a space as big. It is astonishing how majestic and spiritual the thing is." So stated Mark Fisher in a recent interview with the London Evening Standard. It is to be within this space that he, bearing the mantle of Show Director, will create the Dome Show - the centrepiece event for the most talked-about attraction in living memory.

Fisher is, unsurprisingly, reticent about his plans for the Show, which will occupy the Dome's central Piazza area. We know that whatever he comes up with will bear all the qualities of the designs which have graced a thousand stages in the past, but the clues as to what this will involve remain vague. "It already has a shape," Fisher has said. "There's a treatment and a running order. It will last about 20 minutes and be staged about six times a day."

While we might expect a larger-than-life extravaganza such as those created for Floyd, U2 and the Stones (pictured right), the truth is perhaps the opposite. Although the physical capacity of the Dome could comfortably accommodate two Wembley Stadiums, the presentation will lean more towards the intimate, with audiences probably in the region of 10-16,000, most of whom will be within 200 feet of the centre of the space. The inherent limitations in staging a show in this space lead to some rather more specific clues. Fisher says: "We are being forced by the nature of the space

to be very ephemeral. It is not possible to hang much from the roof, and because of the contaminated land and the cost, you cannot dig down. So the conjuring tricks will be with lightweight structures, sails, kites and fabric."

One thing we do know by now is that Fisher is collaborating with musician Peter Gabriel in the creation of the show. He explains: "I have always wanted to do a project with Peter, because I admire not just his music, but his multi-media and performance pieces. I therefore approached him and invited him to collaborate with me, not just on the music, but also on the conceptual development and the visual design of the show."

Fisher sees the music as filling the role of the Greek chorus, telling the story while the action occurs, "... reinforced by surreal and off-the-wall visualisations of the themes." So what do we know of the themes? The Dome's general Time to Make a Difference theme, embracing areas of environment, culture, religion, Britishness and other themes, will be drawn upon, but there will be a message: "It comes off the fence," says Fisher. "This show says what we should do."

Tony Blair has said the Millennium Dome will contain "the finest exhibition that the world has seen," and Peter Mandelson has said, quite safely, "It will not be forgotten." If you want to know anything more specific about Mark Fisher's part in it, feel free to ask him on New Year's Day, 2000. Then he'll be happy to tell you everything.



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Arriva merci Rimini! A tradition which has been a rite of Spring passage for the industry for the last several years finally loosened its grip at the end of last month with barely a whimper. If you turn up at the same time next year you will find something else going on entirely. So make a note: the next SIB will be in 2000, if the computers haven't stopped the calendar by then.

So an annual ritual endeth. Won't we all miss the schlep from Terminal One via Bologna (and the lost property office - this year it was the turn of Coetech's Graham Barron to draw the short straw in the lost luggage lottery), the long wait for the coach which never quite connects with the flight, and the drop at the Fiera at the other end, when actually everybody wants to be on the seafront where all the hotels are? Well, of course, we will miss it: there's nothing an Englishman enjoys more than a good moan about logistics organised by Johnny Foreigner.

So, why the change and what were the implications for SIB'98? Well, it was kind of odd: all the exhibitors were there as usual with the usual clutch of vast stands, though Martin Professional managed to outdo even their previous efforts in both scale and ballyhoo, and Clay Paky repeated their splendid banquet at the Hotel Conchiglie in Riccione, but certainly from the British contingent there was a thinning of the presence, from the visitor end at least. Many familiar SIB stalwarts simply weren't around, and I did check under the benches at the Rose and Crown! I guess they decided that if they could wait two years, they could wait three. So there was a feeling of, dare I say it, impending doom - that nothing would quite be the same again now that the momentum was to be lost.

Apparently APIAD, the Italian equivalent of PLASA, were instrumental in pushing the organisers into the two-yearly decision, and they were finally pushed over the brink by SIB's two behemoth exhibitors Clay Paky and Coemar when they threatened to withdraw their support. It could be that this reaction was, in part, in anticipation of a big

swing in taste in the Italian market, especially in the nightclub and discotheque arena. According to Bepe Riboli, designer of many of the most outrageous and flamboyant, not to say successful, cathedrals to the genre, the new generation has forsaken the disco passion of their elders to flaunt themselves in vast slave markets and gin (and It) palaces, exchanging them for more intimate surroundings.

Pondering on all of this it finally came to me why it is that our industry is so 'show rich' and how it is that we support such a huge number of exhibitions internationally each year and why most of those expos get bigger and bigger all the time, far out-sizing anything most other commercial sectors ever see. For who would have predicted that the little BADEM Show of yesteryear would grow into the vast PLASA Show now occupying Earls Court 1? In fact, you could ask yourself if we haven't picked up the wrong end of the stick when we use the Show Business label.

It follows, of course, that the proportion of turnover devoted to marketing by the exhibitors in the entertainment technology business would appear, by any standard business analysis, to be disproportionate. So why do it this way, and keep on doing it? The fact is that exhibitors wouldn't carry on unless the visitors kept coming, and conversely if the buyers stopped arriving, it would quickly signal the end. Meanwhile, if the turnstile keeps revolving, logic says that it must pay to exhibit and it obviously does. So what keeps the traffic coming? And then it came to me. We are in a fashion business.

Just in the same way that the couturiers put on their twice-yearly shows in Paris, Rome, London and New York, we organise ours. The difference is that the buyers come, not in anticipation of something radically new, but to get a feel for what is going on in a wider sense, to get a better handle on what the equipment can do for them and their customers, or their next project and so on - you can take a single luminaire to a customer in the back of your car, but you can't really give him the scent of what it will add to a performance as a whole.

Furthermore, many products are simply not suitable for that sort of off-the-cuff demo. So these are social events with serious intents, and our catwalks are the trusses on which we hang our lights. As if to mark the above turn of events, two other changes will also ensure that a visit to Rimini in two years time will never be the same again. The first is that Zero 88's Freddie Lloyd, a perennial bulwark of the British contingent at SIB, will not be there. By then, Freddie will be practising his language skills on the golf course, addressing any wayward balls in the vernacular.

The second is that a culinary institution, which over the years became a vital staple of SIB, was to change hands shortly after we left for the UK. Nadi Fiori, genial host at the splendid Café degli Artisti, has finally given in to his passion for good Scottish malts and decided to sell up, and devote all his time to a hobby which has grown into a substantial import business. Over the years Nadi has become the friend of us all, though more especially of Freddy and of Bob Schacherl of High End Systems and his family. The Highlands and Islands will be the richer for his decision, and our appreciation of his ravishing Italian cuisine the poorer.

I appear to have dropped a bit of a brick in my recent piece about John Conlan, late MD of First Leisure and now boss of Chorion, until recently better known as Trocadero PLC. John is keen for me to point out that the decision for him to leave FLC was his alone. Far from being ousted in a putsch designed to make way for Michael Grade, FLC cannot realistically be considered a family business and, to the contrary, Conlan says that the board of the company made strenuous efforts to persuade him to stay. With Conlan's excellent track record at the helm it would, indeed, have been surprising had it been otherwise. At the same time my suggestion that the late Bernie Delfont had early on been lukewarm on the matter of the discotheque business was also wide of the mark, according to Conlan, who says that in fact as far as he was aware he was always a staunch supporter of that side of the business. I really do wish John well in his new role.

In our February 1998 issue we carried a piece on Rod Gunner in Tony Gottelier's No Comment column based upon a recent Face the Facts programme on BBC Radio 4. In our item, certain comments were made about Mr Gunner's reputation as a concert promoter, including references to the charitable Concerts of Hope. We are now informed that the comments made about Mr Gunner were inaccurate. We withdraw them and apologise to him. We are informed that the Concerts of Hope staged in 1993 and 1994 raised substantial benefits for the charities concerned.

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ACTIVE AUDIO

Lee Baldock tracks down the latest innovations in sound at Frankfurt's Musik Messe

The Spring trade show season is upon us, with the Frankfurt Musik Messe and Pro Light & Sound show in March drawing in the crowds faster than ever before. The final visitor count for the show was stated as 96,000, and the organisers are aiming to break the 100,000 barrier in 1999. Trends emerging from an expanded Pro Light & Sound section this year would probably have to be those of diversification, with some notable extensions being made to core markets, and of the inevitable and continuing moves for the good in terms of the quality-to-cost ratio of many ranges of products, which could be seen time and time again at the show.

To begin with speaker product developments, **Nexo**, makers of the extremely successful Alpha concert PA system which has shifted an impressive 1,000 stacks in its first year, launched a new speaker series, the Alpha E, aimed at filling the gap between the company's PS15 and the Alpha. Alpha E is a more compact, economic and lightweight system which can integrate with the existing Alpha system as near-fill or side-fill cabs. The two formats of the new series are the Alpha E-F and the Alpha E-M. The former is a full-range, two-way active system with a passive HF crossover aimed at both live touring and installation use and offering a frequency response of 38Hz - 19kHz, while the E-M is a compact mid-high system (around one-third the size of the E-F) which, used alongside the Alpha B1-18 folded-horn bass enclosure, provides a more versatile two-box version of the E-F. The E-M provides a passive crossover between the horn-loaded 10" mid driver and the 3" voice coil HF driver. An Alpha E amplifier/controller will also be available for plug-and-play use. The Alpha E which, incidentally, is also fully compatible with Nexo's Crossbow flying system, should be available from May.

A new departure for **Martin Audio** is their latest product launch, the iKON, which sees the company heading into the MI market for the first time. Receiving its world launch at Frankfurt, the iKON series consists of the 15 and 15S. The 15 is a two-way portable enclosure with a 15" low frequency driver and



Nexo's Mick Anderson with the company's new Alpha E series cabinets.



A new direction for Martin Audio: the iKON cabinet for the MI market.

flared LF port, while the 15S is the dedicated add-on bass system with an internal 150Hz passive network. The lightweight boxes are constructed from a very lightweight but dense foam interior, with a tough moulded outer skin. The stylish boxes can also be finished with custom graphics - even photographs - if desired, and weigh in at just 15kg fully loaded.

Also debuting at Frankfurt was Martin's Screen Sub 1, which provides true bass response for cinema environments with its single 18" long-excursion, high-power driver and two large, tapered ports. The shallow profile of the box makes it suitable for positioning behind cinema screens.

Martin's diversity was demonstrated again by the new C516 flush-mount ceiling speaker, which includes an innovative spring-mount device enabling the unit to be pulled clear of the recessed can for easy maintenance.

Another of the big concert system manufacturers turning their attention to the MI market were **Turbosound** who, having already made a multi-coloured 'Impact' on the leisure install market, have now launched the Impact Live into Europe at Frankfurt. The stylish entry-level units are stackable, with top-hat mounts, and include HF protection, bringing with them the familiar blue finish of the pro system.

New from **EAW** is the JH-15 monitor wedge, designed in collaboration with John Henry of London-based JHE Audio, and to be used in the forthcoming Page/Plant tour. The JH-15 aims at providing a powerful, versatile, very

low profile wedge, usable with virtually any processor. With a 15" woofer in a vented sub enclosure and a powerful 1.4" exit compression driver on a 60x45 degree constant directivity horn, and a steeper baffle angle than is normal, the JH-15 provides a wide listening area, adding to a performer's freedom on stage. EAW also introduced the LA460 loudspeaker, the latest addition to the Linear Activation series, for small venue applications.

Several new products from **Celestion**: the Substation is a single 18" sub bass enclosure to add the extreme lows to most sound reinforcement systems. Able to operate in either direct mono, passive mono or passive stereo

modes, the Substation's bass driver is of a dual coil design which allows a single cabinet to reproduce a mono 'summed' version of a stereo signal ("Two into one will go"). When connected between an amplifier and a mid-high cabinet, the Substation can also route the mid-high content of the signal to the output sockets for daisy-chaining to the mid-high or full-range cabinet, via an internal passive filter.

A new mid-high cabinet, the CX1022HP contains two 10" bass-mid drivers and a 2" exit HF compression driver with a 60x40 degree rotatable horn to allow for horizontal or vertical positioning.

Of self-explanatory purpose, the new Road Series of loudspeakers from Celestion comprises the R1220, 1520 and 1522 full-range cabinets and the 1542 dual 15" bass cabinet, all constructed from the very tough 'Polycore' double-skin - a 4mm outer skin with a dense foam interior layer. The full-range models all use low-loss passive crossovers via either Speakon or quarter-inch jack connectors.

Finally from Celestion, a new 1" exit compression driver with some interesting technology, the CDX1-1750. The company's proprietary (and oh-so-sweetly-named) 'Sound Castles' technology involves a castellated rubber sealing ring which ensures an even clamping pressure on the diaphragm surround, while also utilising the full internal volume of the rear cover, helping to improve the lower mid-band response.



The Substation: one of several new products from Celestion.



The new K4 amplifier from Crown - 5500W into 4 ohms bridged.



Chevin Research's Glyn Baxter displays the company's new A5000 amplifier.



Chuck Augustowski with the new V12 console from Crest Audio.

Dutch manufacturer **Sound Projects** were showing their X-act range of loudspeakers for small theatre, conference, pub and club installations. The asymmetrical, injection-moulded and internally-braced cabinet design makes for a finely balanced 100 degree dispersion, especially suited for voice reproduction, the company claim. Also on show were the SP3 self-powered touring system, comprising the SP315 sub (3 x 15"), the SP3-B bass (2 x 15") and the SP3-T/SP3-M, the SP3-60 and the SP3-90 - long-, medium- and short-throw units respectively.

Also from The Netherlands, **Stage Accompany** had their Efficiency Series of amplifiers on show. The range comprises the ES10 and ES20, the latter of which produces a peak output power of 1000W at four ohms per channel. The units (2U and 4U of rack space respectively) are of rugged construction, or "road(y) proof" as Stage Accompany succinctly put it.

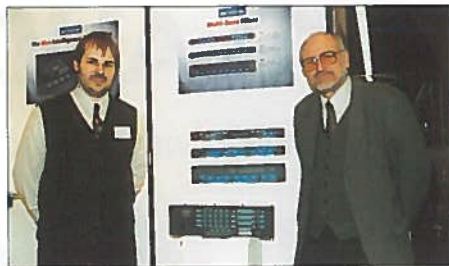
From **Wembley Loudspeaker**, three new drivers - two guitar versions (10" and 12") and a 300W rated full-range 12" unit. For the semi-pro market, a new, rugged, full-range cabinet loaded with a 15", 300W driver.

ARX Systems made two new additions to their Ambience system: the AmbiDrive three-channel integrated power amplifier and the AmbiSub compact subwoofer designed to add the lows to the Ambience 1 and 5. For club installs, ARX introduced the 122SK mid/high loudspeaker system, featuring a horn-loaded 12" mid driver and a 2" compression driver.

Logic System's latest additions to their loudspeaker range are the CS1290, a compact three-box system comprising mid-top, bass and sub-bass cabinets. The second three-box system, the CS1260, is a slightly larger version, with a fully horn-loaded three-way mid-high cabinet, a 4 x 15" push/pull cabinet and a 2 x 18" push/pull sub-bass cabinet. Lastly, the CS1090 cabinet is designed to join with the CS1290B bass enclosure to form a compact, bi-amped system. The CS1090 has a 10" horn-loaded cone transducer and a 2" exit compression driver on a 90x40 degree horn.

California-based **Apogee Sound** launched the new ALA-9 (Apogee Linear Array) loudspeaker, extending the linear array concept of the ALA-5 and ALA-3 to a concert-sized system. Comprising dual 15" drivers, dual 10" drivers loaded with two highly damped mid-range horns and two 2" compression drivers loaded with paired HF waveguides. The precise positioning of the LF and MF drivers maintains a 60 degree horizontal pattern that extends to the lower frequencies without disturbing the HF patterns.

Aimed at the industrial and emergency



Cloud's Roy Millington (right) and Matthias Bremer of German distributor Trius with Cloud's new Matrix 4 mixer.

market, Apogee's MA series of computer-controlled amps were also on show, the MA-800A being the top-of-the-range model with programmable gain controls, built-in load impedance sensing, emergency paging override, cue switches on each channel and a standby mode.

On the EVI Group stand, **Electro-Voice** were showing the new Deltamax DME touring series - new because the 'E' is for 'Europe' (Germany) where the speakers are manufactured, thus differentiating them from the DMS boxes manufactured in the States. The European operation provides a cheaper, faster outlet into the European market. The DME 1152/94 and DME1152/64 mid-high boxes (two-way active), DME 2181 full-range (three-way active), DME2181 (dual 18" bass) and DME1181 (single 18" bass) make up the range.

Also new from EV: the Sx500 joins the System 2000 MI loudspeaker range. This latest development incorporates the RMD (Ring-Mode Decoupling) technology which has gained currency (in all senses of the word) through EV's X-Array concert system. The Sx500 also includes a new constant-directivity horn and a high output DL15Sx woofer - and it looks sexier than the others in the range. Also new from EV, the Q Series of amplifiers, incorporating TBC (Thermal Brain Circuit) technology protection. These are the Q44 (450W into 4 ohms) and the Q66 (600W into 4 ohms).

Dynacord, with whom EV are manufacturing the DME speakers in Germany, had some of their own speakers on show, including the new Xa System, a modular configuration system aimed at a wide range of music applications, and based around the F12CWH Conical Waveguide mid-high horn, the F17PWH Planar Waveguide bass horn, the F18PWH Planar Waveguide subwoofer and the Xa-2600 processor-amplifier.

On the same stand, **Klark Teknik** were



Yamaha's new 01V digital mixing console adds to the digital range which includes the successful 02R and 03D digital mixers.



Demos of the new Evolution series of mics drew the crowds to the Sennheiser stand.

showing the DN8000 loudspeaker processor, a handy box of digital processing tricks which provides crossover, EQ, routing, delay, phase alignment, limiting, compression and noise reduction in 1U of rack space.

Yamaha introduced the new 01V digital mixing console, adding to their successful range of digital mixers including the 02R and 03D. The new 01V features 24 inputs (including eight digital inputs) with 20-bit 128-times sampling AD conversion, 14 outputs (including eight assignable digital outputs) and balanced XLRs with +48V phantom power. The LCD graphical display featured on the previous digital models is again used, showing EQ curves, effects parameter settings, etc. The mixer also boasts 99 scenic memories, total recall and full dynamic automation, including motorised faders on every channel.

From **Wharfedale**, an entire new family of pro audio products. These include the LiX series, aimed at touring and install applications, consisting of four full-range cabinets - the LiX-12, LiX-15 and LiX-M monitor (all two-way) and the LiX-15FR (three-way). All incorporate a 1" horn-loaded compression driver with thermal overload protection. Three sub-woofer cabs make up the range.

For the MI market, the new EVP series of speakers includes five models - three full-range and two compact sub-woofers. All feature newly-developed drive units from Wharfedale. Also new is the Action range of mixers (8, 12 and 16 inputs into 2), the SE series of power amps and the WPC series of audio processing modules which includes the 331 single-channel graphic EQ, the 315 two-channel graphic EQ and the 202 electronic crossover. Also on stand, of course, was the NXT flat-panel loudspeaker demo booth, and early examples of the first ceiling-tile loudspeakers, which will soon be in full production.

RCF were launching the Performer series, which includes the PFR 121 (12" plus 1"), a compact, lightweight, bass reflex two-way loudspeaker, rated at 200W RMS and the PFR 151, a 250W RMS with a 15" driver instead of the 12". The PFR 153 is a three-way box comprising a 15" bass, a 6" mid-range and a 1" compression driver mounted, as with the 121 and 151, on a 90x75 degree horn. RCF were also making additions to their ART Series of loudspeakers, first introduced in 1996, with the new ART 500 series.

New from **Tannoy** was the Reveal nearfield monitor, a smart-looking box with an attractively-styled baffle designed specifically to reduce diffraction. Inside is a 1" soft dome HF driver and a 165mm long-throw bass unit, both magnetically

shielded to allow for use close to video monitors. Two more nearfield monitors, the System 600A and System 800A were also being shown - the 600A with a 6.5" dual concentric driver and the 800A the larger 8" version. Also new from Tannoy is the SuperDual T300, designed for a wide variety of sound reinforcement applications. Incorporating a completely new 12" dual concentric driver, the wedge-shaped cabinets are suitable for low-profile ceiling mounting, foldback or upright use.

Valencia-based **DAS Audio** added to their sound reinforcement range with the new DS-15A Active Power loudspeaker, a bi-amplified two-way system which incorporates a 50W RMS amplifier for the high frequency driver. Low frequencies are supplied by a 15" driver, while LEDs indicate Power On, Overload and Signal Present.

New from **Citronic** were two additions to their System Install series: the Z-5DM two-input five-zone line distribution mixer, which can be used either independently or as a zone extender, and the Z-2A5 dual-channel 50W amplifier. New for the DJ market, the fully-featured CDM5:2 mixer, with five inputs (mic plus four line), all with on-board two-band EQ and independent level control.

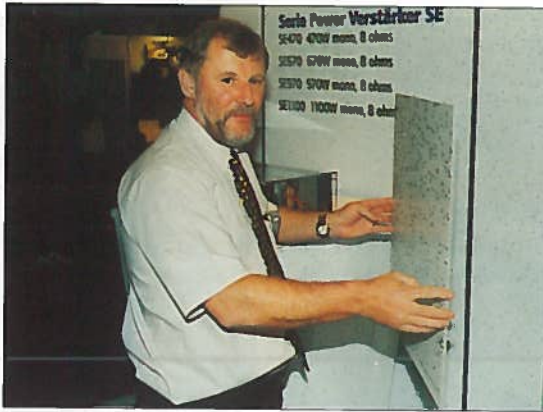
Chevin Research were showing the new A5000 amplifier, which joins the rest of the established A Series. This 2500W into 2 ohms stereo unit comes in a 4U chassis and weighs in at 25kg and, of course, features the same technology as the rest of the Series - efficient circuit topology with short, symmetrical audio signal paths, lightweight, high-current, high-voltage, solid state power supply and full protection.

From **Crown** came a brand-new beast of an amplifier - the K4 - building on the established K1 and K2. The K4 produces 5500W into 4 ohms bridged, and is convection cooled with fan assist, ensuring the electronics remain free of contamination.

PSL, exhibiting with their French distributor Audio Sud, were introducing the new 3U rack-mount Ve2400, completing the Ve range of professional amplifiers which also comprises the Ve500, 800 and 1200. Although aimed at the install market, options are available to turn the Ve amps into units suitable for touring.

Allen & Heath introduced their first new recording console since the GS3V in 1992, in the shape of the GS3000, an 8-buss in-line mixer with patchable valve pre-amps, 4-band mid-sweep EQ and MIDI mute automation. The GS3000 is available in 24 and 32 input frames with stereo module options.

Metro Audio exhibiting alongside German



Gary Orrell of Wharfedale with an NXT flat panel 'ceiling tile' loudspeaker.

company Trius, and between them they were showing the jointly manufactured Audiotec range of products aimed at the MI and low-end studio market, including the DI-STD, an active DI box with battery or phantom power options and the DS-FOUR, a four-channel phantom power unit. Metro itself reports that the MA-SMAC stage management audio control unit is now in full production and proving popular. Also, Mr Cunningham hints at some interesting new developments ahead . . .

One of the bigger names in the MI side of the show, **Peavey** were showing a wide range of new products for the gigging musician. Among them, the Impulse 500 is the big brother to the Impulse 200 MI speaker, incorporating a titanium compression driver moulded to a 90x45 degree horn, plus a 15" woofer. The PV500 and PV1200 power amplifiers - 500W @ 4 ohms bridged and 1200W @ 4 ohms bridged respectively - add to the existing PV models, with further upgraded circuitry providing improved sonic quality and lower distortion.

Good technology was coming down in price from two of the big mic manufacturers. **Sennheiser's** new Evolution Series brings the perks of some of its top-of-the-range products to a wide, affordable range of microphones. The range comprises the E825S (cardioid, vocal/general purpose), the E835 (cardioid, higher performance vocal), E845S (supercardioid, higher performance vocal), E855 (supercardioid, top-of-the-range vocal), E602 (cardioid, low-frequency instrument), E604 (cardioid, drum/bass), E608 (supercardioid, instrument clip mic) and the E609 (supercardioid, flat profile, guitar cabs/drums). Characteristics include brand new capsule designs, high SPL handling, die-cast zinc castings for all vocal units, high-quality shock-mounting and neodymium transducer magnets.

Audio Technica, meanwhile, were launching two new additions to their 40 Series of mics, as well as the all-new 30 Series, aimed at providing musicians with an affordable line of studio quality condenser mics. The series comprises the AT3525 for vocals, electric guitar cabinets, drum overheads and acoustic piano; the AT3527 omnidirectional condenser and AT3528 cardioid condenser microphones for instrument mic applications. The additions to the 40 series are the AT4054 and AT4055 hand-held cardioid capacitor microphones. These aim to bring the technology incorporated in the AT4050 studio mic to the live performance market.

Shure were showing the new Version 4 software for the DRFR11EQ feedback reducer and equaliser, and the UA888 UHF interface, which monitors up to 16 radio mics, or can be daisy-chained to monitor 32 and upwards.

EMO Systems had the new C600 series mains panels on show, which have been specifically developed to handle European mains power formats (French, German, Swiss and Italian).

Furman's new PQ-3 parametric equaliser/instrument pre-amp was on show, an upgrade from the original PQ-3 which now includes a front panel input to increase flexibility. Features include constant Q equalisation curves, input level control and EQ by-pass via push-button or footswitch.

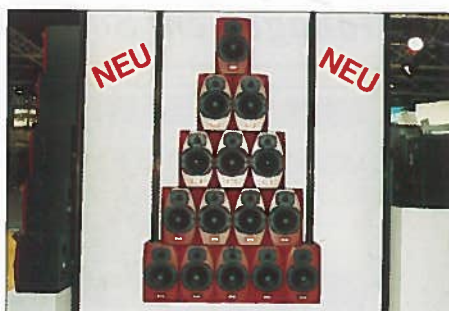
From **Sabine** comes the RealQ2, an adaptive equaliser which can automatically maintain a frequency response within a space despite acoustical changes, such as the arrival of an audience, for example. The necessary adjustments are made in tiny, indiscernible increments. An upgraded version of the PowerQ was also on show, boasting its ability to automatically set delay alignments or to automatically flatten a room's EQ - both functions taking a matter of seconds.

BSS Audio were showing the new addition to their Opal series of entry-level signal processing products - the DPR944 2+2 parametric compressor, an entry-level version of the DPR901. Offering four channels of dynamics - two noise gates and two compressors, all with independent inputs and outputs - the 1U package meets the need for simultaneous gating and compression arising with snares and kick drums and also allows for frequency selective compression, making it ideal for de-essing.

Drawmer introduced the MX-30, a two-channel dynamics processor aimed at the MI and project studio market. The unit features a threshold knob and a fast/slow switch to



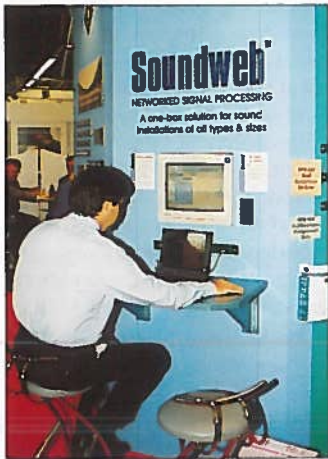
EAW's new high-power, low-profile JH-15 monitor - to be used by Page and Plant.



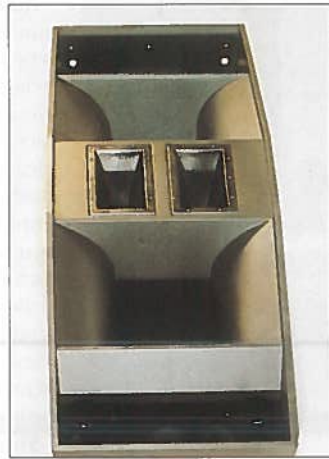
Tannoy's Reveal nearfield monitors, as displayed on the Tascam stand.



Elaine Dinnage and Tony Allen with the new Z5DM zone mixer from Citronic.



Demonstrations of BSS Audio's Soundweb networked signal processing system.



The new ALA-9 (Active Linear Array) system from Apogee Sound of California.



Paul McCallum introduced Wembley's new 300W full-range MI cabinet.



Wharfedale's LiX series was one of the company's new ranges of professional products.

accommodate different material in the Gate section, while the Compressor section includes threshold, ratio, gain and peak limit knobs, and LEDs on both sides of each channel indicate gain reduction and input/output levels. Also new from Drawmer, the latest development in the company's gating technology in the shape of the MX-40 punch gate, a four-channel noise gate aimed at sound reinforcement and project studio applications.

Behringer's DSP1000 'Virtualizer' is a state-of-the-art digital reverb that uses a powerful 24-bit dual engine DSP capable of 900 effect variations. Features include virtual rooms, chorus, delay, vocoder and pitch shifter. The unit is fully upgradeable, and will soon be joined in the company's digital processing stable by the DSP1200 'Modulizer' and the DSP1400 'Ultramizer'.

Symetrix introduced the 565E dual compressor/limiter/expander, which offers simultaneous RMS compression, downward expansion and peak limiting in a dual-channel, 1U rack-mountable unit. Newly-designed

proprietary circuit topology (Dynamics Squared) allows for low distortion (less than 0.2%).

Crest Audio were showing four new mixing consoles. The X Series includes the X-Four, X-Eight and X-Monitor consoles, the Four and Eight receiving their European debuts and the Monitor its world debut, at Frankfurt. The X consoles aim at lower-budget theatre, recording, FOH and stage applications. The other new console, the V12, also receiving its European debut, is aimed at high-end concert and theatre applications. A choice of 28, 36, 44 and 52 input modules are available for the frame, with four fully-featured stereo modules standard on all configurations. Other features include parametric four-band EQ, 12 VCA groups for level and mute control, 16 mono aux busses - reconfigurable as four stereo plus eight mono.

Cloud Electronics introduced their new Matrix 4 mixer, a fully integrated four-zone

mixer with four mic inputs, a paging mic facility and two music sources. The front panel display provides the user with full operational status, while sophisticated switching and routing circuitry allows any input or combination of sources to be delivered to any or all output zones. The Matrix 4 also offers the user a choice of pre-sets, and microphone signals always take precedence over music signals.

Ecler added to the MAC70i and the MAC90i with the new MAC55i, featuring two phono, two CD, four line and two mic inputs, and two outputs with independent level control, two recording outputs and a cue output for monitoring. Also new from Ecler, the MPA 280 four-channel 70W power multi-purpose amplifier.

Which brings us pretty much to the end: while I have tried to include as many of the relevant companies as possible, time and space does not allow for everything, although Einstein would probably disagree. For any omissions, I apologise.



Nigel Cunningham of Metro Audio.



L-R: Helen Coleman and Chris Scott of Logic System seal a deal with Gareth Hunt and Keith Woodcock of Academy of Sound.



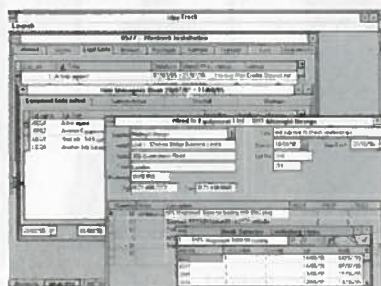
Crowds on the EVI stand.



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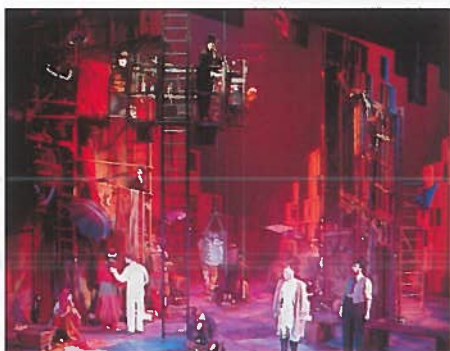


Working for equality of opportunity

Adjustments in the Stalls . . . Ian Herbert

Juries have short memories. I wonder whether those members of the Critics Circle who (as mentioned last month) gave John Napier their Best Designer award for a show they'd only just seen, December's *Peter Pan*, might have wanted to give it to Tim Hatley for February's *Flight*, or whether they would want to change their minds yet again for March's *Not About Nightingales*, with a set by *Twin Peaks* designer Richard Hoover. Certainly these have been striking times, design-wise, for the new Trevor Nunn regime at the National. He seems to be pursuing a hell-for-leather strategy of strong stage decoration, which is paying off in critical superlatives, but must be putting a bit of a strain on the RNT's design budget.

This bold policy means that it's a while since we heard any whingeing about how difficult the Olivier is to play. From Nunn's own powerful *Enemy of the People* (Napier set, Hersey lighting) through *Peter Pan* (ditto) to this literally very sparky *Flight* (Hatley, with Rick Fisher lights) we've seen the old thrust used to epic effect. *Enemy* spun the revolve to create a *Les Mis* melée of busy movement. *Pan* used a full circuit of drapes around the revolve to add projections, with sets rising and falling in a thorough test drive for the drum. *Flight* hangs a huge metal wall (Neil Morgan and Delstar Engineering) just about where a pros might be, so that it acts like a gigantic drop-curtain, opening strategic panels to move us from a cathedral to a railway station and on through Bulgakov's sequence of dreams, with the occasional coup where whole sections of wall swing back to give us a street in Constantinople or an apartment in Paris. The opportunities for atmospheric lighting are well taken by Rick Fisher, with cold whites streaming through the cathedral windows and warm Ottoman sunshine flooding the Turkish street. There's also a splendid running gag of blown fuses that send firework-like streaks running all over the wall. Big-budget, but not a superfluous lantern to be seen.



Flight at the Olivier.

The budget for *Not About Nightingales* must be even more frightening when you look at its planned schedule of five previews and 28 performances (which will now surely be extended) on a lateral stage in the Cottesloe which must lose them at least 50 seats from the normal end-stage configuration. Richard Hoover has built it entirely in metal, and heavy-duty metal at that, with a full two-storey cell-block corridor at one end, leading back into the backstage area, and a gigantic wall of filing cabinets in the governor's office which forms the other end wall, right up to control room level. Below the raised traverse are accommodated the radiators which swing up in the play's most powerful scene, in which the governor's order boils a group of recalcitrant prisoners to death in the scalding steam-heat of the room known as 'Klondyke'. The clang of cell doors, the hiss of steam, the cold whites and steels of Chris Parry's lighting create a hugely powerful atmosphere in which Nunn's well-drilled cast have no problem conjuring up the claustrophobic, hothouse feeling of the jail - no wobbly *Prisoner Cell Block H* walls here.

That these two productions have been rapturously received is a tribute as much to their staging as to their intrinsic quality. In each case, any weaknesses in the plays themselves are well concealed by the sheer exuberance of sets, costumes and

lighting, and by the actors' enjoyment of such great areas in which to act. Hatley and Hoover's spaces bring out the best in performance and manage not to overshadow the human element of each play.

You can see some of the same joy in using space in two RSC productions which have just opened in the Young Vic. I find it hard to imagine either of them in the Swan, where they started, and you couldn't ask for a stronger visual contrast in the RSC's treatment of Tennessee Williams to the NT's. Unlike the almost cinematically realistic (if that's not an oxymoron) *Nightingales*, *Camino Real*, which Steven Pimlott directs for them, is a play of dreams, most of them unfulfilled, where dreamers and lovers gather for a last throw of the liar dice in a place which is a cross between Rick's Bar in *Casablanca* and the Eagles' *Hotel California*. Yolanda Sonnabend has built a marvellous set for this dreamscape, which can accommodate both swirling crowd scenes of carnival and forlorn lovers' intimacies. Peter Mumford's lighting is suitably romantic, with plenty of warm colour and major use of his one luxury, a Golden Scan 3, for big effects. The arrival and departure of the flight that could save some of the characters - but of course doesn't - is an opportunity for Charles Horne's soundtrack to dominate, and from time to time Jason Carr's music adds colour of its own.

It's fascinating to see the same floor area and end-wall used completely differently for Greg Doran's fine production of *Henry VIII*, the late Shakespeare play chiefly famous for being the one that burnt down the Globe as a result of some badly directed pyrotechnics. Rob Jones's end wall set of utilitarian Tudor brick, with sombre stone doors bearing the play's ironic subtitle *All Is True*, swings open at the show's start to reveal a blinding light curtain reflecting off the gold coffering on the reverse of those doors - and off the King, on horseback in full golden armour; creating a tableau that instantly establishes the great willy-waving moment of his meeting with the French king on the Field of the Cloth of Gold.

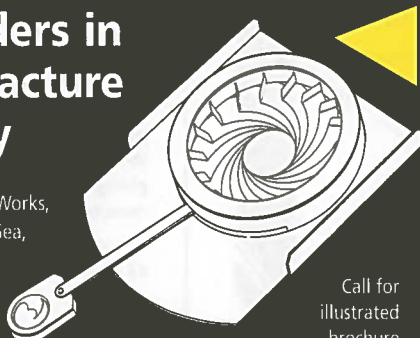
The final tableau reverts to the golden image to predict the glories of the Queen to come, and Howard Harrison's glaring lighting does the needful. I've been unkind about HH's tendency to equipment overkill in the past, so should acknowledge that in *Henry VIII* he goes overboard only when strictly necessary, and with a far from extravagant rig. Some of his best effects are in the subdued, night-time scenes of conspiracy which are this play's hallmark. All credit to the RSC for creating a sense of luxury and space, on budgets which I suspect have to be rather smaller than those at the National.

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ON TOUR

by STEVE MOLES

AND PRODUCTION NEWS

Genesis

Birmingham NEC

LD: Patrick Woodroffe

SD: Chris 'Privet' Hedge

Who'd have thought that the Spice Girls and Genesis would have anything in common? Well, they both had a terrible autumn last year, and many thought their careers were over. And for Genesis the abandonment of a major US Arena tour, including an ill thought-out attempt to re-schedule to a less ambitious circuit, seemed to portend their final demise. The loss of the charismatic Phil Collins was the reason for all this angst, and with the band reduced to just two original members, they must have questioned the point of carrying on. Well, they've weathered this before, three times in 30 years, and stoically as ever they've shaken off the disappointments of 1997 and have come out a little more humble, but fighting nonetheless.

Pared down (the production is touring Europe only) this is admittedly lower-key than the ambitions of last year. However, the essential component - sound - is no less than it would have been, and lighting, video and staging are still well within the term 'acceptable' for the arena circuit. Indeed, production managers everywhere might wish to take a close look at what this tour has achieved logistically. I've never seen Howard 'Howie' Hopkins - tour production manager for Robbie Williams Productions - looking so young and unflustered, and this immediately after his lengthy stint with the aforementioned Mr Collins. This is a full-scale show, yet the rigging call is 8.00am, lights start at 10.00am and the crew are all playing with their radio controlled cars by 1.00pm

STAGING

Despite Mark Fisher's protestations to the contrary, this is a striking design. It might not transform the venue to 'another place' but in an understated way it is 'other-worldly'. The stage is simplicity itself: a modular package transported in wheeled dollies which double as the stage sub-structure. Clamped together, the dollies are assembled into the stage proper out on the arena floor while the riggers work uncluttered in the area where the stage is meant to be. Once Phil Broad and his team of riggers from the recently-formed Star Rats have put the points in and the lights are flown, the stage is wheeled in beneath. Not a new trick, but in terms of time saved by not having to trundle everything up and then off, worth a reminder.

The aesthetic element to the stage is its deck: all perspex clad, it sits perhaps 0.4m above the sub-stage on elegant aluminium florets. The open weave of this structure is left exposed to the audience and presents two very distinct faces. For those sat on the arena floor, the profusion of lighting that sits beneath, hidden in the sub-stage,



The Fisher/Woodroffe collaboration makes for a striking design for Genesis at the NEC.



makes the platform appear disembodied, like a magic carpet floating in space. For the audience higher up in the bleachers it's as if the band were walking on water. Either way, it's a strong enough illusion that it holds its enchantment for a full two hours. Both Mark Fisher, and Brilliant Stages who built it, should know how many jaded old roadies drew my attention to its elegance and functionality.

VIDEO

Like the stage, the video system is quick to deploy, yet is just a little more than what's normal or easy. Three Sony Jumbotron screens from Screenco are hung across the back of stage, a two metre gap between each. In a portrait configuration made up with JTS35 modules, each screen is two-wide, four-deep, but for image purposes treated as a single 2:1 ratio landscape screen. There is no camera team; every image comes from a playback system supplied by PSL, all run by one man - Andy Sugars. "It's a show that combines the liveness of a camera support," he said, "with the laid-back feel of playback," something that has initially proved challenging for Sugars. The early tour venues

would not support the ton-and-a-quarter of each Jumbotron, and ground support was not an option, so while the tour was cutting its teeth in Eastern Europe, Sugars was left behind with a show-tape to learn his cues. By the time he joined, everyone else was needle-sharp and he was thrown into the vagaries of a live performance that often bore only passing resemblance to the tempo of the show-tape he'd been given.

Source material was all produced and edited by director Matthew Amos - mostly abstract images computer generated, line animations or severely modified simple camera footage so distorted as to wander into abstraction. Three CRV Sony Disc players gave Sugars the instant access he needed to 'play' the video material in a live way, using Dataton Trax to control it all. "I'm mainly cueing live. There are only three songs with a specific time code. I've had to figure out ways around this problem, and I haven't found a better solution than the Trax. Being able to create quick loops to sustain the correct image when the band decide to extend an introduction by three minutes is invaluable."

LIGHTING

The lighting is perhaps the simplest element of the show, in terms of its physical content at least. When you look up it's almost spartan: three silver trusses with just a scattering of Vari*Lites and a rear truss laden with four-lamp ACL strings. The only other visible instruments are the four 'towers' on stage - simply a cluster of two VL6s and a 5kW Fresnel with colour changer and barn-doors on a self-climbing tower built into the stage. (The towers are Genie lifts with electric motors attached to the crank. An extra one is used as a man lift for the song 'Domino', when the new vocalist Ray Wilson is elevated to the centre of the screen). The show was designed by Patrick Woodroffe, though is now largely in the hands of Dave Hill (Woodroffe is still firmly glued to the

'Stones tour). Hill is obviously enjoying the design for both its scale (non stadium, a welcome change for him) and inventiveness. "Whatever I do I get 18" of colour underneath the band - it looks like they are floating. It's a simple Fisher design, but it looks wonderful, the strobes we've got under the stage just look stunning."

The video takes up 50% of the show, and for these songs lighting is generally muted, though there are occasional powerful interplays between video and lighting where the two elements produce huge effects. For the remainder, the screens are obscured, either by a black cloth or a grey silk which doubles as a cyc. It is when the black is in that the under-lighting is at its most effective, the aluminium supports contributing heavily to the amount of reflected colour that suffuses the perspex decking.

The under-stage is thus filled with more 5kWs, Molefays with colour changers, strobes, and of course more Vari*Lites (CPL are main contractor), giving several options to the way the decking feature can be exploited. However, as Hill himself pointed out, one of the best effects of the night is actually the cheapest: "For 'Moma' we wanted a real seventies look, so we get the guys to rattle the cyc while I flood red up-light across it." And it's true, the silk looks like liquid and the effect raises the loudest cheer of the evening.

SOUND

Inevitably, Showco provide the PA: the front-of-house engineer, however, is a new pair of ears for this band - Chris 'Privet' Hedge. He's there by dint of his own efforts: earlier good work a little further down market on the Town Hall circuit with Mike and the Mechanics was enough to convince manager Tony Smith of Privet's abilities, and he's now reaping his reward. Privet has been driving an EAW system when he's previously appeared in these pages, so it was interesting to hear his comments on the Prism: "I don't know what's in the cabinets - but it's brilliant for this type of room. We've done some shitty places - venues like the Palau in Rome where you can't really understand what he (vocalist Ray Wilson) is saying between songs because of the six second decay, but when the music's there it's great."

Genesis, with their roots firmly in Prog' Rock, present a rich musical fabric. There's a great deal of aural information on offer and Privet finds it. Levels are relatively low: this is a geriatric audience, but the full spectrum sound presence makes it feel louder than it is. Wilson sings it true to the recorded material - he doesn't try to be Collins' chirpy chappy, and he has none of Peter Gabriel's intensity. Privet does little to treat the vocals, a couple of hot spots pulled out with a BSS Varicurve and a 901, and a variety of reverbs. But a glance at his Midas XL4, with most channels set flat, tells the story about what he's given to work with and how well tuned the PA system is to the room.

If I could lay complaint about this show it would be only this. Genesis performed 'Lamb Lies Down on Broadway' - this concept material nearly finished their career back in the early seventies. As a committed fan who's followed them since the days of 'Trespass' I feel qualified to say that it was crap then and it still sounds crap today. But then as I turned in boredom to look at the rest of the audience they were all mouthing the words. What do I know?



A family affair: Irish band The Corrs live at the York Barbican.

The Corrs

York Barbican

LD: Liam McCarthy

SD: Max Bisgrove

They may have a female drummer but this is not The Carpenters. However, it could be sometime in the future. The Corrs have a multiplicity of styles - anyone turning up at their concert expecting a glorified electric ceilidh will be disappointed. But only just. That's the dilemma of this talented group; after a 90-minute ramble through styles that embraced the power pop of Heart, the breathless sexuality of Ms Imbruglia, and on occasions strayed into a sort of 'Enya Morrissette' - all bitter little pills backed by ethereal voices - it was difficult to know where we were going or whose musical sensitivities were being appealed to. Whatever. A talented bunch and no less entertaining for all the chops and changes.

Presentationally it would seem the record company is right behind them. Apart from a St Patrick's Day show at the Royal Albert Hall, this is a tour of the C circuit sub-2,000 seater venues. Two 45ft Redburn Transfer trailers and a Phoenix double decker parked outside York Barbican gave the clue to just how much had been packed in.

SOUND

It's just six short months since Max Bisgrove took on the role of house engineer for the band. In that time they've led a fractured touring life, a couple of weeks here and there, yet he has the measure of the band. "When I started with them they'd been touring with Celine Dion as the opening act. The whole show was on Garwood In Ear systems and the band obviously liked them because they're all on it now, having purchased their own system. It does make it very easy. We did some club shows in Germany early on, using house systems and desks. Not knowing what desks to expect, the Ear system wasn't an option, so we



used conventional wedges. The band are not horrendously loud on stage anyway so it wasn't a problem, but I prefer it this way."

Bisgrove has a Meyer self-powered MSL4-based PA from Canegreen, his preferred choice. "The PA is very versatile. It's a nice size for positioning, especially in venues like this, and it's very natural sounding, which is a good place to start." For the wide, but gently raked confines of the Barbican auditorium, Bisgrove had just five MSL4s flown per side, four address 98% of the room, the other two judiciously rigged to the side to cover the dozen or so seats down each stiletto-like wing of the balcony edge. Downstairs, three more 4s cover the stalls from stage level while three gently puffing subs sit each side on the floor.

What you get in the mix appears true to the band. A five-piece, they comprise the three sisters on drums, fiddle and vox, and brother Jim on keys and rhythm guitar. The non-family members are Keith Duffy (bass), and Connor Brady (guitars).

Bisgrove runs both violin and lead vocals through a Meyer CP10 parametric. "The violin, a Barcus Berry, can sound a bit scratchy. Andrea's voice just needs some work to cut a bit of harshness." The vocals also get treated through a BSS 901 and just about every instrument and voice is assigned a DBX160T. Otherwise there's just some rather subtle touches to the band, Bisgrove concentrating most on his Yamaha PM4000 and levels.

There is the standard core of effects - Roland 330, a pair of Yamaha SPX900s, a TC M5000 and a Lexicon PCM80. "I do quite a lot of doubling effects, especially for the fiddle to fill it out, and occasionally the guitar. The band are all pretty smooth, even Caroline who only taught herself to drum a couple of years ago."

Bisgrove also singled out sister Sharon, the violinist, as an excellent vocalist. "Her pitching is immaculate - she sings superbly well." Hers is a talent he didn't conceal from the audience, a treat for us all, even if she was only taking the backing vocals. All in all a good show, Bisgrove rolled with the punches, even the unexpectedly heavy hitter 'Forgiven', but quickly recovered to tiptoe round the more balladic numbers.



LIGHTING

The PA didn't fill the two trucks. What did was Liam McCarthy's lighting gear and a surprise stage set. Though only a surprise for its size - a full stage width elevated walkway complete with stairs flanking the drum riser. The set was there through a combination of McCarthy's desire to have a framing device for the otherwise naked stage (not a piece of back-line visible anywhere), and the highly competitive quote of hire gear from SSE who supplied it. "If we'd had to buy it we certainly couldn't have afforded it," quoth McCarthy.

The LSD lighting system is, at first glance, quite straightforward: three straight cross-stage trusses and a white-filled cloth back-drop with black sharks-tooth overlaid, but it's a busy little world up there. "Normally I've been used to Hogs and HPEs so this is a whole new thing for me," adds McCarthy.

Not a shy man, he is using Icons (21) and Washlights (13) for the first time, and a substantial system of conventionals - Pars (70), Moles (7) and four-lamp Moles (15, all with Mags), plus nine

Source Four profiles, with the whole lot run from the Icon console. I mention this because York was the second show of the tour and it was Friday the 13th. McCarthy had first used the Icon board the previous night in Cardiff, after intensive training on Tuesday.

He was due to perform at the RAH in two shows time, an event that was to be satellite broadcast to New York for St Paddy's day, and yet here he was happily poking and prodding his way around the console as if born to the task. "I love it," he chuckled. "I've just got to get used to them (the Icons)."

"The band want it to look big, but not with too much going on."

His realisation was acute. Granted, he's worked with the band continuously since Jan '97, so his cueing should be tight, but the looks he created were very assured. The set was not a whim on his part - he used it very specifically as a barrier, darkening the backdrop, washing the top deck of the promenade, and thus forcing the band into an intimate corral front and centre, or plying bold washes of colour across the white cloth opening the stage to arena proportions. "The band want it to look big, but not with too much going on."

His choice of colours was sometimes vulgar: a fabulous dark golden amber in striated beams from the Icons, while a deep, almost Congo blue washed the backdrop, was typical of the bold contrasts he chose. At other times it would be a muted pale blue wash, with simple open white gobo break-ups dappling the principals, while house followspots provided the necessary emphasis on Andrea.

McCarthy had as many differing images to present as the band had styles. He operated unafraid and reaped the benefits of his self confidence. He is certainly going to be a new designer in the lighting firmament - expect to see him again.

Photos: Steve Moles

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EQUIPMENT NEWS

LP's Paradim^e

Lightfactor have launched the new Paradim^e touring dimming system from Light Processor.

The Paradim^e touring rack offers 36 channels of new Light Processor digital dimming which can be patched through a 96-channel hot patch to 16 standard 19-pin output connectors. The touring rack features a welded steel cube design around the main chassis and the flightcase provides protection with only the front and rear covers needing to be removed for use. Each of the 36 dimmer outputs is routed to two patch outlets as are all of the six non-dim circuit breakers, giving 96 'supply points' which can be cross-patched to the 96-output patch sockets. These are wired to the outputs - the 16 x 6-channel 19-pin connectors. Harting connectors can also be supplied as rear panel sockets.

For further details contact Lightfactor Sales in Greenford, telephone 0181-575 5566.

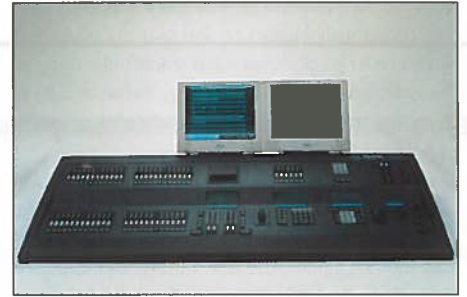


Cerwin Vega V!

Responding to requests from professional installers and DJs, Cerwin-Vega! has introduced the new V-Series of loudspeakers comprising four models. The flagship model is the V-253, a three-way full-range system with two 15" woofers, a 1" exit compression driver, and a bi-morph drive with less distortion above 12kHz. Designed to be a 'stand-alone' system, the V-253 does not require bi-amping with a subwoofer, yields 134dB power output and deep bass (30-60Hz/octave) required for serious club applications. For lower-budget applications, the V-152 is a 15" two-way direct-radiating full-range system perfect for entry-level PA and club applications. Completing this range are the V-153 and V-122 systems designed for PA/Playback and keyboard systems.

For further information contact Lamba in St Albans, telephone (01727) 840527.

500 Series Upgrades from Strand



Strand Lighting's 500 series of advanced lighting consoles has been enhanced to feature improved control capability and bundled software applications. The hardware platform has been changed to incorporate Pentium II processing and increased memory capacity to boost running speed, and new versions of Strand's proprietary operating software have been developed.

New customers of the higher-specification 550i, 530i and 520i consoles can now acquire the relevant new software packages (v2.1) as standard, including upgradeable channel capacities and the peripheral application packages, Tracker, CommuniquéPro and Networker. Existing console owners, however, will be able to run the new version software (available from Strand's Web site at www.strandlight.com) on their existing desks.

The main software improvement relates to the network facility, with a network file server now available as part of the server upgrade. User logins are supported with passwords, channel partitioning and access rights, while printing is supported to remote PCs, consoles and SN100/102 network nodes.

For further information, contact Strand in Heston, telephone 0181-571 3588.

Video Advances

Owl Video Systems have announced the availability of the new Sèleco SRP 41 Advanced Video Cube. The new unit measures 43" from front to back and has a 41" diagonal screen. The box can also pack down into a smaller size for transportation, and the ability to be serviced from the front or rear means that no floorspace is required behind an SRP 41 videowall.

For further information, contact Owl in Uckfield, telephone (01825) 766123.

Laserpoint's Little QT

The purple-fronted Composer was a bold move away from the traditional black box look of videowall electronics, but Laserpoint have taken their latest controller a step further. The QT has a bright pink panel covered with red lips and was developed specifically for the 2x2 retail cube market. The QT is a stand-alone, easy to operate processor producing one large picture or singles only. The product will be paired with the small footprint 2x2 systems on offer from the major cube manufacturers.

For further details, contact Laserpoint Communications Ltd in Cambridge, telephone (01223) 212331.



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Folio FX8 From Spirit



Spirit have added to the FX16 mixing desk with the Folio FX8. The flexible four-bus mixer features a specially designed 16-program Lexicon effects section with dual effect capability and fully editable and storable programs and parameters. The console itself includes eight mic/line inputs and 18 inputs to mix in total. Two sub-buses allow groups of instruments to be sent to multi-track, to additional speakers or sub-grouped to mix.

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

NJD Merlin Upgrade

NJD have released an upgrade to their software for the Merlin Control desk. The software features instant channel, scene and program number selection by use of numbered joystick allocation pads. It also features 1000 scene recall, allowing the user to store a mixture of channels, scenes and programs that have been allocated to the sliders and then load all 16 sliders with those allocations simultaneously by entering one scene number.

For further information, contact NJD in Nottingham, telephone 0115-939 4122.

E-V Takes T

Electro-Voice's new T251 speaker system is a two-way, 400W trapezoidal system incorporating EV's Thermo Inductive Ring (TIR) and Ring Mode Decoupling (RMD) technology. Aimed at bands, smaller venues, pro audio rental companies and production companies, the speakers come in two versions: the T251+ is the road version and the T251i is the permanent installation model, incorporating pre-installed suspension hardware.

For further information, contact Greystone in Mitcham, telephone 0181-640 9600.

EQ BRIEFINGS

CP Cases have added 20 new models to its Pro Bag range. New items include camera jackets, camera rain covers, field editor bags and thermal camera covers.

CP Cases - telephone 0181-568 1881

The Great American Market has introduced the StarStrobe 3, a compact high-powered strobe unit with an estimated five million flash cycle life. The unit is programmable, can be plugged into most dimmer consoles and can be run independently or daisy-chained with other StarStrobe units.

GAM - telephone +1 (213) 461 2100.

Community have introduced the portable XLT/E series of loudspeakers, comprising the two-way XLT43E, the three-way XLT46E and the two-way XLT47E. Also part of the range are the CPL48E monitor and the dual 15" XLT55E subwoofer.

Community - telephone +1 (847) 998 0600.

Drawmer has introduced the DA-6 balanced distribution amplifier for use in the live sound, broadcast and sound contracting markets. Aiming at multi-zone sound reinforcement, the DA-6 provides mono or stereo balanced audio signals to multiple destinations.

Drawmer - telephone (01924) 378669.

James Thomas have extended the Superlite truss range with the 40cm Superlite equilateral triangular truss with a larger and stronger version of the 30.5cm Superlite. Also new is a square version of the Superlite called Squarelite truss.

James Thomas - telephone (01386) 553002.

Lighting control manufacturer Lite-Puter have signed an exclusive distribution deal with Batmink Ltd for the UK and Ireland. Currently available is the CX-S DMX controller which is a 168-channel DMX programmable unit designed for use with any DMX lighting effects.

Batmink - telephone (01458) 833186.

Navigator Systems' award-winning rental management software, Hire Track, is now available on a demonstration CD. The CD includes a limited working copy of Hire Track, an electronic copy of the manual and a full multimedia presentation demonstrating the key aspects of the Hire Track system.

Navigator - telephone 07000 628797.

A new service is available from The Cleaning & Flame Retarding Service which will dry clean curtains, carpets, seating and wallcoverings on site. The company also offers a non-hazardous flame retardant solution - FRC - for treatment of fabrics and sets on site.

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L+SI talks to PLASA's new Managing Director, Matthew Griffiths

With his recent appointment as managing director of PLASA, Matthew Griffiths has taken another step further into the industry that his father always insisted he should not enter. It was probably no surprise that he would, though: with both parents firmly ensconced in the entertainment industry, there was an inevitability about the direction that Matthew would take.

His mother worked as a television stage manager in the days of live television theatre, and to her Matthew accredits the artistic bent of the family, inherited by his younger brother who now works as an animator. The leaning towards things technical, which Matthew himself was to acquire, came from his father, Cyril. Having joined the Phoenix Theatre in the West End after the war, he worked his way up to become chief electrician at The Globe Theatre (now The Gielgud), then group engineer and finally technical director for Stoll Moss Theatres, owners of Queen's, the Lyric, Drury Lane, Her Majesty's and the Palladium.

In 1967, with others including Joe Davis, Ian Dow and Dick Lock (previously the production department at HM Tennent), Cyril began Theatre Sound & Light (TSL), a hire company that started off, like many others, hiring out a small amount of lighting and sound kit, before developing into the supply of conference systems, AV, stage and tour management services and manufacturing their own optical effects. This proved to be the downfall of his plan to keep Matthew out of the industry. "From a very early age," Matthew remembers, "I used to love going along with him to watch the weekend changeovers. As I got older, they would let me on stage, helping out the technicians, just doing bits and pieces."

He recalls this as a valuable and enjoyable period, being able to learn about theatre within some of the best in the world. After leaving school he did bar and restaurant work for a time ("which I thoroughly enjoyed," he says), before eventually going to work with TSL as a tea-boy and runner. Did that please his father? "No. He wasn't very happy about it!"

It wasn't long before Matthew moved on to the conference and AV services side of TSL: "It was good because, if you had family in the business, you had to prove yourself more than other people would. You were given the jobs



Matthew Griffiths.

nobody else wanted to do, which, at the end of the day proved to be a good grounding."

Supplying TSL's tour services for the MOD's forces entertainment led Matthew to such far-flung places as Gibraltar, Beirut (during the war there), the Falklands and Cyprus. It was also an exciting time in terms of technical development, with AV and presentation technology advancing in leaps and bounds. In later years, with his father fully involved with Stoll Moss, Matthew took on a management role at TSL. The booming industry brought with it increasing competition, eventually leading TSL to form an alliance with John Simpson of White Light, then, as now, a close friend.

By this time, the start of the nineties, Matthew had joined the executive committee of PLASA. He explains: "I had become fed-up with hearing people, particularly in the theatre, whingeing about the industry and not doing anything about it. I wanted to get involved." Then, in 1991, with some encouragement from Peter Brooks, he took on the role of Treasurer.

In 1992, he suffered a severe setback in the form of a rare disease, called Neurosarcoidosis, which he believes he contracted in the Nevada desert. The disease knocked out his nervous and immune systems, confining him to a wheelchair and leading to five tough months in a re-hab facility during 1993. Here they eventually helped him out of the wheelchair and back onto his feet, a time he refers to as "one of life's great learning experiences."

Although for a long time physically incapacitated, Matthew's mind remained in good working order and he admits that it was the joint stimuli of staying involved with the business of PLASA, and John Simpson keeping him abreast of TSL, that got him through the

worst of his illness. The period also allowed him to become more acquainted with PLASA than he would otherwise have had the chance to become. Now, with Matthew's time being 100% committed to PLASA, TSL will go onto the back burners.

So what about PLASA? "The main thing for PLASA now is for us to get back to the essence of why it was originally conceived," he says, "to provide effective and efficient help to benefit its members - from all sectors of the industry. The only reason for PLASA's existence is to provide its members with better opportunities to do business. What we have to do, and I feel very strongly about this, is to get back to talking to our members and finding out what they expect, what they want."

He continues: "We've had an incredible amount of growth over the past few years, and we are in danger, in some members' eyes, of possibly missing the plot. We need to concentrate on the services and benefits that we supply to members, and we can't do what's best for the membership if we don't keep in touch with them. At the same time, we need to be working in areas of Standards to keep informed of new legislation; we need to maintain links with the DTI in terms of promotion of our members' export initiative and we need to work closely with other international associations - ESTA and VPLT are prime examples."

One way in which communication will be encouraged will be a series of road shows around the UK which PLASA will be hosting later in the year. Matthew emphasises: "It's important that PLASA members can come and talk to not only the PLASA committee, but also the staff of PLASA's head office. I know it's cliché, but communication is the key."

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