

LIGHTING+**SOUND** *International*



STILL GOING STRONG: STARLIGHT EXPRESS

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- Iain Mackintosh offers an architectural appraisal of the revived Prince Edward Theatre
- Starlight Express: the popular West End show gets a technical revamp
- Safety in Live Performance: a new book previewed
- Russian Nights: Alexanders nightclub opens in Moscow
- L+SI Special Survey: Colour Changers
- Exhibition Round-Up: SIEL, France and Sound 93, UK

MARCH 1993

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UK Representation for Juliat

Robert Juliat, the major French manufacturer of stage lighting equipment, who hold a significant share of the European market, are to be represented in the UK by Decoupe Ltd, a new company on the British scene.

Tom Mannings, who heads Decoupe Ltd, told L+SI: "My introduction to Juliat was through my desire to learn how to service their HMI shutters which I had been using. Whilst at their factory, Ludwig Billiet of their research and development department showed me their new prototypes that were to be released at SIEL. I was very impressed, but also surprised that Juliat products were not available in the UK. On my return home I set about finding them a suitable agent, and to cut a long story short I set up Decoupe Ltd which has sole rights to represent them in Britain. I am very excited about their new ranges, particularly the HMI profiles - at last there is an HMI designed for theatre use!" Mannings told L+SI that he will be working closely with Chantal Claret and Patrice Bouqueniaux of the Robert Juliat export department to provide a fast and efficient service. "Technical back-up will be provided by Jeff Salmon and both of us will be visiting the RJ factory this summer to be trained in servicing the full range." A demo stock is expected in the UK in the near future.

Robert Juliat's latest products are reviewed in our SIEL report in this issue.

Eton Keeper of Lighting and Sound likely to retain Stick-up Status

News has just reached L+SI that Eton's 'Keeper of Lighting and Sound' should retain the right to wear the 'stick-up' wing collar and white bow tie - a privilege held by around 125 boys at the College. A reform of Eton's own honours system, currently underway, is expected to see the number drop nearer the 100 mark. Evidently, the more 'up-to-date' and merit-orientated roles will be retained.

AC Lighting to go for Worldwide Expansion?

Reliable sources close to major international distributors AC Lighting have told L+SI about imminent plans by the company to set up bases in both Australia and the US as part of an on-going expansion programme. We understand locations are likely to be Sydney and Los Angeles.

AC's managing director David Leggett, who has just returned from a round-the-world business trip, would neither confirm nor deny the suggestions and was not prepared to elaborate at the time of going to press.

Further Success for PLASA Award Winners

The first PLASA Light & Sound Show Awards, presented at the 92 Show last September, have proved themselves of value within only a few months. There were just two awards in the Product of the Year section, an outright winner and one highly commended product.

Product of the Year went to Flying Pig's Whole Hog lighting control system and this highly advanced desk has already found favour with many designers, specifiers and operators (see story in this month's 'On Tour and Production News' section).

Meanwhile, the highly commended Vx-LAN from Carter Voce has just won 'Product of the Year' in the TOA Golden Ear Awards presented during the SCIF Sound 93 event at Sandown Park (see story in this month's news section).



September 1992: Flying Pig's Nils Thorjussen (right) holds Product of the Year award and wins a laptop computer from PLASA members Ramsa Panasonic which was presented by Ian Sharpe.

PLASA Joins SCIF in PPL Copyright Battle

Phonographic Performance Limited pursues equipment supplier for licence fees for supply of equipment.

PPL have recently demonstrated their intention to seek licence fees from the suppliers of equipment which is used for the public performance of copyright works. In an action commenced against one of the members of SCIF (Sound and Communication Industries Federation), PPL have sought injunctions restraining the supply of equipment in the absence of a licence granted by PPL, together with damages and costs.

If successful, PPL could establish the right to seek licence fees from all manufacturers and suppliers and equipment which is "normally used" to reproduce or perform copyright works in public, whether or not the equipment is actually used for that purpose. The assertion is based on the wording of Section 26[2] of the Copyright Design and Patents Act 1988 which came into force on 1st August 1989. The Section is currently untested in the courts and its meaning is open to question.

Both PLASA and SCIF have taken advice from copyright specialist and solicitor to PLASA, Alexander Carter-Silk and from Counsel who have advised that in their view:

"The section does not in our view entitle PPL or any other licensing body to seek fees for licences to supply the equipment but it is easy to see how the PPL and its advisors could construct an argument that the Section is as all encompassing as is suggested..."

"Whilst technical defences are available to the SCIF member concerned in the current action, it is clear that the matter will not go away and that PPL will undoubtedly renew their attack as and when they find a suitably vulnerable victim," Alexander Carter-Silk told L+SI.

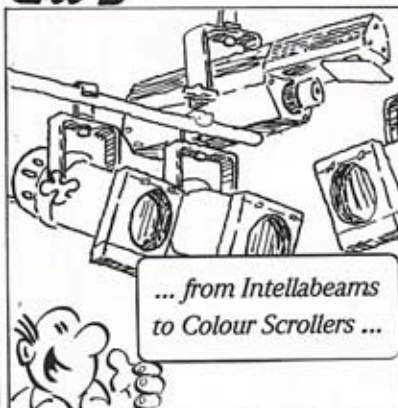
Both trade associations are planning to arrange meetings with PPL to see if any negotiated resolution can be found but consideration is being given to commencing a test action on behalf of the association members for the courts to provide a definitive ruling on the meaning of the Section.

Alexander Carter-Silk has suggested:

"If a resolution cannot be found it is far better that the trade as a whole have the matter properly advocated before the court than on an unsatisfactory piecemeal basis. If the courts are

continued on page 8

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continued from page 6

to deliver a judgement on the meaning of the section it would obviously be detrimental if that judgement arose in a manner which beyond the control of the industry. If PPL were successful, they could in principle impose retrospective fees upon the suppliers of equipment back to the date of commencement of the Act, and the burden on the industry could well be the final straw for many companies and for the larger suppliers the costs on a units supplied basis could be very substantial indeed. It is clear that this issue will not go away and it is therefore desirable that the basis of the contention should be clearly laid out."

It is well established that copyright works cannot be performed in public without the licence of the copyright owner and in respect of records that will in the majority of cases be undertaken by PPL. However, the prospect that each supply of equipment which would "normally be used" for public performances would require the licence of the PPL would represent a substantial departure from the accepted position and would clearly affect many companies.

It has been suggested that the supply of all equipment which is likely to be used to reproduce copyright works in public should be accompanied by a notice requiring the purchaser to obtain the necessary licence before using the equipment.

However, where the equipment is hired rather than sold, the obligation on the supplier may be more onerous and may require the supplier to periodically check that the equipment is not being used so as to infringe copyright.

Heavy Booking for Showlight 93

The L+SI office has been inundated with delegate bookings for this event. Over 120 delegate names are already down for the Bradford-based colloquium which runs from April 19-21. The 'country' count is building too, with representatives due from 16 so far.

If you're thinking of attending the event, ensure you book soon as there is an upper limit of 200. (A booking form was included in our February issue on page 52). On the exhibition front there is just one main space left and the outside chance of two or more smaller spaces being squeezed in. Ring Phil Rose (0252) 842491 for details.

Serious and Outback Merge

Serious Stages Ltd and Outback Productions Ltd are merging their respective 'staging and buildings' orientated trading operations into one jointly-owned and managed company.

The new company will trade under the name of Serious Structures. For several years now, the Somerset-based company Serious Stages has been synonymous with the Orbit Roof systems seen at numerous events throughout the UK and overseas.

Outback Productions, based in Greenwich, has undertaken a broad spectrum of work over past years and operates in the areas of set design and construction, fabrication, rigging and production management, as well as staging. By merging Outback's predominantly flat roof staging division with the Serious Stages dome roof operation, the new company will be able to offer a wide range of stages and coverings.

The new company will be based and operate from Bourne Farm, Pilton, Somerset under the direction of Steven Corfield and Simon Lowrey. Dick Tee has been acting as business advisor to Serious Stages for the past three years, and is to be appointed as management consultant to the new joint company.

The day to day running of Serious Structures will rest with Steven and Simon, with Dick helping to monitor the operation and plan for future growth and development both within the UK and Europe.

Clay Paky's Golden Child



Sure to be a show-stopper at SIB in Rimini this month, the latest Golden Scan 3 previewed at Clay Paky's headquarters in Bergamo recently, is not so much a revamp, rather a brand new product.

At the heart of the new model are enhanced optics which increase the unit's light output by 30% over its generic predecessors, according to Clay Paky. 24 colour shades are also possible, through the use of two 'warm' and 'cold' colour modifiers, which can be applied to eight basic dichroic colours. These new dichroic colours have been chosen for their luminosity and purity characteristics and the selection of split colours is also an option. The colours can also be sequenced to yield a rainbow effect and a 'frost' option enables the switch from hard-edged to soft beam and wash effects. The four 'M' size gobos can be rotated in either direction at a range of speeds and intermediate positions stored, thus the image can be orientated to the mirror position. A rotating gobo can be superimposed over a static one and a four-facet prism is another enhancement to many of these effects. All of this has, not surprisingly, necessitated a larger mirror.

As far as control is concerned, full dimming has now been implemented and variable speed iris control is a feature, so that gradual adjustment of the beam diameter is now a possibility. The speed range of the shutter and strobing facilities have also been extended. Of course, Pulsar's electronics for version 3 accept the standard control protocols as well as PMX, their own RS232/423 system. All these features are controlled on only six input channels, presumably for economy of scale, and this means that several functions are shared on a single fader.

One significant enhancement is that the number of microsteps used on the XY movement has been doubled, so that the smoothness of travel is significantly improved and this is especially an advantage for slow excursions. In fact, many of these new features seem to be an attempt to move the projector towards a much more subtle range of effects than its predecessors. As before, HMI 575 and 1200 versions are available.

In another new move, Clay Paky also launched a special edition of Golden Scan 3 with features tailored to the touring market. These include built-in power factor correction, an hour counter for lamp life measurement and a graduated yoke among others.

The launch also served as an opportunity to introduce a new face to the Clay Paky team in the form of Renato Ferrari, new sales manager for the Italian market.

Ruth Rossington

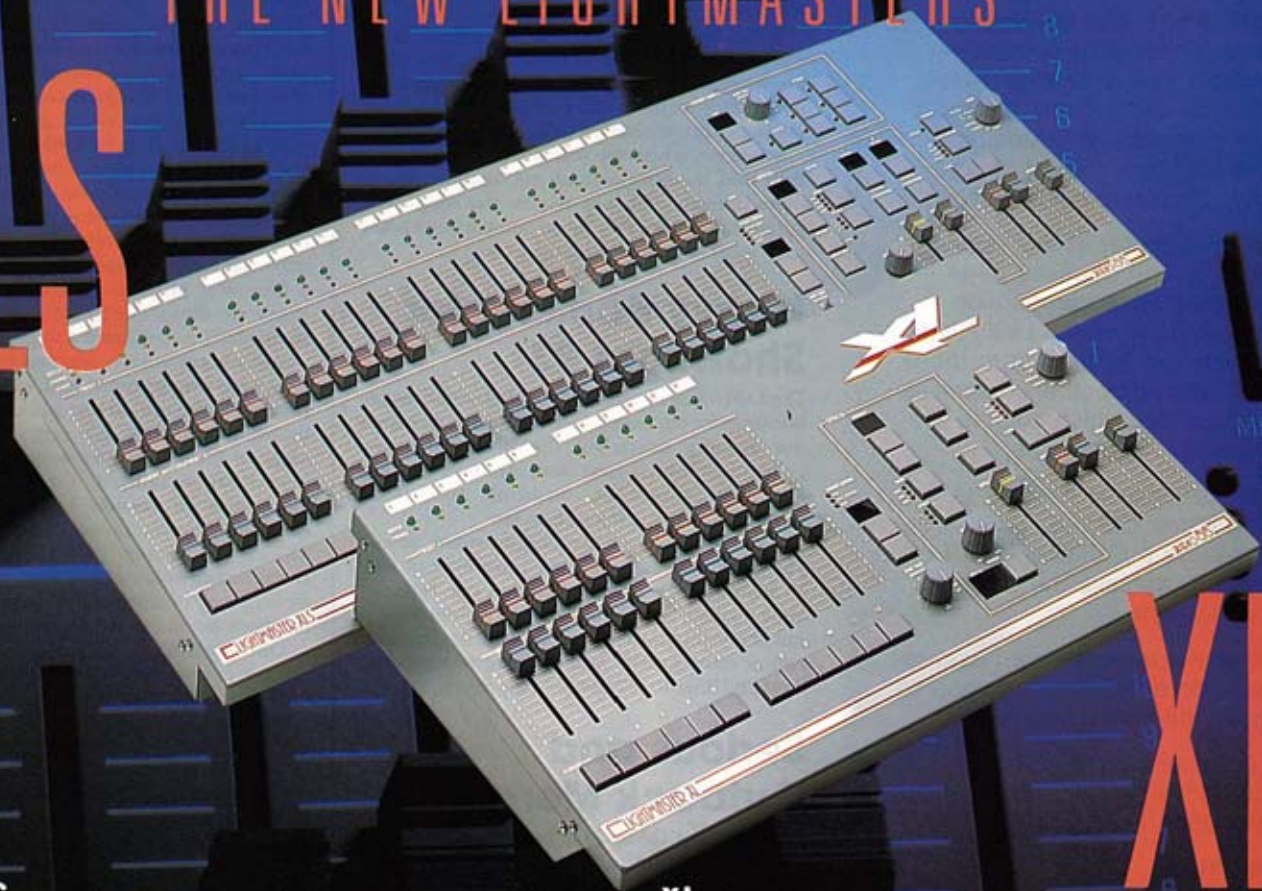


Paul Mardon of Pulsar (left) joins Lightpower's Ralph Jorg-Wezork (third from right) and the management of CP (l-r) Angelo Cavenati, Renato Ferrari, Pasquale Qaudri and Pio Nahum at the launch.

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Hogging the limelight

The winner of the best new lighting product award at last year's PLASA Light & Sound Show in September, the Whole Hog concert desk, is already making itself felt in the touring scene.

LSD Inc based in LA have recently acquired two of the beasts, made in the UK by Flying Pig Systems, for use on the current Grateful Dead tour in the US. Prior to the start of the tour, Flying Piglet Nils Thorjussen headed for California to set up office and provide technical support. On arrival he also managed to take in a Lenny Kravitz video shoot.

Lighting designer for The Grateful Dead is Candace Brightman and under her direction the board will be running Telescans with DMX interfaces as well as 54 High End Intellabeams.

In another smart move, Nick Sholem has specified a Whole Hog, supplied by Upstaging, for the Sting tour also setting out in the US. Numerous Color Faders and 13 Intellabeams are involved together with seven Kabuki drops made by Brilliant Stages. A full report on the Sting concert will appear in our April issue.

In the UK, a second piglet, Tom Thorne, has been working on a universal interface to convert DMX to a number of other miscellaneous communication formats to enable the Hog to control non-standard kit.

First public trial was a recent awards ceremony, which shall remain nameless for fear of being deafened by the groans, when Meteorlites' ex-Strand Showchangers were given the benefit.

Following Catriona Forcer's article on the Red Hot Chilli Peppers in our November issue, Jands Production Services have asked us to point out that ATS are not the only company in Australia with pre-rig truss and that Jands maintains a large stock of pre-rigged trussing.

Technology tells the Holocaust story



The new Beit Hashoah - Museum of Tolerance (pictured above), which opened in February at the Simon Wiesenthal Center in Los Angeles, confronts visitors with startling lessons on the nature of racial and ethnic prejudice, before leading them through vivid re-telling of the Holocaust story which uses the latest in lighting and sound technology.

Technical design, systems engineering, and on-site installation of all audio/video systems were contracted to the Electrosonic Group. Project co-ordination was provided by Electrosonic Leisure Systems in nearby Burbank, California. The museum's exhibits incorporate a total of 106 video monitors, 10 video projectors, 80 laser disc players, 51 slide projectors, 23 computer interactive stations, 246 programmed lighting channels, and 142 audio amplifier channels. All exhibit 'shows' are totally automated using Electrosonic's computer-based show control hardware and BSC software program.

The operation of the entire museum is achieved by the push of a single 'show start' button at the beginning of the day, and a 'show stop' button at closing. No museum staff are required to operate any of the exhibits. The museum is divided into



two sections.

Highlights of the first include mannequins with video monitor heads, pop-up 'eggheads' with EPROM-stored voice tracks, using Electrosonic's ESTA product, a 4x4 PICBLOC videowall presentation on the Civil Rights movement, and a computer interactive game based on the Los Angeles racial unrest of 1992. This section's final exhibit 'Return of the Manipulators' uses 24 video monitors, 44 programmed light boxes and four-channel sound to present the show.

In the second section of the museum, visitors are led in small groups through the progressive unfolding of the Holocaust story. As the groups proceed down the horseshoe-shaped corridor, each exhibit in turn comes alive with narration, sound, effects lighting and video or slide images. Actually, four or five shows are running simultaneously, with dead time programmed between shows to control the flow of visitors. The Electrosonic system installed in this area incorporates programmable lighting dimmers, audio attenuators, digital delay units, and a variety of image display systems - all precisely programmed on Electrosonic BSC for activation at the right moment.

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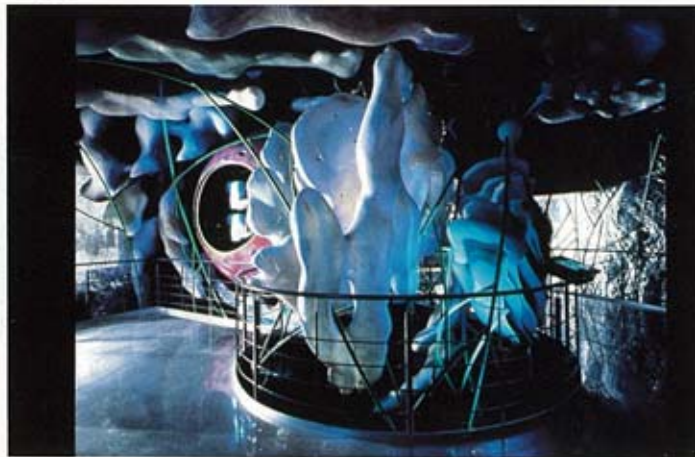
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Light Fantastic



Anybody in the vicinity of Euston station in the last few weeks may well have come across an exciting exhibit recently opened at the Wellcome Centre for Medical Science which features a lighting installation almost as progressive as its subject - Science For Life. Using a variety of exhibits, many of which are interactive, the exhibition focuses on the past and future application of biomedical science and the complex brief to bring it 'to life' fell to PLASA member Light Works who designed and built the lighting scheme.

The centre-piece of the exhibition is a giant, walk-through cell. It opens with a small peppers ghost, and moves on to the cell (pictured above). Magnified a million times, the ten metre wide model shows the extraordinary structures of a living cell. Light Works employed UV lighting to subtle effect to bring the exhibit to 'life', with snapped fibre optics to represent internal message cables and an Optikinetics strobe effect triggered by a solid state sound source to show the intermittent transport of energy electrons.

Another feature of the cell is a number of deliberately distorted neon tubes filled with small cones of glass tubing to produce a flicker to illustrate the Mitochondria, the main energy centre of energy production in the cell. Light Works worked closely alongside exhibition designers, MET Studio, as well as individual exhibit designers to achieve the final effects. As well as graduating colour and lighting on large areas of wall space, Light Works also lit individual exhibits, most edge lit with high frequency fluorescent lights.

One of the most interesting exhibits is the 'funding machine' an animated optical construction which combines cogs, belt motors, mirror projectors, graphics and miniature people. Intended to describe the process by which medical funding is gathered and distributed (though not entirely successfully), light is used as the analogy for resources flowing through the system and is directed and focused using mirrors and lenses, together with a couple of Optikinetics Solar 575s for projected effects.

Charlie Paton of Light Works considers the most dramatic exhibit to be the replica of an AIDS virus. The original plan for a hologram was found subsequently to be too expensive, so they created a layered series of cold cathode shapes, diffused by a structural arrangement of lenses and fibre optics. According to Paton, much of the lighting evolved through experimentation and as a result clever touches abound. In the area which reminds visitors of the history of medical research, literally by piling book upon book beneath a glass floor, Parcans operate with a 10-way Pulsar chaser to highlight significant advancements.

Elsewhere, edge-lit acrylic displays illuminated by high frequency fluorescent tubing are coloured to create a range of effects that enliven what would otherwise be one-dimensional exhibits. In the control room Strand dimmers are used with the lighting and Electrosonic Picbloc technology is at work on the videowall, installed by Media Projects.



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People in the News

Renkus-Heinz has added **Ron Sauro** to its management team as engineered systems manager. In this newly-created position, his primary responsibilities will be related to the sale (including field support and training) of the EASE, EASE JR and EARS acoustical design programmes. He will also assume the responsibility for the on-going development and training of the company's nationwide network of engineered system contractors.



Adrian Hicks pictured at SIEL with the new Rainbow Alfresco 'outdoor' scroller.

Camelont, manufacturer of Rainbow Scrollers, has appointed **Adrian Hicks** as production manager with special responsibility for servicing and quality control. Previously with Arri (GB) Ltd, where he was UK sales executive for lighting and control products, Adrian's knowledge of electrical engineering, together with his experience in the lighting industry, has made him a valuable addition to the Camelont team.

Following 14 years as technical director of The Power Station studios in New York, **Ed Evans**, has joined the Touchdown organisation as their new technical director. Evans is in charge of all technical operations at Touchdown Germany and is overseeing the design and construction on Touchdown's new major facility in the Algarve, Portugal.

Lion Stands export sales will now be handled by **Glyn Baxter**. He is best known for his past associations with McKenzie and Celestion. His other current product ranges include QMAX speakers and the Soundmaster range of amplification and associated products.

Christopher Vlassopoulos has left Owl Video Systems to join Tracom Inc under the blue skies of Florida, USA. His role will be to specialize in video, particularly of European origin, together with Tracom's core business as sole importers for Martin Professional Lighting and Seleo professional video products in the USA.

Keira Leeming has left Harman Audio and headed off to Touchdown Studios in Germany where she will handle the company's marketing. Harman, meanwhile, have moved **Bob Golienski** to international sales director of Allen & Heath and **Simon Spiers** has assumed responsibility for the consumer side of the business.

Derek West has been appointed professional product manager for Tannoy's pro audio products. As well as providing technical support for the sales and marketing of Tannoy's product ranges, West will also have substantial input in both new product development and defining new markets.

Edward Pagett of Strand Lighting has been appointed president of the International Association of Lighting Designers.

Terminal Relocate

Terminal Studios have moved to new premises close to London Bridge at 4-10 Lamb Walk off Bermondsey Street.

There are five studios, including a full production-sized room and a showcase room with marquee-sized stage. Every room has been fitted out with Turbosound or Martin Equipment. The smaller rooms have Turbosound TMS 4s or Martin CX/BX system, whilst the larger two studios have Turbosound TM3x and Martin F2s. There is a 16 channel Soundcraft 200 series in the smaller rooms with an up to 40 channel Series 4 in studio A. A completely noise-free filtered mains supply runs throughout the building. "We've expanded our hire division and incorporated a small pro shop. There's also extensive storage, easy and secure parking and ground-level loading," owner Charlie Barrett told L+SI. The upper floor is divided between a relaxation area and a franchised restaurant.



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New Control Products from TP

As L+S closed for press, Theatre Projects Services held an informal open day to introduce some new control products, designed to facilitate the better management of complex multi-input lighting and sound systems. Under the umbrella name of 'Multi-Art Show Control', both lots of software are Mac-based and can run on 'Power Book'.

'Sams Lighting software', which was written by Richard Bleasdale, allows the LD to call combined cues from the Mac to Celco Series 2, Artisan, Intellabeam, or Arri Imagine desk, together with any MIDI Show Control compatible device. It will run on time-code, or under operator control and the software provides powerful cue-handling and editing facilities.

TP's 'Theatre Sequencer software' allows the sound man to pre-cue over 30 items of sound equipment via MIDI including CD players, delay lines, VCAs, Mutes, digital EQs and effects samplers. For example you can store fades for individual elements of sound matrixes, and set time-delays from one cue to the next. In this way all the sound cues can be programmed prior to a show and recalled one after the other as the performance progresses, leaving the operator the time to concentrate on the quality of the sound. Theatre Sequencer has already had a dry run in last year's production of Annie Get Your Gun and was written by Rowland Hemming.

Commensurate with all this MIDI activity, Theatre Projects Services have opened a dedicated MIDI hire department.

Top Award for Iceland Company

Competing against the UK's leading design and installation companies, sound and acoustic specialists Hljod hf Sound Incorporated based in Reykjavik, Iceland, won Europe's premier award scheme for the sound and public address industry. Sponsored by global sound and communication manufacturers TOA and endorsed by the UK Sound and Communications Industries Federation (SCIF), Hljod hf Sound Inc won the 1993 Golden Ear Award for the design of integrated architectural acoustics in the Pearl arts and entertainment centre, in Reykjavik, and the high tech computerised digital system it installed.

It is the first time that a company from outside of the UK has won the award, which is aimed at saluting outstanding contributions to the sound industry. In particular, the panel of judges were extremely impressed at the sophistication of the integrated acoustics and system design which allowed sound to be transmitted in such a way as to create an acoustic barrier between one section of the building and another.

"The level of entries this year were of the highest calibre giving us a very difficult task. However, we were all unanimous that the entry from Hljod hf Sound Inc should win the award," said Peter Mapp, chairman of the independent panel of judges. Other finalists included Dolby, Canon, Bose and Carter-Voce who won product of the year for their digital VxLAN.



Harry Greenaway (centre), managing director of TOA, presenting Stefan Gudjohnsen (left) and Hannes Sigursson of Hljod hf Sound Inc of Reykjavik with a set of samurai swords on winning the Golden Ear Award 1993.



Sean Martin (centre), sales manager of Canon Audio, is presented with a rose bowl by Ken Walker, chief executive of SCIF (left), and Harry Greenaway.



Kevin Hilton (left) editor of SC&S and Harry Greenaway present Neil Voce of Carter Voce with a rose bowl and champagne for winning the product section with their VxLAN system.

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News Shorts



Pictured above is the new Avab Super Viking, just launched at SIEL in Paris (see SIEL show report this issue).

Canford Audio has been awarded a three year contract for the supply of cables, connectors and other ancillary broadcast products by the BBC's Engineering Department. The award of the contract follows the decision by the BBC to close down its own Supplylink service from the end of January. Most BBC product ranges will be taken over by Canford who will purchase all BBC stocks and integrate the products into its own catalogue operation.

Mico Lighting have joined the growing ranks of PLASA members who boast BS 5750 accreditation. In December last year they attained BS 5750 Part 2.

Mainstage of Manchester have been appointed as distributors of the Blakes Fireworks range of pyrotechnics. "With hardly any promotion we have already sold almost 250 dozen cartridges," director Mike Sweetland told L+SI. "It proved a big winner over the Christmas period."

Light Engineering have just released the Quattrastar. It is billed as a "highly innovative new effect that produces an amazing effect for a very affordable price". It is priced at £1.00 less than three figures and we couldn't find out any more than that. The company's Steve Demeza suggested our readers simply ring their dealers for the low-down.

Canon's new V-100 loudspeakers are providing the background sound for the Lloyds Lanes bowling centre, part of the David Lloyd sports complex at Raynes Park in Surrey which opened just before Christmas.



Marquee Audio has supplied leading audio rental company Britannia Row with their first Yamaha PM4000 mixing console. It will have its debut with sound engineer Roger Lindsay on Sade's world tour where it will be on the road for eight months. Pictured above with the new PM4000 are Roger Lindsay with Mark Brown (Marquee) and Steve Spencer (Britannia Row).

Smithfield Electronics have announced that they are now importing the full range of SLE lighting and smoke machines from Germany and that they are still the sole authorised service centre in the UK for SLE products.

Beyerdynamic have recently supplied The Music Room in New Cross Gate London with the full range of Soundtracs sound reinforcement consoles. The desks will be available for hire and for sale in the new pro audio sales department at 26/26a Monson Road SE14.

Soundcraft Electronics has announced that a 32 channel version of their new Spirit Audio will be shown at AES in Berlin with first deliveries scheduled for the same month.

Another Scroller!

Having just gone to press on our Colour Changer Survey (see pages 47-52) editor John Offord called in from the first day of the Frankfurt Musik Fair to tell us he had found another! Called the Fine Light, it comes from German company Feiner Lichttechnik.

The first unit is a Par size which can be adapted for Teatro Trattos, Strand Cantatas and Altman ellipsoidals. Control is 0-10v or DMX512 and software control is available for PC. A maximum 16 colours can be included. More details in our April issue.

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Five go Climbing. PSL hit the heights.

Climbing may well be far removed from amplification manufacture or even the music industry, but it certainly provided PSL with a challenge. Five members of PSL took to the hills to raise money for the 'Children in Need' appeal. The climb took place in North Wales and covered a distance of 32 miles, taking in 15 peaks each over 3,000 feet.

PSL have also manufactured a special 'Children in Need' PSL16-20 amplifier, which will be auctioned during the month of March, with no reserved price. Just telephone 0272 790376 when you will be informed of the current bid, and asked to increase it. The proud owner and the total sum received will be printed in April's edition of L+SI.

The PSL16-20 is a slave amplifier, 800W per side with both channels driven into 4 ohms, and 1000W per side with both channels driven into 2ohms. Any other information required please ask when you place your bid. The retail cost of the PSL16-20 is in the order of £1000.

So come on, pick up the telephone and start bidding on (0272) 790376. Ask for Roger Skuse.

PLASA Yearbook

The 1993 PLASA Industry Yearbook will be available shortly. Containing full details on the 200+ PLASA members, it is an invaluable reference guide for all those working within the lighting and sound industry. For the first time this year, it contains details on PLASA's new International members, now totalling 25.

At the back of the Yearbook are comprehensive listings which provide a quick-reference guide to manufacturers, suppliers and service companies, together with an alphabetical product listing for ease of reference. The Yearbook, priced at £6.00 plus post and packing, is available from the PLASA office by telephoning (0323) 410335.

Lux-Europae The Gladiator

Northern Light of Edinburgh recently completed a long term hire contract for a 'Lux Europae' Exhibit which forms part of the European exhibition of light sculpture. The equipment supplied consisted of four Strong Gladiator II 2.5kW xenon follow spots fitted with DHA gobo rotators projecting two circles, a triangle and a cross onto Edinburgh's Salisbury Crags.

The Gladiator followspots are now available for rental and interested parties should contact Gordon Blackburn on 031-553 2383.

Seaside Upgrade

Cliffs Pavilion at Southend, a product of the early sixties, has recently reopened after an 18 month programme of refurbishment and a £4½ million spend concentrated on the front of house and control room areas. Carr and Angier were the theatre consultants drafted in to assist in the technical design, whilst it fell to Stage Electrics of Bristol to carry out the installation which included a new Arri Imagine 2, integrated with the existing Strand STM dimmers. A well-maintained stock of early Strand lanterns are still trooping their colours, but there are plans to update the lighting units in the near future. On the sound front Stage Electrics worked in conjunction with The Sound Department who installed a Community Sound System of six RS220 full range cabinets and NFB speakers and two VBS212 sub bass cabinets. In addition two Community RS Juniors which form part of the delay system with Community wedges were also installed, and all are working from the existing Soundcraft venue mixing console and driven by Ashley amplifiers.

Savegrange Break-In

An increasingly common story these days seems to be the high incidence of stolen lighting and sound equipment. The latest to fall prey are St Albans company Savegrange, whose warehouse was broken into in mid February and a large quantity of equipment stolen including products from Abstract, JEM, KAM, Le Maitre and Shure. Eddie Smile of Savegrange has asked that anybody offered the above at knock-down prices contact him on (0727) 860826.

WL offer DLCs

White Light has bought a complete system of Digital Light Curtains from DHA Lighting and is already using them on the current production of 'Cyrano de Bergerac' (see feature, February L+SI).

Bill Platt

The memorial service for Bill Platt will take place on the 29th March at the London Palladium.

Tarm again

1993 marks the tenth year of the business partnership which first put German laser company Tarm on the map. While others might splash out on a major celebration, with typical rectitude, partners Rudiger Muller and Richard Krumhus headed for the ski slopes.

For the firm which is arguably Europe's best known performance laser company, it is surprising to discover that, prior to switching to the Tarm acronym, on formation in 1976 it bore the longer title of Technische Akustik Rudiger Muller. Established to take advantage of the '70s disco boom, lasers were only to play a peripheral role until 1983 when Muller made a disastrous cash purchase of some laser heads from the United States. None of them worked, nor were they saleable and the company was on the brink of collapse when Krumhus brought in some fresh capital to save the day.



A Tarm outdoor performance at Celle in 1992.

Following that experience, it seems surprising that the very technology which was close to being the company's undoing should ultimately become its salvation and the bedrock of its reputation. Today Tarm has spawned the Tarm-Centre, a fully working discotheque and restaurant complex at its Bochum headquarters, which also doubles as a 'live' showroom, and two associate groupings. Tarm Design, is a spin-off from the Centre providing interior design and marketing the operation as a potential franchise. Recently, they have been responsible for the design and equipping of the 'Westside' discotheque. Tarm Showlaser is the wet-hire operation, well known for its performance activities. In the UK this company is represented by Eve Richter's Plus One.

This year the Tarm group is planning a new 6000 sq m building to accommodate its admin development and manufacturing departments, and to house the computerized CNC-controlled machine tools necessary to produce the high-precision components necessary for laser use. The Tarm-Centre will subsequently expand further into the original building.

Now that Tarm are again working with Laser Media, they seem poised to take on the world as they did in 1988 with their 'World' set-piece laser show.



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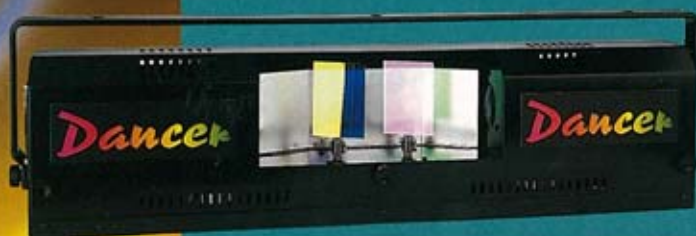
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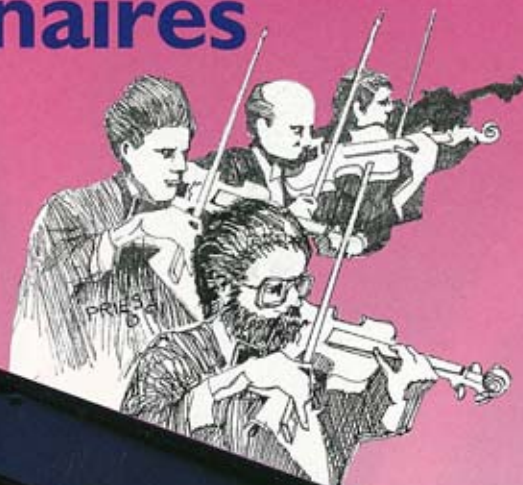
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High-Tech Czech

Electrosonic Ltd have won a £1.8 million contract to supply, engineer, install and commission the technology for one of Europe's, if not the World's, largest discotheque and leisure complexes.

The new Bobby Centrum in Brno, the Czech Republic's second city after Prague, includes a 200 room hotel, indoor tennis, squash and fitness facilities; various 'video' bars; a boardroom/conference suite; a themed 'Western' bar with live music facilities, the 'Parisienne' discotheque for older clientele, the 'Cave' extreme rave discotheque, a circular 'Roller' discotheque, a multi-purpose 4000 capacity hall that will be fully equipped for discotheque, live music, theatre, conferencing, and even indoor sporting events. To round off the facilities, there will be a professional 24-track recording studio and an FM broadcast radio station!

Audio visual equipment in the boardroom and main hall will include full video, data and slide presentation facilities via Electrosonic MRC control systems and, importantly for a country that wants to see itself as part of the European community, full simultaneous translation facilities. The centre is to be comprehensively wired for video and sound with camera feeds from any area available for relay to any other. There will also be tie-lines available so that the recording and broadcast studios can take sound feeds from any room. The video specification also includes four 5 x 5 Electrosonic PICBLOC videowalls and all house lighting in the complex will be controlled via Electrosonic system 12 control dimmers.

Design and specification of the sound and lighting systems for the discotheque and live music areas, the equipment for which accounts for approximately half of the total cost, was contracted by Electrosonic to Vincent Rice, an independent 'entertainment technology' designer. "One of the most important aspects with a multi-unit site of this type is to create a different look and feel for each area. I've attempted to do this by the use of different light fittings, rig shapes, neon colours and sound system components for each of the rooms, whilst maintaining a consistent lighting and audio operating interface throughout the complex," explained Rice.

One exception to the Pulsar Masterpiece lighting control of all the areas is the Main Hall. Because of the size and multi-role nature of this room, it will feature a massive motorised discotheque lighting rig some 30 metres across, as well as a comprehensive theatre and Rock'n'Roll stage lighting system. "To integrate the use of these different systems in a way that will be comfortable to lighting operators from different backgrounds, I have opted for the new Celco Aviator board. And we will be using all of its 720 control channels!" added Rice.

The main hall will also feature a full Rock'n'Roll PA system with speakers and stage monitors from Martin Audio, amps from C-Audio and 'Vienna' mixing desks from Soundcraft. Other significant equipment in the complex will include moving-light systems from Clay Paky and Fal, a laser system from Laser Grafix, sound systems from Tannoy, Ramsa and Cerwin-Vega and in the 'Cave' a Turbine video system from Xylo.

The interior design of the centre will match its high equipment specification producing a complex the equal of anything in the world - all the more remarkable when you consider that the Czech Republic is exactly three months old.

Jands Success

AC Lighting report outstanding success with Jands lighting consoles from Australia. Since its launch at Plasa '93, the demand for the new Jands ESPII has outstripped supply. "We knew that the market was right for the ESPII but we had no idea that it would take off like it did," AC's Glyn O'Donoghue told L+SI. "We are determined not to be caught out again, so when the much anticipated Version 2 software is ready we will have massive stocks available. Version 2 software will give important new features to Event and Event Plus consoles, making them by far the best affordable console for moving mirror scroller and convenient technology currently available". New features include build memories, switchable LTP/HTP for each channel, dipless crossfade on chases and timed links for cue stacks.

For those customers with 'old' Events the new software will be available as a simple-to-fit upgrade. For more details contact Glyn O'Donoghue at AC on (0494) 446000.

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PROFESSIONAL SHOW LIGHTING

Double Launch for Strand LD90



Pictured above at the launch of Strand's new LD90 dimmer at the Lightshow at Earls Court 2 are Edward Pagett, Andy Collier, David Brooks, Richard Farthing and Richard Bunting. Above, (right) Edward Pagett takes invited guests through the workings of the dimmer. Strand also launched the LD90 at SIEL (see report this issue). For full technical details see Equipment News page 67.

Workshop 93

Theatre Design students at Croydon College are presenting an exhibition of 2nd Year Set, Costume and Lighting designs at the College from March 18-24.

It offers an exciting opportunity to view new talent in the theatre industry and discover backstage techniques and enables each student to realise to full scale sections of their work. The course has had many successes in its 55-year history, with many ex-Croydon students in charge of departments or working freelance in theatres all over the country.

The preview evening on 17th March will be attended by leading representatives of the theatre industry, sponsors and press. It also gives lighting design students who undertake the management and organisation of the Workshop to see their efforts rewarded by presenting a trade-type 'launch' to the guests.

Workshop runs from noon to 8pm daily except Fridays to 6pm. Admission is free. Details from Jon Buswell on 081-686 5700 extension 3623.

Midland Spread

Midland Theatre Services have opened a 1,000 sq.ft facility in Leicester, telephone (0533) 755310, offering a complete sales, hire and contracting service. The new unit will complement their existing operation in Birmingham and will major on Strand; Zero 88, Rosco, Lee and Bose products. Gary Holtham, branch manager, will handle sales and Andrew Belcher is responsible for hire.

Laserpoint Move London Base

Laser and videowall specialists Laserpoint have moved their London office a mile or so north in Islington from just off Rosebery Avenue, a regular haunt of people who do things to your car, to a vastly more secure and appropriate location within the Business Design Centre. The move coincided with the 15th anniversary of the launch of the company.

Power Light at the Carnival

For its home-town carnival in Basle, Switzerland, Power Light provided the lighting for the annual Drum and Pipe Carnival Show, this year held in the Festival Hall of the Basle Fair Centre for the first time. (Since 1926 the event had been held in an old down-town theatre). At the show over 1,000 participants celebrate with pipe and drum marches interspersed with amateur dramatic pieces. Equipment supplied included 12 DeSisti Leonardo 5kW fresnels, six Ianiro Castor 2k units, eight Rainbow 2/5kW scrollers, Strand Cadenzas and Cantatas, Niethammer profiles, CCT Silhouettes, Ianiro Iris floods, Thomas 6-way cyc lights, UV 36W neon strips and Pani HMV-1200 follows spots. Truss was Thomas with Verlinde chain hoists and a Power Light 10-way motor controller.

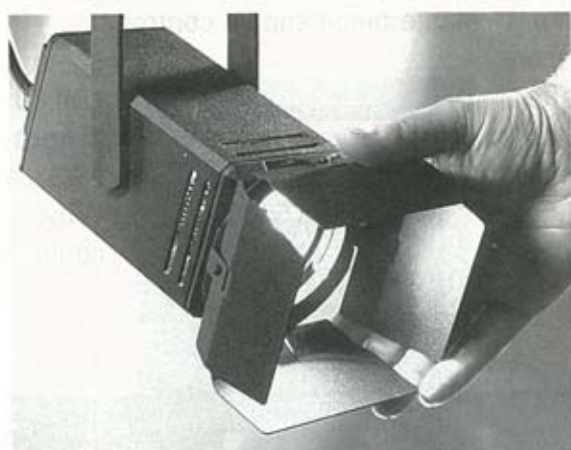
Lighting control was by an Avolites Rolacue with a Zero 88 XL 24 channel DMX512 desk for colour changer control. Dimming was an Avo 72-way FD system with three Celco 6 x 25A TV dimmer racks. A Power Light 300 amp power distribution unit was employed. Communication was Clear-Com. Lighting design and desk operator was by Power Light boss Nicolas de Courten with Thomas de Courten, René Ruch and Daniel Juchler as crew.



Nicholas de Courten's lighting control centre.

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In 1992 the Singapore show hosted over 160 exhibitors at this Show representing manufacturers from over 16 countries and the British Pavilion organised by the Sound & Communication Industries Federation (SCIF) last year comprised 21 companies.

PLASA is sponsoring the group of British companies exhibiting at the 1993 fair and if you would like to know more about joining the group you should contact Anna Pillow at PLASA for details.

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1930 REVISITED: THE PRINCE EDWARD THEATRE REOPENS WITH CRAZY FOR YOU

Iain Mackintosh offers an architectural rather than technical appraisal of the West End's newest revival of an old theatre

"This theatre . . . just imagine . . . give it a whole new life!" says hero Bobby when shown the old Gaiety, Deadrock Nevada, by heroine Polly in Act One Scene 6 of *Crazy For You*. Which is just what architect Nick Thompson and designer wife Clare Ferraby have done with the old Prince Edward for owners Cameron Mackintosh and his equal partner, Lord Delfont's First Leisure Corporation.

This article is being written during preview before press and public have pronounced judgement on either show or building. The judgement will be favourable: here is one of the most perfectly matched openings in London theatre history, show and building both over 60 years old but both rejuvenated as if for each other. The sum of the theatrical experience is probably greater than either part but who cares when everybody has such a good night out?

The new Prince Edward is not quite the old Prince Edward as it was when it opened in 1930. Neither is *Crazy for You* the Gershwin musical *Girl Crazy* which opened in New York in 1930. Both are more 1930 than 1930 ever was, both have been tweaked here and had a face lift there to provide a hugely enjoyable, larger than life, evocation of their own youth. And, I suspect, both creators, Michael White and Mike Ockrent for the show, Cameron

Mackintosh and Nick Thompson for the theatre, have had their tongues firmly in their cheeks. If they can manage it they should also chuckle all the way to the bank. But each should remember what they owe to the other: *Crazy for You* might wear thin at Drury Lane, the new Prince Edward seem overcooked for *King Lear* or the Nederlands Dans Theater.

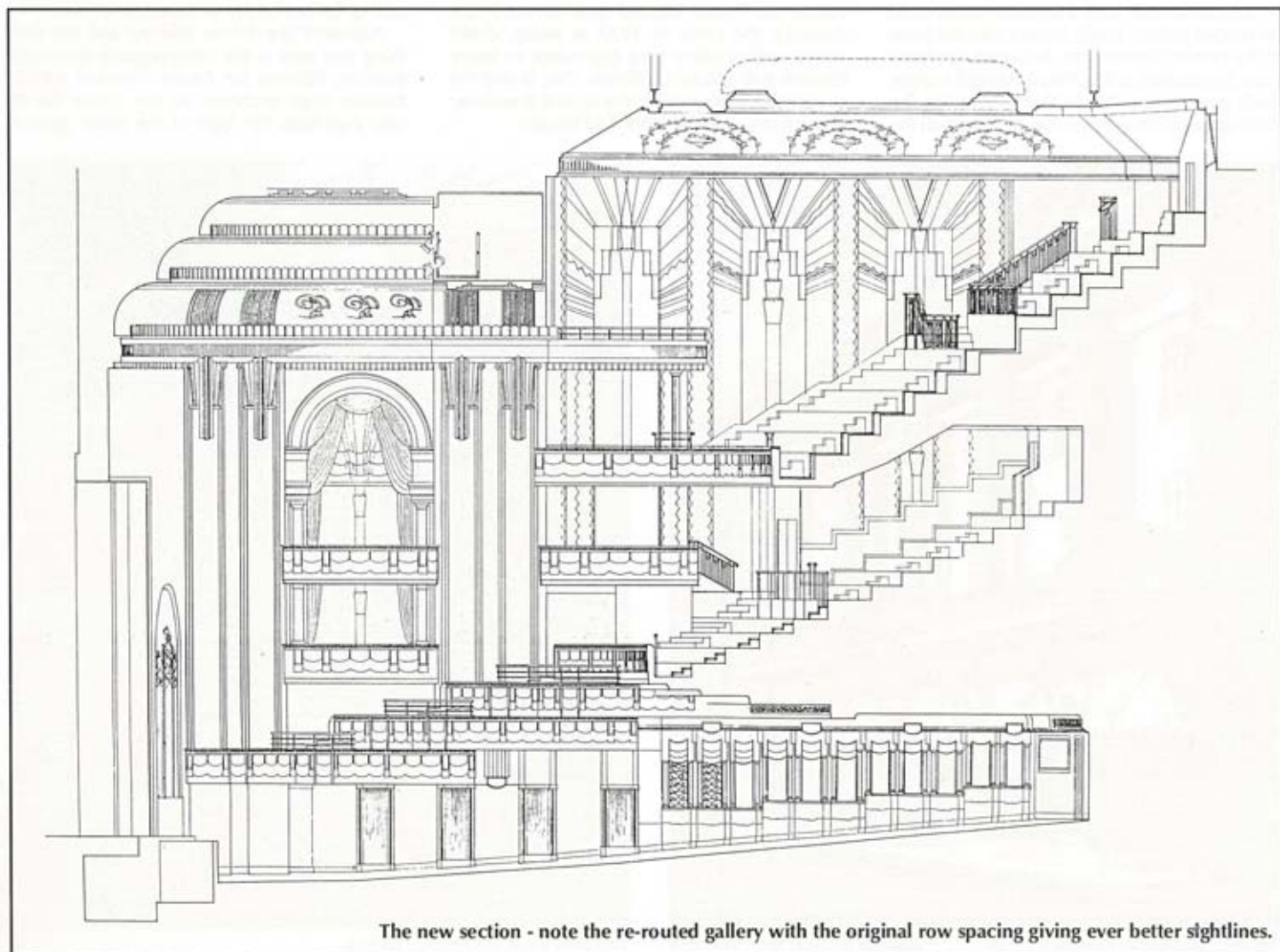
Everyone has heard of Gershwin but few of the theatre's true begetter Edward A. Stone, 'architect' of the Prince Edward (the inverted commas are because Stone, like Matcham and Sprague, was not a fully qualified architect which I for one find reassuring). Stone was one of the principal designers of both cinemas and architects in London in the 30s, in the cinema to be placed alongside Cecil Masey teamed with Komisarjevsky, Robert Cromie and George Coles.

Stone cinemas still standing include the atmospheric Astoria Rainbow in Finsbury Park, the Astorias in the Old Kent Road and Brixton, the Warner in Leicester Square, which is currently being reconstituted yet again, and the Streatham Hill Astoria (Odeon) with its facade and side elevation so very similar to that of the Prince Edward. Of West End theatres three designed by Stone survive: the Piccadilly (1928), the Prince Edward and the Whitehall

(both 1930). There is a link with a fourth, the Duchess (1929) where the architect was Ewen S. Barr but the interior designers were the same as for the three Stone theatres, Marc-Henri Levy and Gaston Laverdet, trading as Marc-Henri and Laverdet.

It is their work that lifts Stone's theatres above Stone's cinemas and which Clare Ferraby has highlighted and exaggerated in a way they might have envied, the renovation having all the advantages of a generous budget and the chance of a second or rather third attempt at the difficult task of making a big impact on a small site.

These London theatres of 1928/29/30 all had a certain Parisien chic. They had also benefited from the greatest theatre building boom in recorded history, that of the years 1905 to 1929 in North America. This boom did not really gather pace until after our great boom of buildings by Phipps, Matcham, Sprague Crewe, etc., had eroded. In North America in their halycon days two building types emerged: the movie-palace which has had too much written about it and the 'Broadway theatre' which in contrast has been inadequately recorded. These Broadway theatres were much smaller than the movie-palaces and were different in character, more subdued and less vulgar. They



The new section - note the re-routed gallery with the original row spacing giving ever better sightlines.



Successful pastiche light fitting.



Crazy for You in performance at the Prince Edward Theatre.

do not really appeal to the American movie-palace buff who would kill for Spanish American plasterwork. The Broadway legitimate theatre achieved an intimacy in the 800 to 1600 seat range as fine as did the Victorian and Edwardian theatres we know and love in Britain but in an entirely different way. It is this sort of theatre that Stone and others emulated briefly in London.

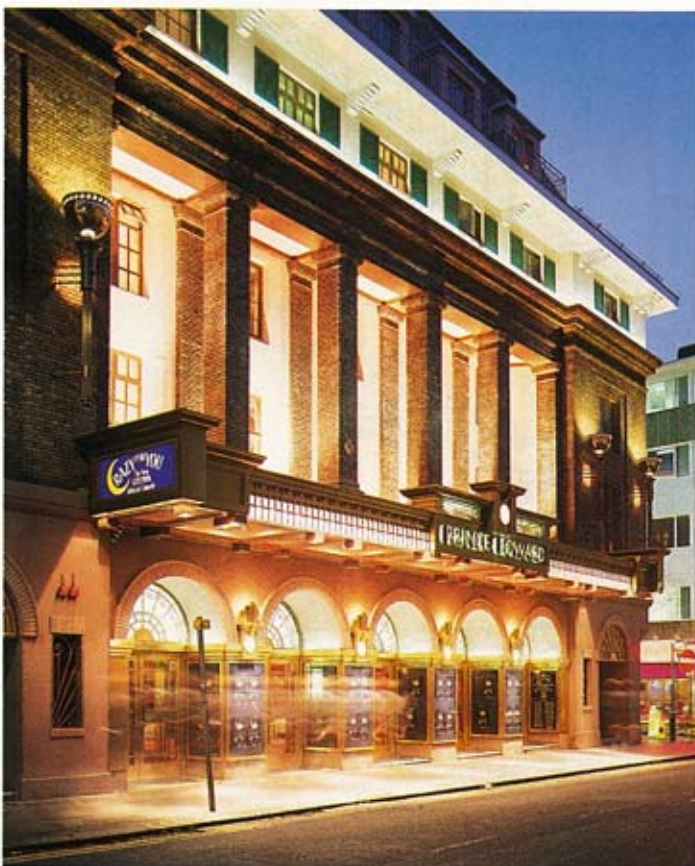
They generally have a common entrance - Her Majesty's (1897) had four separate entrances for four carefully distinguished strata of theatregoer, four routes from street to seat, though all cunningly wound round the one box office which had four windows. However, Prince Edward did have a separate entrance to the second gallery, easily broken into the foyer in the current renovation. But once up those stairs the comfort at the Prince Edward's upper levels was comparable to that enjoyed in the stalls, quite unlike the benches of almost all the

older theatres. The manager could charge 2s 4d for a fully upholstered seat with arm-rest compared with the 1s or 1s 6d perches in the 'gods' elsewhere in London.

Here is the key to the architectural approach of Stone: the management sensed a new middle class audience and required their architects to forswear huge capacities with 12 inches per persona in gallery and pit (the old rear stalls) but rather to achieve a large box office by creating a more homogenous level of comfort throughout the house and substituting for the old six or eight to one price differential (most expensive seat to cheapest place) of most West End theatres something more like three to one. Hence the Prince Edward with its 1650 seat capacity, the same in 1930 as today, could deliver a box office take equivalent to larger theatres with packed galleries. This is also the quality that distinguishes the typical Broadway house from a typical West End theatre.

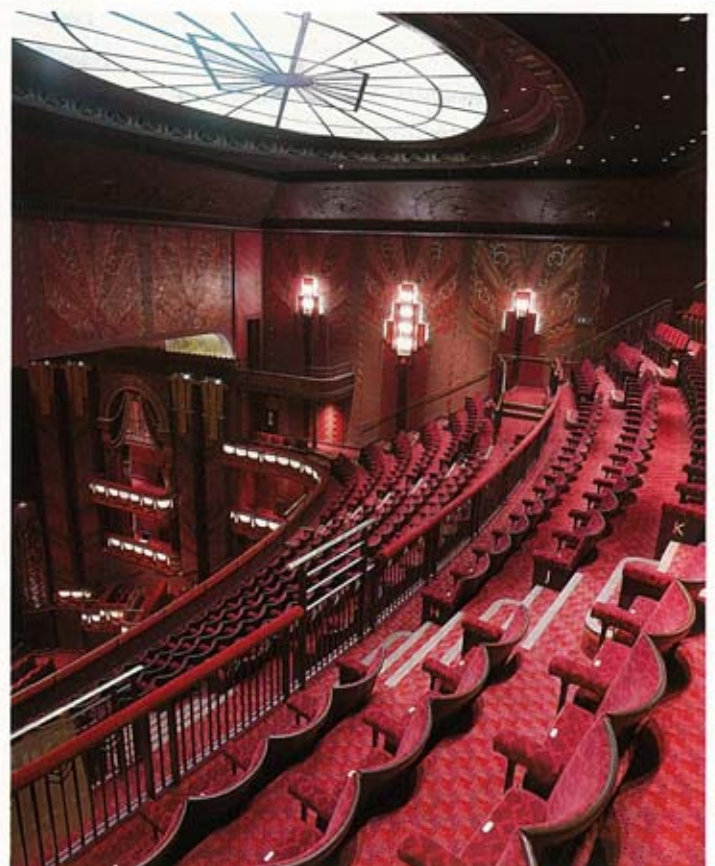
Cameron Mackintosh (no relation) and his colleagues Martin McCallum and Nick Allott sensed what could be achieved at the Prince Edward. It is customary to criticise West End managements, of theatres and of productions alike, for charging too much for the gallery - £8 up there when the front stalls are only £20, two point five to one where it once was six to one. But if the front stalls are worth £30 at the Prince Edward, then the second balcony (now called the Grand Circle) is certainly worth £11.50. Here a close price differential, which is artificial elsewhere, is right and proper. On top of that client and architect have seen to it that the standard of decor is constant throughout, adding further luxury to the upper circle.

Approach the Prince Edward and the first thing one sees is the extravagantly theatrical exterior lighting by Andre Tammes which features huge torcheres. At the corner the lit sign expresses the logo of the show against



The new exterior in February 1993.

interior photos: John Walsom



Top shot from the second gallery.



New boxes, new slips in the old style.

Stone's brick, rather more elegant than the familiar billboard backing to lit signs elsewhere in the West End. Over the portico is an American style canopy, something Stone might have done but didn't. It's a bit high but had to fix to the existing steelwork. The Prince Edward is certainly a theatre which lights up Old Compton Street.

The circular foyer has been beautifully restored. The lay lights which are wonderful everywhere have just the right pink, french grey

and creamy feel. On the floor Clare Ferraby lays the first of her carpets which march on into upper and lower foyers. The colour schemes are sensibly consistent throughout the whole building: reds, smudged pinks and thirties style bronze gilt with two or three closely co-ordinated carpets which create a feeling of space that would not have been achieved if different colour schemes were used in different places.

Inside the auditorium some tricks old and

new are played. Cleverest and newest are the harem screens to the side aisles at the rear of the stalls which take the barn size scale down beautifully and make actors of the audience. At the back of the stalls a couple of glazed boxes for a director or 'supplementary control', the other lighting control option being at the back of the upper balcony. Look up and immediately cascading side boxes come into view. This is the chief device in reducing the scale of the audience chamber.

The history of these is complex. Stone's original theatre had the single box each side as one finds in so many theatres of the thirties. But Stone returned to the Prince Edward in 1936 to turn it into the Casino. He added at each end of the first circle four stepped boxes of the sort first seen at the Palace in Times Square, New York (1913 and still there).

From the fourth box stairs led down to the large projecting dance floor so that diners from tables in the circle could wend their way down to the dance floor when supper and floor shows were over. (The second circle was closed in the Casino and war time services club days). When the Casino reverted to the Prince Edward after a chequered and largely cinematic career in 1978 for *Evita* the stepped boxes were still there.

Now Mackintosh/Thompson have added a fifth box to the stairway of four, a second large box over each side boxes and two new slips plus a 'Hersey follow spot position' over. Cunningly they have taken the Lalique back-lit panels of Marc-Henri and Laverdet, which were previously confined to the circle fronts, and spread them all over circles boxes and slips. Such decorative consistency softens the complex geometry.

In almost any other circumstance this cut and paste approach to theatre architecture would be disastrous: here it is exuberantly successful. As with *Girl Crazy* the original hot rhythm was strong enough to take a little hype. Marc-Henri and Laverdet and even Stone would surely be flattered.

They would have to have explained to them the other and even more noteworthy success of this auditorium and that is the channelling and control of the flotsam and jetsam of light and sound of today's theatre. Many readers of this magazine will scarcely remember the days when West End and Broadway theatres housing the biggest musicals did not boast the advance spot bars originated by Jules Fisher in New York or the advance perches which Richard Pilbrow invented for *Blitz*.

The latter have been controlled in legitimate houses like the Albery which has continued the Associated Theatre Shaftesbury Avenue custom of allowing F.O.H. spots only if the producer paints them gold. But in the musical houses today long Lekos and big Bose boxes perch malevolently on every vantage point like a flock of vultures. So much for Sprague, Matcham and the architecture of yesteryear which so many of the punters prefer to the architecture of today, especially when the latter is in concrete.

At the Prince Edward all those necessary side positions are there but you don't read them because the reds and pinks have been graduated to near black in the proscenium zone and the pilasters marbled to kill those light leaks from instruments on the main vertical side positions which manufacturers tell you don't happen but do. And yet there are enough highlights in this all important zone to avoid that dreary Aldwych grey of the RSC days that made you think they had arrived at the Barbican before it had opened.

At the sides all is exposed but almost invisibly. Overhead the stuff actually is invisible. Stone had created an arch back in 1930 to differentiate the forward lower ceiling from the upper rear ceiling. Rightly Mackintosh/Thompson did not lower these ceilings but simply lowered the arch, widening it slightly to create a double hung bridge, big enough to hold the annual AGM of the ABTT. Like all really good ideas it appears easy.

Except there was not much time. *Some Like it Hot* closed on 20th June 1992, eight months after the architects had been appointed to

devise a scheme for refurbishment. A further eight months separates the end of *Some Like it Hot* and the first preview of *Crazy for You*, on 19th February 1993. Not a long time to spend £2.7m (exclusive of fees), even shorter than the 11 months Renton Howard Wood Levin and Theatre Projects Consultants had to do auditorium, stage and foyers of the Theatre Royal Nottingham in 1977/8. At the Prince Edward all had to be achieved in a city centre with scarcely space for a site hut.

First Leisure brought to the Prince Edward project the expertise of project management and the purchasing power of a chain that buys acres of carpet for bingo halls. The architects were a useful five minutes away in Endell Street. But the chief reason why things could move fast is that one man was able to make all decisions: the Prince Edward was renovated in the same way as most London theatres were built a century ago with the owner instructing an architect/builder on a one to one basis. Compare if you will my current experience at Edinburgh where the Empire is being transformed into the Festival Theatre with absolutely everything new except the audience chamber itself.

Here trustees led by a public spirited politician are guided by a well staffed quango who employ a conscientious project manager who has working for him an excellent construction manager. Oh yes, and somewhere there is an architect and a theatre consultant who are of one mind and who dreamed the whole thing up but sometimes feel as if they are bystanders in the whole 'cost conscious' 'fast track' procedure.

At least in our other big job, at Glynedebourne, Sir George Christie ultimately makes all the decisions himself! Nevertheless, all professionals will envy RHWL in their good fortune in having a client, in Cameron Mackintosh, prepared to take as much care about the details of a renovation as he does about a mega-musical.

There are two other reasons why the success of the Prince Edward cannot be projected on to all other situations. Firstly, it is a single purpose building: for musical theatre - no opera, no ballet, no pantomime, no drama, no conferences, no cinema. The pit is a pit for musicals and does not have to accommodate orchestras of 8, 16, 24, 56, 84, 100 or no orchestra at all as will Edinburgh's old Empire. Second, the building was decorated from the outset in an applied style to which further layers can be added to raise the temperature.

This is not so with the Victorian and Edwardian theatres where the plasterwork is more organic and defines the form. In such theatres too much wallpaper, too much Wilton and endless brass rails have turned the old pit into rear stalls from which you see too little and are charged too much.

Rip out all the old circulation and paint it all cream as this team, which has been so

successful at the Prince Edward, did in the earlier theatre of Robinson, Matcham and Sprague and the theatre itself can seem as authentic as a box of Mackintosh's Quality Street (no relation). Come to that the grey good taste of 'restorations' by others that substitute decorative good manners for Matcham's tobacco stained maturity or Milburn's swaggering doesn't work either (who else misses the old Richmond or is disappointed by the unimaginative repainting of the Dominion?).

For this period I prefer the more straightforward, unfussy approach of Arup Associates, for example at the Theatre Royal, Glasgow or Opera House, Buxton. But for the period of Porter and Gershwin, of Coward and Novello the Thompson/Ferraby team have my unqualified support.

Let us have more! There's the New Theatre Oxford and the Royal Court Liverpool. In London perhaps the Piccadilly where all that black which seemed so right for *Man of La Mancha*, *Edward II* and *Richard II* at the end of the 60s and early 70s soon palled. Marc-Henri and Laverdet could do with a boost here. Best of all Cameron Mackintosh could turn his attention to a theatre dead centre in the triangle formed by the Prince Edward, his office and that of Renton Howard Wood Levin: the Saville which is now the ABC cinema, Shaftesbury Avenue. Built in 1929 it has a capacity of 1250, and is just right for those smaller musicals and straight plays.

Recover the Saville which we remember from the 60s for Olivier in *Semi-Detached* and Leonard Rossiter in *The Resistable Rise of Arturo Ui*, recreate it as thirties plus as triumphantly as he has the Prince Edward and both profession and public will present owner and architect with a standing ovation. Meanwhile let the Prince Edward live happily ever after as Bobby and Polly do having restored the Gaiety, Deadrock and, with a little professional help in Act Two, succeeds in best Rooney/Garland style "to do the show right here".

Iain Mackintosh is design director of Theatre Projects Consultants. His book *Architecture, Actor and Audience*, will be published by Routledge early this summer.

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STARLIGHT EXPRESS: REBIRTH OF A MUSICAL

Robert Halliday reports

It was March 27th, 1984 when *Starlight Express* opened in London's Apollo Victoria theatre. The next day Andrew Lloyd Webber's eagerly anticipated follow-up to *Cats* was greeted with a perhaps fairly predictable response from the critics, who praised the sets and effects but didn't think much of the show and its roller-skating cast.

Only a few picked up on director Trevor Nunn's remarks in the programme about London's varied theatrical fare always having space for spectacles, to meet "the public appetite for shows that are exuberant, light-hearted, eye-popping fun". That was exactly what *Starlight Express* set out to provide.

Nine years and countless sold-out performances seem to suggest that, whatever the critics felt, the show provided what audiences wanted. A large part of that appeal has always come from the show's technical effects which take the simple story of a group of railway trains racing and lift it into a spectacular event.

Indeed, the show's advertising a few years ago was based around the technology involved describing the precision of the set's



Starlight Express - revamped for the nineties.

photos: Nobby Clark

construction and the number of miles of cable feeding the lighting, while the souvenir brochure included pieces from the production team about their work and triumphs on the show.

Nine years is a long time, though, and as the show moved into the record books as London's second longest running musical, the production team decided that the time had come to move *Starlight* both artistically and technically into the nineties. Under the control of the composer, director Trevor Nunn and choreographer Arlene Phillips, a number of new songs were added and others were re-written and re-orchestrated to update some of the eighties-based jokes.

To support the new work, a technical re-launch also took place. John Napier's basic design, which tore through the heart of the theatre to provide a central skating bowl feeding tracks through the stalls and around the front of the upper circle remained virtually unchanged, although the stage floor, which takes a nightly battering from skaters hitting speeds of over 30 miles an hour, was re-laid and re-painted in a

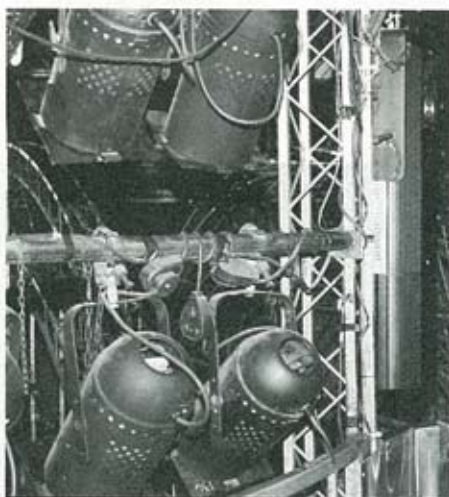


slightly different colour scheme.

The central bridge, a Mike Barnett hydraulic spectacular which tilts, spins and tracks up-and-down stage to link the various race-tracks, was also left largely unaltered, its annual servicing having kept it running since the show's launch.

The lighting, however, underwent a re-working. David Hersey's ambitious original design was hampered by the technology available at the time. The rig was based around an early system of moving, colour-changing lights developed especially for the show in an attempt to be able to keep up with the rapidly moving cast and provide a range of effects from the smallest possible number of units. The system never quite fulfilled its potential, however, and over the years has been supplemented by a variety of other equipment, including Rainbow scrollers to give colour changes, and lasers for effects. The huge number of cues in the show also ran up against the memory limitation of the mark 1 Galaxy originally installed.

The re-design which, due to Hersey's limited availability when a date for the re-launch was finally settled on, was overseen by Howard Eaton, the show's original production electrician. In the months prior to the second 'first night', Eaton, Mark Randall and Dave Knapp, the theatre's electricians, carried out a great deal of general repair and upgrading work on the show, re-wiring the lamps on the bridge, converting the control signals to the dimmers distributed around the building from analogue to digital, updating the desk to a Strand Impact, and adding 24 Lightwave Research Intellabeams, a variety of strobes and a ring of



An Intellibeam nestles amongst the original steel Parcans above the stage.

Par downlights reflecting the shape of the central bowl to the rig.

The core rig - a mixture of Lekos and early, steel Par cans remained largely unchanged, as did the masses of lighting running above the race tracks. The limited headroom meant that there was little option but to continue using the smaller, short-nosed Par cans. Many of the colours used have been changed, though, to reflect the new colours of the set.

The feeling was that, spectacular as the show had appeared back in 1984, it had since been somewhat overshadowed by the lightshows in rock concerts, music videos and films. The aim, therefore, was to add more of a 'rock and roll' feel to parts of the show, especially the new

Megamix at the end, introduced due to the success of a similar up-beat ending in the Palladium production of Joseph.

The Intellabeams, with their rapid movement, changeable gobos and dichroic colours successfully achieved this, with other, smaller effects adding the finishing touches. But the team never lost sight of the show's theatricality, rejecting effects that were too obviously 'showy' in themselves rather than adding to the production as a whole.

The control position now has a much more hi-tech look to it, with the Intellibeam controls fed by a PC which triggers each moving light sequence, and which in turn is fired by the Strand Impact. The only oddities are the two manual control units for the moving light curtains - given the limited number of cues they move in, the crew decided that leaving them on manual control would be simpler than adapting them to run off the desk and then plotting them into the show.

The desk now controls the increasingly ubiquitous Skywalker smoke machines, which have replaced the earlier Rosco units. A cracked oil machine has also been added, to make sure that the new lighting effects can be seen!

At the show's other control centre, the changes were less radical. Sound designer Martin Levan commissioned the first computer-assisted Cadac desk for the show back in 1984, and it remains now, unchanged - a fact which Levan attributes to it being ahead of its time in the first place, and which is also a testament to the quality of Cadac equipment. The sound rig, supplied by Autograph, has undergone rolling changes since 1984, with



The basic design of the set of Starlight Express remains largely unchanged, although the colours and some of the costumes have been altered.

synths and reverbs being replaced as new and better units came along. The orchestra pit had already been re-wired prior to the new launch, and so the rig underwent few dramatic changes, although the number of radio mics in use has crept up to 24.

Aside from dealing with some static problems arising from the new costumes, Levan's work simply involved mixing the new songs, checking the balance where songs had been re-orchestrated, and programming the synthesisers with a few new sound effects.

All the new elements were finally brought together in a three day production period last November, which all those involved describe as hectic, with all of the departments clamouring for stage time to fine-tune their contributions. The crew were not the only ones to be worked hard, though, as the cast, many of whom had been in the show before, had to concentrate hard to make sure they weren't drifting back into the old version!

The result is a brighter, tighter, more effective show which once again jumps ahead of the audience's expectations. To some, meddling with an established hit would have been thought foolish, yet the composer and his production team must have been confident of what they were doing since around £600,000 was spent on the new work. And the process remains ongoing; the video equipment which ensures that the audience can see the racing trains even when they're on a distant section of track, and which is still running on the original installation, is the next target for an update.

It's money well spent, though, since despite another luke-warm response from the critics the show continues to pack them in and there is already talk of a world tour of the new version later in the year. Never one to rest on his laurels, Lloyd Webber is already talking about version number three.

As it stands now *Starlight* serves as a testament to the durability of much of the equipment utilized on the performance, while showing quite clearly how technology has progressed over the last nine years in areas such as moving lights.

With all the advancements now being made who knows where technology might lead us, and who knows how shows like *Starlight* may develop. The next nine years look likely to be even more fascinating.

***Starlight Express* written by Andrew Lloyd-Webber and Richard Stilgoe is at the Apollo Victoria Theatre, Wilton Road, London SW1. (Opened March 7th, 1984).**









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SAFETY IN LIVE PERFORMANCE

L+SI previews George Thompson's forthcoming book

In a few weeks' time Focal Press, a subsidiary of Butterworth - Heinemann, will be publishing, in association with PLASA, the book *Safety in Live Performance*, edited by the association's Standards Officer, George Thompson.

The purpose of the publication is to give authoritative guidance on safety matters to workers in the live entertainment industry. As far as is known, this is the first time so much safety information for this area of work has been brought together in one place, incorporating as it does the knowledge and experience of a number of experts who are either actually working in the field with good personal knowledge of the subject, or are recognised consultants on technical aspects of safety," explains George Thompson. In instances where the subject is very broad and also legislation is involved, extensive references are given to official publications to enable the reader to pursue the matter and to be satisfied he or she is acting within the law."

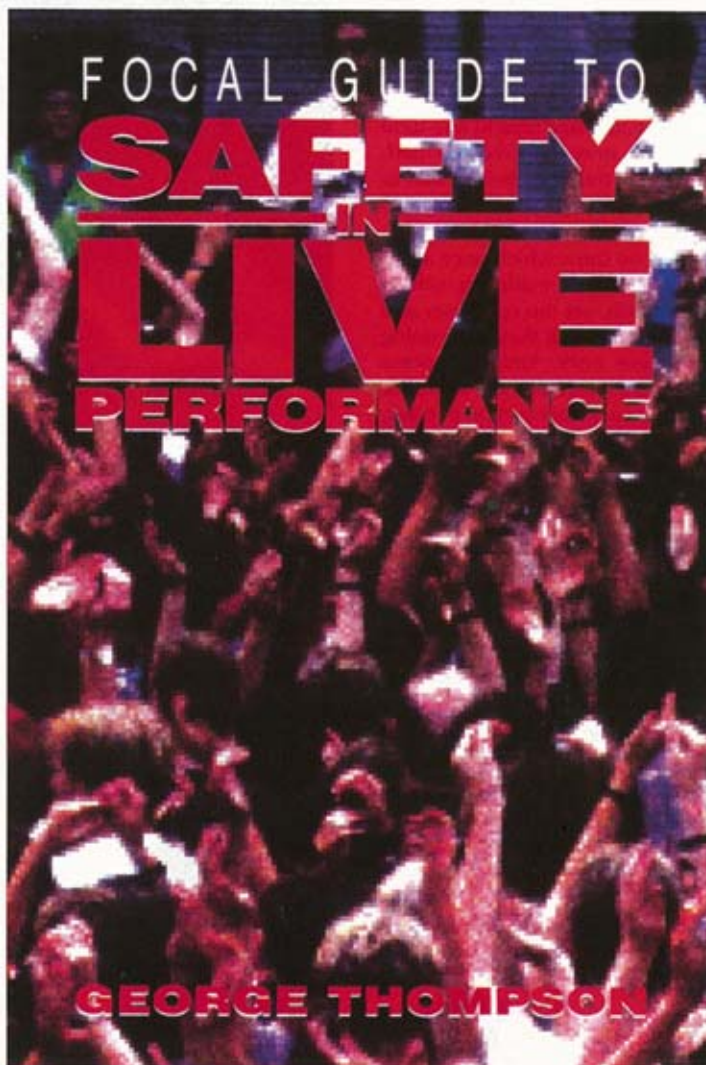
Most people will agree that accidents are often caused through a lack of knowledge about the equipment being used or a failure to apply safety principles. *Safety in Live Performance* highlights some of the areas where accidents are most likely to occur, and how with foreknowledge and care they may be avoided. In other cases, the design of the equipment or even of the buildings may be bad, and from the information given, supervisors may be able to take remedial action. At the very least, those working in such situations can be aware of the dangers.

Editorially, great emphasis has been placed on facts," continued George Thompson. "This may not make for a Jeffrey Archer-type read, but it was felt this approach gave greatest value for money. After all, everyone has their favourite anecdote about how things went wrong and the book could have been filled with these, but the real purpose is to give the reader sufficient information on safe and legal working practices which will help to reduce the number of accidents."

Following on from the factual approach, the publication is by necessity fairly technical, but it should be easily comprehensible to most workers in the industry, and should be especially useful for new entrants, who need to know about the dangers and hazards inherent in live entertainment without learning the hard way!

There are 15 chapters, beginning with an introduction to the subject of safety, and pointing out the not-so-obvious distinction between risk and hazard. The next chapter, by a local authority licensing officer, is on the problems of controlling large crowds, of perhaps tens of thousands of people, so that they can enjoy the show without incident. The next two chapters are concerned with fire precautions and fire safety engineering, with interesting diagrams on how a fire spreads.

The following four chapters cover electrical



George Thompson, PLASA Standards Officer.

safety and luminaires, subjects of great importance in the theatre and disco world. The theme then changes to smoke machines, and a discussion of the largely unknown area of the chemical properties of fog fluids is given. The safety problems of pyrotechnic effects are dealt with in the next chapter by a director of a well-known company in this field, and this is clearly an area where a mistake can be very dangerous indeed. Chapter 11 is concerned

with lasers, another system which if used in an uncontrolled manner can cause harm to people, notably irreparable damage to the eyes. A discussion of the safety considerations for stage machinery comprises the next chapter, and this is followed by one on another matter of great importance these days, sound levels and noise control. Many examples are given here of actual sound levels measured at various types of venue. The legal position is also given.

The next chapter deals with a subject which is certainly not as well known as it ought to be - the application of the COSHH regulations to the entertainments industry. Finally, last but very definitely not least, there is a chapter by the Chairman of the Arts and Entertainment Training Initiative (AETTI) on the training and new qualifications now available.

As one can see, the book covers a wide field in live entertainment, and can be usefully read by those new to any of the areas covered, and also by more senior persons having supervisory responsibilities who may wish to make sure that their knowledge is up to date, and that they are mentally equipped to deal with safety problems before they arise.

Contributors

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Graham Walne

Chairman AETTI

George Thompson's 'Safety in Live Performance' is the first title in a new range of books from Focal Press, for which L+SI editor John Offord is series editor. All titles will be available through PLASA's Technical Book Service.

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SEMINAR

Trading Laws Explained

at the Holiday Inn, Heathrow on April 2nd, 1993

If you are supplying apparatus used for playing sound recordings in public (see news story page 6, this issue), if you wish to prevent others in the U.K. or overseas from using or registering your trade name, or you simply wish to understand the implications that the EC Competition laws have on your company, then on Friday April 2nd you should be at PLASA's 'Trading Laws Explained' Seminar.

PROGRAMME

10.00 am ~ Coffee, Biscuits and Registration
10.30 am ~ Welcome and Introduction: Tony Kingsley (PLASA Chairman)
10.35 am ~ EC Competition Law: Derek Blake (Solicitor for Panasonic)
12.15 pm ~ Phonographic Performance Ltd and the Hiring Dilemma
Copyright, Designs and Patents Act: Alexander Carter-Silk
(Edward Lewis & Co - PLASA Solicitor)

Afternoon
1.00 pm ~ Buffet Lunch
2.00 pm ~ Trade Names - How to Use Agents and
What to Register: Alexander Carter-Silk
3.30 pm ~ Informal Discussion
~ Tea and Biscuits

PLASA and SCIF members £35.25 inc vat. Non members £52.88 inc vat. Second delegate from any company £29.38 inc vat.

Please reserve _____ tickets at _____ for the PLASA 'Trading Laws Explained' seminar, April 2nd, 1993.

I enclose a cheque made payable to 'PLASA Ltd' for _____ (Note: charges include lunch)

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Please return this form with your remittance to the PLASA office as soon as possible. (Address on page 5.)

LETTERS

Yet more on ShowCAD and PC-based Control Systems

Dear Editor,

ShowCAD Technophobia

As the producers of ShowCAD, we feel that we should add our comments to the correspondence in your columns regarding the relative values of conventional lighting boards as opposed to PC-based systems.

It is a pity that the anti-PC lobby see these issues in such black and white terms, as one versus the other, rather than looking for the shared advantages and the mutual benefits which may exist, for example, in combining the two systems. Each has its own advantages, just as each may have its disadvantages also.

Of course, we recognise that a PC is not an ideal unit to operate on the fly. But then what about all the tedious pre-show number crunching which goes with every new production, not to mention the agonising business of programming automated luminaires. Is a standard lighting board really ideal for these purposes?

What a soft PC-based system can do for you is to make the planning, programming and designing of any show a great deal easier. For example, keyboard data entry can enormously speed up the initial channeling process and the mouse or tracker ball (like it or not), in combination with appropriate software, really does make programming a piece of cake for absolutely anyone.

I sometimes wonder if those who are instinctively critical, have ever tried setting-up

Can you suffer even more on ShowCAD? Then see On Tour and Production News pages (55/56). Note this subject now temporarily closed! (Ed).

automated lights without a PC system. Both faders and mice can be intuitive for given purposes, provided the limitations of each are recognised at the outset. So, we believe that it will be its potential for integration which will make ShowCAD such a powerful friend. You will be able to hook it up to virtually any lighting desk, assigning as many channels as you want as sub-masters. Suddenly, you have the potential power of hundreds of control channels under the cue control of your favourite 30 or 60 channel board. Plus the benefit of the PC's enormous programming power.

Lastly, which other lighting system has millions of dollars of R&D behind it, courtesy of IBM, to ensure its performance and reliability, is replaceable anywhere in the world - and yet costs so little?

The rest is technophobia!

Mike Martin
Axon Digital Design

Address your letters to:

The Editor,
Lighting and Sound International
7 Highlight House, St Leonards Road,
Eastbourne, East Sussex, BN21 3UH.

Dear Editor,

ShowCAD in Practice

As major users of the ShowCAD lighting control system we were highly delighted to read Robert Halliday's excellent and balanced review of the system in February's edition. We disagree only on one small point - ShowCAD **can** do theatre.

We have undertaken two such productions. The first was a multi-media production in June last year which, once programmed, ran automatically from SMPTE for seven shows a day for a highly successful three month run in Iwate, Japan. The other was the six hour live broadcast Robert mentioned. You could set up the Xfades but it was not an immediately obvious technique.

You will be highly amused to learn that the very day that we received our February edition we had just downloaded the latest version of ShowCAD (7 mins at 2400baud) from Axon which, amongst other things, included infinite stack playbacks (to use a combination of rock and roll/theatre terms) which as you will have guessed means infinite automatic timed crossfades!

The point is that ShowCAD, being PC-based, has another advantage over old fashioned dedicated hardware controllers - fast response to customer feedback (Robert's other main gripe of fast keyboard data entry, which we totally agree with, is, we are assured, on the list and will be ready before PLASA).

Naturally this also means that any review of such a system will more than likely be out of date before it is printed!

We would like to take this opportunity to invite Robert to see us at the Rimini show where we will be using ShowCAD to run a total of 981 control channels for the Coemar stand, handling input from touch panels (for salesmans' demo's), midi keyboard (for live busking), mouse (live shows) and SMPTE (loo breaks!) and we will be happy to show him the new automatic timed crossfades in action.

Carl Dodds/John A. Lindsell

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The new Selecon PC 1200 is the latest addition to an outstanding range of luminaires. A new plano-convex lens, manufactured from heat resistant Pyrex B and developed by Selecon has less of the variations found in cast lenses, and consequently gives a clarity of beam and a crisp edge which is similar to a slightly diffused profile.

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Official group participation from the UK and Italy will again support this important annual event. Response from the rest of the industry is also highly positive. Confirmed individual participation already includes international manufacturers from Continental Europe, USA, Japan and Australasia. As such, there are only few stands left. We are now also looking at various options of having an overflow area in order to cope with the increased demand of stand spaces from exhibitors.

If you wish to consolidate your market share in the rapidly-expanding Asian market and meet the entire Regional users, then you must let us know immediately to guarantee your space reservation.

LIST OF CONFIRMED EXHIBITORS (as of Feb 18, 1993)

UK Pro Audio & Lighting Group

Organised by Professional Light and Sound Association (PLASA) with the British Government.

Many well-known manufacturers will be participating in this Group.

The UK companies who exhibited at the '92 show were:

AMEN/TAC	Cloud Electronics	Lighting Technology	SCIF
ARRI	Drawmer	Martin Audio	Soundtrac
C-Audio	Expotus	Millibank Electronics	Trident
Celestion	Gerriets	Omniphonics	Wharfedale
Cerebrum	Hill Audio	Return Research	Zero 88
Citronic	Laser Systems		

Italian Group

Organised by the Italian Institute for Foreign Trade (I.C.E.) in co-operation with the Association of Italian Discotheque and Theatre Equipment Manufacturers (APIAD). Participating companies will include many well-known manufacturers.

The Italian companies who exhibited at the '92 show were:

Best Light	FAL	La Novalight	SGM
Clay Paky/Pulsar Light	FLY	LED	Spotlight
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CTM	King's Sound		

Individual Exhibitors & Represented Manufacturers

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Alcatel (Australia)	Globe Precision (Singapore)	Nobler (USA)
Altec Lansing (USA)	Heino Ilsemann (Germany)	Numark (USA)
Amcron/Crown (USA)	High End Systems (USA)	ODME (Netherlands)
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Australian Monitor (Australia)	JBL (USA)	Quayside Communications (Singapore)
Avolites (UK)	JVC Acoustic Design Office (Japan)	Selecon (New Zealand)
Brahler (Germany)	JVC Pro Audio Division (Japan)	Sony (Japan)
Chiayo (Taiwan)	Klark-Teknik (UK)	Soudercraft (UK)
Data Disc (Germany)	Koch (Austria)	Strand Lighting (UK)
DDA (UK)	Leybold AG (Germany)	Studer Revox (Singapore)
Disco Mirror (UK)	Lite Puter (Taiwan)	Symetric (USA)
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Ecler (Spain)	Mark IV Audio Group (Switzerland)	Telstar (Taiwan)
Electro-Voice (USA)	Martin Professional (Denmark)	Theatrelight (New Zealand)
Electronics & Engineering (Singapore)	Mielle Sri (Italy)	University Sound (USA)
Emerald Technology (USA)	Mix Magazine (USA)	Vantage Lighting (USA)
European Discotheque Review (UK)	MMS (USA)	Vega (USA)
Furman (USA)	Multi-Media (Switzerland)	Werner Kammann (Germany)

* With the show still several months away, many more international companies will be participating. Their names are not currently listed above pending final decision.

For UK Group participation,
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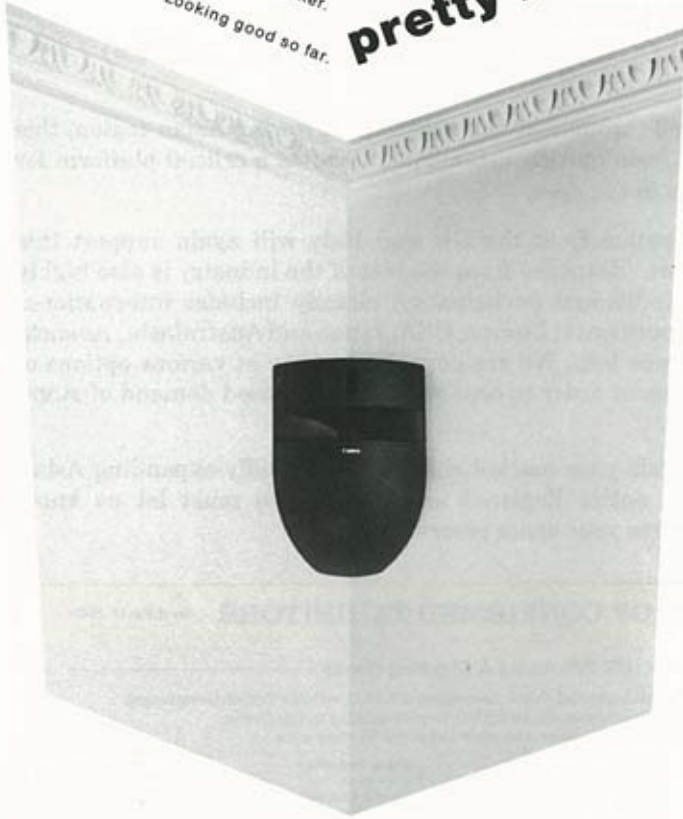
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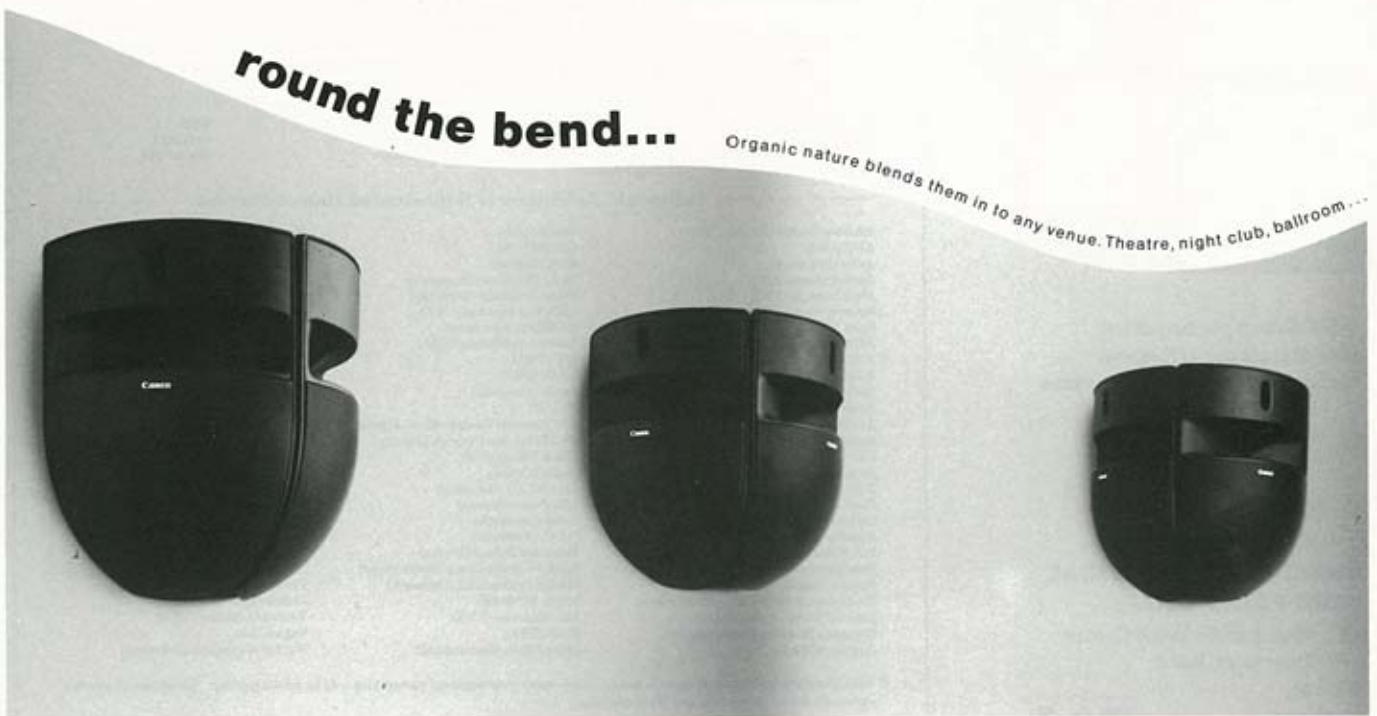


on a ceiling...

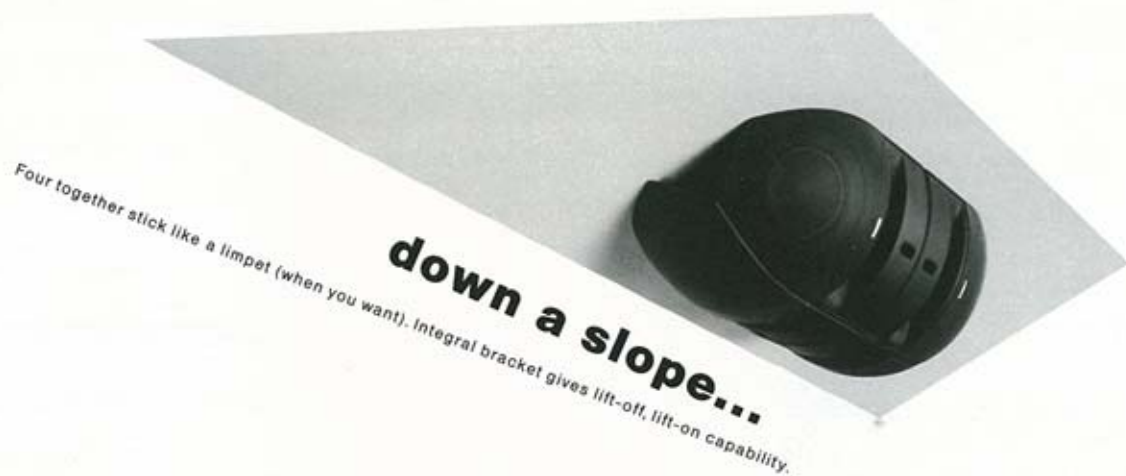
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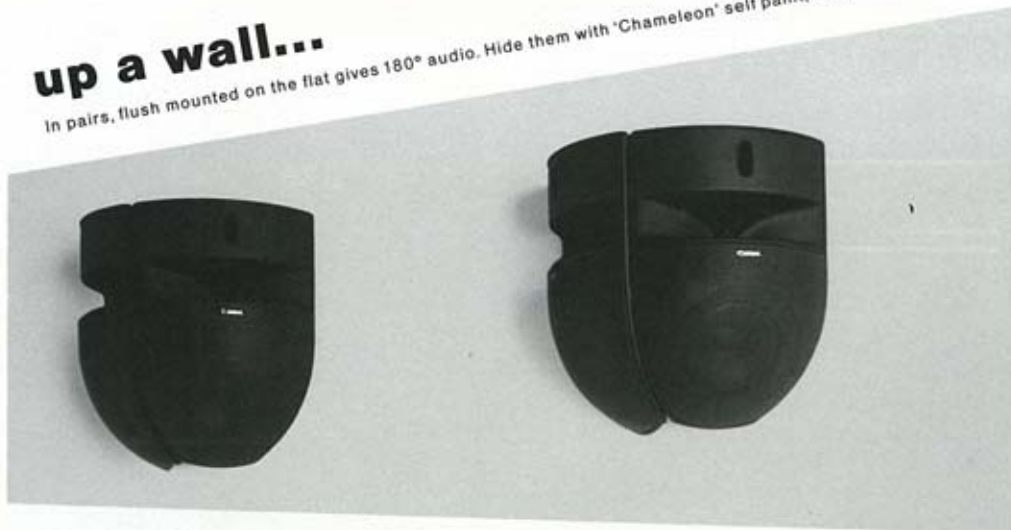


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RUSSIAN ROULETTE

Ruth Rossington finds out how the nightclub game is played in Moscow

In recent year Western values may have filtered through the Iron Curtain but they have not brought it down, and Churchill's words on Russia are as apt today as they were when first delivered. For many, the country remains an unknown quantity - that famous enigma: somewhere far away, wrapped up and delivered by the media as a society of contrasts where the rouble is completely devalued, hyper-inflation has taken grip, and fear and dollars are the only motivators in a country struggling to stabilise its economy and control its burgeoning crime rate. And yet a country which at the same time is spawning a new breed of entrepreneurs, who have lifestyles to match their bank balances and seem to want for nothing.

Just over 2,000 miles away, it's hard to be sure just exactly whether the rise and subsequent fall of Gorbachev has actually made any real difference, but there are some signs that things are in fact changing for the better. The recent opening of Alexanders nightclub in the heart of Moscow is a clear indicator that investment is taking place in Russia and more particularly in its leisure and entertainment facilities. Hitherto the sole preserve of the monied classes (make no mistake these places are still outrageously expensive), leisure is slowly spreading its net to take in more of Russian society. As a result, the lighting and sound industry world-wide should be preparing itself to take advantage as this potential market opens up and Russia has to import expertise from elsewhere.

The nightclub, named after owner Alexander Gream, is to be found in one of Moscow's most historically sensitive buildings. Close to the Kremlin and Red Square, the Union House was at one time commandeered by Stalin as his personal and private theatre. Strange then that this building, with more preservation orders to its name than St Paul's Cathedral, should be the venue for a nightclub carrying all the trappings of modern technology. It was Gream, and his company Casino Gabriela, who brought in Englishman Kevin McClean to oversee the project.

Edward Thompson Group were awarded the main contract after the earlier completion of a Bingo Club and Casino for the Russian



Above and below: old meets new as the chandelier centrepiece takes its place amongst modern technology at Alexanders.

company, and they in turn appointed Red House Design of Newcastle to create the interior theme. The lighting and sound element fell to a third UK company, Lighting Technology and in particular, lighting specialist Richard Maunder.

Steve McCain of Edward Thompson was given four months to design and build the club - an unrealistic target in most countries, but this was Russia, where red tape is the language of officialdom and the MacDonaldis in Moscow took more than 12 years to complete.

The tight schedule was one hurdle. The second was the building itself which required a certain delicacy of approach to retain the original character and charm of the Union House. It boasts a grandeur that Buckingham Palace would be proud of. The main ballroom

known as 'The Hall of Glass' is adorned with the most decadent display of crystal chandeliers and when lit, takes on the atmosphere of a Hatton Garden stock room.

The nightclub was, alas, built into an architecturally less spectacular part of the building - the cellar. Despite that, however, the same stringent building constraints remained. Chris Hines of Red House worked on the interior design, again under difficult circumstances, and has created a rich and highly decorative interior that owes its origins to the art deco of the thirties. Ornate brass fittings, with stained glass panels, form the structure of the rooms, whilst heavy colourings and dulled uplights give the nightclub something of a 'samizdat' feel with all its connotations of secret underground activities



hidden away from the watchful eye of authority.

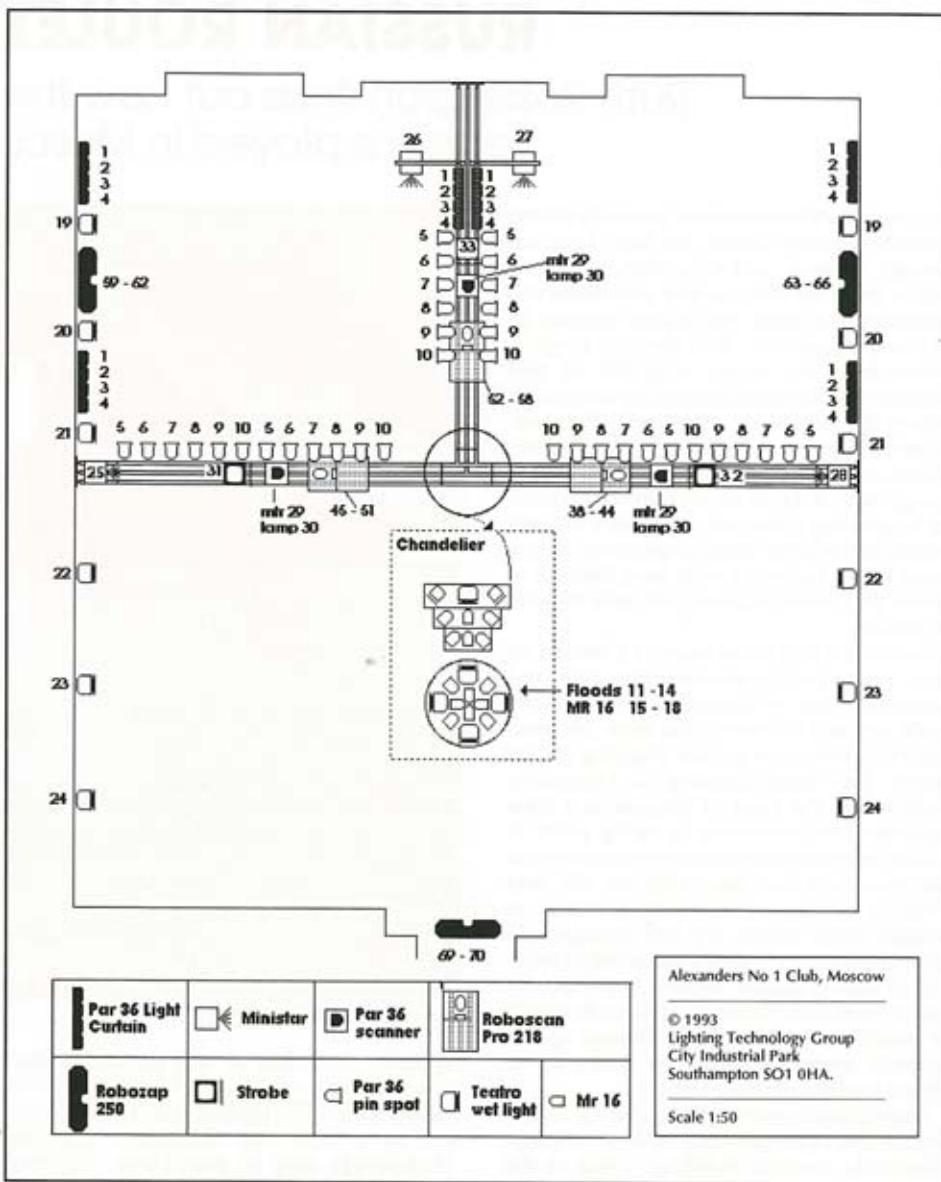
Richard Maunder was not spared difficulties either. He faced many problems, the foremost being that he was not allowed to attach fixings to the arched ceiling, nor for that matter, to the original marble tiled walls. His solution was a wall-supported Optikinetics Trilite structure that could be held with fixings which could be secured through the grouting around the marble tiles.

Arranged in three ribbon-like arms, the Trilite frame carries a battery of lighting effects including the new Martin Roboscan Pro 218s which utilise the latest Philips MSD (Medium Source Daylight) 200 lamp. Maunder chose the Roboscans because of the high quality of their beam intensity and colour reproduction which are achieved courtesy of a luminous flux equivalent to a 650W T lamp and a colour temperature of 5800°K.

Banked along the walls, Martin Robozaps and Ministars provide the rest of the movement on the dance floor with scanners sweeping the ceiling. Alongside these, Anytronic strobe effects work in tandem with the ubiquitous Par 36 pinspots used for curtains and static beam effects. The ceiling is also treated with K9 floods to produce complete colour washes throughout the length of the room. The system is controlled by a Pulsar Masterpiece 108, with all dimming and switching on analogue via Anytronic black boxes and the Martin Roboscans and Minizaps on full DMX.

Two chandeliers were designed and commissioned as centrepieces for the dance floor and main bar areas to soften the visual impact of the Trilite in this period environment. In the main bar the chandelier is fitted with Par 16 fittings to create pastel colour washes that illuminate the chandelier, producing a static architectural centre piece, whilst the second chandelier is hung centrally over the dance floor and used to much the same effect, but with the addition of Teatro K9 flood fittings and control to produce a kinetic centre piece.

In Russia, the complicated logistics of servicing projects and the complete lack of locally available spares understandably impose certain problems and the main feature of the sound system had to be its reliability. As a result, the TOA system chosen was over-specified to ensure the system could tick over at approximately 50% of peak to minimise any possibility of blown drivers etc. Four full-range SF-30 cabs cover the dance floor with two SW-46S-UL2 super low frequency direct radiator bass cabs in support.



The lighting plot for the main dance area at Alexanders.

The power is provided by two P-1090D and two P-1060D amplifiers fitted with DF102S-1 and DF101S-L crossover modules. The bar and reception background system is on a 100V line, and power is again provided by a P-1060D amplifier with MT-1030M output transformers driving F-300G foreground speakers. Toa was also specified to limit the system using an L-1102 dual leveller/limiter.

The music is supplied via a Pro Acoustics

HQ7U mixer which, according to Richard Maunder, proved adequate although limited, with Technics SL1200 turntables and Denon CD and tape machines bringing up the rear.

How much difference to the lives of ordinary Russians, Alexanders will make remains to be seen. The future of Russia as a whole still hangs in the balance and who knows what players might enter the game in the years to come. We can only wait and see.

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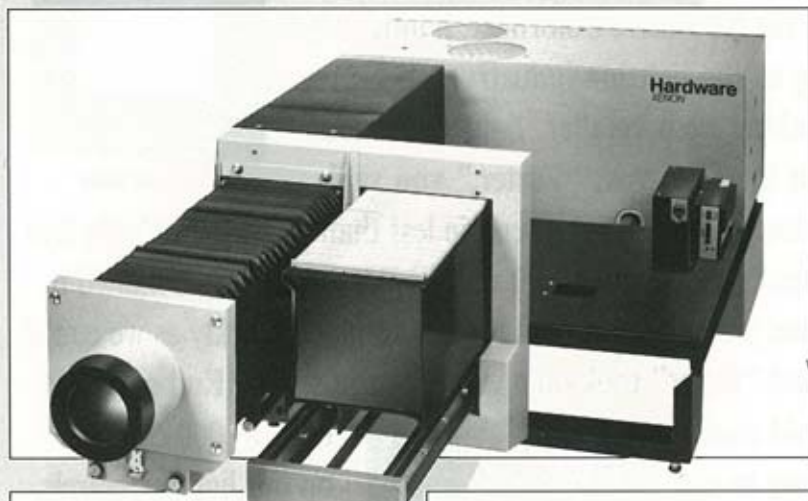
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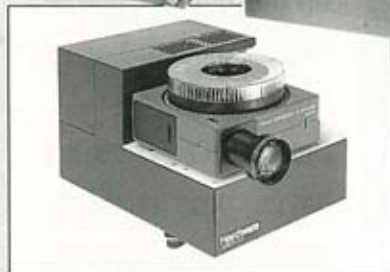
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ALL CHANGE

Graham Walne surveys Colour Changers

Regular readers of L+SI surveys will know that I usually begin by observing that there is very little that is genuinely new in technology, and most of our current equipment owes something to what went before. The history of theatre particularly is punctuated by the continuous development of ingenious devices, and in this respect colour changers are no exception.

Perhaps the earliest application of coloured stage lighting was described in Serlio's book 'Second Book of Architecture' which was published in 1545. Serlio describes how plano-convex glasses placed in front of the candles acted like lenses when filled with water, but the addition of coloured water projected coloured light. However in 1565 Leone di Somi's book 'Dialogues on Stage Affairs' suggested that the glasses were coloured not only to provide effects but also to reduce the amount of glare from the lights themselves.

In the eighteenth century, the footlights were mounted on a raise-and-lower system so that once below the stage, the oil and floating wicks could be replenished and the colours changed. The introduction of gas in the early nineteenth century enabled the lighting to become more sophisticated, and dimming made it possible to crossfade between colours which were initially provided from glass chimneys fitted over the gas burners. Another development was moving the colour frame which contained long glass panels, the slow operation of a lever producing crossfades to sunset or moonlight, not unlike the results of slowly moving scrollers today. Another link is provided by the invention in 1893 of what we would recognise as semaphore colour changers which were initially developed for the limelights. The colour wheel too is also not a modern invention since it has been recorded in use on magic lanterns at Drury Lane in 1820. Indeed the

1820s seem to have been a rich period for experiments with the new medium because Terence Rees' book *Theatre Lighting in the Age of Gas* (as usual my bible in these matters) is full of descriptions of the effects of changing colour on differently coloured backdrops, some of which were often translucent.

The moving colour frame remained in use when electricity was established towards the end of the nineteenth century but the glass was replaced by gelatine (hence 'gels' in common parlance still today). Later the bulbs themselves were dipped, a technique which remained in common use until comparatively recently although the gelatine remained in Strand Electric's catalogue until 1962. Of course the bible about the development of electric lighting is Fred Bentham's *Tabs*, one edition of which describes "the application of light using complementary colours to obtain effects . . . in fact he (Samoiloff, the inventor) could change



Top row: The Scroller (Wybron), Rainbow (Camelont), DMX Colour Wheel System (CCT). Middle Row: Color Call (Strand), Colour Mag, (Light & Sound Design/ Cerebrum), Colourscroll (Rosco). Right: Digital Light Curtain (DHA), Gel-Stream (Cerebrum/A. C. Lighting)

the whole scene, costumes, make-up and scenery." It caused a sensation in the papers and it was claimed that the lighting itself put up the takings at the London Hippodrome revue. Great care had to be taken with the artistes' make-up and each dressing room mirror has a small lantern over it so that the make-up could be matched to the changes of colour which would be used. Bentham accurately comments that it is interesting that pale colours were not introduced until 1938 despite the comparatively low power of the lamps. The 1930s were the heyday of colour mixing, notably in cinemas. Several manufacturers, including Strand, developed programmed controls as Bentham's says "so that the inexperienced operator could put the pointer to lavender, for example and up it would come." The devices used motorised dimmers on three colours and the settings of the dimmers regulated the colours, not dissimilar to the ColorFader device described in the February 1993 edition of L+SI (see 'Bolshoi at the Hall').

Strand provided the venue for a more recent demonstration of colour changing when the Association of Lighting Designers asked production electrician Alistair Grant to demonstrate colour scrollers. Alistair's extensive experience highlighted a number of pitfalls for the unwary. For example, although some scrollers can run on analogue this would generally take up too many channels on a lighting desk and so DMX is preferable. Some scrollers only work on DMX which might involve extra cost converting the output of the desk. Alistair suggested the 'SAGE' converter which has a useful 'anti-jitter' function and can be set to follow the first instruction or the subsequent ones, just in case the first could be a fault caused by noise on the line. Analogue installations involve dedicated lines whereas DMX permits daisy chains (generally up to 12 scrollers can be connected in one ring) so cabling is kept to a minimum. The length of

cable also needs to be kept to a minimum otherwise voltage drops will cause scrollers to respond out of sync. Some scrollers do not need AC mains as well but others do, so it's worth checking.

Planning the order of the colours in a string is important as these cannot easily be changed on site, although this is not impossible - a metal template and high temperature tape are required. Colour filters stretch after time and on a long run this would involve tweaking sessions. Since polyester is less resistant to heat than polycarbonate it is thus more likely to stretch; some electricians suggest that colour ranges should not be mixed although there is not agreement on this. Heat shields can offer some protection and Alistair always recommends fitting these to 2ks, 5ks and short-nose Parcans. Small venues need to be aware that scrollers contain fans which could be obtrusive in quieter dramatic moments. Most fans have speed selections but since the purpose of the fan is to cool the colour there is an obvious drawback to reducing the speed.

Another drawback to scrollers is that their additional weight can cause some luminaires to lose their position and so yoke adjusters should be fitted where possible. Some Pars come with this as an option but I have occasionally 'borrowed' wire coat hangers from the wardrobe when no such formal arrangement has been possible! Scrollers will also accept attachments on their front face so that barndoors or top-hats can be added. Alistair even suggested that another scroller could be added - back to ColorFader again!

Scrollers provide better chases than those possible through dimmer action because of the

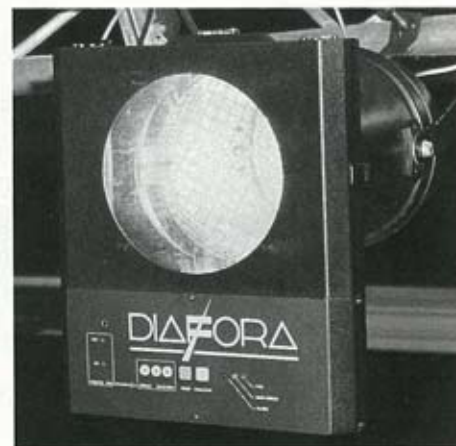
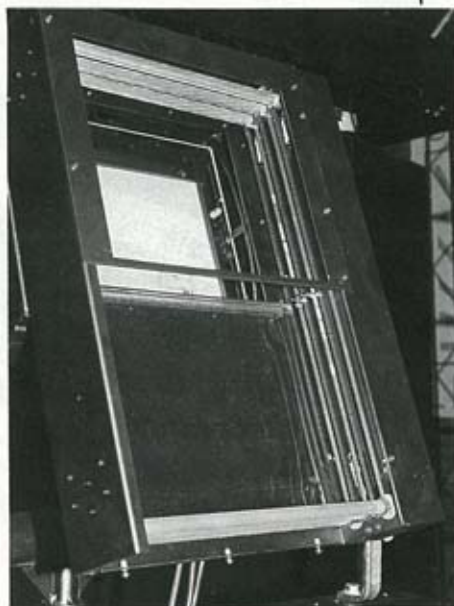
delay inherent in the lamp filament, and additionally some spectacular cross fading sunsets have been produced by the devices' ability to move very slowly. Split colours are also possible. It is clear that the refinement of these devices has enabled the size (and cost) of rigs to be reduced whilst extending the designer's palette. We are slowly moving closer to the day when the designer can spend more time experimenting in the theatre rather than planning in the office. Scrollers are one step in the right direction.

The Survey Itself

The following questions were circulated to manufacturers and agents and I suggest that readers use the list below to flesh out the abbreviated questions in the forms. As usual I have marked down the manufacturers' or agents' own replies and left spaces blank where questionnaires were not filled in. In some cases I have added information from manufacturers' own literature and this is printed in italics. The response was quite good, although one manufacturer commented that the questions were too open but not adding any additional clarification. By contrast two others commented that the questions were too specific!

The questions were . . .

- A The name of your company as you want it to appear.
- B The name of your product as you want it to appear.
- C Are you the manufacturer or the agent man/agent?
- D If you are the agent, what is the country of origin of the product?
- E How long have you been offering this product in the UK?
- F Type of changer . . . scroller/semaphore/wheel other.
- G If answer to F above is 'other' please provide description of system.



Clockwise from top left - David Agar and Robert Achlimbari with Elite Systems' Microscroller, Teatro's Colourbox, the latest Diafora, Pan Command's ColorRanger, the Lightpaint from Oscar and ColorFader from Pan Command.

The Roboscan PRO 218 is a intelligent lighting projector



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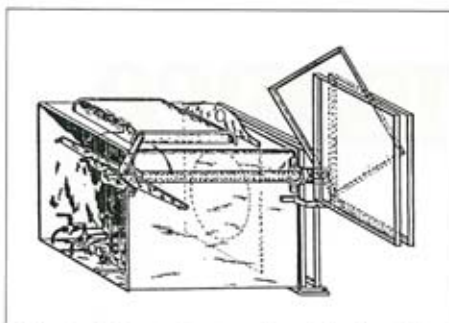
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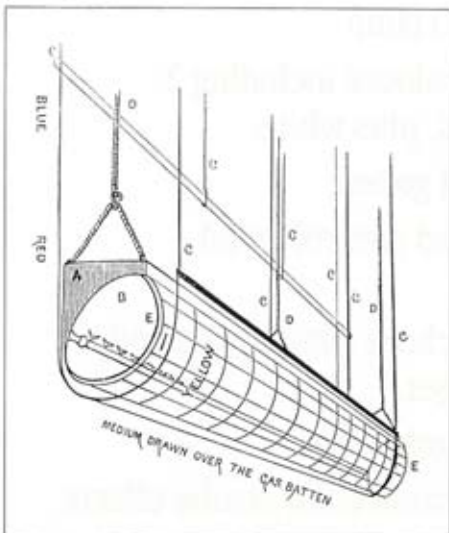
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Scan PRO218



Patent rotating colour mediums for lime-light, by E. S. Cooper, British Patent no 18623 (1893).



Gas batten fitted with cloth mediums. F. Lloyd, Practical guide to scene painting . . . (London: 1875)

- H How many colours does the system deliver from one 'loading' of the palette?
- I What is the fastest time taken to change from one colour to another?
- J What is the slowest time taken to change from one colour to another?
- K What is the counting mechanism . . . i.e. stepper motor/optical/frame counter etc.
- L What is the system protocol ie DMX512/analogue 0-10 etc?
- M How many devices can be fed from one power supply (where applicable)?
- N Does the device require mains as well as

- control signal?
- O If a special controller is required what is its capacity?
- P What connectors are used between the device and the psu/controller etc?
- Q What is the maximum control cable length to psu/controller?
- R Please indicate the power requirements of the psu/controller.
- S Can your company provide and fit colours for your device - yes/no?
- T Is your product available for hire - yes from us/yes from others/no/not known?
- U Does the device contain a fan - yes/no?
- V If the answer to 'U' is yes can the fan speed be reduced - yes/no?
- W Can the device still permit barndoors etc to be mounted on the instrument?
- X What are the dimensions of the mounting plate?
- Y What is the weight of the unit?
- Z What is the UK list price of the unit and of the psu/controller?

Additionally readers should note that one of the Camelont Rainbow range is suitable for outdoor use because it is waterproof. Appropriately this device is called the 'Alfresco'. I have to admit that it did not occur to me to ask this question but with so many outdoor concerts this is obviously an important feature.

Worthy of note is the Teatro Colourbox which sounds a good rival to the Pan Command ColorFader. I will quote directly from Teatro's literature on this subject: "the possibility of 21 different colour combinations...Colourbox can go from one colour to another without scrolling through unwanted frames and can crossfade between consecutive sections. Three toothed drive shafts, each controlled by a high quality stepper motor, drive three separate toothed drive belts. Each drive belt carries two filters." Most manufacturers seem happy to talk about fitting their units to any size of suitable light and there are scrollers here to fit just about anything from the large 8-Lites to the small Birdies. Additionally, there is the DHA Light curtain. This device comes complete with lamps, tilt mechanism and is controlled from an Apple Macintosh; consequently some of the questions do not directly apply. DHA note that this device has the ability to change at very slow speeds and the accuracy to which the destination

colour or split colour can be specified. Gel Stream is advertised as "the world's only cartridge loading colour scroller - no de-rigging, simply snap-out the colour cartridge and snap in a new one. No tools required." It is also worth noting that Gel Stream's in-built power supply is included in the unit cost (as is the DMX for which some manufacturers make an additional charge). Consequently Gel Stream is very cost effective. It also comes with excellent literature showing connections and line-up information.

Latest news on the scroller front is that Wybron Inc of the USA, plan to open a London office for sales and gel-string assembly (see L+SI February). Of note too that the Diafora range is available in the UK from ESP (see also SIEL report this issue).

Finally, comes my customary comment that it is always possible that we have missed some scroller somewhere. If we have then we will be happy to include details in a future issue of L+SI. Happy scrolling!

Drawings reproduced from Terence Rees' 'Theatre Lighting in the Age of Gas' published by the Society for Theatre Research

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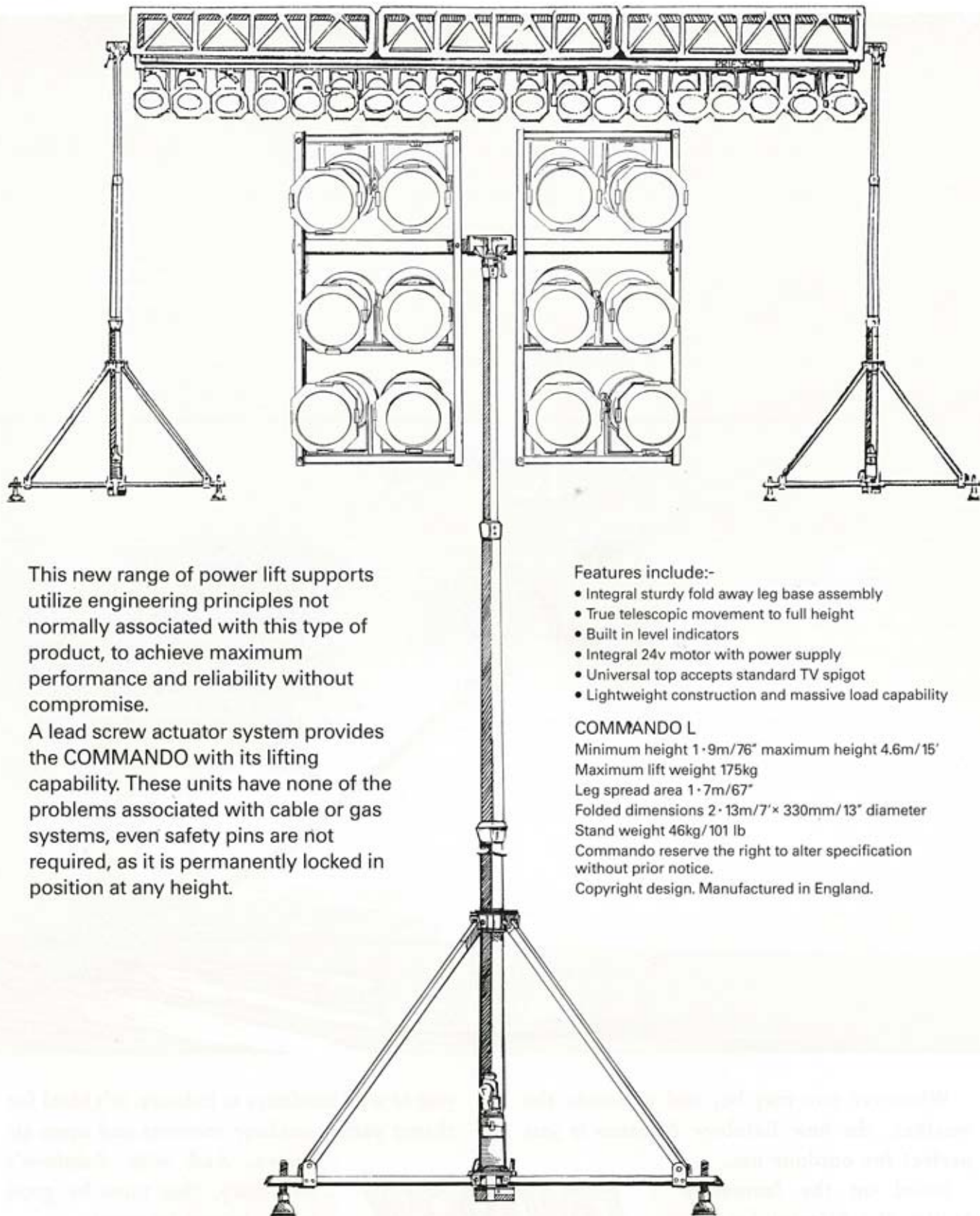
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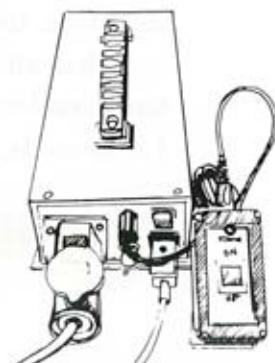


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ON TOUR

AND PRODUCTION NEWS

Brit Awards

Alexandra Palace

'Rather than adapt rock 'n' roll to television, we decided to adapt television to rock 'n' roll.' Such were the thoughts of Chris Cowey (TV producer) and Gavin Taylor (TV Director) when they first looked at Alexandra Palace, the venue for this year's BRIT Awards where they were looking for a way to create a piece of unique music television entertainment which the whole industry could be proud of.

So they persuaded the best rock 'n' roll production professionals to become involved: lighting designer Patrick Woodroffe, show designers Fisher Park, set construction company Outback, lighting suppliers Meteorlites and Vari-Lite, sound suppliers Britannia Row and videowall company Laserpoint.

The mission was to present six bands playing live in a setting that looked good for TV and was exciting for the live audience of 1,600. In these recessionary times, the presentation also had to be 'economic'. Fisher Park's solution was to transform the plain West Hall of the Alexandra Palace into a colourful rock 'n' roll club for the night, with bands playing on a revolving stage.

The stage was set in the middle of an asymmetric ziggurat of silver towers stretching 180° of the hall enclosing two banks of seating.

A separate presenter's set was sited stage left, with a 4x4 Pioneer projection wall backdrop supplied and installed by Laserpoint. A 4x3 was built into the set and a further 18 monitors were located in groups around the stage and set.

Award winners accessed the low stage from angle trusses through the audience. Then, to complete the club-like feel, the show control area was set high on a scaffold tower through which the audience entered.

The band Madness opened in a blaze of colour drapes, later removed for the ascetic Suede. Peter Gabriel performed 'Steam', a blistering show-stopper with the revealing of eight silhouette dancers in silhouette boxes built into the scaffolding, saxophonists who appeared through trick doors, and jets of carbon dioxide and steam blasting from the front of the stage.

The main facade was constructed from



The Brit Awards at Alexandra Palace, screened late February.

Outback Productions' own decking system, creating an array of boxes and icon displays. The centre revolve was split by a 3.6m wall to conceal band change overs, and a 12m clearspan bridge walkway and spot positions were incorporated throughout the structure.

The Meteorlites lighting rig comprised a mixture of television and rock technology, combining Quartzcolor 2k and 5k fresnels, Avolites DMX 12-25 TV dimmers together with Thomas truss and pars. The system was controlled with a Celco Gold and Whole Hog, the latter driving an array of Pan Command Color Faders and 5k scrollers. Four short-throw 2k xenon Super Troupers and seven Pani HMI 1200 followspots together with a large number of stage and set practicals, rounded off the system. Other lighting came in the form of 48 VL5s and 20 VL2Bs. Outside Alexandra Palace, two Theatre Projects' Skytrackers roamed the night skies.

Chris Hey production manager, and his crew of seven from Britannia Row supplied a Turbosound Flashlight PA system flown above the audience.

Front of house there were two Yamaha PM4000s, with two Ramsa S840 monitor boards deployed on stage and 96channel BSS splitters providing the TV and radio feeds.

Credits:

Show Design:	Fisher Park
Lighting Design:	Patrick Woodroffe
Lighting Operator:	John Dipple
Vari*Lite Operator:	Dave Hill
Lighting Suppliers:	Meteorlites Ltd Vari*Lite Europe
Videowall Supplier:	Laserpoint
Staging/Set Construction:	Outback Productions Ltd
Audio Supplier:	Britannia Row Productions Ltd

Scenery generously loaned by Elliott Rashman courtesy Blackout; Andrew Miller, courtesy Field Services; Edwin Shirley Staging & Trucking and Brilliant Stages.

Ruth Rossington

Chris Rea

Sheffield Arena

LD: Alisdair Gibson

For those who think going to see Chris Rea is like going to bed with their favourite book and a cup of hot cocoa, think again. Not for him the safety of a note perfect CD rendition of his last five albums, nor \$10,000 stage sets or designer stage clothes - his performance was raw. Nonetheless, it was a superb exposition of music, lights and sound.

The Meyer sound system, supplied by Wigwam, turned the Sheffield Arena into a cathedral. Though preaching to the converted he wasn't going to take it easy; the music soared and Chris' bottle neck guitar introduction vaulted around this great barn and set the tone for the evening. This was amply reflected in the quality and quantity of PA employed for the show; not only was there a delay cluster two thirds of the way down the hall, with Meyer arguably a necessity in a room this size, but also a large sub-base and flown cluster at the far end to provide a wrap-around triphonic sound effect. Used

sparingly, most notably in 'Daytona' where sounds of revving engines and spinning wheels added voluble excitement to the song, the sound system provided an end result that more than justified the added expense to the production and extra work for the sound crew.

Mark Kennedy, who also works for Van Morrison, mixed front of house on the new Yamaha PM4000 (the first of these desks to go on the road) whilst John Sherman used a Midas XL3 from a stage position so exposed that he appeared to be a member of the band. Hidden behind his graphic racks was another Yamaha desk, a PM3000, used primarily for the triphonic effects. In praise of Mark I have to say the vocal sound was generally excellent: throughout the entire evening I was under the distinct impression that Chris was standing beside me in a pub in Middlesbrough singing in my ear - and that was as true up in the tribunes as down on the floor. However, the brightness of guitar and vocals was occasionally achieved at the expense of the rest of the band.

Similarly the lighting, designed by Alisdair Gibson, rose to fill the hall, and in a most surprising way. The stage was dominated by a huge mast, 80ft of pre-rig truss stood on end with an 8ft square truss halo at the top. A 40ft span of

pre-rig ran from centre stage to off stage left, and raked downwards at the on stage end, immediately behind the tower, whilst to stage right another 40ft span was similarly raked and running roughly up and down stage. All of these trusses, together with the rear truss (trimmed at over 60ft and supporting the back drops), were festooned with every light imaginable.

Telescans, from French company Cameleon, hung vertically from each face of the mast and horizontally from the under-side of the other trusses. It would be easy to say these powerful lights dominated the show but at times they were pushed to compete with the other lamps, in this case ACLs, P64s, P36s, CCT profiles, 5 kilowatt fresnels, 8-Lites, Svobodas, Iris fours and finally P750 beam lights. Inevitably this multiplicity of lamps was complete with rotating gobos, Rainbow, Colour Scrollers, barn doors, you name it - it was there.

As Gerry Raymond-Barker, the tour production manager was keen to point out: "This is a lighting system comprised totally of many small parts. The fact that we have a clean stage for backline three hours after load-in commences, and we are only six venues into the tour, is due in no small part to the extensive preparation work carried out by

Concert Lights U.K. Ltd, and most especially by the company owner Harry Box.

On the floor there is an almost equal confusion of lights as well as effects and movie projectors, most striking though are the four affectionately named 'Aliens'. Based upon truck-mounted hydraulic arms, manufactured by Palfinger of Austria and modified for stage work by Out Reach, their agents based in Scotland, these machines carry two Telescans each at the end of their boom arms as well as Dataflash and a single Par 36. Unladen, each machine weighs ¾ ton, with the capacity to extend 20ft out over the band. Needless to say the tour is carrying its own acro props for added support below stage.

Displaying remarkable self control Alisdair didn't move these beasts until the song 'Nothing to Fear' over half way through the set, when, with the Telescans producing rich saturated blood red rays scanning the front of stage, they lurched out from their restive positions. Striking though they were, the real drama took place in the enormous space above the band where beams and colours vied for dominance. Though each type of lamp was used sparingly (it was noticeable also, that Alisdair often used less than full fade for many looks) the air always seemed to be thick and busy with light.

In truth the band was rarely lit directly, relying upon the spill of ambient light from above or being thrown into sharp relief by powerful back light. The only concession to convention seemed to be 4 Pani HMI followspots used on Chris Rea and the occasional featured musician, but these two were mounted in equally vertiginous positions, one even hanging from the top of the mast. As risky as it may be to light the artist in such a way, especially when you consider the maturity of most of his audience, nonetheless it's fair to say the lights never failed to be entertaining and rarely supplanted the music.

Overall the show was unpretentious in its conception yet spectacular in its execution. Between music sound and lights, they all resisted that urge to 'play one note too many', and the show teetered on the brink - most enjoyable.

On a technical note Out Reach not only supplied the Aliens, they also fitted fail-safe systems to all the hydraulics, designed and engineered the bases, and, likewise, designed and supplied the control system.

Steve Moles

We apologise for there being no pictures of Chris Rea on stage but the production company were unable to provide photographs before our press date.

Main rig:

- 24 x 6W bars P64
- 25 x 4W bars P64
- 8 x 5W fresnels
- 4 x 8 - Lites, Molefeys
- 8 x P64 floor specials
- 6 x 4W CCT condenser bars
- 6 x ADB Svoboda
- 12 x CCT axial profile spots
- 16 x P750 beamlights
- 4 x Pani followspots c/w Rainbow colour changers
- 8 x Iris 4 floods
- 6 x P36 c/w stand
- 2 x Minuette 650 fresnels and stand
- 1 x wind machine
- 5 x 40' pre-rig truss
- 4 x sections pre-rig truss
- 100' x A type truss
- 60' x 12" x 12" truss
- 2 x 60' tab track
- 1 x Celco 90 Gold control desk
- 2 x AVO 72W dimmer rack
- 1 x AVO 36W dimmer rack
- 2 x 6 x 5kW dimmer rack
- 1 x Patt 2B2 effect wheels

Effects:

- 8 x 5kW Rainbow Scrollers
- 4 x 8 - Lite Rainbow Scrollers
- 34 x P64 Rainbow Scrollers
- 3 x 24v 1000W Beamlights
- 18 x Dataflash and control
- 3 x 16mm film
- 2 x cracked oil machines
- 1 x JEM 6500 heavy fog machine

ShowCAD Steals Shows

Following its success at LDI, when Carl Dodds and John Lindsell credited it with sharing the LDI award for best light show, ShowCAD has now been adopted by Coemar to run all their major exhibition stands, including the biggest of them all at this year's SIB, Rimini (see also report on SIEL this issue). Dodds and Lindsell, famous for their staged lighting performances, originally for Clay Paky and now for Coemar, were instrumental in the choice of the PC-based system.

In a ringing endorsement Dodds told L+S: "The silent partner in this team is ShowCAD, without which such shows would be a nightmare. Coemar will launch many new products at Rimini this year, including highly complex automated devices which requiring multiple channels to run each one, let alone the overall show which will run to 960. For our money, only ShowCAD makes this truly feasible."

Axon Digital's ShowCAD is emerging from an exciting autumn and winter since its launch, which saw it running 74 automated luminaires for the duration of a six hour Swedish Telethon via CP Sweden and a three month long industrial show in Iwate, Japan via Clay Paky. At SIEL in Paris it was controlling 800 channels of lighting on the J.Collins stand.

A new software version 1.2 will be issued to coincide with Rimini and existing users will be entitled to up-grades. Some new interface options are also available. These useful new add-ons include a digital interface card to enable touch panel operation and control of external switch devices such as microswitches for scenery and rigging movement and a new analog interface which will provide anyone with a standard lighting board with the facility to harness the extra power and programmability of ShowCAD.

The new software version includes up to 8000 pages of scene 'playback' lists, plus templates which will build into a library of luminaire-specific screens and also provide access to 16 bit control under DMX where appropriate.

Axon's Mike Martin told L+S: "We are especially excited at the potential of the analog interface. There must be plenty of people out there, including many rental houses, who will see this as a realistic way to increase the power of their existing lighting desks for a relatively small investment."

ShowCAD is distributed by UK-based Cerebrum Lighting Ltd.

Avolites on a Roll

Avolites are shipping desks as fast as they can make them to such far-flung destinations as Europe and the Far East. Managing director Richard Salzedo flew to Zurich at the invite of recently-appointed distributors Delux to demonstrate the new Rolacue Sapphire to an audience of lighting designers. As a result, the third console has just gone out to Switzerland, with a further six Rolacues shipped to Germany and Sweden. On a similar exercise, Steve Warren, Avolites' sales director, flew to Light Partner in Denmark to demonstrate the console to assembled lighting designers and large rental companies. In view of the success of these ventures, further demonstrations are planned. The company has also just taken an order for a desk to be put to use at the forthcoming Expo in Korea.

High End Equipment Exposed

In what is becoming an annual tradition, High End Systems' UK distributor Lightfactor held a week of open days during February to enable designers, rental companies and others to get to grips with the American company's equipment.

New this year were the Trackspot, a cut-down version of the Intellabeam, and the latest edition of the Dataflash controller. Lightfactor themselves revealed a new outdoor searchlight.

Due to the current popularity of the Intellabeam in the concert and touring market, it was not altogether surprising to hear that Zenith Lighting have made a major commitment to the automated mirror luminaires, and that The Spot Co have further enlarged their stocks. Both Jon Cadbury and Peter Miles were visitors during the week. Lightfactor also thought it wise to stress the flexibility of various control options, other than the dedicated Intellabeam controller, so demonstrations of the Compulite and Whole Hog desks were on hand.

PRODUCTION NEWS

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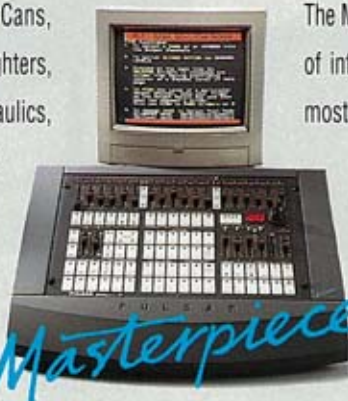
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SOUND 93

Tim Frost reports from the SCIF Show at Sandown Park

Having got the V-100 fully into production, Canon, the near-British success are now spreading their distribution beyond the UK. The wholly UK based division has been busy building distribution agreements across Europe. Glen Harris was pleased at the speed things were going. "Although we only started shipping in November we already have distribution in 10 European countries and we hope to start in the US by the summer. The distribution is mostly through the local Canon offices and we have been encouraging them to appoint specialist installation companies, many whom made contact with us at last year's PLASA show."

AKG continued to widen their range of electronics with the Modular Audio Processor which is at the heart of a new conferencing system. The modular system has no restrictions to the number of output channels and also available is a smaller stand-alone AS100 six channel system. Although it didn't arrive in time for the stand, John While also mentioned that dbx are resurrecting the 120 'boom-box'; a bass end favourite of many DJs. Showing that they want to be in any emerging field, AKG have also taken on distribution of the Apex CD recorder, the CDR 40. On the purely microphone side, says While, "we have set up a special projects division to create microphones for special requirements, and this division has already developed special microphones for applications as diverse as coach drivers to dealing rooms."

Austrian computer based matrixing developers, **Microanalogue** booked space to both demonstrate their PC controlled switching system and actively look for new distributors. Currently the system is in use at the Bergen Festival with 40 loudspeaker groups, where it is programmed to make the PA source follow the position of the performers.

First time exhibitors, **The Professional Audio Group**, had the ultimate rock speaker. That is not to say it is designed to be great for rock 'n roll, but it looks like a rock. The BES Rock is one of several loudspeaker systems designed to be heard and not seen. "The interest has been very good because we are not selling just another speaker cabinet - these are unique," said sales manager David Walls, who is getting a lot of interest from both installers and architects.

Shuttlesound had a host of things to show. Highlighted was their ShuttleCad computer design package that will be formally launched later this spring. On the hardware side, alongside the new Amcron high power line-voltage amps, was also a neat feedback suppresser by Sabine. The FBX900 automatically hunts down feedback peaks which it filters out with its nine notch filters. "Because the filters are very narrow it doesn't noticeably affect the sound quality and it can be used to deal with tricky problems like roving mics," noted Shuttle's Jasper Whittaker.

Marquee featured Soundcraft mixers big and little - from the tiny Folio up to the Vienna, and

managing director Spencer Brooks was talking were pretty excitedly about the Crown Microtech 5000 amplifiers they have just taken delivery of, as these can deliver nearly 5kW bridged mono from a 3U package.

One surprise name at SCIF Sound '93 was **Sony** - not exactly renowned for their PA equipment. It is something that the company's John Perkins is trying to do something about. "Last year we set up a division to develop the dealer business. We will building on the base of our video dealers, as much of our sound equipment would be used as part of an audio/picture application. We are also targeting the top audio dealers, contractors and distributors with our components such as equalisers, effects and speakers."

Audio Projects premiered two **Crest** products: the first, the Century Series, is being produced by a completely new Crest division, and totals nearly 40 variants in four ranges and is designed to cover every area of mid-price sound reinforcement. Also premiered was their NexSys amplifier control software running under Windows which will form the heart of at least one new large Crest driven installation in the next month or so.

Harman placed themselves just by the entrance with the **EAW** stand to one side and the 'everything else Harman' stand the other. New goodies on the Harman side was the lower cost JBL M series electronics and amplifiers (but not low cost enough to conflict with the C-Audio amplifiers on the same stand).



Ted Rook of Allen & Heath and Keira Leeming of Harman Audio with the latest offering from Allen & Heath - the GL3.



Evening duty at the TOA Golden Ear Awards: SCIF chief executive Ken Walker (left) with Phil Coe and Colin Cartwright of Bose with their rose bowl and (right) Harry Greenaway of TOA. See main news for full list of winners.



Spencer Brooks of Marquee with Rick Clarke from TSD Ltd on the product-packed stand of Marquee Audio.



Network's Paul Ward (left) and John Adeleke (right) with Dan Bävholm of Lab Gruppen.



Carl Grey of Peavey who showed the CEX 4L digital crossover.

Speaker-wise of interest was the Control 8SR which combined the outside of the Control 5 but on the inside, a true sound reinforcement combination of high power 8" bass driver and a Bi-radial HF horn.

EAW, which seems to be cohabiting easily with JBL in Harman's line-up, had extended the mid-size JF200 speaker unit out to complete range. In descending size, the JF100, JF80 and JF60 are trapezoid full-range boxes for work for anything from presentations to small PA.

On the background music front, MAM has the range of cassette and CD in-store playback units including their new 4006 six-CD multiplay with built-in 60 watt stereo amps.

Rediffusion had gone a slightly different route, making their in-store playout system completely modular. A single RM2 frame can house a pair of modules in any combination from their range of long play or standard play CD or cassette drives.

Planned Equipment (PEL) showed that sophisticated paging and conferencing systems can be simple to operate and install with their AZ1111 six zone paging package. The microprocessor controlled EC50 conferencing unit which, whilst it included voting, can still be installed with just one cable. Auditel's CPM401 was a little more complex but still presents a range of operation options and single cable connection.

Beyer are still trying to convince the market that the excellent DT150 should now be everyone's stock headphone. But just to be on the safe side the company is still presenting this better sounding DT100 look-alike as an alternative rather than a replacement for the 'original'. They have also moved further into



Aviva Ozin of Autograph Sales with the Clear-Com range for which the company have recently become distributors.

the Infra-Red market with the IRS790. Another product that has been emerging over the last couple of years is the pocket receiver to work with a standard radio mic transmitter and Beyer's 260 unit, soon to be imported in UK frequencies, works out a lot cheaper than walkie-talkies.

Continuing the low cost radio mic/receiver theme, HWI introduced a Shure pocket receiver and three new mics aimed at the vocalist, guitarist and presenter. From as little as 300, these are instant (and legal) solutions for basic radio mic uses. "It's aimed very much at the budget user but we can guarantee the sound because it is 100% Shure product," said Andy Wood, having to make no apologies for the performance of the new range. At the other end of the scale was Sennheiser's Mikroport multi-channel receivers for those big (or very big) jobs.

The ease at which users can get into radio mics has been aided by the dramatic turn-around in the convenience of getting a license. ASP, the agents who now supply the



Brisk business for TOA.



Phil Barratt, complete with flat cap, enjoying a bit of Wigwag nostalgia.

licenses, were very much in evidence at the show. They had lots of easily understood material and an attitude of helpfulness that contrasts with the good old days where officials were more interested in threatening potential users than trying to help them work within a legal framework.

Audio Technica's range of microphones continues to expand with more specialist products such as a pressure zone mics of ceiling applications and the MT830 hair-line miniature condenser. "We don't just make microphones but also complementary electronics," commented Paul Maher, pointing out the new MX62 broadcast quality mixer and AT FS11 automatic feedback suppresser.

DNH have made a strategic split in their operation, separating the commercial speaker systems under the Next Two name, whilst the hazardous/safety components continue to be marketed under DNH. Next Two showed a range of compact background speaker boxes and a low cost sphere on a pole for garden applications. Adastra were also moving into the moulded cabinet weatherproof speaker system with the introduction of the L2100.

The big news on RCF's stand was their announcement that they have just completed negotiations to take over distribution of Marantz 'professional' products. This arm of Philips manufacturing has several units, including a CD-R, which are much more applicable to the pro user than the hi-fi market. RCF's distribution will undoubtedly give the range a boost. In their own right, RCF are expanding the speaker range based around the 5S launched at PLASA last year and also introduced a well priced intelligent zoned



Cerebrum's Mike Fisher (left) 'Powerdriving' with Keith Dowzell.



Next Two - the commercial side of DNH loudspeakers.



David Bruml of EAW with the complete JF range.

paging system in the SPA8000.

Paul Ward's **Network** got off to a good start at his first UK exhibition. Having started at PLASA time as distributor for **KT** and **Nexo**, Paul has now added **Lab Gruppen** amplifiers to his portfolio. There are seven amplifiers in the LG range, with two switch mode PSU units, including a 12kg 1200W package. They are well established in Europe, as Paul explained. "They claim to have 65% of the large amplifier market in Scandinavia. Although using European components they do look a little alien from inside, at least we know that they conform to all the current EC and Scandinavian regulations." Paul's pet Nexo product was the very compact PS10 speaker with an HF horn that can be reconfigured for vertical or horizontal (floor monitor) use.

With the price of digital continuing to drop, the digitally-controlled analogue processor is beginning to give way to the all-digital device. **Peavey** showed the way with the CEX 4L digital crossover which is part of their ever expanding installation range. Since the signal is digitised at the input, then a complete raft of operations including every likely crossover frequency and slope plus all the delays needed to align drivers in a box and boxes in a venue are included in the single processor. "We have a lot of interest in the CEX 4L," said Peavey's Bob Pickford. "It's going to installation and companies doing hire in theatre. The fact that all the settings can be put into memory is a big advantage. When you go back to a venue all you have to do is recall the settings and a lot of the work is done."

Keeping in the digital domain, although for a completely different application, **Preco** had the Playback 1000 digital messaging system from 360 Systems in the States, which stores messages digitally, reliably and permanently in EPROMs.

Previously customers beat a path



Ultimate in 'rock' speakers from BES.

to **Formula Sound's** door just for their high quality DJ mixers. Now they are also searching the company out for equipment to let them operate without endangering the health of their customers and employees. The AVC2, prototyped at PLASA, is an intelligent level control that keeps a sound system well within the loudness limits required to minimise hearing damage. Tony Cockell made a very telling comment. "Noise control is becoming more and more important and if its license-on-the-line time, there is no quibble about the cost. But the problem is we are finding that venues and area health officers are coming to us but not the installers." There is obviously still reluctance by many installers to grasp the opportunities to increase safety and profits at the same time.

Other manufacturers are doing their bit to pull PA and safety together. **Carter Voce's** innovative digital sound distribution and control system VXi1n has been designed to satisfy BS7443 and BS5839. With the addition of a touch screen unit to 'point' to messaging areas it should be simple to use in an emergency. Sister company **AVX's** hard of



Tim Chapman of Crest Audio and Steve Hall of Audio Projects.

hearing systems were well represented on **Wigwam's** stand. **Baldwin Boxall's** Vigil 25 fully alarmed messaging system (the main controller bleeps if things are changed without authorisation) also fully meets BS5839 and has a monitor screen control option. More prosaically, but of critical importance in this area, is continuation of power to the system, with units like those manufactured by **Envetron Standby Power**. "With the emergence of BS5839 the demand is increasing for backup power units as sound and emergency systems are being combined," noted MD Cyril Bennett.

News from **Autograph** was their announcement that they have taken over the distribution of **Clear-Com** communications systems. "Clear-Com is an exciting addition to our expanding portfolio," commented Graham Paddon, surrounded by the other example of an increasing range of products which included Meyer, Micron Milab and QSC.

To round up a long whizz round the show, **TOA's** Chris Clements pointed out some of their many new systems. The most unique was the EV100 digital messaging system which uses electronic 'credit cards' to store the messages.

These cards hold up to 12 secs of audio in solid state static RAM and can be simply pushed into the unit and played - no moving parts and no problems.

Same place, same time next year? - probably. But having straw-pollled exhibitors after the show, whilst the quality and quantity of visitors was generally considered 'better than expected', the feeling is that SCIF really should be doing more to project the industry it is supposed to represent, firmly into the 20th century (before it becomes the 21st century!).

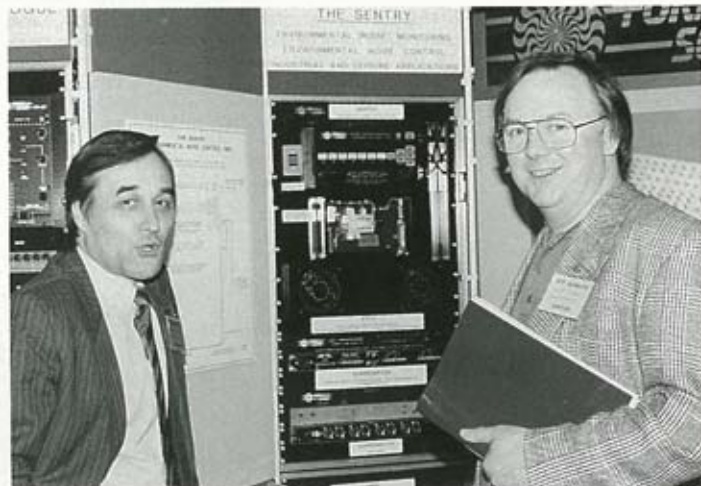
Do-it-yourself badges and inadequate literature does not sit easily with an industry that should be in the forefront of installation technology.



Phil Price showed the RCF range.



Paul Maher gets down to detail on Audio Technica.



Formula Sound's Tony Cockell (left) on Sentry duty with Ken Dibble.

SIEL 93 - PARIS

John Offord reports on Super Vikings, Baby Colors, Rigas and Alfrescos

Always the first of the year's bigger shows, SIEL is heavily national in context. In other words, it's a damn good show if you're French or work within the French entertainment and performance industries, but it only touches on the international scene. However, when it does, some interesting things regularly turn up, both product-wise and on the news front. In this report I've deliberately homed-in on specific areas, for the express reason that in several sectors such as with sound, for instance, all the major names are regularly represented at SIEL, but only on their respective distributors' stands. The big new product announcements are all saved up for the Frankfurt Music Fair due this month. In similar manner, the big Italian discotheque equipment manufacturers save most of their goodies, apart from a few appetizers, for SIB in Rimini - also this March.

The manufacturing strength resident in France is largely in the stage lighting and control field, and it is from this area that the major news comes, both from French companies at work within their own patch and from a few European manufacturers who have a strong historical presence in the country. At first sight, the show looked just the same as in '90, '91, '92 . . . However, a day's digging soon brought some interesting products (and news) to the surface.

Always one of the busiest stands at the event is that of **Robert Juliat**, the home



The stand of Stacco, a regular colour frontage to every SIEL.

manufacturer of stage and performance lighting instruments. Two new ranges of profiles, the SX and SNX, were on demonstration along with enhancements to existing models. Ludwig Billiet of Juliat's R and D department was showing the SX 1000W and 2000W halogen profiles which use double condenser lenses, increasing light output and depth of field and allowing eight shutters and gobo holder - all in focus! Each shutter runs on a separate gate rather than in opposed pairs and two zooms and fixed angle (1:1) are offered at each wattage. The front assembly rotates and locks through a screw knob on the back of the lamp housing.

The Juliat SNX range of 1200W and 2500W HMI profiles attracted a great deal of attention. Designed for theatre use, these units again use the improved optical system. Similar in size to the SX units, they come with an extra box for ignition at the back end. The fans located underneath are virtually silent. Like all Juliat profiles, the SNX will accept glass gobos without cracking since there is a lens between the lamp and the gates which absorbs most of the heat. This was ably demonstrated by an impressive projection demonstration above the stand with a seamless fade between HMI and halogen sources. This level of fade control on the SNX is a result of the digital control CAD900 which is mounted along with the ballast in a separate box. It has LCD display and is



Strand Lighting France's SIEL launch for the LD90 dimming system. Director Bernard Bouchet (left) with Philip Lehmann (Strand UK) and Michel Charles (right), president of HMS France. HMS have been working with Strand France for several years and have fitted many cruise vessels with Strand equipment. Two of the latest ships Strand-equipped by HMS include 'Monarch of the Seas' and 'Majesty of the Seas'. Both have LP90 consoles, Premiere house lighting controls and EC90 dimming systems. The latest is 'Dreamworld' which has a Light Palette 90, EC90 dimmers and Leko lanterns.



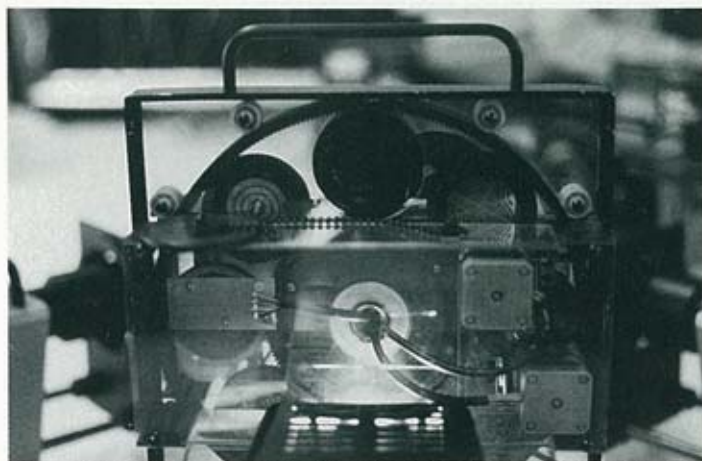
Ralph Dahlberg (seated) shows off AVAB's new Super Viking lighting control system.



The SX range from Robert Juliat.



The new Baby Color effects projector from Coemar.



Above (left) the 'gearing' of Optikinetic's Solar System and (right) plenty of interest on stand.

designed to be user-friendly. Separate cables are used for power and data and up to 30 metre lengths can be used. With CAD900 one circuit is used for the fader and another to switch the lamp on and off. It accepts DMX512 and AVAB protocols as well as 10 volt control and there is a DMX socket of the profile for colour changers. Features include lamp life readout, language choice (currently French and English only, but more to come), protocol booster and fade profiles.

CAD900 is also to be fitted to Juliat's existing range of 'louvre style' dimming shutters for fresnels. In addition, the conversion of 1200W and 2500W fresnels to work with the integral ballast AD900 is a service the company will offer customers who would like the added flexibility of this system. On demonstration was a converted LTM 2500W fresnel. To complete the luminaire line-up the PC range has a much finer frosting resulting in a flatter field when spread, and the followspot range has the 4.5-8 'Aramis' unit at the top end. This 2500W HMI condenser packs a punch with a finesse that makes it an excellent choice for theatre work. A glass front is fitted on a lever to allow an excellent softening of the beam.

Still with Robert Juliat, their dimmer range has been expanded with the Digibox - a portable digital dimmer offering 6 x 16 amp or 3 x 25 amp. The standard unit has LED and the de luxe LCD displays. Fade profiles are offered along with all the usual facilities. It is also possible to programme the Digibox to run an automatic sequence, setting levels and times. Options include a hardpatch with both serial and parallel connections and a resistive loading for direct drive on fluorescents.

Gerald Tongeren of Juliat's Dutch agent

Stage was demonstrating Highlight, a programme that sets out to simulate stage lighting using ray tracing. It is still under development, but the results are amazingly life-like. It is due for a release in 1994.

Also based on the Robert Juliat stand, AVAB of Sweden had their complete family of Expert lighting consoles and peripherals. All boards now have new Version 2.0 software supporting the MIDI Happening Sequencer Software. This runs on a Macintosh and was demo'ed in the new 1.1.2 version. Updates were also demonstrated on the PC Link dimmer status report programme.

Star on the AVAB element of the Robert Juliat stand was the new 'Super Viking', the top of the company's VLC line of 'very large capacity lighting consoles' (their words, not mine). The board can control up to 4000 channels via a Viking-type user interface and the system works with the latest window technology with mouse interface for all functions and can handle up to eight monitors of different sizes. It uses intuitive user interface with drag and drop method for changing, moving or creating channels, levels, sequence, presets, etc.

Apart from the compatibility with the comprehensive Expert range of control boards, the Super Viking system has numerous new features such as the latest object-orientated programming techniques. AVAB make the claim that the Super Viking is a platform for development of their lighting control systems for at least a decade and into the 21st century. The list of features demonstrated at SIEL included network distributed communication with work stations and other boards, advanced handling of automated instruments and scrollers, real time recording allowing complex

actions to be stored, modified and played back, dimmer status monitoring with tracking function, user-defined screen layouts where the same data can be viewed in different formats simultaneously.

A short walk from the Juliat stand was the stand of LCB. This steadily growing company under Jean-Paul Query (originally a Juliat man himself) started its business life with **Zero 88 Lighting** products from the UK, and they're are still going strong with them. In support were sales director David Catterall and new UK sales manager Paul Fowler. Zero products on show included the LTC cabinet dimmer, Rackmaster 290 and 490, XL, XLS and Sirius controls and the Focus range of luminaires. Another reason to link across to LCB was to log in to **Niethammer**, the famous name in German luminaires owned by Swedish company AVAB. (To further confuse your mind, Zero 88 happen to represent both AVAB and Niethammer in the UK.) There was much too-ing and fro-ing between the stands, in my own case with little choice when 'persuaded' by the AVAB 'Super Viking' himself, Kent Flood.

Anyway, Niethammer had the first production model of their new Auto Focus automated luminaire for theatre use. The system is equipped with six motors for pan tilt, zoom, focus, iris and gobo and it is designed for high precision movement over a speed range of 1:20,000 - allowing extremely subtle and noiseless movements and making it possible to produce a real-time sunset upon a stage! The model at SIEL featured a 2kW halogen profile, but can also be delivered with a 1.2kW MSR profile or a 2.5kW MSR profile.

Niethammer also demonstrated their new projection system with the 2.5kW MSR stage



David Catterall (front) and Paul Fowler of Zero 88 on the stand of LCB, their French distributors.



Doughty launched the new Zenith telescopic truss available in two sizes.



Thomas Stanger of MA Lighting (left) with Cerebrum Lighting's John Lethbridge. Scan Commander was the conversation point.



Jean-François Cheron of LumiSon (left) with Brigitte Delehay of Durango, Bob Hall of Anytronics and Lol Briec of MES.



Selling well: Mike Lowe with a Teatro Parcan and accomplice Chiarra Pellicelli.



Ludwig Pani's Hermann Sorger (left) with Kent Flood of AVAB on the LCB stand.



Celco at work: Keith Dale (left) and Colin Whittaker (right) with Dominique Rousseau of Promoscene and Etienne Dusautois and Philippe Coudyser of distributors Sonoss.



Light control: Coemar's Bruno Dedero and Collyns' Patrice Miquelis (centre) with the men who lit their show, John Lindsell (left) and Carl Dodds (right).



Golden Scan 3 from Clay Paky with Bruno Souchaud (front) of CP& France and Clay Paky's Pio Nahum.



David Manners (left) of CCT Lighting and Ralph Dahlberg of AVAB both celebrated their 50th birthday on the first day of SIEL. John Offord (50) took the picture. Associate editor Tony Gottelier (50) couldn't make the event.



ADB's Christian Léonard (right) with the company's optical specialist Dr. Reinhard Goerke and an 'open' version of the new 204 profile.



PLASA chairman Tony Kingsley of Avitec (centre) with vice-chairman Mike Wood (left) of JEM and Graham Norman of Light Processor. JEM and Light Processor products were shown on the stand of French distributor Collins.



Debbie Potter and Nic Tolkien of AC Lighting with Alain Jacquinet of SPL (centre).



British trio Bob Hall, John Jeffcoat (YES) and Adrian Brooks (Lite Structures) show that stiff upper lip.



CCT's Don Hindle (right) on demonstration duty.



Yves and Jacqueline Ruellan on stand for Hardware for Xenon.

projector and the DIA 32, DMX controlled random access slide projection system for 32 18cm slides. On stand too was an automated version of their MPS 103, 1.2kW HMI Light Cannon. This very narrow beam unit with motorised pan, tilt and focus can be choreographed for high precision movements and is designed for outdoor use. It has the same speed as the Auto Focus system.

Having arrived at LCB it was interesting to see how the company has steadily added to its distributed range of products year on year. They now have **Bytecrafft** and **Pan Command** added to their lighting side and **Community** and **Lab Gruppen** starting off their journey into sound. (British sound equipment manufacturers looking for a French distributor please note.)

Two brand new 2kW zoom profile spotlights with two-lens condenser optics and a double spherical reflector were shown on the stand of **ADB**, the Belgian-based Siemens company that manufactures its luminaire range at St. Quentin in northern France, a town equi-distant from Brussels and Paris.

The DS-204 is specified for a field angle of 13-36 degrees with a maximum axial intensity of 360,000 Cd whereas the narrow beam DN-204 (10-20 degrees) is actually a mini 'light cannon' with a peak intensity of nearly 600,000 Cd. ADB are pushing hard the quality of light distribution of these units which come in the same body style as all members of their 'Europe' range of stage spotlights. The company is looking to repeat with the 204 series the success already achieved with the 104 range launched at SIEL in 1992 and now expanded to four units - over 2000 luminaires have been sold in the 12 months since their launch. "Whenever we were challenged in a live competitive comparison on a white cyc we won with the 104 and the 204 looks even better," said stage and studio lighting division general manager Christian Léonard. "Everything is going brilliantly, except the value of the pound!" **Strand Lighting France** had a console line-up that included Galaxy Nova, Light Palette 90 and MX (with monitor). Luminaires included Optique, Alto, Quartet

and Super Quasar. Their major launch was the LD90 dimming system designed specifically for entertainment and architectural lighting. Dimmer blocks of varying wattages and capabilities can be included in the LD90's rack, offering a large number of features, many selectable and controlled from a keypad. It supports system-wide control from an optional hand-held programming unit or from the SV90 dimmer supervisor PC programme.

An all-digital system with analogue signal input and output capability, LD90 has 2000 step fade resolution at 50Hz voltage input - eight times smoother than DMX. There are 99 programmable preset memories on a rack or SWC basis. Multiplex and analogue control input is standard and there is a second DMX control input option. Fluorescent control modes are incorporated and for data security set-up data can be stored on a PC. The unit was launched simultaneously at the Earls Court 2-based Lightshow in London (see L+SI news).

Another 'no frills' product has been added to the newly-logged **Teatro** range from Italy, and it is available in two options, economy or professional. Their sensible new border light, the 'Riga', can handle either coloured glass (five different glass colours available) or gel. Of robust steel construction, it can be supplied as a single unit or as a combination of three or four compartments. The unit's shape enables it to be either floor mounted or suspended by means of an L-shaped fork at either end of the multiple compartment units. Single units are supplied with a fork and an optional accessory barndoor can be fitted.

Other manufacturers homing in on the 'stage' market included **Crystal Equipment** who showed the **Compulite** range of control boards and **CCT Lighting** who had their full range of luminaires out in bud, hanging from the same tree they'd rooted at PLASA and Dallas. **Digilight**, importers into France of lighting control equipment from US manufacturers Leprecon, Teatronics and Weststar Corporation plus New Zealand-based **Theatrelight**, had a great deal of interest shown in their own fully digital Dimmerpacks.

Pariscène showed a wide range of distribution equipment from Indu-Electric and they are hoping to show this in the UK at the PLASA Show in London this coming September.

There were two new colour changers on view. **RVE's** Diafora range, shown to me by export manager Stephane Colin, is available in the UK through ESP and their new unit is the CC-1000 DMX. It has a host of features including 16 plus colours, two direct driven DC motors, auto scroll tensioning, two-speed fan, no initialisation time and no need for a power supply box, being directly supplied. **Camelont**, with Adrian Hicks in charge, showed their new Rainbow 'Alfresco', an outdoor 8" unit for use in theme parks, outdoor events and displays. It has sealed pcb's and a Makrolon covering on the front and rear, plus a rain and light shield on top. As with the Rainbow Two16, the Alfresco can be set for 2-16 colours, scrolling through them in 1.4 seconds. (See our special feature on Colour Changers in this issue). **Cerebrum Lighting** of the UK showed the ShowCAD PC-based show control system and Gelstream scrollers on the stand of **Business Number One**. Rod Bartholomeusz and Dominic Calvert were on duty. **Anytronics** equipment was on the same stand.

On the booth of **Sonoss**, their new French distributor, show control manufacturers **Celco** were showing the PLASA-launched Aviator and Pathfinder systems. 'Personality Cards' are now available for use with Aviator for Clay Paky Golden and Super Scans. **Avolites** had their Rolacue Sapphire with Steve Warren in charge on the stand of distributors **Dimatec** who also handle the Rainbow scrollers mentioned above and **Rosco** products. Nearby, **MA Lighting** of Germany had a representative range including their LCD 120, LCD 60 (time-code version), Light Commander II 48/6 (with improvements to displays) and Light Commander 24/6. MA's Scan Commander, also first seen at PLASA, is now in full production. **Jands'** ESP II desk was on the stand of distributors **SPL**.

Yves Ruellan had his usual front-of-house position for **Hardware for Xenon**. Latest news is that the company has now established a



Outboard Electronics' automation system as attached to the Soundcraft Europa.

German subsidiary operation in Cologne and is looking to repeat the exercise in New York next year. All carousels used with their big projection pieces are now Simda - a 3262X was in action. Nearby, **Sky-Light** were beaming up their big STX servo controlled searchlight, complete with colour changer.

Neil Rice of **Optikinetics** showed me the intricate engineering that's hidden under the cover of the Solar System. Running on their 575 effects projectors, one unit had a transparent cover, thereby revealing the mysteries of the internal gearing. The system comprises two parallel planetary gear systems with individually addressable sun and ring stepper motor drives. Each sun and ring gear drives eight planet gears which all accept interchangeable patterns and colours. 64 combinations of effects can be achieved from the 16 planet gears. Control from seven channels of any 0-10v or DMX lighting control desk (on stand it as a Zero 88 XL) allows for pattern selection, speed and direction of rotation to be chosen, programmed and memorised. The effects carriers snap in and out of the planet gears and these can carry any of the designs from Optikinetics' Series 80, mono colour and beam effect cassettes. The carriers also accept any proprietary D size metal gobos as well as dichroic colour glasses. Latest news is that memory cards are now available.

Now to sneak preview some of the new lighting equipment you will see launched with venom at SIB in Rimini. **CP&P France**, now under the helm of new man Bruno Souchaud, and with my good 'old' Norman friend Claude Lanos doing duty as consultant, celebrated the arrival of Golden Scan 3 from the **Clay Paky** stable. As usual, an excellent light show, a full range of equipment, and all the key personnel from both Clay Paky and **Pulsar** were on hand. (Ruth Rossington's piece on her visit to Clay Paky HQ for the launch of Golden Scan 3 is in this month's news.)

On the stand of **Collyns**, this year celebrating 25 years in the business, **CCSI-Coemar** had the first showing of the Coemar Baby Color, their latest effects projector. The ShowCAD-driven light show was a Carl Dodds and John Lindsell epic, so what better than to ask Carl for his comments?

"It combines good looks with practical features such as a ratchet on the tilt for quick and accurate alignment of multiple units," explained Carl. "The unit runs from two channels of DMX and any start address can be set up to 512 - a data receive LED confirms correct DMX connection. It is inside that the Coemar innovation shines through. The ENH 250W lamp is run from a totally new electronic



First-time exhibitors: (left to right) Evgeny Zaychenko (deputy general director), Alexander Fokichev and Vladimir Golikov of the Doka Company from Russia.

power supply that ensures maximum performance. It features an automatic power down after 10 seconds of black-out to prolong lamp life and power-up is instantaneous when the unit is used again, giving the impression that the lamp has never been switched off. Baby Color has nine pure matched dichroic colours and white and these can be selected at will and also rotated at different speeds. However, the real innovation is the ultra high speed iris which features a built-in black-out shutter. You can iris-up smoothly and then start to pulse the iris from a sensuous slow to a high-speed power strobe. In our view it's a 'baby' in name only!"

From **FAL**, located on the stand of Harman France, lighting designer Paul Dodd gave me a brief summary of what was on view and what to expect at SIB. "Amongst new products the economical Enigma centre-piece is a unit that projects 16 high intensity polychromatic and sound-animated tunnel beams. There are also the latest re-workings of the classic Lightflower and Blowstar effects alongside a new Multitunnel unit that, as with all new lighting from FAL, uses dichroic filters to produce good, pure colours with a maximum of light output. The most interesting item, however, is not a light fitting but a controller. The Easy 512 is an extremely simple to use but very versatile little unit designed to operate groups of four to six of FAL's scanners (the output being DMX), with a range of pre-programmed sequences. Manual control of the scanners is also among the facilities offered. Perhaps this is what is really meant by 'intelligent control'?"

Martin Professional, at SIEL on the **SLD** stand, are set to make a return to the discotheque market with a new centre-piece unit they've called, quite logically, the 'Martin Centrepiece'. It didn't make it to this show, but expect to see it at Rimini. Advance information states that the unit incorporates scan and 'zap' technology into one complete octagon. **High End Systems'** major display was on the stand of **LSE France**.

Lampo of Italy now have their own French operation and had a very professional light demonstration. **Fly Fos 4** units were noted in operation on two stands. More on both these companies in our major report from Rimini in the April issue. French companies **Sapro** and **Ariane** had prominent booths, with Ariane also showing **Spotlight** equipment from Milan. The **Novalite/Ultralite France** stand showed their own equipment coupled with products from **ACR** of Switzerland and **Abstract** from the UK.

Structure-wise at SIEL there is always the major stand of **Stacco** to surprise and British companies **Optikinetics** and **Lite Structures** both had their truss systems in evidence about

the show. **Mobil Tech France** had a broad range on view including new accessories, stands and Parcan-carrying cages in various permutations and for either four or six units. **Manfrotto France** also had a very broad range of product on view on a very attractive stand. New from British company **Doughty** on the stand of **ESL** was their Zenith 450 and 600 telescopic truss lifts. Highly user-friendly, all units are fitted with dolly wheels and the hinged and braced leg assemblies are fully adjustable, allowing use of the stands on unfriendly surfaces. The two versions have a maximum height of 4.5m and 6m respectively and both are fitted with an ultra compact 600kg winch. Safe working load is 150kg. Gerriets and **Triple E** merely picked up their neat demonstration stand from **PLASA** and deposited it in Paris to excellent effect.

There is just one piece of sound equipment I must mention, as I understand it won't be seen at the Frankfurt Music Fair. **SCV Audio** had a big showing of **Soundcraft** desks and an **Out Board Electronics'** automation system was demonstrated on a Europa console. The new keypad features a rotary wheel for fast scene storage access. One such system has recently been sold to Oceania Audio in New Zealand where a 40 channel Europa with automation of 15 switching functions on each input channel, mute group and VCA assignments forms the heart of the system. In addition, Out Board has supplied a stand-alone eight input 16 output automated routing matrix with moving faders on the inputs, and an eight-way programmable contact closure interface for machine control. The system will be used initially for a production of 'Buddy' and will then join a touring version of 'Phantom of the Opera', for which it was originally commissioned.

Finally, that extra piece of news I hinted at the beginning. The very first stand I approached, in the most logical way, in avenue A, was that of **Doka Company** from Russia. It was their first-ever exhibition stand outside their homeland and it was good to see, if just for one reason only: a company from the former 'East' taking a first step towards joining our international industry community.

However, there is more to the story. Doka were not only interested in selling their goods to the 'outside world' - they are a major outfit with a 40-strong distributor network within the old USSR. So, just now their purchasing potential for inputs may be on the small scale - but who knows what an early consolidation of contacts with this company may produce for the future?

Congratulations to the organisers of SIEL who, if I understand correctly, invited Doka to Paris and subsidised their visit.

EQUIPMENT *News*

Citronic Mix the Mix

The Teknodek Mk II, released by Citronic, incorporates purpose built decks as well as the technology of Citronic's SM250 Remix mixer.

The company are also offering a new version of the SM150 Remix mixer which includes the all new Series 16 Sampler System. Features of the system include a non-volatile memory so that samples are not lost on switch-off, the ability to configure the 16 second memory in banks of four or two seconds, a repeat button for samples shorter than the memory bank and a pitch control for beat matching.

For further details contact Citronic in Melksham, telephone (0225) 705600.

Two from Multiform

Multiform Lighting have released two new additions to their range of professional stage lighting control systems.

The Zodiac 18 is an 18 channel two preset memory lighting control desk with 180 level memories that can be used as 10 pages of 18 scenes assigned to the B preset. Alternatively, they can be accessed as a block of sequential memories using an illuminated display to indicate current and next scene numbers. In addition the Zodiac includes a separate chase section that can be programmed with eight 60 scene level chases. These can be tagged together to form a single 480 scene chase. Facilities include single stepping, sound trigger, crossfade and one shot operation.

As well as 0-10v analogue outputs the desk provides outputs in DMX512 and MIDI or it can be remotely controlled using MSC or MIDI. Output channels can be set in highest or latest cue takes precedence, and a memory card is provided to allow saving and loading of programmed data. The second product, the DMX/Decoder is a unit designed to decode digital control signals to a number of 0-10v analogue outputs. The serial data can be in either DMX512 or MIDI protocol. The decoder has 48 output channels, contains back-up memory and can be powered from either mains or D.C. supply. For more details contact Multiform in Uckfield, telephone (0825) 763348.

Captain's Fog



The Smoke Factory have introduced Capt. Kirk, a high-output 1600W smoke machine. It has a sturdy carrying handle, for use on tour and by rental companies. The Capt. Kirk is a single nozzle machine with a variable output and electronic temperature control. It comes complete with an XLR input connector and the option of both 0-10v cable and radio remote control. It takes a two litre fluid canister which fits into the built-in can holder or can be used as a separate tank.

The Time Warp, a time programmer, is a new accessory for Smoke Factory smoke machines. The Time Warp (Wait And Repeat Programmer!) is intended for situations which require intermittent bursts of fog at regular intervals. Controlled by a micro-processor, the Time Warp has an electronic digital timer, which will programme both fog time and wait time from 1 sec up to 99 min 59 sec. The digital display runs down from the set time to zero during the activated timer period. The output quantity of the fog can be programmed as a percentage (0-99%), which is also shown on a digital display. The XLR cable connecting the Time Warp to the fog machine supplies the energy input, so no extra battery or mains supply is necessary. The Time Warp can also be used as a hand remote.

For further details contact M & M Lighting in London, telephone 071-284 2504.

Optiflector

New from Par Opti Projects, the Optiflector ORF16 fibre optic light retro fits most MR 16 fittings, particularly in decorative and showcase schemes.

The ORF16 lens/reflector system offers designers a choice of fittings with fibre optic light free from harmful UV or radiation. Features include an absence of electricity and heat at lightports, together with common lightsources serving multiple outlets.

For further details contact Par Opti in London, telephone 081-995 5179

New Digital Dimming System from Strand

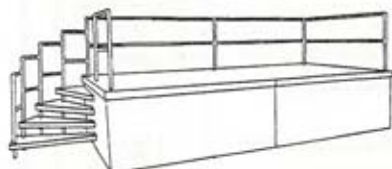
Strand Lighting have launched a new digital dimming system, the LD90.

The system has been designed for a diverse range of entertainment and architectural applications. According to Strand, LD90 provides a high degree of flexibility achieved through a 'building block' approach to rack design using three basic elements: a convection cooled, wall or floor mounting cabinet which contains up to three 'Power Blocks' of dimming modules; Power Blocks, available with 8 x 2.5kW or 4 x 5kW dimmers each with a variety of MCB configurations to suit various European wiring regulations giving each LD90 rack a capacity of 24 x 2.5kW or 12 x 5kW with the option of mixing Power Block ratings within each rack; a central processor module, controlling the operation and diagnostics of the dimmer rack, with a liquid crystal display and membrane keypad for local programming of the advanced system features.

The LD90's features are as follows. All digital electronics for accurate, stable and fast response dimming performance. 2000 Step fade resolution for smooth operation. Line Voltage Compensation to compensate for fluctuations in mains supply. System Wide Control for programming multiple LD90 Racks from a hand held remote, programming panel or PC. 99 Programmable preset memories for stand alone operation. DMX 512, D54 and SMX multiplex and analogue control input as standard. Optional second DMX512 input. Earth Leakage Breaker (RCD) option.

Each dimmer module has a number of programmable features including 'top' and 'bottom' set cut-off, dimmer curve assignment - including non-dim and fluorescent - full patch capabilities and 'fast start' mode for control of electronic high frequency fluorescent ballasts. The unit is designed to the latest mandatory European Safety and EMC regulations and is suitable for all 220/240 volt markets. For more information contact Strand in Isleworth on 081-560 3171.

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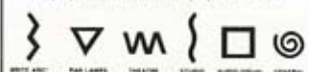
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VIEWPOINT

Nick Mattingley on A Student's Dilemma - is Secondment an Answer?

Within our industry it generally becomes apparent, on talking to the participants, that involvement is rarely a coincidence. Those romantic day-dreams about being the star, the manager, the director and so on, cast their spells over us, and today we are pursuing careers in entertainment. Was it those childhood dreams that created an addiction for the most profound and even indulgent profession ever imagined? In my case it was a school play, which, unfortunately, I did not have the good fortune to be involved with. During the proceedings I found my eyes switching from the action to the lighting hanging over the stage, and realisation dawned.

However, this taboo perversion was eventually swept under the career carpet as exams and results mattered more. A couple of schools later and I was studying several 'A' levels in pursuit of a place at Cirencester Agricultural College. However, the niggling sensation of 'theatre' was aroused again by a steadily increasing participation with the dramatic group. Coincidentally, my career adviser remarked on this point and changed the course of my life in an instant. Undoubtedly there are others like me who came out the closet and declared our theatrical aspirations over the real world. Mine, however, was within the technical fraternity, as my progenitors and I blanched at the very thought of performing!

Encouraged by our course tutors at the Guildford School of Acting we 'stage managers' were allowed the privilege of seconding tutelage from established members of the industry. As an aspiring and highly ambitious lighting designer to be I went straight to the top and experienced at first hand the environment of the West-End designer. My long-time hero of the lights, David Hersey, kindly gave me a valuable glimpse into this somewhat secretive order. Fathoming the intricacies of the plan was the first step in a mind-melting onslaught of imagination and image. With acres of technology and seemingly budgets to match, the number of instruments used to build the overall picture steadily grew.

In my view there can be no comparison between productions on different levels of capitalisation, as the amount of scope available and capability required can literally be bought. The only domain that can be used to draw a parallel is scheduling. Who ever heard of the perfectly adhered-to production time-table? The tolerance and acceptance of scheduling changes by the electrics department is something of a myth. And from my short experience there seems to be no exception to the buy-it-all environment of the London scene. Lighting, with its own rule book, appears to be, and generally is, the lonely contingent of the team. In the pursuit of excellence the boundaries implied in the rules are continually exacerbated but very rarely standardised. London's West-End has noticeably progressed and often left the regions emerging from their third world under-budget manifestations.

After peering over Mr Hersey's shoulder and furiously trying to remember all those figures, names, nick-names, costs, circuit numbers, etc. I realised I had opened the book at the final chapter.

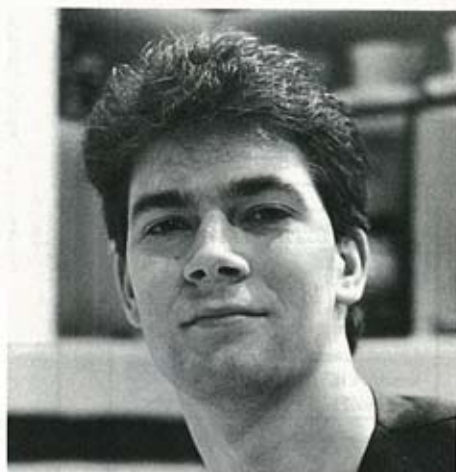
My dream spasmed before me into the nightmare world of budget, schedule, space and patience. As the leader in his field, projected thence by a series of apocalyptic box office shows, David Hersey and his set-up are well suited to dealing with productions at this end of the spectrum.

To restore faith in my ambition, not only to come back to earth but to build upon my new found reality, I exchanged communication with Graham Walne on the topic of secondment. Following many of his articles and lectures, and having read a couple of his books as course material, I was able to make direct contact as he also guest-designed for the Guildford School of Acting. Watching and taking part in his work at Harrogate with 'Uncle Vanya' I was able to draw a more realistic viewpoint on medium-sized productions. Without giving a more in depth exposé on the two experiences and an extended liturgy of a year in my life I can very quickly say that both occasions are still memorable and effectual in the way I work. Also, the effect of having these listed on my C.V. has opened more avenues to me than all else put together.

Expanding the scope of experience and achievement through secondment whilst at college broadens one's capability and suitability for work and can eventually traverse wider gaps than ever imagined. And, as such, diversification is an all too normal occurrence. For Stage Management courses where lighting and sound are treated as minor roles, naturally, students can be faced with a dilemma across their range of commitments. Nevertheless, these dark areas are frequently used to soak-up left over bodies when a stage management team is chosen for a show. As a function for students to experience all aspects of the production this is fine and dandy. But, this time can be one where certain people find a specific interest. Students often find there is a point when specialisation is desirable, but ordinarily very difficult to programme into an already choked curriculum. Secondment, external to an academy environment, is a precious time when one can dip in a testing finger.

For students the opportunity of secondment is

an exciting but particularly chilling way to see the work place. However, one should be careful about having perceptions and sense of reality tainted or distorted - and as such this can act as an obstacle or deception towards current learning and hence future methods. Dreams can be shattered, but it can also be a time of enlightenment and motivation where whole new horizons open up. Accordingly, through secondment, direct association with employers establishes an immediate network or contacts, so important when seeking that all important 'first job' after graduation.



Following two years studying stage management at Guildford School of Acting, where he specialised in lighting design, Nick started work at the Mill at Sonning Theatre, Reading, as a technical assistant. During that time, he developed and launched his own theatre company with a fellow graduate. Baroque Theatre Company has since produced 'See How They Run' directed by Wendy Toye, which toured for eight weeks. Nick lit and company managed the production. For the autumn of 1993, the company is to tour a production of 'Maria Marten, the Red Barn Murder'.

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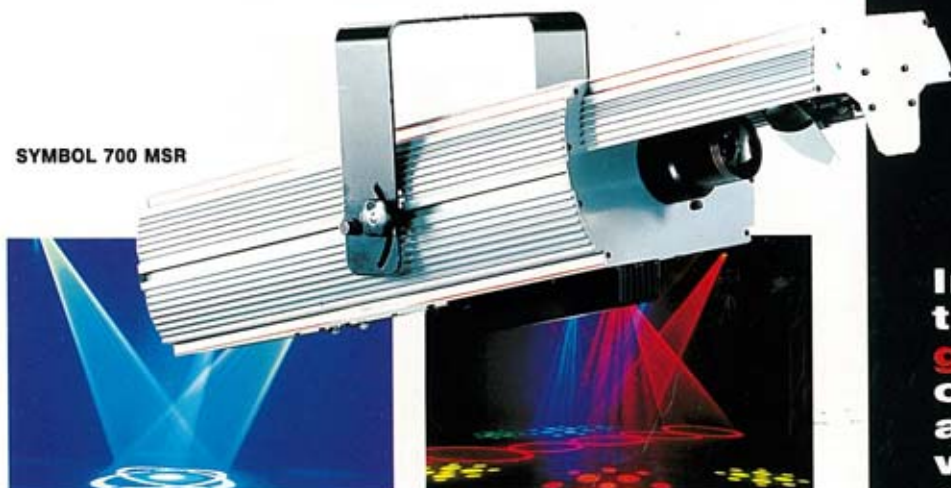
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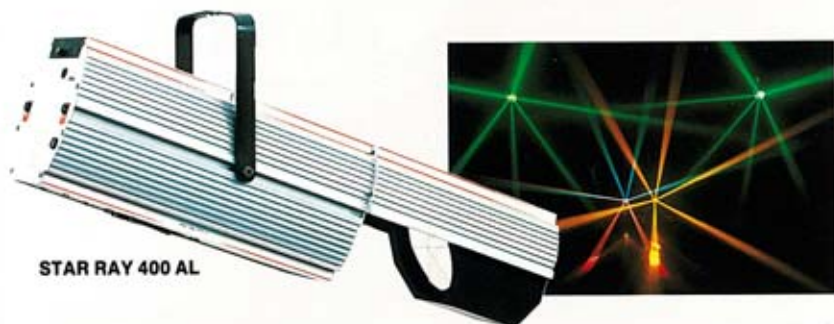
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