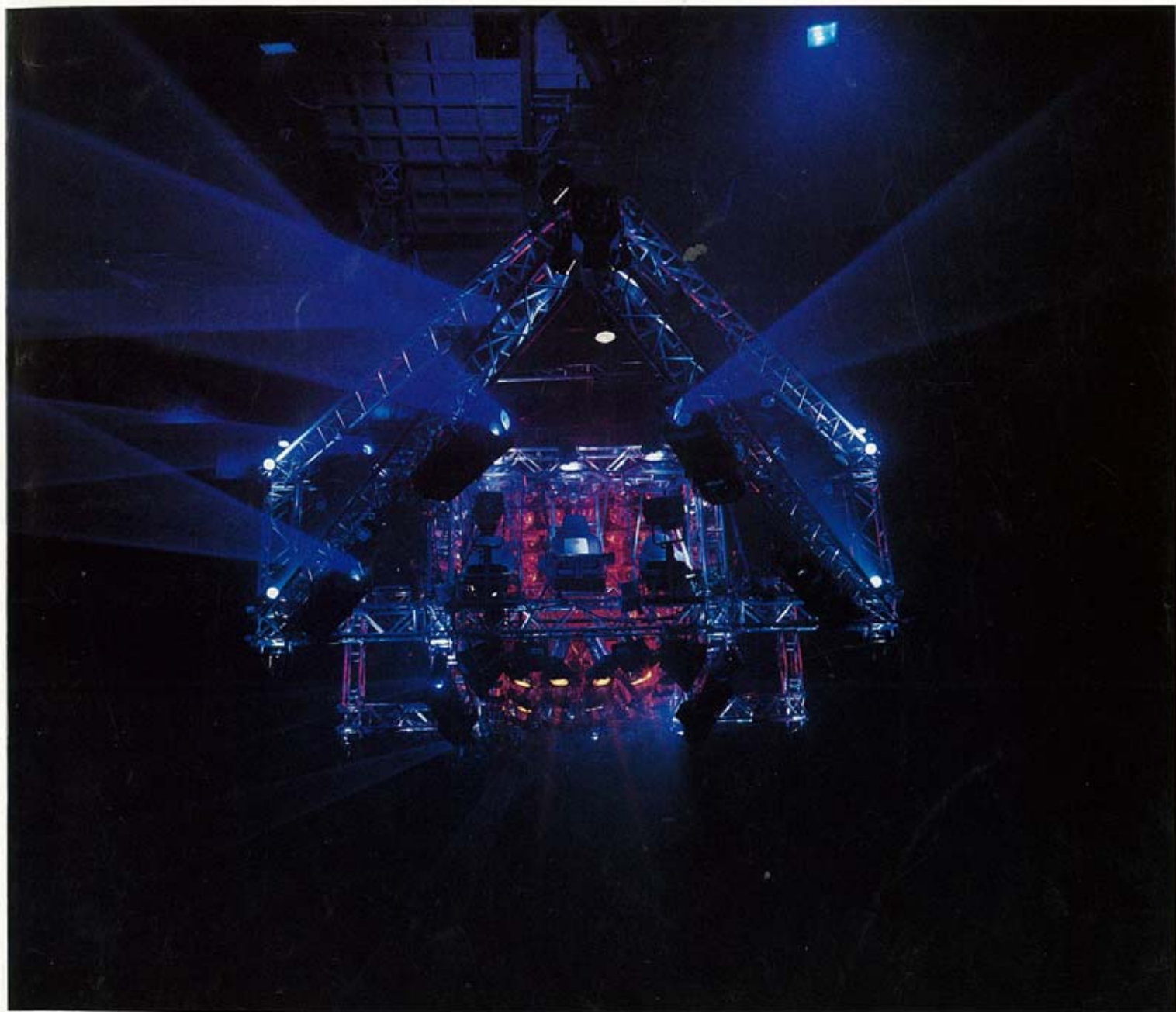


LIGHTING+SOUND

International



THE FLASH-FLITE SHUTTLE TAKES OFF AT CENTRAL STUDIOS UTRECHT

- Flashlight Launch Central Studios
- Ben Duncan at the APRS Show, London
- Nia Centre: Manchester's new Multi-Cultural Venue
- Behind the Systems at The Marquee and Town & Country Club
- News features from the West End, Paris, Stockholm and Melbourne
- Survey Reviewed: Technology and the Lighting Designer

JULY 1991

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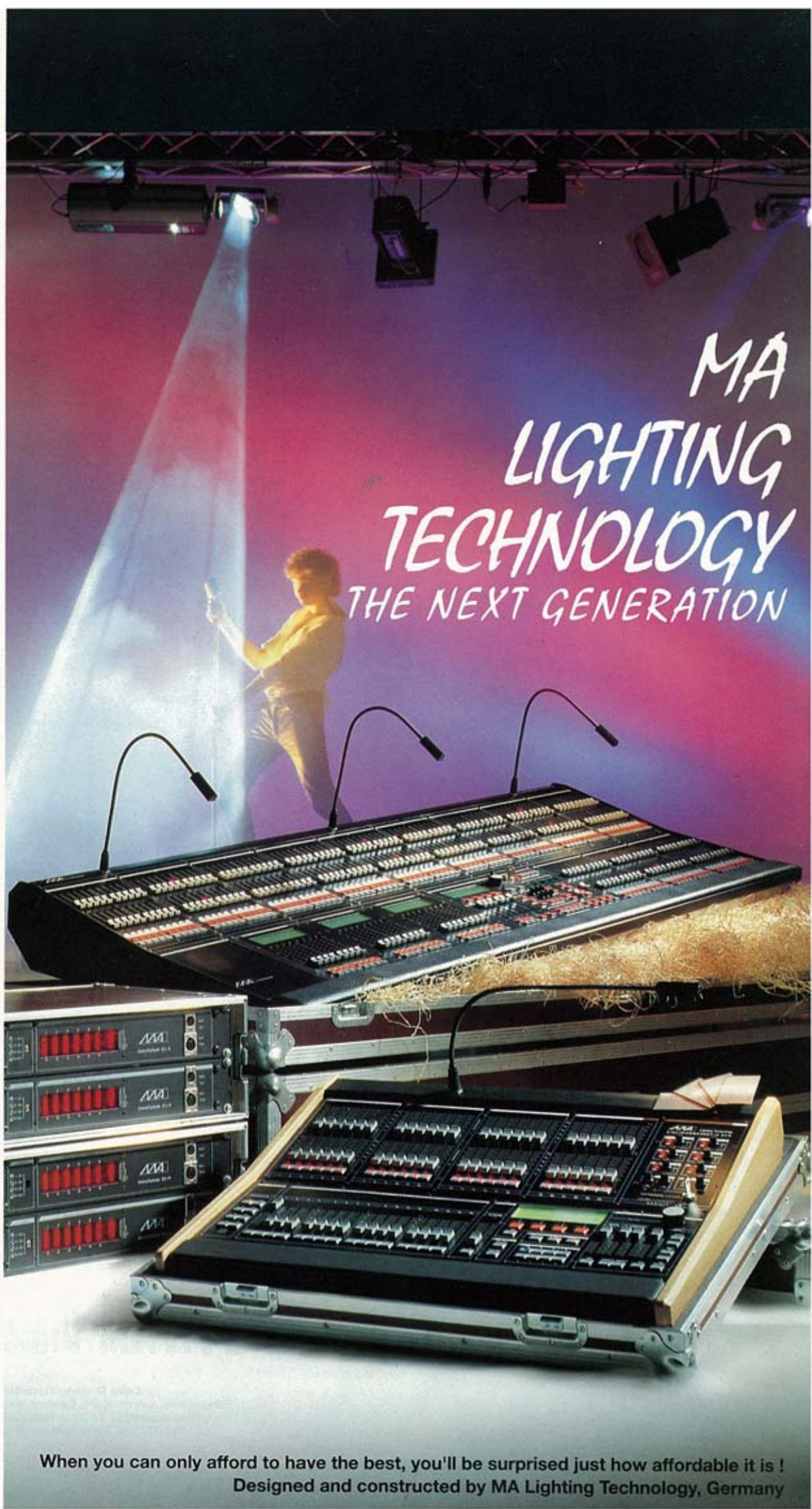
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LIGHTING+SOUND *International*

JULY 1991

7 News in Lighting+Sound International

including a line-up of L+SI Special News
Features
AV for Scania 100 in Sweden



Bose's Boston-style Clambake
Queen's Awards for PLASA members
Safe-T 91 in London
Hall of Fame in Paris
Joseph's Technicolor Dream in London
Pro Light & Sound in Melbourne



24 Technology and the Lighting Designer

Christine White of RADA surveys lighting
designers to find out what they really
want from future equipment

27 The Nia Centre L+SI Special Report



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Regular Contributors: Ben Duncan, Catriona Forcer, Tim Frost, Mike Lethby, Graham Walne, Julian Williams.

30 On Tour

Catriona Forcer talks to lighting men
Simon Tutchener and Loucas Athienites

32 Running The House



Catriona Forcer meets the resident
lighting designers at The Marquee and
the Town & Country Club

35 Central Studios Utrecht

John Offord sees the Shuttle launched

44 Ben Duncan at APRS 91

An exclusive L+SI report from Olympia 2,
London

48 PLASA News

49 PLASA Members

51 International Directory

53 Directory of Suppliers and Services

58 Viewpoint

Freddy Lloyd lambasts the Europhobes
and tells PLASA to open the door

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The Ghost of Grey Imports Walks Again

In the month when PLASA passed a resolution approving a statement on trading policy at its AGM, clients of WB Lighting and Coemar UK have received a letter from Roman Walenta, the company's managing director, drawing their attention to indirect imports into the United Kingdom of the Italian manufacturers' goods. L+SI were able to confirm that such goods are being offered at discounted prices by Batmink of Glastonbury.

The letter stated: "There is a British company offering Coemar products at discounted prices and claiming that they have secured dealerships with various Italian companies at special discounts.

"We wish to inform you that WB Lighting Ltd (Coemar UK) are the only official importer of Coemar products in the UK. Goods offered by any other company are therefore coming into the country through the back door and will not be covered by the two year warranty given by Coemar and WB Lighting Ltd. More importantly, this will be 220V equipment and not 240V as supplied to us by Coemar."

Scenting a resurgence of the grey importing problem which beset the industry two years ago following that year's Rimini show, L+SI's Tony Gottleier talked to Walenta and sales director Ian Brown, to Coemar's export sales manager Ivano Burato, as well as to David Churches, managing director of Batmink.

In fact, questions addressed to Bruno Dedoro, Coemar's ebullient supremo, via Ivano were swiftly redirected to WB: "Bruno feels that this is a local problem for WB and that it's not for us to comment," said Burato. Senor Dedoro is a 30% shareholder in WB Lighting.

Ian Brown was more forthcoming. "Batmink used to be a distributor of ours, in fact, in the past we have put a lot of business their way. It was only after I had passed on a buyer with a big shopping list for Coemar products to them and we didn't get the subsequent order, that I realised that something was up. Consequently, Coemar have indicated their willingness to restrict such deliveries for 240V product," he continued. "But we understand that it's very difficult for them to enforce this as they are unable to refuse to supply and, anyway, they don't yet know for sure who the middleman is."

Ian was keen to emphasise that they can tell from the serial numbers which items they have actually supplied. "We are not going to be happy to support any items for whose presence in the UK we are not responsible," he said.

Batmink's David Churches, on the other hand, was adamant that they are able to buy 240V product and do, that they have more than one source in Europe, and that they do provide support. "We are careful not to supply items which are likely to incur a high maintenance requirement," he said.

When taxed about how it is possible for Batmink

to buy from a distributor in Europe and still undercut the UK distributor buying direct from the manufacturer, Churches laid the blame squarely on WB Lighting. "Their recommended retail prices in the UK are considerably higher than Coemar's in Italy, in fact it is possible for anyone to get on the ferry to the Continent and pay the full retail price for Coemar products and still obtain a substantial discount," he emphasised. "We are not idiots, we are in business to make the profit and do so, in fact possibly more than most, but when we see an opportunity we take it. We can discount this equipment because we run a tight ship with minimal overheads and are careful what we buy. Unlike a distributor we can pick and choose."

Although this didn't seem to square entirely with an ability to provide maintenance and support for the goods, Churches is firm that they do so. "I know WB are making a song and dance about voltage, but it's just not true. For motorised units we insist on, and get, 240V units."

As he also points out, all of this is likely to be the order of the day in 1992 when the EEC regulations regarding Pan European competition will apply (see Viewpoint L+SI April 1991). "If Coemar had a single price list across Europe, as Clay Paky do, they would resolve the problem at a stroke," added Churches. In the meantime, nothing we are doing is illegal and it's

no different, in a way, from what other companies are doing in the reverse direction. As far as we're concerned this is just competition and it is up to the customers to decide."

These points were put to Roman Walenta who responded: "Our prices are somewhat higher in the UK than in Italy to cover the cost of freight, insurance and local warranty plus a standard packing charge made by Coemar. We also make an allowance for currency fluctuation." In fact, it was later confirmed by Ian Brown and our own research that the differences vary from between 12.22% and 21.07% depending on the product.

Walenta added: "I believe this to be a matter of marketing through lost-leaders because I don't see that it adds up otherwise. They are attracting attention to themselves by offering heavily discounted Coemar products, up to 46% in some cases, possibly in the hope of also selling, or selling instead, other products on which they can make money."

L+SI were unable to substantiate a claim that Batmink had sent their discounting offer to end-users as well as trade buyers. However, we did discover that there is some enmity between the two companies on other matters. Batmink are the UK distributors for Griven and Lampo, whereas WB Lighting represent Tas, whose products closely resemble Griven's, and they also bring in Lampo direct from Italy.

Joseph in Technicolor



Joseph and his Amazing Technicolor Dreamcoat is currently on stage at the Palladium Theatre in the West End of London. Pictured above is Jason Donovan in the title role. See special news feature on page 21.

Photo: DeWynters.

Action News



LIGHTING TECHNOLOGY



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Light Source Conversion Calculator

Original Source (Kelvin)

(Kelvin)

Converted Source (Kelvin)

(Kelvin)

HOW TO USE

Simply draw a line from the Colour temperature value of your original light source, to that of the converted source. Where the line crosses the central band, read off the Mired Shift value. For your convenience we have added the range of Lee Light Conversion Filters at their appropriate positions in relation to the Mired Shift Scale.

EXAMPLE

To convert an original source of 6500K to 3200K, the line has been drawn as an example. You will note that it crosses the central band at just over 150 Mired Shift. This indicates that the Filter required is 204 Full CTO (also available with two degrees of Neutral Density).

- 247 Lee Minus Green
- 248 Lee Half Minus Green
- 249 Lee Quarter Minus Green
- 219 Lee Fluorescent Green

These Filters correct the colour cast of fluorescent tubes without affecting to colour temperature.

Fluorescent FL 5700 - B (Mired Shift -137)

236 HMI to Tungsten (Mired Shift +136)

85B 85BN3 85BN6 85BN9 (Mired Shift +121)

85 85N3 85N6 85N9 (Mired Shift +112)

Fluorescent FL 4300 - B (Mired Shift -82)

81EF 81EFN3 81EFN6 81EFN9 (Mired Shift -53)

Coral 1 (Mired Shift -35)

Fluorescent FL 3600 - B (Mired Shift -35)

81B (Mired Shift -27)

Coral 14 (Mired Shift +126)

Coral 13 (Mired Shift +126)

Coral 12 (Mired Shift +126)

Coral 11 (Mired Shift +126)

Coral 10 (Mired Shift +126)

Coral 9 (Mired Shift +126)

Coral 8 (Mired Shift +126)

Coral 7 (Mired Shift +126)

Coral 6 (Mired Shift +126)

Coral 5 (Mired Shift +126)

Coral 4 (Mired Shift +126)

85C (Mired Shift -81)

Coral 3 (Mired Shift -80)

Coral 2 (Mired Shift -80)

81D (Mired Shift -43)

81C (Mired Shift -32)

81A (Mired Shift -18)

81 (Mired Shift -15)

226 Lee UV Neutral Density ND 0.9 ND 0.6 ND 0.3

213 White Flame Green 218 Eighth CTB (Mired Shift -18)

243 Lee Fluorescent 3600K (Mired Shift -34) 203 Quarter CTB (Mired Shift -32)

242 Lee Fluorescent 4300K (Mired Shift -76) 202 Half CTB (Mired Shift -76)

241 Lee Fluorescent 5700K (Mired Shift -127) 201 Full CTB (Mired Shift -127)

1% CTB - 201 - 202 (Mired Shift -118)

Twice Full CTB - 2 x 201 (Mired Shift -274)

MIRED SHIFT

400

350

300

250

200

150

100

50

0

-50

-100

-150

-200

-250

-300

-350

-400

-450

-500

-550

-600

-650

-700

-750

-800

-850

-900

-950

-1000

-1050

-1100

-1150

-1200

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-2800

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-3000

-3100

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-3300

-3400

-3500

-3600

-3700

-3800

-3900

-4000

-4100

-4200

-4300

-4400

-4500

-4600

-4700

-4800

-4900

-5000

-5100

-5200

Twice Full CTO - 2 x 204 (Mired Shift +274)

1% CTO - 201 - 202 (Mired Shift -118)

204 Full CTO 207 Full CTO - 3ND 208 Full CTO - 6ND (Mired Shift +198)

237 CIO to Tungsten (Mired Shift +121)

205 Half CTO (Mired Shift +112)

206 Quarter CTO (Mired Shift +82)

212 L.C.T. Yellow (Y1) (Mired Shift +82)

228 CSI to Tungsten (Mired Shift +82)

223 Eighth CTO (Mired Shift +126)

Fluorescent FL 5700 - D (Mired Shift -81)

82 (Mired Shift -80)

82A (Mired Shift -21)

82B (Mired Shift -35)

82C (Mired Shift -49)

80D (Mired Shift -58)

80C (Mired Shift -81)

Fluorescent FL 3600 - D (Mired Shift -96)

80B (Mired Shift -112)

80A (Mired Shift -122)

Fluorescent FL 4300 - D (Mired Shift -51)

82C (Mired Shift -49)

80D (Mired Shift -58)

80C (Mired Shift -81)

Fluorescent FL 3600 - D (Mired Shift -96)

80B (Mired Shift -112)

80A (Mired Shift -122)

82C (Mired Shift -49)

80D (Mired Shift -58)

80C (Mired Shift -81)

Fluorescent FL 3600 - D (Mired Shift -96)

80B (Mired Shift -112)

80A (Mired Shift -122)

82C (Mired Shift -49)

80D (Mired Shift -58)

80C (Mired Shift -81)

Fluorescent FL 3600 - D (Mired Shift -96)

80B (Mired Shift -112)

80A (Mired Shift -122)

82C (Mired Shift -49)

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80C (Mired Shift -81)

Fluorescent FL 3600 - D (Mired Shift -96)

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Fluorescent FL 3600 - D (Mired Shift -96)

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80B (Mired Shift -112)

80A (Mired Shift -122)

82C (Mired Shift -49)

80D (Mired Shift -58)

80C (Mired Shift -81)

Fluorescent FL 3600 - D (Mired Shift -96)

80B (Mired Shift -112)

80A (Mired Shift -122)

MIRED SHIFT CALCULATION

To calculate the Mired (Micro Reciprocal Degree) Shift value for any conversion, carry out the following simple calculation.

$$\frac{1000000}{T_2} - \frac{1000000}{T_1} = \text{Mired Shift Value}$$

T1 is the colour temperature of the original light source in degrees Kelvin.

T2 is the colour temperature of the required source.

LEE Filters

The Art of Light

The Art of Light

revealed

Lee Filters Limited does much more than manufacture high quality light control media for the film, television, theatre and stills photographic markets. The company offers – whenever it can – to make an additional input to benefit the industries it serves.

That's why it has developed a series of technical posters – available free of charge – to help filter users make the most of its products. To understand more fully how the art of light works. To create better images.

The first poster in the series – shown on the opposite page – has been designed to provide a simple and instantaneous reference for the calculation of filter requirements when converting from one light source to another.

Each type of conversion filter is listed in its appropriate place on the scale together with neutral density, UV and polarising filters.

To get your free poster (size 33" x 23½") simply clip the coupon, and send it to:

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Samuelson Lighting Expand Operations

The Lighting and Sound Division of Samuelson Group PLC is to expand its operations to cover the audio visual and electronic presentation markets. Samuelson Communications, the Group's specialist subsidiary providing audio visual equipment rental and support services is to join the Division.

The addition of Samuelson Communications to the Division's Concert Productions, Theatre Projects and Vari-Lite operations creates one comprehensive resource spanning lighting, sound and vision equipment rental and support.

"The integration of Samuelson Communication with our existing operations means that our overall sound and vision capability will be considerably strengthened. At the same time, the Division as a whole will be better placed to expand its services to business and industry as well as to our current concert, theatre, television and conference customer base," said Roger Dix, managing director of Samuelson Lighting and Sound Division.

Samuelson Communications is now based at Greenford, West London, alongside the Division's three other operations.

TGI Troubles

The TGI Group, owners of the Tannoy, Goodman and Audix brands, have reported a full year loss to March 31st of £845,000. They also reveal £5.3 million of write-offs against the closure and disposal of subsidiaries, including Xylo which was the subject of an MBO in June.

While the company is in dispute with its previous auditors over the stated profits of Audix at the time of its acquisition, problems at the subsidiary continued that year with losses of £1.8 million.

Tannoy-Audix were the sound contractor for the ICC in Birmingham.

Moving On

Smithfield Electronics have recently moved to new, easy-to-reach premises in Hoole. The new site offers greater office space and workshop facilities. Separate warehouse space, with room for further expansion, has also enabled the company to improve and expand upon their existing hire facilities.

Smithfield Electronics can be contacted at 3 Ermine Road, Hoole, Chester CH2 3PN. Telephone and fax numbers remain the same.

Belgian Telecom Shows Off



Every year for six months, RTT (Belgium Telephone and Telecommunications) open their ground station communications centre, at Lessive in the Ardennes, to the public to promote their services, and for educational purposes.

Various exhibitions are mounted, at the heart of which is an audio-visual experience. This year AV-ENGER, a Belgium-based company, were given the task of designing and implementing the AV section and they looked to Britain for the technology. LiveWire's show controller NOW is at the centre of a system which is programmed to run several times per day and includes both videowall, laser and Aquarius control from Laserpoint UK, and three AVL Genesis pc-based controls. The whole system can be interrogated via MODEM from AV-ENGER's offices some 200kms away.

L+SI talked to Dirk Shueremans of AV-ENGER and Will Parker, head tech at LiveWire, and a full report will be included in the next issue.

Effects of the Recession

Like any other industry in the middle of the current recession, the lighting and sound industry is still suffering from a spate of liquidations, creditors' meetings and closures.

Only eight months after their MBO, Lumo Lighting is now in administrative receivership. Graham Watts and Ken Chalk of Touche Ross were appointed joint administrative receivers on 25th June and are hoping to sell the business as a going concern. Half of the total work force have already been made redundant in an effort to streamline the operation. Evidently a number of companies have expressed initial interest.

Other companies who either have creditors' meetings imminent or who have already gone into receivership include Calne Cabinet Makers Ltd, Matamp and CLS Sales and Concert Light Systems. There was also the sad news that the Institute, the high technology discotheque recently opened in Birmingham has gone into administrative receivership. Chris Deith of the Institute told L+SI that it was only after the collapse of the club was announced in the local press that people started to take it seriously, and, by coincidence, it is now trading better than ever. Chris will remain with the venue to help the administrator to run the business while it is up for sale and afterwards make himself available for consultancy work.

Earls Court Hosts Big Pop Opera Production

The huge scale production of Tosca at the Earls Court exhibition centre, at the end of June, featured the work of three well-known British companies: Theatre Projects, who supplied the massive lighting rig, the biggest in London this year according to them; Unusual Rigging who installed it all in one day, and Autograph Sound who supplied and managed the powerful PA system. This rig required 2,500 amps of 3-phase power. Lighting designer was Alan Burret.

TP, and their technical production manager Ian Bagshaw, then had 30 hours to transform the rig with 1500 lanterns on into something suitable for The Royal Tournament, which, of all things, follows Tosca at the venue. It is this aspect of the production art which L+SI will focus on in a feature article in next month's issue, including interviews with those involved.

Stardream for Sony



Stardream Audio Visual of Blackpool are the first distributor appointed to deal with the pro-audio installation of Sony's PA products in the UK. Sony have hitherto been best known in the UK for their broadcast and domestic gear. S.A.V. (founded in 1977) can now offer Sony's new range of PA equipment launched at the 1990 PLASA Show, and will act as northern showhouse for selected items. The range includes a two part, small PA speaker system with controller, five types of audio and AV mixer, a mixer amp, four power amps, including a 4-channel, multi-zone model. FX include one model each of the reverb, graphic and parametric EQ and comp-limiter. The catalogue is completed by an active crossover and six different mini speakers with good-looking aesthetic qualities. S.A.V. have already used and been impressed by CD and R-DAT players from Sony's Broadcast range. A number of the R-DATs are in use at Blackpool Pleasure Beach, the UK's biggest tourist attraction. Pictured above at the APRS Show is SAV's John Barnett (left) and Jeremy Stappard of Sony Pro Audio Sales.

Please send my free copy of the Lee Filters Light Source Conversion Calculator poster.

Name _____

Job Title _____

Address _____

CENTENARY IMAGES

Electrosonic use 103 images to celebrate 100 years of Scania

The truck and bus manufacturer Scania of Sweden celebrates its centenary this year and as part of the celebrations is making imaginative use of 103 image sources (81 slide projectors, 21 video projectors and a 35mm movie projector) in a well paced and highly professional multimedia show.

Over a six month period it is estimated that more than 45,000 people will see the show at nearly 200 performances. Employees, dealers, press and customers are being invited to visit the Scania headquarters at Sodertalje, not far from Stockholm, where they first visit the Scania Museum, and are then taken to a specially constructed auditorium in a warehouse in the nearby port of Sydhamnen. Here they see the one hour presentation, which is followed by an excellent meal and further entertainment!

The show was the brainchild of Kaj Sandell, the public relations director of Scania, who has been working on the project for over four years. First reactions to the idea of a one hour multimedia show were that the presentation would prove too long to sustain interest and leave a strong single message. However, the clever way in which the resources are used, and the division of the show into a number of 'acts', ensures that there are no 'longueurs', and, in fact, the final result is reported to be one of the best multi-media presentations ever presented.

The auditorium is about 25m wide, and comparatively shallow. The seats are comfortable and everyone has a good view. The decor of the auditorium is a street scene of Sodertalje as

it was 100 years ago, and when the audience enter they have no idea of the extent and variety of presentation systems that will be used during the show.

Mixed Media

The outstanding feature of the show from the AV professional's point of view is the seamless way in which the different methods of image projection are blended together. One is never aware of the switch from slide to video or from video to movie film, and yet each medium is used correctly, both in terms of production and presentation. The screen illumination from all the sources has been carefully matched, and there is little perceptible difference between the front and back projected images.

The different sections of the show deal with various aspects of the Scania story. The first section gives a historical background, covering the company's founding and its progress over the years. Other sections deal with progress in manufacturing techniques, the development of new products and the building up of international sales. Entreeacts include a dance of industrial robots, where two human dancers dance with three ABB robots used in truck production, and a clever illusion where the actual final car manufactured by the Scania company in 1929 is made to disappear into thin air. These help pace the show, and clearly divide the different subjects.

Giving continuity to the show is the character of Gustaf Erikson, the man who designed the

first car made by the VABIS company in Sodertalje (the forerunner of the present Scania operation). Gustaf first appears as an animatronic figure seated at his desk. The figure was actually made by McAndroids of London, and seems likely to end up in the Scania Museum at the end of the year. Gustaf later appears 'live' played by an actor, and at the very end of the show, 'disappears' in another well executed illusion. The use of Gustaf, and other actors, within the show makes the audience more involved and contributes greatly to its success.

Multi Language

The show can be run in no less than nine languages. For this reason the actors mime on the relatively few occasions that they speak. A clever programmed sound system ensures that the sound of the actor's voice always seems to be coming from the right place. Most audiences see the show in their own language, but there is a facility for an alternative language to be heard via an infra-red headset to cater for a second language at a particular performance.

The show was produced by the experienced AV production company Producenterna of Stockholm. This is a well established group that has professional video post-production, professional audio production, slide making, multi-image production, artwork facilities etc all in-house. This undoubtedly helped them hold together the complex mixed media production, and brought the consistency that might have been missing if the different elements had been tackled by separate sub-contractors. Bo Forsberg was the leader of the production team.

The show format is a mixture of back and front projection. A motorised roll down front projection screen is normally set to 11.5m wide



Clockwise, from above left: Three computers run the show, all locked to timecode; the front projection screen is served by three video projectors, 27 slide projectors and a 35mm movie projector; the animatronic character of Gustaf Erikson is flanked by projection screen boxes; the latest Scania truck rolls downstage.



x 4m high, but for a full cinemascope movie sequence showing trucks being driven on the test track, the screen height increases to 4.8m. In its normal position the screen is served both by the movie projector, and by three video projectors and 27 slide projectors.

The main screen is flanked by the 5 x 4m rear projection screen assemblies. These are each divided into four 2.5 x 2m screens, with each section being served by both a video projector and a group of three slide projectors. These side screen units are on tracks, and in parts of the show they move back to line up with a 12.5 x 4m rear projection screen assembly divided into 10 2.5 x 2m sections. The resulting 18 screen array is the full 22.5m width of the stage area.

At the climax of the show the side screen boxes move forward again, and the centre screen assembly parts in the middle, with its corresponding projector support system moving at exactly the same speed, so it is the screen images that appear to part. In a shower of pyrotechnics, strobelights and clouds of smoke, the seven tons of the latest Scania truck rolls towards the audience, and stops, of course, by a precision programmed movement system!

Multi Computer

The question of how to programme such a mixture of equipment was addressed at the start of the production process. It was realised that it would be difficult to programme everything using only a single computer program since, while theoretically possible, in practice it is easier to programme the different elements using separate programs each optimised for a particular task. This arrangement also allows different aspects of the show to be pre-programmed concurrently, by programmers who are familiar with the particular medium.

The ABB industrial robots came with their own programming system, and their routines were programmed by ABB and Scania staff

familiar with the procedure. Everything else is controlled by three separate computers, all locked to SMPTE/EBU timecode. The 'master' computer runs Electrosonic's BSC program, and controls the 81 slide projectors, the movie projector, the 96 channels of lighting control, the audio routing, and all the screen movements and switched effects. It also provides a 'hard black' signal to the video projectors.

A second computer runs the Electrosonic C-THROUGH programme, and is used to control the four High-Band and U-Matics and the video projectors. All the video projectors are equipped with PICBLOC image processing equipment, allowing a full range of videowall effects. Finally the third computer runs Electrosonic's ANCOR programme and is only used to control the animatronic figure.

The show requires the interlock of no less than six tape transports. Because of the length of the show, and because of the relatively few performances (compared with, for example, a permanent visitors' centre show) the video material is run from tape. The High-Band U-Matics are fitted with computer interfaces, and the tapes are dubbed with framecode included. This allows 'disc like' computer control via ES5003 interfaces. In fact, the tapes run the full length of the show, and the tape players are locked into a common sync signal.

The master videotape player has one 'audio' track dubbed with SMPTE/EBU timecode. This is fed to a distribution amplifier which in turn feeds the timecode to the computers and various synchronisers.

Multi Track

Two 16 track tape recorders are locked to the timecode and carry the sound. 26 audio tracks are used, but in any one show only 10 are played. Eight are always the same music and effects tracks, two are voice tracks carrying the commentary and 'acting' voices in the selected

language. The multi-language facility requires that there is a slightly different control programme for each language, due to small differences in timing.

All the audio channels are fed to a Knowles switching matrix and VCA system that allows the position and level of each track to be programmed from the master computer. Final replay is through an eight channel audio system using ElectroVoice loudspeakers.

The movie film runs for only a part of the presentation, but nonetheless does require 'lip sync'. This is achieved by programming the starts of the projector from the main computer, but allowing a reasonable run up time to allow it to synchronise to the timecode. It carries timecode on its optical sound track, so a standard synchroniser can be used in conjunction with an Electrosonic (USA) DC drive for the projector. The light output of the projector is also programmed by a solenoid operated douser.

The screen and truck movements are all controlled by precision electronic motor controllers with soft start. This allows the screens, screen boxes, trucks, moving projector shelves etc to be positioned with great accuracy (within 1mm). The motor controllers are controlled by programmable logic controllers (PLCs), which receive position feedback from a rack and pinion encoder on each movement. The PLCs themselves receive start commands from the BSC computer via standard Electrosonic interfaces.

The complete engineering of the Scania show was undertaken by Ljus and AV Teknik of Stockholm, with Peter Wahlberg heading their team. Besides supplying the lighting control, multi-image control, videowall control, animatronic control, movie projector, computer programme and amplifier racks, Electrosonic Ltd also assisted Ljus and AB Teknik with the engineering concept.

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Acoustimass re-launched: John Offord and Tim Frost report



The Bose AM-PRO system is a two-way, seven driver amplified speaker in a reaction injection moulded enclosure, and the full-range system can provide a powerful performance from two very sturdy and easily installed or transported cabinets. The system can be stand mounted, wall mounted, or flown, with the additional facility of incorporating up to four AM-PRO systems interlocked together in hanging, or flying arrays. 'Its compact dimensions and light weight make it ideal for locations normally inaccessible to bulkier, more conventional, systems as well as mobile applications, and it offers an impressive full-range sound from compact enclosures more usually associated with housing just a mid/high frequency compression horn array,' say Bose.

Bose US managing director Colin Cartwright and his team from Kent got his dealers and assorted friends together for a week-end in early June to give them a right good party (on Whitstable beach), a brand new hotel to try out, and a chance to hear about the Pro-Acoustimass System from a trio of the company's top men. It was well-organised, good fun and gave Bose the chance to have a head-to-head with their dealers.

The Sunday morning discussion session centred on the re-launch of the Pro-Acoustimass System. After an introduction from Colin Cartwright and a presentation on Bose world-wide from John Coleman (managing director of Bose Ireland), Dave Bell and Richard Paynting from the USA went into the nuts and bolts of the system. To conclude the morning, the team of people working in the background to make sure the Bose message got to the right eyes and ears explained how the sales efforts were being backed up on the advertising and PR front.

Tim Frost got a chance to sit down with Dave Bell and Richard Paynting once the clambake had run its course.

Amar Bose seems to infuse all of his employees with an enthusiasm verging on the evangelical and the conversation with these two Australians covered virtually every aspect of the company from its internal working to the latest acoustic CAD systems.

According to Dave, the company is changing its approach to the pro market in several ways. 'Rightly or wrongly we were the first to introduce stand-mounted loudspeakers to the market. 14 years ago, when we first came up with the 800, columns were the big thing and nobody had put speakers on a stick. But in the last five or six years we have made somewhat of a turn from the stand-mounted speaker market more into the engineered or installed market. This is much larger, much less price sensitive, and we have become, dare I say it, a more legitimate supplier of professional audio loudspeakers.'

Love 'em or hate 'em nobody can deny the impact Bose has had on the market over the years. While the outside world had perceived Bose as a company of heavy marketers, the view from the inside is entirely different.

'The market place sees us as a company that produces great brochures and as a real marketing-driven company. Nothing could be further from the truth. In fact, we see ourselves as an engineering-driven company. Two examples: we have 200 engineers and 16 marketing people. Secondly, our self-evaluation is that we still need to do a hell of a lot of work. But by industry standards we are clearly very good; and from an industry standpoint we are seen as violently successful.'

Just in case the point isn't clear Richard added: 'It is not so much that we are fantastic marketers - because we can see how much better we could be. The reality is that the industry as a whole is bloody lousy, and as a consequence we are the best of a bad bunch and so we do OK. But supremacy by default doesn't really sit well with us.'

More like a British company than an American one, Bose exports two thirds of its output. It has always been a cosmopolitan company and one that takes Europe very seriously. One of the key, but invisible, changes



Colin Cartwright welcomes visitors to the Acoustimass teach-in.

to the AM-Pro has been the altering of the electronics to meet the most rigorous Electromagnetic radiation specs in the world, the German ZZF standard.

'We took the position that ZZF is going to be the sort of level that the EC will adopt and we have forced the product to meet this. After these standards come into force people will look back at our products and say we've been lucky to meet all the safety and EMC specs, but it is brutal and expensive beyond belief doing this stuff. Europe is a very important market and looking at it from 1991+ we took on the toughest possible standards, so we have it all buttoned up now.'

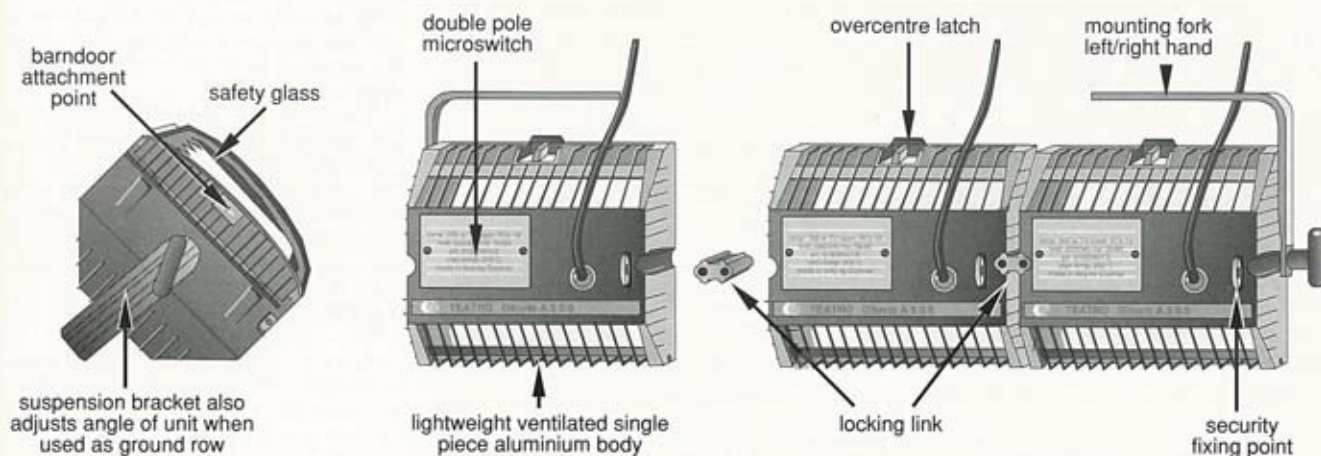
Bose in the past has taken a somewhat erratic approach to Pro product development hence the limited range, and a tendency to crowd a standard product into a specialist application. But things have changed, says Dave. 'We have had a number of restructuring efforts and we have seen the emergence, in the last 12 months, of a much bigger commitment to research and development in the Pro products area. It is no secret that prior to this there was a deep research activity but no real professional products group. Now we have permanent and dedicated development and research groups, so we will be seeing a continual flow of products coming on the market. We've found the pedal and we're about to step on it.'



After the Sunday seminar at Maidstone (left to right): Richard Paynting (director of engineering, Bose USA), Colin Cartwright (managing director, Bose UK), and Dave Bell (director of pro products, Bose USA).

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QUEEN'S AWARDS PRESENTED

PLASA members Glantre Engineering Ltd and JEM Smoke Machine Co Ltd receive their Queen's Awards for Export Achievement



JEM's Nigel Morris receives the company's Queen's Award for Export Achievement from Capt. H. N. Neville, Lord Lieutenant of Lincolnshire.



More congratulations: Nigel and June Morris with PLASA chairman Kevin Hopcroft pictured outside JEM's Spilsby headquarters.



Derek Gilbert proudly holds Glantre's Award after the presentation by the Vice Lord Lieutenant of Berkshire, the Hon. Nicholas Beaumont.

An area of JEM's production complex was dressed up for the day on June 17 to provide a set for the formal presentation of the Queen's Award for Export Achievement 1991. Capt. H. N. Neville, Lord Lieutenant of Lincolnshire, handed the award to Nigel Morris, JEM's managing director. Based in Spilsby, JEM were the only Lincolnshire company to receive the award this year, their business involving export to over 40 countries world-wide.

During his short acceptance speech, Nigel Morris congratulated both staff and distributors. "This award comes as a great tribute not only to our hard-working production staff but also to the excellent work carried out by our overseas distributors," he said.

A week earlier on a rainy Saturday night on the Thames, Glantre Engineering of Reading had their celebration evening in a slightly different style on June 8. All aboard the MV Waterman, company directors, staff and assorted guests witnessed the presentation of the award by the Hon. Nicholas Beaumont, Her Majesty's Vice Lord Lieutenant of Berkshire to Glantre's managing director Derek Gilbert.

The Glantre event also served as the company's annual dinner, postponed from December last year due to several staff members being detained in Iraq at that time. Despite the black miserable night on deck, down below it was all about good news, good company, and good food.

Confirming the value and prestige of the Award, it was stated by Capt. Neville that only 15 out of every 100 applicants win the coveted trophy each year. Obviously JEM's 80 per cent plus of production ending up overseas and Glantre's heavy orientation on overseas contracts helped significantly in ensuring the awards went in their direction. Capt. Neville made the additional point that JEM's five year guarantee, multi-lingual literature and the availability of an engineer on call anywhere in the world within a 24 hour period was also a big plus.



Below decks in the warm (left to right seated) with Derek Gilbert: Wil Halin from Philips Projects Centre at Eindhoven, David Staples of Theatre Projects Consultants, and Martin Carr of consultants Carr and Angier.



Glantre's directors against the black background of the Thames on a rainy night (left to right): Gareth Davies (contracts director), Francis Wells (financial director), Derek Gilbert (managing director), and Vic Dobbs (technical director).

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SAFE-T 91 — LONDON

George Thompson reports on the International Conference on Safety in Live Entertainment, held at the Cavendish Conference Centre in London on the 18-19th June. It was presented by the Association of British Theatre Technicians and the Society of Theatre Consultants, with PLASA among the sponsors

No less than 24 papers were presented at Safe-T 91, and there were over 130 delegates, some even coming from as far afield as China, with the US, of course, being well represented. The papers covered a wide and sometimes esoteric range of subjects, and I think it is true to say there was something for everyone. A large number of papers covered the problem of fire, which is of course the most alarming thing to happen in a theatre and potentially the greatest killer.

The first speaker, Valerie Jenson from the Home Office, reviewed almost all the major fires which have taken place in the last century, revealing a grisly catalogue of deaths, most of which could have been avoided with some foresight. This led her to draw our attention to the newly-published Home Office 'Guide to Fire Precautions in Existing Places of Entertainment and Like Premises' (a typical Civil Service title). Amazingly enough, the last Home Office publication on this subject was in 1934! However, Miss Jenson made sure we were aware of the main contents of the new Guide.

Hardly had we recovered from this than the famous 'Dr. Doom', Randy Davidson from the US, popped up in his brightly coloured braces to warn us that despite the Home Office, things are really not much better than they were in the last century, as the advent of modern hi-tech systems which were not fully understood by the operators had brought more risks to the public. He was particularly concerned about what he called 'fast-track' projects, by which he meant projects carried out to a very short timescale and with a limited budget. He also pointed out that the entertainments industry generally has a very 'macho' outlook, which leads to risks being taken to keep the show going which a more prudent business might shun.

To counter this, Joe Aveline from the Arts and Entertainment Technical Training Initiative told us how the National Vocational Qualifications (NVQs) would improve safety in the long-term, provided once again that sufficient money is available to see that standards are maintained. He was concerned to note that in the Merchant Navy it is proposed to reduce standards of safety to reduce costs, and hoped that our industry would not follow suit.

"... the entertainments industry generally has a very 'macho' outlook, which leads to risks being taken to keep the show going ..."

The Home Office Guide mentioned above deals with existing buildings, whilst new buildings, as discussed by Terry Ashton of the Warrington Fire Research Centre, will be covered by a new part 6 of BS 5588, to be published within the next year. Several delegates pointed out the problems caused by having two entirely different publications for basically the same thing, but the reason for this is largely historical; also, BSI can only make recommendations, not create legislation.

Linda Derrick, from the HSE, took us



George Thompson is PLASA's standards officer. A Chartered Engineer and corporate member of the Institution of Electrical Engineers, he has over 40 years experience in the electronics and communications industry. Most of this time has been in Government service working on radar, navigational aids, long distance radio-communications, computers and technical publications.

through the important sections of the Health and Safety at Work Act, and mentioned that there is a new EC Directive on non-permanent structures for fair-grounds, sports halls, etc. It is possible that some PLASA members may be affected by this and I will find out more details for them. She also raised a laugh by saying that the HSE are watching, with some concern, the latest craze where members of the public pay good money to throw themselves off an elevated platform up to 300ft in height, attached to 'safety' only by a piece of elastic known as Bungee. In this country, this will be banned at fairgrounds and public places of entertainment, but there is nothing to stop you joining a club and doing it for free!

Theatre consultant Iain Mackintosh gave some useful design principles and noted that nearly 70% of all theatre fires occurred when the theatre was closed. Also, he said that discos in a small community were today's greatest fire risk.

Large scale temporary venues were dealt with by Gar Holohan, an Irishman would you believe, who listed the precautions to be taken at such places, and mentioned that quite often the promoters do not know sufficient about the fire regulations to know when they are in breach of them. On the subject of difficulty of getting people to move when there was an incident, he mentioned that a bomb warning in Belfast would move an audience somewhat sharpish, but in Dublin they would stay to finish their drinks!

Richard Limb has been writing a long-needed guide on behalf of the HSE to give assistance to local authorities in issuing entertainments licences for pop concerts, and which will also give advice to promoters. A consultative document will be issued this summer, so watch out for it, as it may affect your livelihood. The guide will cover assessing the task, identifying the hazards and defining

safe methods, and then monitoring the results. One of the most important safety devices at a pop concert is the front-of-stage barrier and he, and later other speakers, gave details as to how this should be constructed.

A debate which continued on and off throughout the conference was about the efficacy or otherwise of the safety-curtain in a theatre. I had always thought that all British theatres had a safety curtain which had to be lowered at each performance, but I was surprised to learn that this is not so, and in fact my own local theatre, the Derrigate at Northampton, does not have one. Also, I understand that the forthcoming BS 5588 Pt 6, will not specify a safety-curtain. The argument for one seems obvious, and one speaker showed how the auditorium of the Tyne theatre Newcastle was saved when most of the stage was destroyed by fire, and another speaker showed unequivocally that a strong safety curtain with a properly-ventilated stage roof could prevent a stage fire from spreading to the auditorium. It was even more horrifying to hear the American delegates say that in most US theatres, the safety-curtain could not be lowered because the mechanism was rusted solid! The reasons against a safety-curtain seem mainly cost and the fact that in many fires its absence would have made no difference. It is said better use could be made of the space it takes up. There were two sharply divided schools of thought on this, culminating in a wordy resolution being proposed which basically sought to eliminate the curtain. On a show of hands this resolution was voted down. It was a near thing though, and I was surprised that so many people seemed to think such an apparently obvious safety device was not necessary. As most of those present were closely involved with designing and working in theatres, they must clearly know more about it than I do.

"... a bomb warning in Belfast would move an audience somewhat sharpish, but in Dublin they would stay to finish their drinks!"

Another delegate from the US, Jake Paul, was an expert on Life Safety and in his talk (after some trouble due to his inability to distinguish the forward and reverse buttons on the projector), showed a huge number of slides depicting bad design arrangements in various sites throughout the world, and the consequent unsafe predicaments people can find themselves in as a result. There were so many slides it was almost like watching a film, and an inadvertent blink caused me to miss three frames! Jake was very critical about British codes, especially our 2+ minute criterion for emptying buildings. Mind you, he had an example of a building in Edinburgh where a Way Out sign pointing to the left was immediately next to a Fire Exit sign pointing to the right!

Dr Paula Beever from Arup Research and Development looked at the engineering approach to fire safety, and analysed the safety factors of the Royal Exchange Theatre,

Manchester, a structurally independent capsule built inside the old Cotton Exchange. Tongue firmly in cheek, she claimed that this building could be evacuated in 2+ minutes. So there!

A very interesting paper on how people behave when asked to leave a building was given by Jonathan Sime, who had found that an important factor in the actual escape time was the time taken for people to begin to move after the fire was discovered or a warning given. For example, in the case of the Summerland fire on the Isle of Man where large numbers died, the staff had tried to put the fire out, and it was 20 minutes before any attempt was made to evacuate the building. His research had also shown that people tend to leave by the way they came in, even though a fire exit door may be staring them in the face. Consequently, site staff should be very familiar with the building layout in order to show people the safest way out.

Without being condescending in the least, I have to say that the ladies tackled the most difficult subjects, from Valerie Jenson with a mass of detail on the Home Office work, to Paula Beever with a highly technical treatment on engineering analysis, and ending the run with Anne Minors, who gave a fascinating paper on how to get the largest number of people into the smallest size of box, yet with them all able to see the stage and yet get out quickly in an emergency. This is not as easy as you might think, for there are all sorts of constraints, and I was surprised to hear that in some famous international theatres less than 50% of the audience can see 100% of the stage. Obviously, with perhaps 2000 seats, a millimetre or two per seat width or distance can make a big difference to the total volume. The differences between British, Continental

and American codes were clearly brought out and I was intrigued by the pictures of American venues with a dizzying 45° rake on tiers of seats. I was thankful to hear that in Britain the maximum permissible rake is 35°.

One of the lectures that put its message over clearest was given by Graeme Hansell of Colt International, showing with excellent slides how fires grow and spread and how smoke, which generally kills more people, can be controlled. Most people have no idea how quickly an enclosed fire can spread, as their experience is generally of open fires like a bonfire, so they do not perceive the risk until it is too late. After seeing his slides on the build-up and spread of smoke from an on-stage fire, I do not see how anyone can say that a safety-curtain is unnecessary.

Tony Brown of Strand Lighting gave a clear exposition of some of the current (no pun intended) misconceptions on earth leakage circuit breakers, or residual current devices, and showed that wrongly installed they could be a source of real danger, and even when correctly installed, did not eliminate all possibility of electric shock. He emphasised that the use of RCDs should never be a substitute for good electrical safety practices.

"A way out sign pointing to the left was immediately next to a fire exit sign pointing to the right"

Your correspondent gave a shortened version of his report on smoke machines, which covered the chemistry of the fluids in some detail. 'Dr Doom' reminded us that many machines failed by overheating, and pointed to good maintenance of the machines as an essential to safety. I could only concur.

The Royal Shakespeare Theatre Company

was represented by Kevin Sivy, who discussed the duties of employers under the Health and Safety at Work Act, and showed the precautions taken in their workshops to avoid inhalation of dangerous fumes. Even the seemingly innocuous wigs department needs exhaust fans.

There followed two papers about luminaires, one by John Landamore of Ark Light on how to maintain them, followed by David Bertenshaw of Strand Lighting with some anecdotes on early attempts at theatre lighting and the inevitable disasters. He then went on to talk about the new European standards which will affect the design of all luminaires, such as the Low Voltage Directive, Euronorm EN 60598 and the EMC Directive. If you don't know about these you should become a PLASA member and read all about them in the 'Standards News'.

Lastly, Rodney Clarke of Le Maitre told us how to look after the pyrotechnics which he reminded us that, unlike fireworks, were meant to support the entertainment, not supplant it. He emphasised that the use of pyro effects should always be pre-planned in detail, and they should never be so large as to blow the audience out of their seats! Also he informed everyone that it was illegal to manufacture or alter devices without a Local Authority licence to manufacture fireworks, and in any case it could prove extremely dangerous to do so.

Summing up, the Conference covered an extremely wide field and included a mass of factual detail. Nobody could have gone away saying he learnt nothing new. As ever, some papers were better than others, but I think it was a great success, especially in view of the fact that it was the first of its kind. The organisers are to be congratulated on having the courage to promote it.

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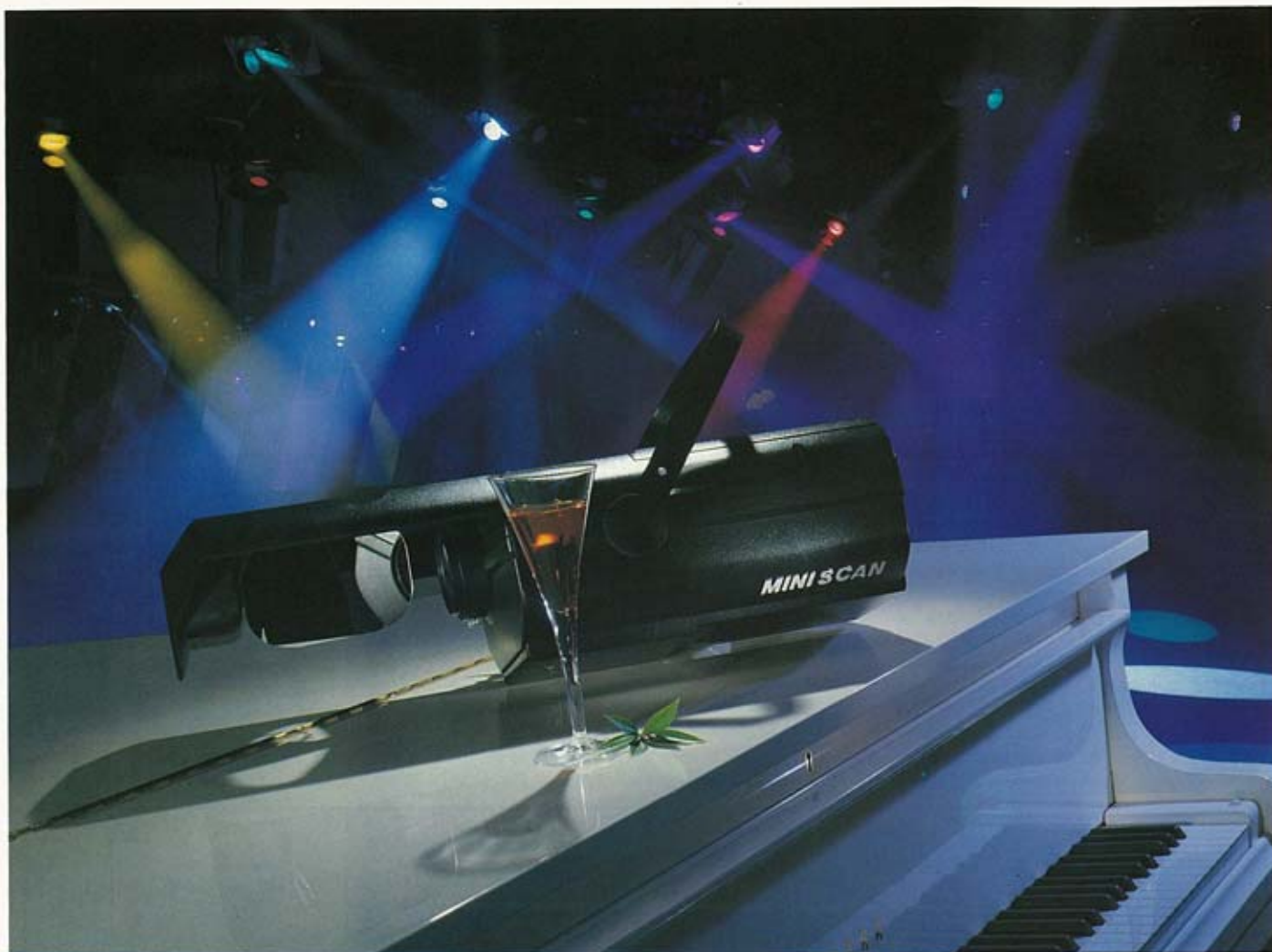
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ROCK 'N' ROLL HALL OF FAME

Pulsar in Paris



The Beatles rock on aided by technology.

Paris' newest attraction, The European Rock 'n' Roll Hall of Fame, has based its entire lighting and music extravaganza around nine Masterpieces, Pulsar's multi-control lighting desks.

Located at the Forum des Halles, Paris, The Hall of Fame chronicles the rock 'n' roll era from its birth in the 1950s through to the present day. It features 40 performers including Little Richard, Bob Dylan, Jimi Hendrix, Chuck Berry and more recent additions to the scene, Prince and Madonna. Whilst in the hall of Fame, visitors are treated to Michael Jackson performing in his famous 'Thriller' setting, Elvis in concert at a Las Vegas casino, and the Beatles singing in the Cavern Club.

Scenes have also been designed to represent major musical events such as the Live Aid Concert. A replica of Wembley Stadium has been created, and with the help of lighting, video screens, motors and hydraulic devices, stars appear animated on stage.

The exhibition's lighting concept is the brainchild of Peter Jay, of Jay's Europe, the former lead singer with Peter Jay and the Jay

Walkers, and Nick Phillips of Central Lighting and Sound, Pulsar's Wakefield representatives.

The success of the show rests on split-timing accuracy in the co-ordination of the lighting, motors, hydraulics and music which make up the various scenes. The mammoth co-ordination task is the responsibility of the nine Masterpiece control desks.

Each of the Masterpieces are programmed to control up to four scenes within the nine areas which make up the exhibition. These scenes incorporate a mixture of special effects including smoke machines, neons and lanterns, and utilise a number of motors and hydraulic devices.

Also featured are a collection of 272 Pulsar pinspots, 116 superspots, 2 jumbo strobes, 8 profile spotlights, 12 Clay Paky par 36 90 degree scanners and a Clay Paky 4 head helicopter. To incorporate all of this equipment, over 17.5 kilometres of cabling was necessary to connect the 72 Pulsar dimmer and switching packs used to control 432 circuits.

In order to ensure a smooth and professional

performance, the Masterpieces are interfaced with laser videodisk players which receive pre-programmed cues at critical points within each of the nine four minute shows. This connectivity provides the split-second timing needed to integrate the video images to the lighting, movement and special effects. For example, to create a Las Vegas street, each Masterpiece cue is needed to perform more than 20 simultaneous sequences.

To achieve this total accuracy, Andy Graves, Pulsar's project support manager, undertook the programming of the lighting shows. Paul Mardon, technical director at Pulsar, acted as consultant on the project, as did Clay Paky & Pulsar sarl, who provided information on the French controls and regulations.

The European Rock 'n' Roll Hall of Fame, which opened to the public on the 26th June, is owned by the Kunick Leisure Group plc. The group also owns both the London Dungeon and the Musee des Martyrs in Paris. "We believe that the Hall of Fame offers visitors a theatrical experience which will transport them back to the heady days of rock 'n' roll," explained Don Robinson, deputy chairman of the Kunick Group.

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JOSEPH'S TECHNICOLOR DREAM

Julian Williams in the West End

When a lighting designer first walks into a theatre, to light a show, he knows that he will have to fight for stage time from then on. On this occasion it was Andrew Bridge, complete with his bag of many colours, going into the West End and the London Palladium. He had organised his team so that they had every chance of surviving the battles that lay ahead, and would be ready for the first technical rehearsal. From then on there were just five days to put in a 460 instrument rig plus a contingent of Vari*Lite's.

The original version of this production was a charming piece without complex technicalities. This time 'Joseph' is a high profile and expensive production, reflecting the kind of spectacular that Lloyd Webber audiences have come to expect. But Andrew Lloyd Webber didn't want any visual high technology to be noticeable, and the constrictions of this brief meant that Paul Sadler's Delstar Engineering company had to use some innovative planning to enable the ideas, of designer Mark Thompson, to be presented in the most subtle of ways. Despite this, the mixed reviews for the new version expressed disappointment that there is a sense of visual overkill.

This Joseph has been sent up in a kind of camp-style humour. For example, there are orange, pink and yellow sheep, a Pharaohic statue that turns into a fruit machine, and Joseph himself appears on a large golden-winged chariot.

The story of Joseph and his richly ornamented 'coat of many colours' is told in a series of scenes inside a picture frame type set. It has a bank of stairs running from downstage to upstage on each side. The show opens with Joseph, seen through a front gauze, floating through the sky in a haze of dry ice and cloud projections. He is raised on a single column hydraulic cable lift which rides inside the outer revolving stage, and comes up with an arm which is moved around as the revolve moves.

Considerable use is made of the traditional double revolve and drum lift well-known in this theatre. Much of the first half of the story is set around the Canaan Wall, which has entrances through five hydraulically operated rising slider panels in its backing, with the centre panel able to be lowered into the stage for an effect. Each panel rides inside another without post supports, allowing all the panels to be withdrawn as required. They are all operated by jigger rams and controlled from a central point. In the Pharaoh as 'Elvis' scene, the collar piece comes downstage, with side trucks, to join the face piece, which is flown in. This is then manoeuvred from upstage along guide tracks in the stage false floor, where all the jigger rams are pulling cables that bring the whole together in synchronisation.

The Palladium's 1930 revolve drives had to be upgraded, with a motor drive system with positional read-outs, so that all its complex moves could be set up for the correct time, accelerating or decelerating at a plotted pace, and to accurate dead positions. The drum lift and inner and outer revolve, which continuously break up with the various changes, have to marry up absolutely correctly for trucks to traverse the various crossings.

It is interesting to note that this production could be about the fastest mounted for a major West End musical, taking just 14 days

from get-in to the first preview. However, the Palladium's crew is used to having to turn diverse shows around with speed and efficiency — and to working non-stop around the clock.

Production electrician Mike Odam explained: "We started the get-in on a Sunday at 2 am. By 6 pm the entire stage lighting rig was up, coloured, gobo'd, plugged up and flashed out on the board. We started focusing the FOH at 6 am on the Monday. We put the patch in the board, and flashed it all out on Tuesday, and we worked flat-out before the scenery came in. Andy Bridge focused the FOH on the Wednesday; other than that we couldn't have a proper focusing session. It was done along with the noise of angle-grinders and with all the working lights on. They weren't turned off until the company had been rehearsing on stage for some time! However, it was nice to go into a theatre that had enough dimmers and we didn't have to worry about adding more."

Associate Vari*Lite designer Richard Knight told me that for him it was an 'enhancement' job. "A rig of all VL4s is unusual, and it's used here to enhance the conventional lighting rig without any special effects."

Associate lighting designer Hugh Vanstone, working alongside Andrew Bridge for the fourth time, said: "Every day the damage list had to be updated after all the overnight rigging work had taken place. Because of the amount of general rigging, much re-checking had to be done each day and something always needed re-setting."

"When a lighting designer first walks into a theatre, to light a show, he knows that he will have to fight for stage time from then on."

"When we got to the preview stage, knowing that time was tight and that there was a considerable amount of technical finishing off to do, we were naturally reluctant to fiddle too much and to do much more artistically, in the knowledge that between then and opening night we would just be doing technical work. We did get there, but it did

limit things somewhat, artistically."

It's at the end of the show that any major technical visual effects are realised. The Vari*Lite's are then much more in evidence with their broad sweeps and multi-coloured beams grouping together. This happens in an eight-minute sequence of lighting in a grand finale style Megamix scene. After which Joseph transcends, projected on a three-sectioned telescopic boom operated from a hydraulic ram under the stage, ascends from the back of the orchestra pit wall and extends almost 30 feet high out over the audience, in an auditorium that is almost instantly filled with white smoke.

The train of Joseph's dreamcoat is simultaneously fanned out to this height by a hydraulic tab track system opening from the front of the false stage floor . . .

Lighting Background:

The stage rig is based on 14 LX bars, with two ladder booms each side (purpose-made to allow for the maximum number of units and get-off height underneath the bottom unit). To complement this, are the theatre's traditional front of both circles and box and pros boom positions. Control is the recently up-graded Strand Galaxy 3 house board.

There are 18 Vari*Lite VL4s mounted into four of the LX bar positions, on independent rigging lines, and driven by an Artisan control.

In the D/S bay there is a Howard Eaton Lighting light curtain in five sections with a Rainbow colour changer. The luminaires are generally profile units, with 126 Altman Lekos in three focal ranges, comprising 6 × 9, 6 × 12, and 6 × 16.

There are an assortment of Strand units consisting of 32 Cantatas in the 18/32 and 26/44 focal ranges and 12 Cadenza PC units, four Cadenza EP 2kW effects projectors, a Quartet, a couple of Patt 743s and still some faithful Patt 23s. There are 80 Thomas Par 64 cans, 44 of which have narrow focus lamps. A dozen or so CCT Silhouettes are also in use.

MR16 Ministrips are mounted behind the bottom edge of the picture frame set and these act as a form of footlights.

The followspots comprise three Colortran house units complemented by two Pani Beamlight followspots on each side behind the false pros.

Two HFL dry ice machines are used on each side under the stage. Also involved are two Le Maitre Optimist smoke machines and two Smoke Processors.



Lighting designer Andrew Bridge at work.

THE AUSTRALIA SHOW

Tony Kingsley reports from Melbourne

Pro Light & Sound Expo 91 was held at the World Congress Centre in Melbourne Australia from June 14-16, and against the background of a longer running recession than in the UK and Europe, Expo director Paul Chappell has to be congratulated for having the faith and courage to get such an event off the ground.

The show was not, in truth, significant in world terms, but as the first professional light and sound show of any size in this continent, bringing a somewhat fragmented Australian industry together for the first time, it certainly was significant. Most exhibitors had constructed professionally finished stand displays and hadn't skimped on floor space either despite it being as costly as London. Although most exhibitors I spoke to expressed the desire for a biennial show, prompted by economic reasons. Paul had already announced next year's show at Darling Harbour in Sydney from May 14-16. So this show could be much more important in the future.

Attendance figures were low, and it wasn't a 'busy' exhibition in that sense, but I did receive favourable comment on the 'quality' of those who did attend, with most exhibitors feeling that the visitors had been well targeted. In addition it should be borne in mind that a comprehensive seminar programme was running throughout the period, and this syphoned off up to a 100 people a time from circulation in the expo hall.

Francis Reid from the UK led three sessions as did Richard Pilbrow from the States. They were the overseas big guns on the lighting side. Other notables taking part were Hugh Bathurst, Larry Goodson, Brian Thompson, Paul Kathner, Greg Roberts, Chris Luscombe, John Matheson, Denis Irving, Nigel Levings and Garry Pritchard. Lighting and scenic design was discussed, as was control, and, guess what, DMX. Sound also had a broad brief, from application of digital audio to television sound through to sound for small and medium-size venues. The seminars I looked in

on were well-attended and Paul Chappell will be entitled to feel that this part of the Expo was a success.

To the exhibition hall, and I'll take disco first. Two major companies had the format of light shows and a wide range of imported equipment on view. Lights Audio Visual Australia (LAVA) under managing director Rod Salmon are agents for a wide range of imported equipment including Jem and Le Maitre!, Optikinetics, Zero 88, Coemar, Lampo and Genius. Clay Paky and Martin shared the honours with the excellent on stand display of intelligent lighting. Associated company Lightmoves, the retailer outfit for LAVA shared the stand. Theatrical Products displayed Image Pro, Teatro and Dynalight (some new dimming equipment) and Theatrelight premiering the Showmaster range of control desks. LAVA also showed their own videowall system, Smart wall, which looked very impressive on first viewing, with electronics and computer programming designed to work within the IBM-compatible 286.

The other large corporate assembly was on the stand of GUVT (Greater Union Village Technology) who take care of Anytronic, Advanced Lighting Systems, High End Systems, Laser Grafix, Light Processor, Mode, Formula Sound and Griven. Their show featured Intellabeams and Emulators from High End, indeed one of the best displays of this equipment I have ever seen, and it is of interest to note that intelligent lighting, in the form of Intellabeams was introduced to Australia only relatively recently, I was informed by GUVT. This first public gathering of some of the competition from Clay Paky and Martin should have given publicity to some of the choice available.

There was only one stand dedicated to sound equipment, although there was more of it about in around the hall. Musitronics and RCF Australia shared a stand. RCF was obviously given pride of place, but Musitronics handles NJD lighting

control equipment, Vestax, Etone, GE and Philips lamps and also acts as a state distributor.

To the theatre and concert scene. There were two big Australian names I expected to see, but only one was in evidence. LSC Electronics manufacture the well-known Precept and Focal range of control desks and other control equipment and are regulars on the international circuit, but where were Jands? Up and coming Bytecraft were in there, famous for their dimmers amongst much other equipment, and they also take care of AVAB, Pani and Skytracker. Showcraft, largely a research and development company, had their Colourset colour changing system.

The John Barry Group is a big name in Australia, with their head office in Sydney and showrooms in Melbourne and Perth. They had Arri equipment on view, both for theatre and studio applications. Kupo Australia had the usual Parcans and the rest.

Strand Lighting showed their luminaire range including the Quartets, control boards from the MX through to Galaxy and Quartzcolour equipment including the new Quazar sealed beam HMI. Rosco equipment could also be seen on the Strand stand and this included their new colour scrollers launched at LDI in Orlando last year and the Rosco Candlepower computer software system.

Flying over the short(?) hop from New Zealand, Selecon has a full network of Australian distributors for its own-manufactured luminaire range and much other equipment. On stand was more international gear including Rainbow colour changers, White Light optical effects and Strong followspots. A new international launch on the stand was the 1200/1000 fresnel. Selecon reckon this has a light output up to 50% greater than the competition, achieved by using a 175mm lens instead of the commonly used 150mm. Evidently the greater surface area of the lens collects more light, making effective use of a greater part of the light output. A further advantage is the beam quality which is more even with less spill. No doubt UK distributors M&M Lighting will have this unit on display at the PLASA Show in London in September.



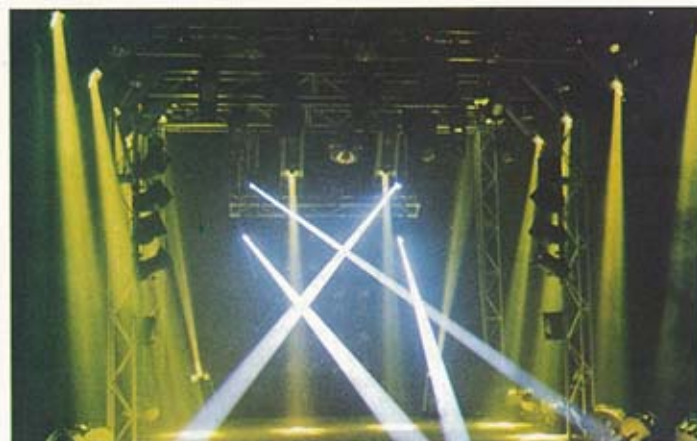
Left to right: Rod Salmon of LAVA with Braham Ciddor and Jonathan Ciddor of Lightmoves.



Clay Paky Golden Scans and Martin Roboscans in concert.



The Smart wall system was shown on the LAVA stand.



Emulators and Intellabeams in the GUVT light show.



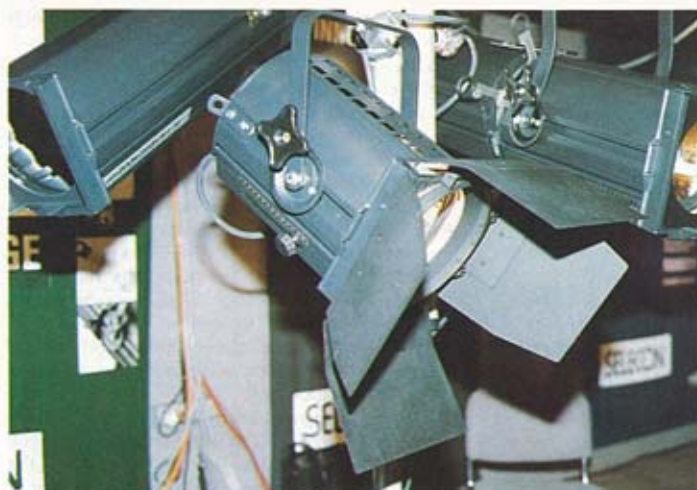
Part of the LSC control system line-up.



The John Barry Group showed Arri control and luminaires.

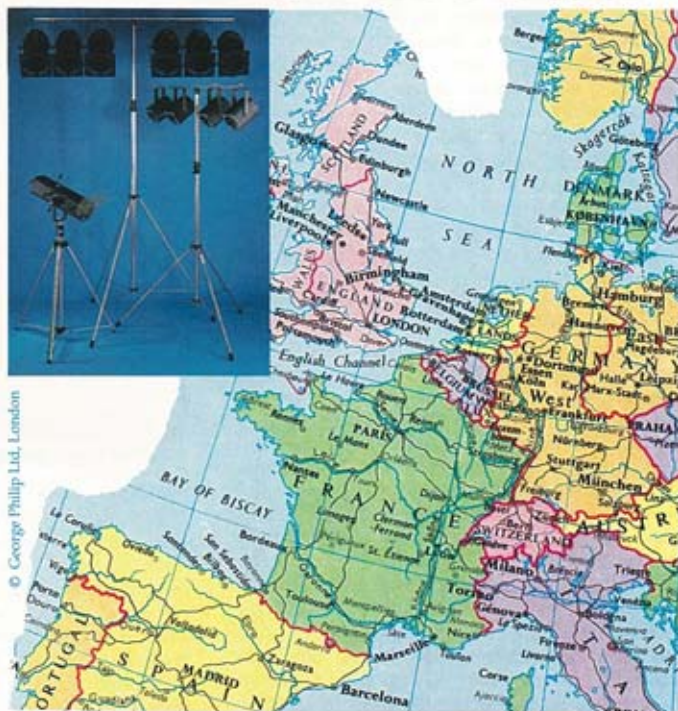


The Strand line-up, complete with Rosco.



Selecon's latest: the 1200/1000W fresnel.

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TECHNOLOGY AND THE LIGHTING DESIGNER

Christine White of RADA surveys lighting designers and tries to find out what they really want from future equipment

The art of the lighting designer is restricted by the technology available. Technology is produced for a specific scientific function. Many members of the profession feel that they are often force-fed with new technology and therefore it is assumed that the technology leads the art. However, no matter how exciting the technology, it is not until the imaginative skill of the lighting designer has taken hold of it that its full potential, intentional or otherwise, may be realised.

The major reason for the survey was to gauge the disparity between the customer and supplier and to see what designers felt about the range of equipment available to them. Manufacturers will be pleased to know that it was not all negative criticism. I was intrigued to see where designers saw technology taking them in the future, and I am indebted to those people, who gave such well considered replies, for their time and effort.

The first section of the questionnaire is a discussion on luminaires. Lighting designers require a high level of flexibility from luminaires, not to avoid making decisions on the drawing board, but in order to avoid imposing limitations on the design at a relatively early stage in the development of a production.

The more flexible the equipment, the greater the range for experimentation in a short time and, therefore, the nearer to perfection one can get, given all the other variables involved with a production. The designer's consensus would be for a 'multi-purpose lantern'. It would have three lenses - fresnel, profile, prism convex and would therefore provide a wide range of beam angles and qualities. It would also have a lamp holder able to take Tungsten Halogen, HMI, CSI, Metal Halide and other varieties of light source!

By asking for the ultimate flexibility in light sources however, the designer is, in fact, creating vast technical problems which would ultimately result in less-friendly lanterns. HMI and CSI require cold re-strike transformers and cannot be dimmed effectively. Also, in order to accommodate these light sources such hybrid lantern units would have to be very large, thus cutting down the number of suitable rigging positions.

The second section of the questionnaire dealt with lighting boards and control. The most useful adaptation to lighting boards, in recent years, has been the introduction of the designer's palette and/or the ability to move the board into the auditorium from the control room. Although manufacturers seem to think that the marketable parts of a board are the button arrays, an overwhelming response from designers suggests that the ability to move the board, or plot, from the auditorium is of most value to them.

This is perhaps the most controversial area of discussion. Many lighting designers do not welcome the introduction, or use, of 'computer speak' in lighting boards, perhaps because of the influence of Strand logic. Almost an equal number of replies suggest that they are aware of the need to get rid of their prejudice towards 'QWERTY' keyboards, or in fact, are pleased to see computer terminals in the control room.

It would seem a logical process however, and this was expressed by the results, that computer-based control is where the future lies. Even Strand effects panels, as on the Gemini 2+, use a menu-and-select function rather than a series of buttons with dedicated functions.

In order to programme moving lights we also require much more specific commands but with flexibility, so designers may have any configuration to 'design' with, rather than a series of fixed choices. As soon as more effects are required other terminals, or control boxes are needed. If control came from a standard 'QWERTY' keyboard, any additions to the normal lighting rig could be commanded from the one station.

It was fortunate that such ideas could be



Christine White giving a hands-on demonstration to her students at RADA.

Photo: Strand Lighting.

discussed at the recent British Council Lighting Design course (chairperson Francis Reid). This gave me the opportunity to get a response from designers from other countries. What is conclusive from their appreciation of present technology, is that northern European, American and Australian lighting designers are more enthusiastic about standard 'QWERTY' control and would find it preferable to Strand logic. They want the flexibility to go to different venues, load the plotted information from disk and be able to run the show (naturally after rigging and focusing!).

The money afforded to computer training in the countries mentioned must affect people's familiarisation, and therefore enthusiasm, for such equipment. Students of 18+ in Britain are only just becoming computer literate and this obviously has an effect on whether they see computers as a threat or an aid.

The natural progression from this is Computer Aided Design systems. These, with the computer terminals in the control room, would allow designs to be created, altered and updated. Luminaires about to be added to the rig could be checked out in side elevation on screen, perhaps saving unnecessary rigging time. The time saved could then be used for greater artistic experimentation. If we are to have technology it must be a time saver. Having an electric kettle to boil the water for tea saves the time spent building a fire. That time saved can be used to concentrate on one's lighting design.

The next section involves a discussion of the desirability of low voltage equipment, to which 80% of designers gave a resounding 'yes'. While the interest is overwhelming the reasons why are, I feel, a little subliminal. Why is this technology of interest and what is meant by low voltage technology?

All the designers were referring to luminaires. The most popular low voltage unit is, in fact, a Birdie - basically an M16 bulb in a mini-Parcan. The reason for its popularity with designers is its convenience, by which we mean it is lightweight and small and can be easily attached to the set, or stage in often very tight corners. The reason for its unpopularity with chief electricians is the difficulty in placing the cumbersome transformers close enough to the luminaires so as to avoid voltage

drop. (The emergence of reliable, small, lightweight electronic transformers may go some way to solve this problem).

Question: 'What else do designers find of particular interest with these small lanterns?' Answer: 'The quality of the light'. As with all low voltage light it is a much brighter, and could be described as a 'whiter' light.

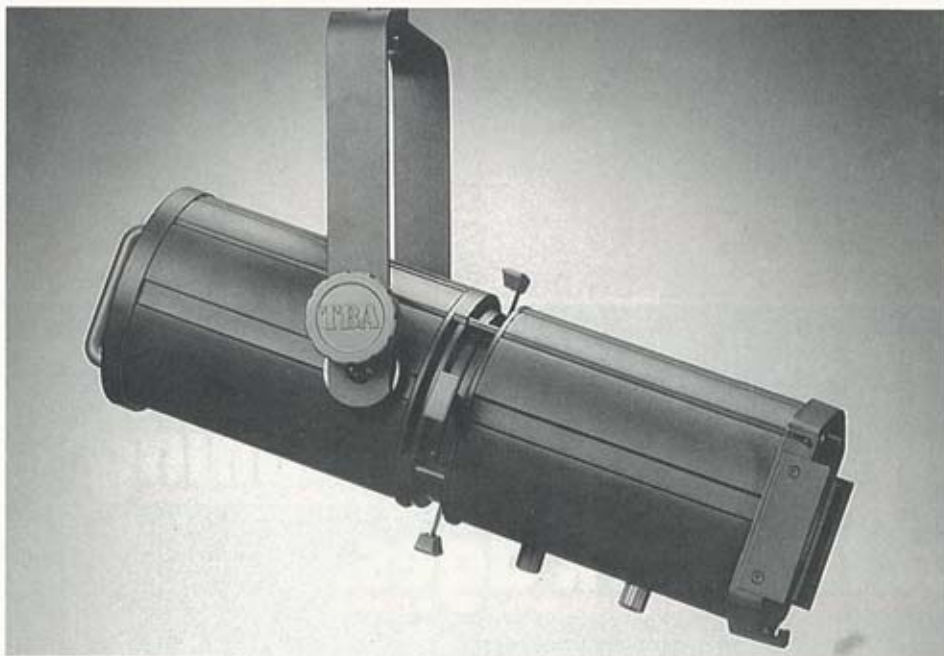
Low voltage lanterns do not work well with dimmers and yet every theatre application requires this flexibility. If a designer were presented with lanterns that could not be dimmed at all much of the skill of his design would be lost, for it is the juxtaposition of light which enables the designer to highlight or effect subtle changes in scene, atmosphere and locale.

The dimmer was developed and first used in 1881 and reported in the Daily News: 'the flames cannot be lowered or increased at will, there being no medium between full light and total darkness. This difficulty has been successfully overcome by interpolating in the circuit... what in technical language is called 'resistance'. Thus the dimmer revolutionised the style of lighting possible with electricity.

So why is low voltage equipment, which is difficult to dim and impossible to 'snap-out' effectively, so popular with designers - the very people who require the most flexibility? Ecology, or the pressure of the accountant for cheaper electricity bills, do not seem to be considered. Could it be fashion?

In recent years developments have been made in architectural and domestic lighting that have led to a more hi-tech look. Homes are designed with dimmers for each room, modern offices and shops have a variety of light sources in many styles, and it is here that low voltage units have excelled: the M16 bulb being both compact and bright, it has become part of the 'trendy' look of interior design. As with most developments that reach theatre, the technology has usually been developed to apply to another, more lucrative area. The lamp manufacturers create a product for a known market which will pay for the development and produce profit.

Lighting designers wish theatre manufacturers would take hold of this new development and adapt it to theatre. Tim Burnham developed the T.B.A. Magic Lantern as a low voltage luminaire. It was advertised to be used either without external



1985: The Z/65 zoom profile Magic Lantern from TBA.

dimmers, but with dimmer-per-lamp flexibility, or in an existing 240v ring, but without heavy transformers. The electronics in the lantern converted the dimmer's output to low voltage 'even at barely perceptible light levels.' Unfortunately, Tim Burnham Associates went out of business before their equipment could be proved in the marketplace. They had obviously felt that low voltage was the way to go at the time and the market research into product popularity seems to have been correct. However, we must then ask why has no other manufacturer taken up the challenge left behind by the collapse of his company?

The lighting designers' response to the questionnaire suggests that this is because manufacturers are not really interested in what the profession may require. (Why should this be the case? If there is a market and the product sells, the manufacturer will make a profit). Yet this makes no logical sense from a manufacturer's marketing viewpoint.

Seemingly, manufacturers would have us believe that the profession does not really know what it wants. As with the design process of lighting a production, the design of a new luminaire has the same problems and pitfalls. It is only when the client is presented with an image, product, or

opinion, that it can be challenged, discussed and added to. What industry in these times of recession can afford to produce a product only to reject it after the customer has had their say?

The technology is available to produce low voltage equipment for theatres but the individual cost per unit would be inflated by the development of small transformers and bulbs, so theatres could not afford the product they were asking for.

Even more unfortunate is the fact that a request for low voltage technology from designers will not make a theatre spend money on equipment which may be used infrequently and may, eventually, become unpopular due to its inflexible nature.

Do we really want a new light source? Lamp manufacturers like Philips and GE Thorn are, perhaps, where our new technology has to develop first. We now use sealed beam units in theatre lighting but these were originally designed as aircraft landing lights. Where are the next theatre bulbs coming from? For the bulb manufacturers, theatre practitioners are small fish in a big pond. They need to have a profitable market for their products — hence, perhaps, the cross-over of products like the M16 bulb, from domestic and architectural lighting, to theatre. It is because designers are searching for a new look.



"Students of 18+ in Britain are only just becoming computer literate and this has an effect on whether they view computers as a threat or an aid."

Photo: Strand Lighting.

We come back to my original premise that low voltage is popular because it is a different light source, which will partially dim and can be used in compact units, unlike CSI and HMI. Ultimately designers are itching for divergent light sources as revolutionary as electricity itself was in the 1880s.

Low voltage fills this gap. If it is the light source we, as designers, are interested in, then it is the lamp manufacturers who have to be convinced of the market.

Yet it is strange that we should be asking for units which give more light when the introduction of gas and later electricity led to the cry of 'too much light in the theatre!'

Should we be aiming for pictorial consistency? Can we draw a parallel between the introduction of gas and electricity with that of low voltage into theatre?

All of these sources were first introduced to illuminate exteriors, public halls and foyers before they were allowed onto the stage, or into the home. It was, in fact, the invention of the incandescent bulb which ensured that electricity would be adapted for theatrical purposes. This trend seems to suggest that given time and the development of the lamps, low voltage could follow this pattern and find a home on-stage in a flexible unit.

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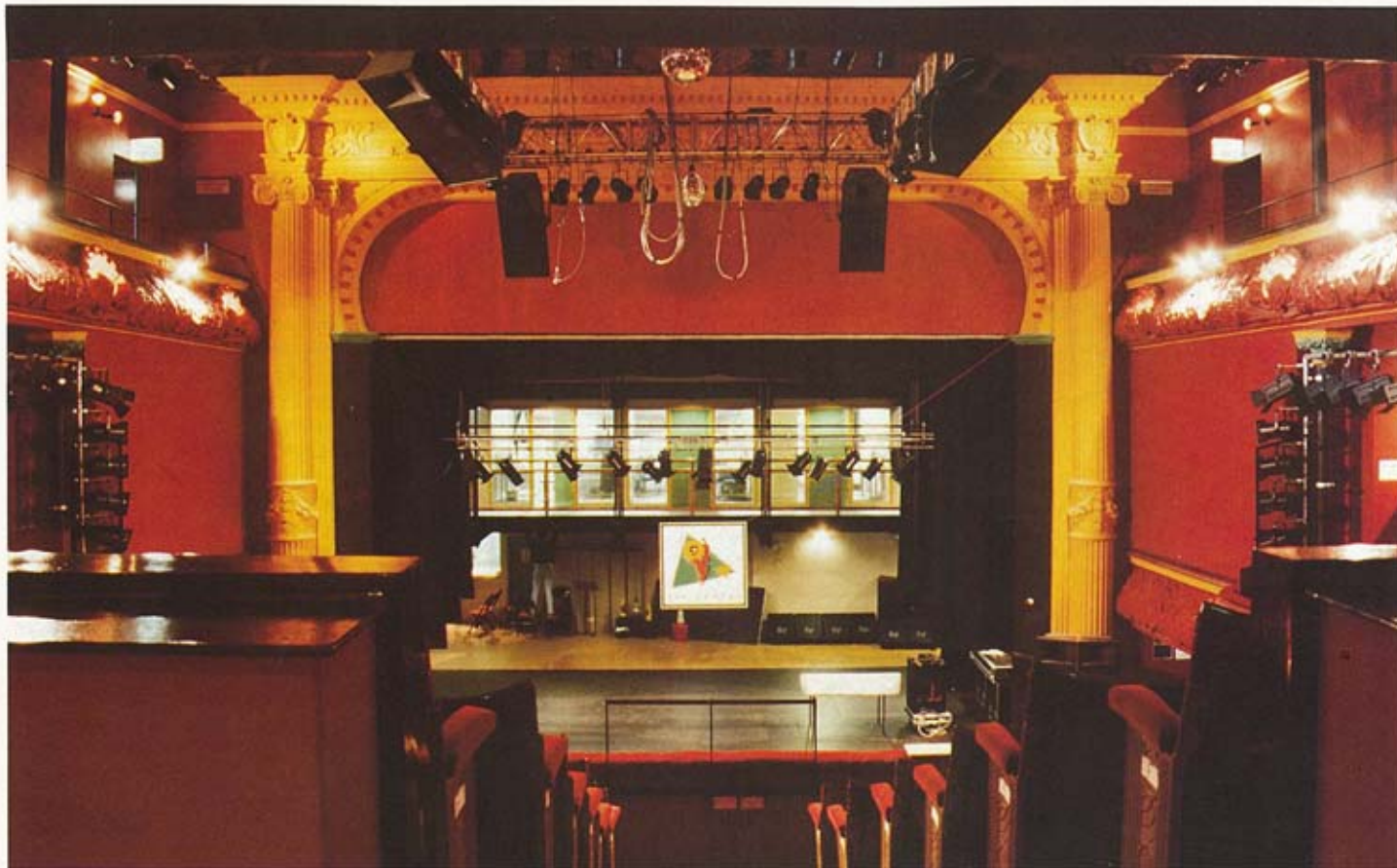
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LSI/7/91

NIA CENTRE, MANCHESTER

L+SI Special Report



Until refurbishment work started, the building had not been touched since the BBC left it in the sixties.

Photos: Mills Beaumont Leavey

Nia is a Ki-Swaheli word meaning purpose; a purpose to promote a positive image, enjoyment and informed awareness of African culture. The refurbishment of the Hulme Hippodrome, at Moss Side in Manchester (formerly the BBC Playhouse Theatre) into the Nia Centre had the sole purpose of providing a building that could accommodate the many facets of black art in an area of the city with strong African and Caribbean links.

Originating at the turn of the century, the building saw its heyday during music hall, turning to theatre, concerts and cinema in later years, finally to be occupied by the BBC for television and radio broadcasts. During the planning stages, art, music, poetry, drama and dance all had to be facilitated within the building, but in addition to performance, the theatre also had to become the base for

the Nia itself in terms of administration, workshops, rehearsal rooms, restaurant and creche facilities.

Utilisation of space related to function was paramount in creating a building that worked in all aspects of its multi-functional nature. All of the non-performance activities were suspended on a new steel structure interwoven within the original roof timbers in what was the flytower area of the theatre. This enables the original stage's full depth to remain available for performance-related activities. When the screen that divides the auditorium from the backstage is in place, the rear of the stage operates as a restaurant open for public use.

Above and within the roof structures, glazed window lights have been added to enable natural light to filter down to activities

below during the day. At night, blackout blinds have been incorporated for use when normal flytower conditions are required.

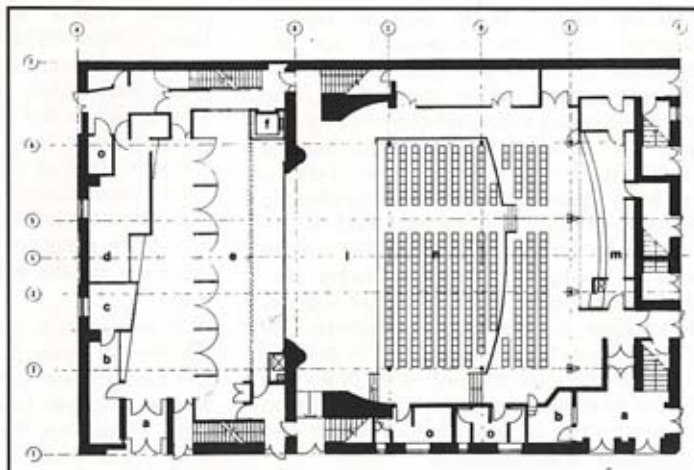
The highly ornate and decorated Grade II listed interior of the auditoria has been modified to aid its multi-functional nature, through the inclusion of three bars, one at each level, and the replacement of the original racking floor to a two tier arrangement to support a variety of activities.

The acquisition of an interlocking and totally removable seating system enables greater use of the available ground floor area for activities such as dance and discotheque.

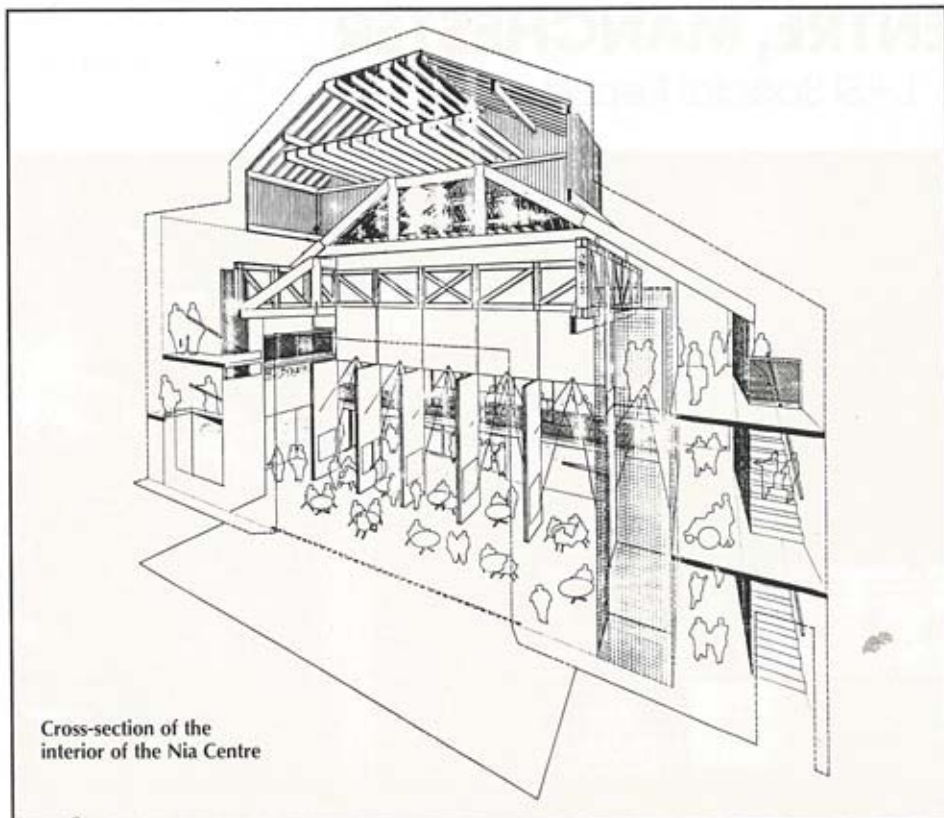
Early on within the project development Eurolight's tender bid for the supply of sound and lighting equipment for the centre was elected as the bid offering the greatest flexibility and value for money. Late in 1990



The highly ornate Grade II listed interior has been modified to meet a variety of demands.



The ground floor plan showing the stage to the left with the removable seating central right.



Cross-section of the interior of the Nia Centre

Eurolight worked with consultants Nick Pearson and Eamon Hunt together with the architects, Mills Beaumont Leavey, to package the system to meet the multiplicity of roles the Nia centre was designed to fulfill. As the building was classified as listed, considerable care was required in planning locations for equipment and cable routing for the installation. Originally the Centre was designed to play a majority theatre role, but as the project developed this role was changed to a relatively minor one and thus considerable alterations to the original scheme had to be made.

Eurolight effectively became the specialist technical supplier and installer with responsibility for sound, lighting, rigging, curtains, disco systems, flown truss, in fact anything technically within the space. Eurolight formed a team of contractors to handle the project with particular specialists in key areas. These were Hugo Roche from Shuttlesound who looked after all the sound systems and Dave Johnson from Eurotrak who dealt with all of the stage rigging and curtains.

The total value of the contract eventually awarded was some £256,000 with £210,000 being spent on actual equipment. This ensures that the Nia Centre will be one of the best equipped venues of its type in Europe. Eurolight staff were responsible for the installation of all of the cable ways for all technical systems within the building, the routes that cables followed became somewhat long and complex as the listed building regulations were adhered to. As the building had been vacant for some time considerable amounts of dust and rubbish had to be removed by Eurolight staff to enable work to proceed. Eurolight's Richard Neal looked after all electrical installation works for all systems. Most cabling, to comply with Manchester City Council Regulations, was installed in trunking with considerable earthing and protection devices employed throughout the installation as many of the lighting positions are located within reach of the audience.

The project is unique in the sense that the space can be used as a full proscenium-type

stage with safety curtain, installed by A.S. Green & Co, as a disco with a fully motorised Tomcat truss flown over the auditorium, as a conference venue, and as a rock 'n' roll concert venue with touring companies able to suspend trusses on stage and off the disco truss in the auditorium. Special motor control gear was developed by Eurolight's Ian Pogson to cope with the stringent licensing requirements of Manchester City Council. These regulations caused considerable problems towards the end of the contract as standard pvc multicore lighting cables with Socapex connectors were effectively rejected as offering insufficient protection and mechanical strength. These were replaced, very late on, with special versions of the same cable with an outer steel wire armoured braid - something all contractors need to note for the Manchester area. The regulations demanded in Manchester seem to be unique in so far as they are significantly more demanding than those employed by other authorities. Perhaps one day the same standard may be applied by other authorities as they do set some 'interesting' standards for theatre electrical installations.

The lighting installation is controlled from a 60-way Celco Major desk feeding 60 ways of residual current circuit breaker protected Green Ginger Wallrack dimmers. The outputs from the dimmers are fed to three separate phase patch panels and thus on to some 144 lighting circuits fed to fixed socket boxes or internally-wired bars. In addition a Zero 88 Orion is used to control the disco lighting system where Green Ginger Wallrack dimmers and contractor cabinets are again used to feed to a patch panel and thus on to a Socapex break-out system and 6 lamp bars on the truss.

To keep costs of luminaires to a minimum a selection of some 50 Spotlight 1kW fresnels and profiles were provided and quantities of Tomcat 1kW par cans and 300 watt Par 56 cans. In addition the disco rig is equipped with smoke machines, strobes, helicopters, mirror balls and various other effects.

The sound system provides a purpose-

designed front of house PA system with floor level and flown loudspeaker clusters all controlled via a 32 channel mixer. In addition a 24 channel mixed foldback system is provided which is fully flight-cased. This system was purpose-designed by Nick Pearson and Hugo Roche and provides a system suited to the needs of the multi-cultural music activities currently being staged.

The stage is equipped with four 500kg manually winched lines plus four further hemp lines. The stage area is designed to double as a cafeteria during the day so care in layout and fly gallery positioning was essential in order to achieve a neat and tidy layout for daytime use. Positions are provided to hang further equipment as the Centre develops.

All areas of the auditorium and stage are equipped with facilities panels into which virtually all technical systems can be connected. This allows complete flexibility in terms of control position and greatly increases the ease by which security can be allowed to control audience movement. Each position is equipped with Eurolight intercom equipment and houselighting control.

The Centre is in its early stages of development and has immediately run into the usual problem of funding. For the centre to develop further, additional grants are currently being sought. The revenue income has already proved the predictions that Manchester badly needed a centre of this type, with audiences already above expected targets. Care was taken to ensure that revenue generating items such as bars are located on every floor. Local community activities starting with young children, right the way through to activities for the retired, are encouraging local community involvement across the age range. Time will tell whether this bold venture can be made to pay its way.

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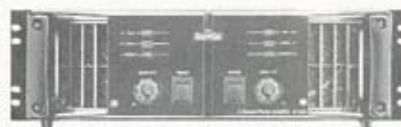
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ON TOUR

Catriona Forcer

The Pet Shop Boys

Wembley Arena

LO: Simon Tutchener

The Pet Shop Boys recent world tour was a theatrical collaboration between the group and the opera partnership of David Alden (director) and David Fielding (designer). The group were interested in the operatic productions that Alden and Fielding had created, particularly at the Coliseum, London, where they were known for their surrealistic, graphic, crazy, productions of more traditional operas. The Pet Shop Boys tour offered Alden and Fielding a new kind of freedom. For them it was like staging an abstract series of poems and short stories, instead of a set story-line.

"It's more like a self-contained theatrical event than a pop show," explained David Alden. "In a pop show there's a normal inner shape. The fans know there's going to be this big soulful thing near the end with the cigarette lighters. We're looking for rhythm in the show which has the element of surprise. With this show you don't always expect one song to follow naturally from another, with applause and blackout, as it usually does in a pop show. It will feature the unexpected or weird. There may be dialogue, or repeated phrases, or the inclusion of classical music. Strange things will happen!"

The lighting designer for the show was the theatrical designer Heather Carson who's worked on previous operas with David Alden, as well as stage shows and films. Lighting operator for the tour was Simon Tutchener who was specifically chosen for his theatrical experience, although for the last 13 years he has worked mainly in rock 'n' roll. Since 1978 Simon has kept a close working relationship with Brian Croft at Samuelson and it was Brian, along with John Coppen, who put Simon forward for the job.

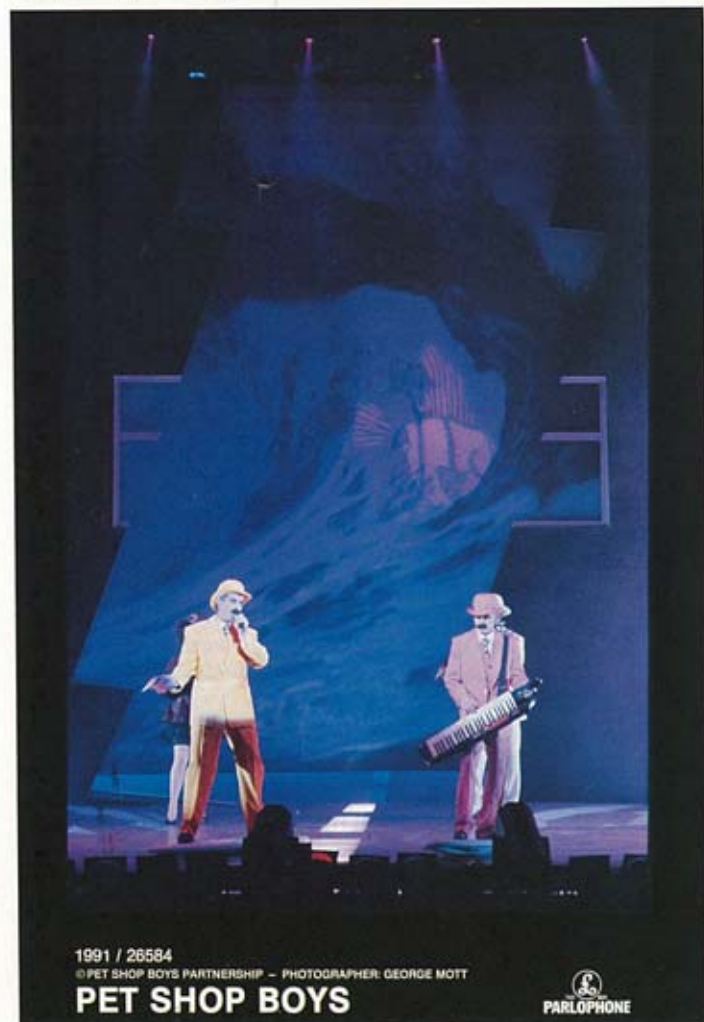
"I was called up by Robbie Williams, the production manager," explained Simon, "and asked if I was interested in doing this. I went to meet with him, Heather Carson, David Alden and David Fielding where the whole feel was anti that of it being a rock show. They didn't want a rock 'n' roll style set. It's worked out, although it was hard because while it's really a theatre show, it's doing a rock 'n' roll touring circuit of full back-to-backs. We've got five trucks all to be set up in one day, in fact, one truck is full of props alone. Whilst it's OK for the set designer, director and lighting designer to come up with what I believe to be very good visuals, it still had to be built in such a way that it could be transported.

For example, one of the prop pieces is a large table which is a very angular piece of scenery, 12ft x 6ft in dimension. The original version was made of steel and took 12 people

to move it. It didn't break down into anything you could put easily into a truck. But there are other things such as the clock which is a major scenic piece and it looks great. The hands go round, it has fluorescent and neon tubes around it, and it eventually explodes. It looks great, works, packs away easily and has never let us down."

Rehearsals for the show consisted of one week in the London Arena and one week in Brixton Academy and, from a lighting point of view, they were fairly hectic. Simon described it as two weeks of Samuelson sending equipment down, throwing it on the rig, trying it out and sending it back, which was very hard work for the crew. It also meant that they didn't have time to settle into the current lighting system. In all the run-throughs during rehearsals they never did the same thing twice. Consequently when they went into the first show in Tokyo they had only seen the show they were about to do once before. This is acceptable in the theatre world where a show will remain in one theatre for several months, but the pressures are different when touring.

"The rig sounds fairly uninspiring," admits Simon. "There are 90 Par cans (24 with Colormags), four Par 36s, some groundrows, strobes and 23 Vari*Lite VL2bs which are the real workhorses on the rig. If you compared the amount of work they do to a conventional



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PET SHOP BOYS



The theatrical element was very much to the fore in the recent Pet Shop Boys world tour.

Photo: The Pet Shop Boys Partnership.

rig you would probably have something like 700 Lekos up there. We have just over 900 cues in the board with the 23 Vari*Lite's. I use the Artisan for everything so we've got VLDs hooked in through dimmers. When we first started, we had 180 channels of dimmers and every one of them was in use, and so we had 180 live channels on the VLDs through to the Artisan, plus the Vari*Lite's. Throughout rehearsals we constantly trimmed, cutting the whole down to a very workable size without losing any of the original ideas.

"Normally there are three followspots but tonight at Wembley I'm using eight. A film was taped in Birmingham where I added quite a bit more equipment including 72 colour changers and five extra followspots which I particularly like. I believe that it worked very well."

The storyline of the show is based around the Pet Shop Boys' own story, although Simon believes that to say this is rather stretching the point! The concert starts with a six minute recorded tape which is a pastiche of all The Pet Shop Boys' hits. During this time the house lights are taken to half intensity which gives people time to settle down. Then the show moves on to the prologue with dancers on stage doing what Simon described as "some weird shit". What follows are 18 songs, each with a completely different look, as well as numerous costume changes and ingenious props. An integral part of the set is a wall 56ft wide and 30ft deep which parts in the middle, and is set about 20ft back from the front of the stage. In front of the wall is the production's own travelling raked stage, as well as footlights, which are an unusual element in the show. When the footlights come on the result is the most amazing set of shadows cast on the wall. Stage right is very black and then it greys into white on stage left.

"There is one 'throw away' Vari*Lite chase at the end which is quite good fun and everyone laughs when we do it," commented Simon. "It's the lights out into the audience and stuff like that which is the one thing the band said we couldn't do, but we get away with it! I think the people who put this show together did really well, especially as it's very difficult to marry theatre with rock'n'roll. It's a clever idea which blows people away. In the States the response was fantastic. The show would start and I'd look around me and people would literally have their mouths wide open. During the interval people would come up to me and say 'What is this show? We don't understand what's going on'."

"I really enjoy the excitement of live music and every now and then I still get that goose bump thing going. I like the speed of operation in rock'n'roll, and I get very frustrated, both in theatre and at tradeshow, with the pace at which some people feel it necessary to work. I don't see why you can't put theatre and rock'n'roll together from both sides. This show has been hugely successful, although I would say it takes a band like The Pet Shop Boys to carry it off."

Crew List

Lighting operator — Simon Tutchener
Vari*Lite tech — Nick Barton
Lighting crew chief — Danny Nolan
Rigger — Phil Broad
Lighting crew — Tim Philips, Paul Jennings.

Lighting effects and trussing equipment (Samuelson Concert Productions)

23 × VL2b c/w control and cable
2 × VL interface units
90 × Par 64 cans on bars of 6
3 × Angle poise lights
13 × Par 36 cans

9 × Par 64 cans floor stands
24 × Par 64 cans
8 × 500 watt sun floods
4 × 4 cell 1k battens
15 × UV black guns
2 × Euro racks
14 × ways intercom
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38 × Socapex multicores
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1 × 18" fan
1 × Pani short throw
2 × Xenon Super Trouper
1 × black wool border
15 × 1 ton hoists
15 × sets of rigging
2 × 90 degree TTR blocks
2 × gallows
2 × 3" TTR truss
2 × 4" TTR truss
24 × 8" TTR truss
1 × spot seat underhung
2 × 6" Minibeam
7 × 8" Minibeam
1 × Sil 30
2 × 500 watt sun floods
1 × Avo rack 72 way
6 × ways intercom
24 × active Color Mags
2 × Snow Boy snow machines
2 × fuzz lights
2 × extended gallows
2 × double gallows
2 × 2' folding truss
5 × 4' folding truss
1 × 8' folding truss

The Inspiral Carpets

Alexandra Palace

LD: Loucas Athienites

Loucas Athienites has one ambition in life — to go and live in the mountains of India. Meanwhile, he has to be content with working for Manchester-band Inspiral Carpets, who employ him on a retainer-basis. The band need to be kept mainly in the dark, he joked, because they are all rather ugly, but pointing 36,000 watts of strobes directly on to the audience also ensures a certain amount of obscurity!

As with many of today's trendier bands, Strobe-flowers and other special effects play an important part in the show, which at Alexandra Palace had an impressive 105ft truss. Projection was a major feature, and it was the responsibility of Ben Sullivan, a freelancer who works mainly with Spot Co. A series of montages for slide projection were commissioned by the band from graphic artist Paul Bancroft and these were added to Ben's extensive slide collection. Loucas had a difficult job bringing all these elements together, particularly in the beginning when he had five different controls. Gradually he has managed to condense this so that he can control the show with just two arms!

Control is provided by a Celco 60way, 27 channels of which take care of Strobe-flowers. It also controls the ACLs, Lekos, Molefays and cyc lights whilst a Zero 88 Orion is used to control the strobes, Solar 250s and Quasars.

Loucas was first introduced to Strobe-flowers with the band Certain Ratio whose



Inspiral Carpets 'Beast Inside Tour'.

manager arranged for some at a gig at Subterranea. The Inspiral Carpets saw that show and were very keen to use them. He claims that the recent trend for using Strobe-flowers in rock owes a lot to The Inspiral Carpets. On previous tours with the band, he had often had problems with the Strobe-flowers which are really aimed at the

disco market and not at touring so, for this tour, they decided to use a desk interface developed by DLD. There has been a vast improvement in their performance as a result, although it's difficult to know whether that's down to the change in control or the fact that the Strobe-flowers themselves are constantly being updated by Optikinetics.

RUNNING THE HOUSE

Catriona Forcer talks to the resident lighting designers at The Marquee, and the Town & Country Club



Live action from The Marquee.

Photo: Ron Reid.

Running a house system can be a difficult and frustrating job for a lighting designer. Opportunities to develop ideas in lighting are few and far between, and the variety of acts passing through rely on extreme versatility and little prejudice in taste. There is very little room for self indulgence.

Catering for the visiting lighting designers has its problems too. Although it's generally agreed that a good attitude and flexibility is important in a house lighting designer, personality clashes are not uncommon especially when egos are at stake. Everyone has different ideas as to what looks 'good' in lighting, and at London's premier venues, The Town & Country Club and The Marquee, two very different personalities run the house lighting systems.

At the T&CC Richard Gallop staunchly adheres to the versatility of Par cans and is clearly not impressed by what he terms 'wobbly' lights. At the Marquee, which has recently had its entire lighting system replaced by Chameleon Lighting, Phil Stevens runs the rota for the various regular lighting designers who work there including, of course, himself. Not having such a versatile rig as the T&CC, Phil would love to have a few more 'wobbly' lights to enhance his shows.

Richard Gallop has been in charge of the house lighting system at the Town & Country Club since August of last year. He first entered the rock world as a film maker and projectionist for The Cure on their 'Picture Tour'. Eventually he found himself working in lighting for Britannia Row and when their lighting department closed down, he moved to Supermick. For nearly

seven years he stayed with Supermick where he got into what he describes as 'loosely termed design, but there's a long story to define that'. At the time Supermick had a lighting rig in the T&CC and Richard would work there when he was not on tour with bands such as Iggy Pop and Lloyd Cole & The Commotions.

"During my time at Supermick I progressed within price limits of tours to a stage, which in retrospect, I suppose I was quite happy with," mused Richard.

"Sometimes people have a tendency to exploit. They think that because there's someone here who knows what they're doing they can let them get on with it while they pretend to white glove it for a day."

Unfortunately, shortly afterwards he became ill and was unable to tour. For a while he worked in the warehouse of a conference lighting company but he soon decided that it didn't suit him. When he found out that Chameleon were putting a new rig in the T&CC he viewed it as an opportunity not to be missed. Although he is loathe to admit it, Richard hankered to deal again with live music, and during the short time he resided at the T&CC he gained himself quite a reputation.

"I think a lot of the time the crews coming in here might be intimidated by me or by the defensive stance I sometimes take due to the

fact that I don't necessarily deserve any sort of respect in any way whatsoever," explained Richard. "Respect is something that is earned. If people don't know you then there's no way you can possibly earn it. Sometimes people have a tendency to exploit. They think that because there's someone here who knows what they're doing they can let them get on with it while they pretend to white glove it for a day."

The equipment at the T&CC is supplied by Chameleon and consists of 13 bars of six spread out between five bars at the front with No 5s, and seven bars at the back with No 1s. There are also three strings of ACLs, eight floor lights, four Lekos and two 4 way blinders. Added to this are two Pani followspots with a four way intercom system.

Control is via a Celco Series 2 60way with up to date Soft Options and there is a 60 channel 2k Novalites dimmer rack with a digital signal patch to the desk. There is plenty of remote from the dimmer rack to the desk with extra lines for any extra gear sent in — which is often the case. If anyone wants to upgrade the system they can get in touch with Chameleon who will do their best to meet requirements.

"Considering the diversity of the groups that appear here, this is a well run and very versatile rig depending on, if I've got an outside plot, the imagination of the person who wants me to do something with it," explained Richard. "If someone has got an idea that they want to try with the rig then I'll do my best to achieve that with just the basics. Sometimes people miss out the plot altogether and think they're being abstract, but I feel they are just being

incompetent. On other occasions people present you with a 'design' which has been around for some time but actually illustrates that with just 13 bars of Par cans coloured the right way, patched the right way and, most importantly, operated the right way, we can put on quite a good show. The great advantage here is the ceiling height in comparison to a lot of other clubs that have permanent rigs. I've got two trusses, a stage and a ceiling height that can take the rig up to people's normal flying height. I think the versatility of the rig, together with the supply system that comes with it, make this one of the best house lighting systems in the country, and that has nothing to do with me."

With so many bands these days having their own designers or 'friends' who operate their lighting, Richard finds little opportunity to really use the rig. Since he's been at the T&CC, most of the shows with any diverse elements to them have been operated by somebody else.

"I find that some of the bands I'd like to do already have an operator and I end up having to do people like Nine Below Zero three times in the space of six months. Most of the time I do things that are either house promoted or ethnic minority music. Maybe if I didn't have such an attitude problem towards people who did videos and television I might have found I could have done a few things with that, but I don't get on too well with people breathing over my shoulder telling me what to do. In those circumstances I've always asked someone else to come down and deal with them.

"Sometimes people miss out the plot altogether and think they are being abstract, but I feel they are just being incompetent."

"Sometimes I will change the rig around and try to do something different but it doesn't always work because it's the wrong sort of band. Most of the time I can get away with an awful lot of self indulgence inasmuch as I still want beam configurations and I can stand at the desk and make the rig do something, rather than it just being boring straight down washes. However, at the end of the day I still have to think about what is really needed without letting my own indulgences interrupt."

Having to meet the equipment requirements of many LDs, making sure that they have what they want and that it runs well, must be a difficult job. Add to that having to actually work and get on with many different personalities makes Richard's job varied but not necessarily easy.

"There have been quite a few people in here I've been totally unimpressed with, but then

they've probably been completely unimpressed with me. It takes a particular person to come in and know that they can make something out of Par cans. I suppose I'm a bit of a Luddite as far as I still consider Par cans to be potentially quite good under certain circumstances depending on how they're used. Phil Wiffin was one of them — with Edwyn Collins. It was different, but not for the sake of being different. He's got a reputation and it's obvious why.

"There have been some young people who have used the house system and been presented with more lamps than they've ever known before, and I've been impressed by their enthusiasm. They listen to suggestions about their designs without feeling they are being spoken to condescendingly. They get all these toys — silly disco lamps and gratuitous flashing — but if you explain a few things to them about what 2k/4k on two channels of Par cans can do if you know how they are focused, they think 'oh right, I've never had the opportunity to do that before and I can'. I thought the young chap who was doing the lights for Ride was great, not necessarily for his design or operation, but the way he was 'himself'. I am probably old enough to be his father but we clicked and I didn't mind working with him."

A couple of designers that have impressed Richard Gallop with their professionalism and who have produced good shows are Tom Lesh and Alec Nisic. Tom Lesh did a one-off show for The Godfathers at the T&CC and although he was unfamiliar with the music and the tempo of the way things went, he ran a particularly good show. The result was that Tom went on to do further shows with the band. Alec Nisic, not necessarily using the house system, did a show for Ned's Atomic Dustbin which was, for a band of that nature, compared with similar bands, exemplary and imaginative. Richard believes that it would probably have shown a lot of people doing similar bands just exactly what can be achieved with a few Par cans and a little imagination.

"For the audience, on that particular occasion, to be actually presented with things that weren't moving around gratuitously and flashing in their faces was probably entirely different. They're not used to Par cans with different types of bulbs and Raylites or someone who has actually considered the focus. Most of the time they go to see bands like Jesus Jones and all they see are Strobeflowers, Golden Scans and similar wobbly lights."

At the other end of the scale there are the people who Richard describes as 'complete incompetents' — those that think they have seen it all and know it all. At one recent concert Richard called someone else in to do his job because he clashed with the lighting designer.

"He came on like he had been touring America for two years and I was totally unimpressed," said Richard. "The rig he wanted put up was easily as dull as one I could have put up myself. Then there are the people who consider themselves to be 'inspired incompetents'. Having people level such criticism as I 'belong to the old school of lighting' doesn't really wash very well with me!"



Richard Gallop wasn't over-keen on us taking his photograph.

Phil Stevens of The Marquee is, by contrast, a completely different character to Richard Gallop. He's an easy going Australian who left the world of surf bumming behind to get his first job in lighting working the follow spots for a 'Disney on Parade' tour of Australia. Typically, he arranged for eight of his mates to have jobs on the tour and consequently they spent six months having a party and learning a little bit about lighting. A few circus tours followed where Phil was taught by a Swiss high wire walker how to rig and, as their lives depended on it, he learnt quickly. As his knowledge of lighting expanded, Phil's position in the crew took on more responsibility until he was eventually in charge of the lighting department.

"You had to be careful to focus the lights in such a way that you didn't get it in the eyes of the trapeze artiste which was quite difficult," laughed Phil. After a while he ventured into theatre and worked on several shows including a Japanese production of Starlight Express with lighting designed by David Hersey. The production arrived straight from Japan where it was Phil's job to run and call eight Xenon Supertrooper follow spots as well as being an integral part of the lighting crew. Unfortunately,



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More action at The Marquee.

Photo: Ron Reid.

when Phil's cue sheets arrived he found the 400 followspot cues were all written in Japanese and he didn't have a clue what was going on!

Phil then travelled to England where his original intention had nothing to do with lighting at all. After three months, when the money started to dwindle, he changed his mind when he met Derek Watson, whom he describes as an 'absolutely charming wonderful, seriously brilliant, talented lighting designer'. Derek offered Phil work at Glastonbury Festival and from there he went on to work in Entec's warehouse. In May of 1988 Phil found himself working for Entec at The Marquee.

"It was difficult at first and after a couple of weeks I really thought that I'd pack it in," admits Phil. "It was total chaos and madness. I was dealing with a rig that was very difficult to patch because the bars were wired in differently and also the dimmer racks were up in a room where you couldn't even see the stage. It was a nightmare but then something clicked and I became a lot more acclimatised to the way the place ran. I got my attitude right, knuckled down and started to sort it out. I spent a two month stint there which is enough for most mortal people, and I ended up quite loving the place."

Whilst working on a regular basis at The Marquee, Phil was also doing other work for Entec including television, video and the occasional tour. It was on one of these tours, Pop Will Eat Itself, that Phil first met up with Richard Gallop and the meeting nearly ended in a bust up. The lighting designer for the band, Paul Burkes, had a broken leg so Phil was in charge of the crew to get the ground support system, with a lot of gear, up and running.

"I think I asked for one of the bars to be

brought in knowing that in doing so it would be close to one of the set 'goal post' trusses so I asked Richard Gallop to be very careful," explained Phil. "He became annoyed at being told what to do because it was quite obvious to him that he would need to do that but when you are in charge of a set up you have to make sure things are done. He didn't like a guy coming in off the road telling him how to do something he was already aware of."

"Not being one to be talked down to in a situation like that, I thought that I'd better sort him out! I told him that I was well aware of his ability to do the job, and that I was just adding friendly advice and I didn't need an 'attitude' from him because all I wanted was for the job to be done. Later that afternoon we patched it up and I think we ended up being quite good friends by the end of the load-out, in fact, the crew at the T&CC said it was one of the best load-outs that they had had for a long time."

Until April of this year, Entec had owned the lighting rig at The Marquee but then Chameleon Lighting sold the management an entirely new system.

"The new rig consists of a Celco Baby and two 24way 2k Novalite dimmers which John Noakes and Fanny Craddock made one afternoon. There are 12 bars of Thomas Par cans of which there are four bars of Rays, four bars of No 2s and four bars of No 5s. That's it for the time being because the club can't afford to buy more at this time. Chameleon have sold the rig and also committed themselves to a maintenance contract. Pete Barnes and Colin Jones have been very helpful to me personally and have been looking after the gear since it's been here."

"I'd like to have a lot more gear, and I've put

forward suggestions to have bits and pieces of equipment when they feel they can afford it. I'd like to have bars of ACLs, a lot more spares and more 'toys'. Essentially it's almost an identical copy of the rig that was here before but it's like we've replaced a Jaguar with a Vauxhall. We've come from a system where we had a 40 way Avo rack which had 20x4k channels and 20x2k channels and we're down to 48x2k channels now. So there's a lot less you can do as far as having single channels left to do special things within the rig. We don't have any floor cans or ACLs of any sort although I hope to get them eventually because the sort of shows we do in here require that sort of look. It does compare with the previous rig but it's not quite as effective because it isn't as versatile."

Unlike the T&CC, most acts that come through The Marquee do not have their own lighting designer - although the figure is growing. This is probably due to more respect being given to lighting designers with the advent of the 'toys' available to make lighting shows of this level look quite exciting i.e. Strobeflowers, Solar 250s and various projection equipment. Phil has been lucky enough to do many gigs that he really enjoyed, including Aerosmith last year. "Over the last two years I have met many talented designers like Dave Byars, Coral Cooper, Mike Cooper, Tony Fagan and Oscar Harris, and now I'm rostering a system where we all share the load. We've all had the experience of coping with this place."



Phil Stevens of The Marquee.

"This is an industry where it's really important to have a very good, flexible and down to earth attitude with people because you're dealing with a lot of different people every day. If you treat them with enough respect you'll get that back, and in doing that you get a good job done. It helps to make the lighting side of the industry a lot more pleasant for all of us."

"Making friends in this business is hard enough to do and I think that if you do it then it makes it more pleasurable for you. People have their various artistic ideas and you have to respect them whether they're good or bad. You can have your own private understanding or analysis of it but it's a very personal thing."

ELECTRONICS DESIGN ASSISTANT

Required to work in the R&D department of a Birmingham based Lighting Company. Age 20-30 years, with practical experience of electronic circuit design, microprocessor circuit design, and PCB layout design desirable. Microprocessor programming experience would be helpful.

Please send CV plus descriptions of previous projects and degree of involvement to:

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FLASHLIGHT LAUNCH CENTRAL STUDIOS

John Offord goes to a party in Utrecht



Central Studios on opening night and below the scene in Studio 1 after the Flash-Flite shuttle had completed its journey over the party-goers.



What a way to run a party! Several months ago I'd promised Flashlight's Gerard Jongerius that I'd come over for the launch of his Central Studios complex and the new base for Flashlight itself. I'd made a mental note of the date, but didn't think too much more about it. A smartly printed invitation duly came, and I duly went.

I got to Utrecht and Central Studios mid-morning on the day of the event, having driven from Hook of Holland and the night boat from Harwich. I thought I'd check out the place in daylight. In the car park Gerard Jongerius had just signed for 3500 litres of beer, and I suddenly woke up to the potential scale of the party. About 3000 guests were expected, give or take a few hundred, and from a brief exploration of the Studios they weren't only going to eat and drink. They were in for a big technical treat too, and it's that story that forms the basis of this feature.

I am grateful to lighting designer Steve Kemp and Fried Buttstedt of Flashlight for their assistance with the preparation of this feature. Photography is by Ivo H. J. Lucas Luijckx of Utrecht, Mauro Pratesi of DeSisti Italy, and Lighting+Sound International.

John Offord
Editor, Lighting+Sound International

Flashlight Utrecht by recently made their fourth move to larger premises since they were founded by Gerard Jongerius 15 years ago. However, the latest change, in addition to providing a lot more space for their lighting rental and sales businesses, is also a move into a whole new area of interest.

"The main reason we bought a larger building was simply that our previous premises had become too small — we'd out-grown the space," explained Gerard Jongerius. "This new building covers no less than 4400 square metres, and that's quite a difference."

Built in 1960, the premises was originally a railway wagon manufacturing plant and later a steel factory. Jongerius had seen it advertised in the local newspaper, and made some enquiries. "Because so much heavy machinery was in the building, there was an enormous amount of power available — rather handy for a lighting supplier! What is also really interesting about the building is its height. It's 11 metres 50 high, and that opened up a whole range of other possibilities for us, but I'll come to that later."

Since moving in Flashlight have expanded their rental and sales departments into two separate companies, and both operations have begun to enjoy the benefits of more space and better access, with room to assemble equipment and prepare lighting rigs and if necessary run them at full spec. In August they commence a 24 hour service for the collection of rental or sales equipment, and that includes week-ends as well.

Two further companies work within the Flashlight group: Flashlight Productions by looks after large productions and provides full equipment and production facilities, and



Gerard Jongerius.

Vanguard Rigging bv provides a full rigging service for all types of events. Both companies now enjoy the much-improved facilities with the space to hang large rigs and structures easily.

The manufacture of Flashlight's own dimming system, ALC, has been giving a larger and better area and the efficiency of this operation has increased as a result. Better office and draughting facilities have also been added.

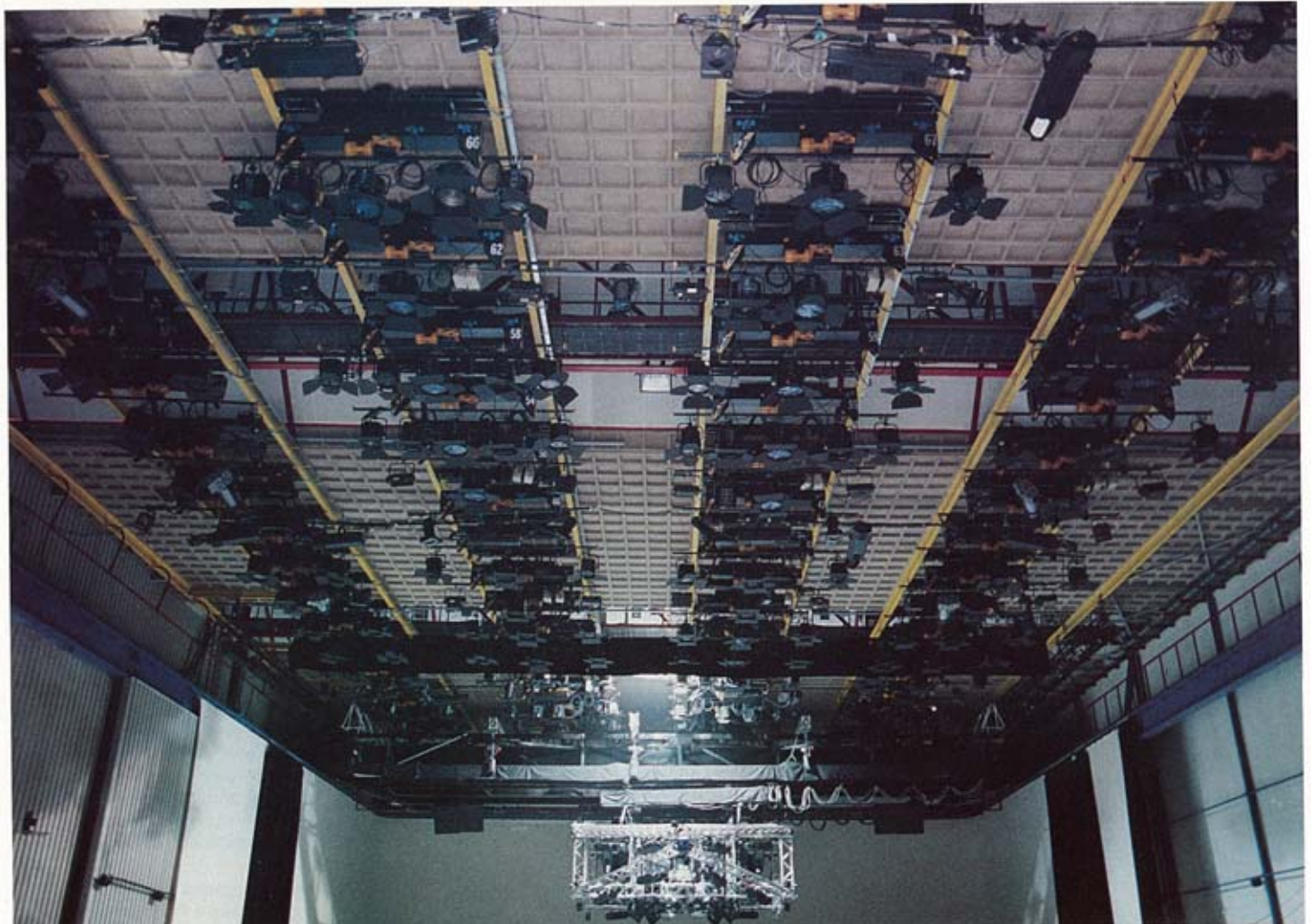
That explained, Gerard Jongerius was anxious to get to the really interesting bit – Central Studios. "It's something I've been wanting to do for a very long time," he said. "We now have a complete 1400 square metre studio facility (Studio 1) with a height of 11.5 metres. It is



Verkoop (sales) and Verhuur (rental) to the rear of the Central Studios complex.

completely sound-proofed and can be used for anything, from television and video production to film making, fashion shows, industrial shows, opera or orchestral rehearsal, studio theatre performances – or even parties!" Alongside this main studio is an area of 1000 square metres (Studio 2) which is more of a general purpose space. This includes the offices and dressing room facilities, etc. For a major function the two combine into a very smart complex that can be used in numerous formats. The whole has excellent access, ease of movement within the interior, plenty of power available – and more than a few tons of lighting and other equipment at close hand from Flashlight's stock.

The capital investment in the project was obviously huge, and Gerard Jongerius had to be sure he would at least get some rental days on the diary. He looked to NOB, the Netherlands broadcasting operation, for support, and eventually had confirmation that they would take at least 50 days a year for broadcast use. The re-build and equipping started to take place, and another useful contract arrived. Whilst the renovation work was in progress a film company rented the space for two-and-a-half months to produce a movie. "It gave me the feeling that we were on our way," said Jongerius. What about the bookings for the coming months? I asked him. After the summer



A view of the lighting grid in Studio 1 with the shuttle fully equipped and ready for flight later in the day.

holiday period the diary for September onwards is filling up quite nicely, thank you. There are live broadcasts, functions, fashion shows, the Dutch film awards and seminars booked in already. A couple of banks are having their conventions in Central Studios this autumn. There is the possibility in the relatively near future of the promotion of live concerts, once permissions are approved by the City.

The studios themselves are a lovely bonus for the rental and sales business. Flashlight can demo their equipment in a 'real' setting, and for incoming events there's the equipment sitting waiting next door. "The basic cost of renting the space may be higher at Central Studios," explained Jongerius, "but if you add on the other costs involved with putting on an event, the total cost of operating from here is then very competitive."

Casting an eye at the equipment list for the main studio it is noticeable that there is a big bias towards DeSisti lighting equipment from Italy. Flashlight has been the Dutch distributor for over two years, and Gerard originally came across the equipment at Showtec in Berlin. "I then went to Rome, and I liked the feel of the company and its equipment. We put it into our rental stock and recently we equipped the new 3000 square metre studio at NOB with DeSisti luminaires and other equipment. People in this country are now changing their minds about DeSisti — it's good equipment!"

It was interesting to feel the theatrical touch in the activities and decisions of Gerard Jongerius. Outside the Central Studios on party night there were searchlights, floodlights, a marching band, and an effeminate guardsman knitting at the front door. When you walked inside two gentlemen from the Far East provided their own kind of welcome. Around Studio 2 were part of Jongerius's large collection of old lanterns and projectors.

"My idea with Central Studios — I hope — is to make a lot of money to put into the rental and sales stock," stated Gerard Jongerius. "I don't want to make money for myself — I'm just crazy about lights!"

THE FLASH-FLITE SHUTTLE

Steve Kemp provides the background story

'How do you launch a space?' Now there's a question! We all know some of the basic principles behind revealing a car, a political party, a newly privatised company, a chocolate bar, or a cigarette, and I've even been responsible for lighting a new brand of frozen chicken in my dim and distant past — but a 'space' presents a problem or two. And this was no small space: 52m by 26m and 14m from floor to ceiling makes it one of the larger studios in Europe.

Initial meetings to discuss the launch started at the beginning of March this year. Many ideas were gone through in detail, but they didn't seem to quite fit the bill. You can't just revolve a space, bring it up on a lift, or fly it in — but you can perhaps fly in it! Read on . . . Henk van der Lely put forward the proposition of flying a truss spaceship, a real launch, a space flight to launch a space. His idea was immediately accepted by Gerard Jongerius and the production team, and work then progressed into the planning stage.

It was decided that Henk would be responsible for the concept, the music and the writing of the script. Dennis van der Hagen would design the ship itself and become production electrician for the whole project — which instantly became known as 'The Flash-Flite Shuttle' — and I would be responsible for the overall lighting design.

The complete structure was just over 12m long and about one-and-a-half metres high, and when finished and hung with lights, weighed nearly four tons. The main body of the ship was constructed from Slick Mini-Beam and Slick Lite-Beam was used for the nose and tail sections. The ship was hung on four one ton Verlinde hoists, providing vertical movement, and controlled by a MPS Motor Positioning System from Vanguard Rigging. In turn, these were suspended from the underside of one of the two 15 ton cranes which spanned the original building, via two 20m trolley-beams with frequency controlled motors, allowing full width left-right movement. The cranes, which remained in the building after its conversion and are now a major feature, spanning the full width of

the building and capable of travelling its full length, were also driven by frequency controlled motors. So, with all that engineering, we were able to lift the ship vertically, bank it left or right, raise or lower the nose or tail, traverse left or right across the studio and travel its full length — all at the same time, and directly above more than two thousand people — the scary part. As they say in Dutch, this was 'One Big Mother!'

I hung 24 Clay-Paky Super Scans on the shuttle itself. These were augmented by 80 Par 64 ACL'S, 20 Par 64 Raylights and 12 Par 64 short-nose cans. All lanterns were specified chrome to keep that 'spacy' look. 56 Great American Market Colorwizes were liberally distributed over the conventional lights. I decided to use ACL'S and Raylights for two reasons: 'beams in the air' were very important to the look of the show and I needed to keep the cabling to the ship to the minimum. I placed 68 CCT Minuettes all over the truss structure as 'spoke lights' to illuminate the ship itself. I would have dearly liked to have used colour scrollers for this purpose, but the internal dimensions of the truss were just too small to accommodate anything bigger than a Minulette — scroller manufacturers please take note! To round things off, I placed two Reich & Vogel 500W Beamlights for and aft as headlights, 30 DHA strobe beacons randomly positioned all over the ship to give it that 'electrified' feel, and two Robert Juliat 1200W HMI follow spots as 'ray-guns'. In the forward section of the ship three truss-mounted follow-spot seats were placed for the 'crew' who were, in fact, Gerard's son and daughter, Emile and Mandy. The captain was played by the one and only Mario DeSisti, who gave an Oscar-winning performance.

The 48 ALC dimmers controlling all the lights in the ship, the power distribution to the Superscans and hoists, data lines to colour scrollers and hoists, and communications, were all placed on the moving crane itself and their cables were manually paged during all bridge movements. All power to the shuttle was provided by a generator placed outside the studio. Under normal circumstances, there is more than enough power in the studio, but on this occasion large amounts of power were also required in Studio 2, the rental store, outside, and all around the building.

The control area became known as 'Desk Heaven' as it was flown on a scaffold platform high under the second crane. This enabled a bar and chat area to be built underneath us while at the same time providing us with a clear line of sight to the ship itself. This was imperative for safety reasons, especially as the launch and landing of the ship was from the studio floor during a complicated, blinding, Super Scan chase sequence. The operators had to have a clear and unbroken view at all times. Desk Heaven contained a Celco 90 Gold linked to a Celco 60 Major controlling the studio rig and all conventional lights on the shuttle itself. Two Zero 88 Sirius desks controlled the colour changers. The Clay-Paky Super Scans were controlled by two desks, a Compulite CP24 controlling just the ship and a Compulite CP40 controlling all other Super Scans in the roof and Golden Scans on the floor. Both these desks, designed and supplied by BEO (Brackman & Olx) of Amsterdam, performed extremely well, and are, in my view, by far the best control available at the moment for this type of automated light. Next to this on the platform was the MPS rigging control, trolley-beam and crane control, and last but not least, sound control.

Upstage of the ship-launch position, I placed 12 Golden Scans on the floor. Above the shuttle and over the crowd I positioned, on DeSisti self-climbing hoists, another 24 Super Scans containing custom-made and specially selected gobos, 48 Par 64's with colour scrollers, 34 Phillips 400W Blacklight UV units, four Reich & Vogel 5k slide projectors and 24 Niethammer 2k Zoom profiles with gobos — and that just about completed the lighting rig.



The shuttle flies overhead in Studio 1.

'Atmosphere' was provided by two Rosco smoke machines, one Londoner dry ice machine and a prototype Hydro Haze oil cracker that performed extremely well indeed. About 95-percent of the rig was supplied from Flashlight's and Vanguard Rigging's own rental stock and was on site for over a week. However, in the rental store, it was business as usual — trucks arriving and leaving all day, even on June 12th, the day of the show.

The complete performance lasted just 17 minutes 40 seconds, and contained seven musical sections using tracks by The Doors, Alan Parsons, Yello, Joel Goldsmith, and Basil Poledouris. Between these tracks, four specially written dialogue tracks were inserted, all performed in the local Utrecht dialect. Thunder and rain effects were also used. The show itself was broken down into 14 sections. These included the introduction, the reveal of the shuttle, the launch itself, four dialogue sections, five 'travel' sections, which included a 'deep space' journey to all parts of the studio, a DeSisti 'asteroid storm' and 'battle' with the studio equipment, a stomach-churning 'bank and turn' victory manoeuvre after the battle just two metres above the audience, and finally, the landing of the shuttle in 'central Utrecht' — created by scenic projection.

From the very beginning, it became fairly apparent that with so much equipment moving at the same time, the show would be a nightmare to cue. In an ideal world, with perhaps another week for programming and rehearsal and more than a single performance, we would have completely controlled and cued everything via MIDI and added several hundred more Super Scan cues, but time was short, only two days were available for programming and rehearsal which created something of a problem. The solution was to add a time-code to the audio track. Each operator had a time-code read-out supplied by Noriyuki. During rehearsal, any operator could temporarily freeze his running clock to locate the absolute position of a certain cue. As the code was on the master tape, the time was constant and therefore the cue point was always correct. Thank you Dennis van der Hagen for that piece of creative thinking!

Well, that's how we chose to show off this new and somewhat unique studio to its best advantage, by using its vast size and volume — space to launch space. I'd much rather be doing this than lighting frozen chickens!!

Automated Lighting Systems

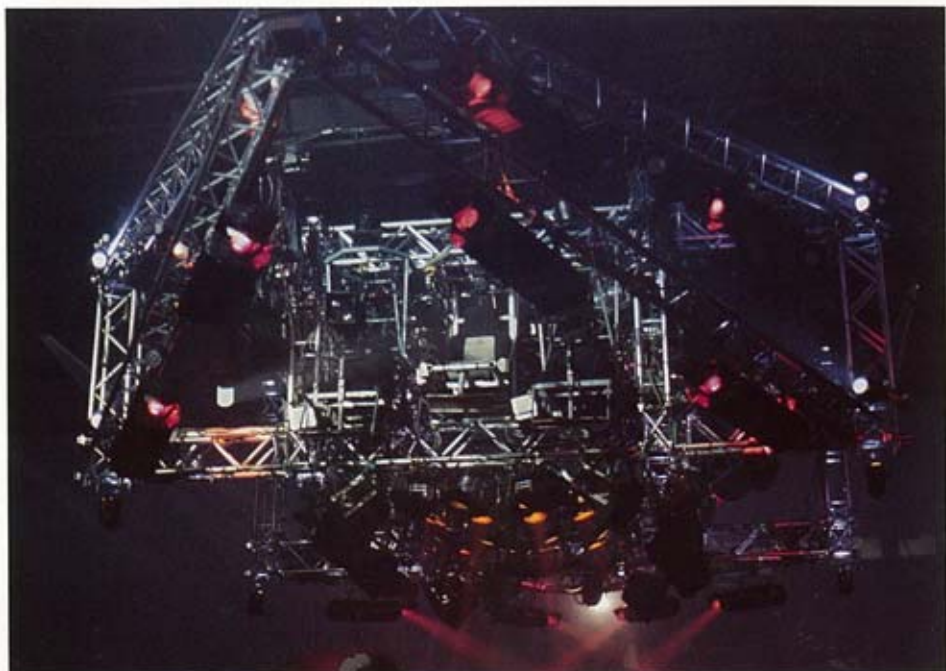
Yet another operation lurks within the walls of Flashlight's new Central Studios complex. ALS in Holland stands for Automated Lighting Systems, and is a company owned jointly by Gerard Jongerius and Vance Bryan. In turn they work closely with NOB at Hilversum, and it's all about hire of 'intelligent' lighting in the form (mainly) of Clay Paky Superscan and Golden Scan systems.

The company has been up and running for a year now and started its life with 26 Superscans. Another 18 are on order. NOB commenced with 20 Superscans and have 12 Golden Scans on the way. Control for the systems was developed by BEO (Brackman & Okx) of Amsterdam using Compulite control boards. ALS have one CP40 and one CP 24 and NOB have one CP40. Right from the start in August last year the systems have been heavily used, and ALS work closely with NOB so that the systems can be cross-hired, or added together as necessary. They get used for everything outside discotheque, from fashion shows and car shows to concerts.

Also within the ALS sphere of operation are two four-way x 4000W xenon Space Cannon searchlight systems.



Early evening: outside activity commences.



The Flash-Flite shuttle in close-up after its return to base.



Fons de Vreeds of Flashlight (left) with Peter Brooks (Zero 88), Adrian Brooks (Lite Structures) and Freddy Lloyd (Zero 88).



Fabio, Mario and Sergio DeSisti.



Gerard Jongerius prepares for a party.



The shuttle crew: Mario DeSisti, Mandy and Emile Jongerius.



After the presentation: the shuttle becomes a lighting rig over the band, and eating begins.



An item from Gerard Jongerius's collection of vintage equipment.

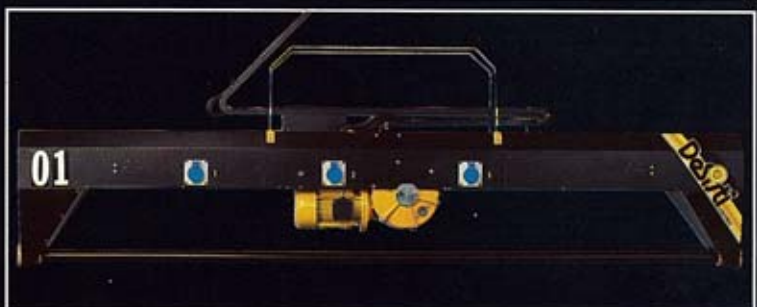
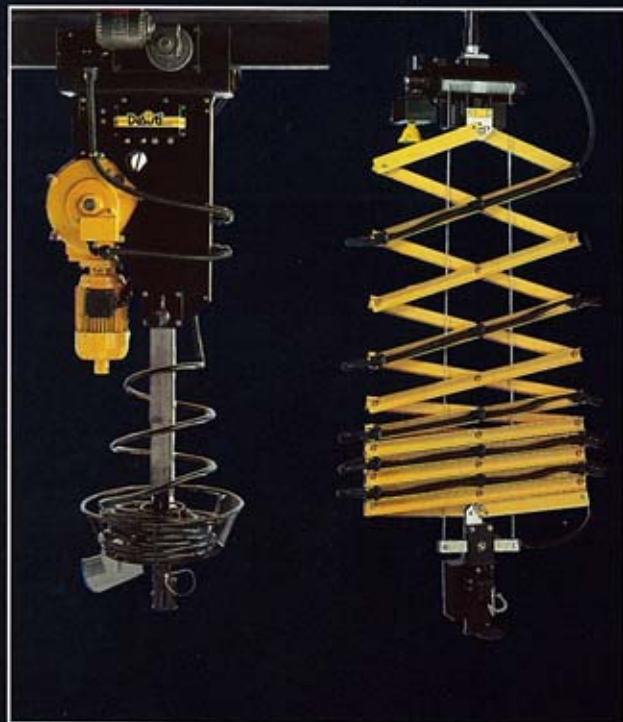


Paul Marsh of Slick Systems with Adrian Brooks of Lite Structures.

DeSisti

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Steve Kemp on 'desk heaven' with Celco and Sirius controls and suitable refreshment.



Dennis van der Haagen, Yvonne Deege, Robin van Oers and Gert-Jan Brouwer.

Lighting equipment used for the opening of Central Studios and Flashlight

Studio 1

Standard Studio Equipment

76 x DeSisti self-climbing hoist (3.5k channel per hoist)
 100 x DeSisti Leonardo 5k fresnel pole operated
 75 x DeSisti Leonardo 2k fresnel pole operated
 25 x DeSisti Leonardo 1k fresnel pole operated
 34 x Iniro Iris-3 horizontal
 48 x Par 64
 5 x Riech & Vogel 5k slide projector
 2 x Niethammer T200W HMI followspot
 270 channels ALC digital 5k dimmers
 1 x AVAB Expert 256 channel control
 ClearCom intercom system, 2 channel/20 stations

Additional equipment used for the opening

34 x Philips 400W blacklight UV units
 48 x Par 64
 48 x Colorwiz scrollers
 24 x Niethammer 2k zoom profiles
 24 x Clay Paky Superscan T200W HMI
 12 x Clay Paky Golden Scan 575W HMI
 2 x Rosco smoke machines
 1 x Hydro Haze cracked oil machine
 1 x Londoner dry ice machine

The Flash-Flite Shuttle

The shuttle was constructed from Slick Mini- and Litebeam using 162 scaffolding clamps. Total weight including the three-person crew approx 3862kg. Dimensions 13m long, 5m wide, 2m high. Vertical movement was achieved by using 4 x Verilinde 1 ton high speed motors, feedback controlled by an MPS 100 motor positioning system. Left/right movement by 2 x 20m trolleybeam frequency controlled. Forward/backward movement by motorized 15 ton studio bridge.

Lighting on Shuttle

24 x Clay Paky Superscan T200W HMI
 80 x Par 64 ACL
 20 x Par 64 Raylights
 8 x Par 64
 56 x Colorwiz scroller
 68 x CCT Minuette
 30 x Strobe beacons
 2 x Reich & Vogel low voltage followspot
 2 x Robert Juliat T200W HMI zoom profile
 3 x Underhung followspot seat
 48 channels ALC 4k dimmers situated on bridge

Desk Heaven

(This area was a 10 x 40m platform on which all control equipment was housed)
 1 x Celco 90 Gold
 1 x Celco 60 Major (linked to Gold)
 2 x Zero 88 Sirius 48 (for scrollers)
 1 x Compulite CP40 (Superscan control)
 1 x Compulite CP24 (Superscan control)
 1 x MPS 100 60 way (motor positioning control)

Studio 2

96 x Altman Leko
 48 channels ALC 4k digital dimmer
 1 x Access 96 channel
 30 x Strand Patt 23
 80 x 1k and 2k spotlights and projectors from 1920-1970

Outside

16 x Niethammer 2k zoom profile
 48 x Par 64 ACL
 48 x Par 64
 6 x Super Trouper 2k xenon
 2 x 12k HMI fresnel
 4 x 2.5k HMI fresnel
 2 x 575W HMI fresnel
 2 x 4-head Space Cannon
 1 x Zero 88 Sirius 24
 24 channels ALC analog 24 x 4k dimmers

Rental Warehouse

4 x Le Maitre Optimist smoke machine
 1 x Panache control
 120 channels ALC 4k digital dimmer
 (Note: the lighting designer walked through the warehouse and used the luminaires from the shelves, so a list of equipment used was never produced!)

Power

Power supply Studio: 3 x 1000 amps
 Extra on June 12: for outside 600Kva, for inside 700Kva

Staging and Barriers

Movable stages for bands and catering: Stagework
 Barriers (100 pieces outside): Production Design

Eating/Drinking equipment/supply

6500 x glasses
 300 x ashtrays
 200 x trays
 60 x 50 litre barrels of beer
 1200 x alcohol free beer (bottles)
 40 x 1 litre orange juice
 500 x red wine (bottles)
 600 x white wine (bottles)
 480 x 1 litre lemonade
 120 x 1 litre sherry/port
 200 x 1 litre Cognac/Jenever/Whisky
 40 x cooks
 90 x catering personnel
 8 x parking attendants
 3400 x guests

The Sound Equipment

Ampco Pro Rent (APR) supplied the complete sound system for the opening of the Central Studios. The system on all three locations was configured by Frans Ockeloen, a freelance sound designer, in conjunction with APR engineers Henny van Dorp and Peter van der Velde.

In the main studio the sound was directed from the control area (Desk Heaven) using a Midas 40 channel VCA-controlled XL3 console for PA and monitoring. All 22 outputs were used as follows:

Outputs 1/2: to control the voices of the crew in the spaceship: 6 x Renkus Heinz SR121 to cover the left and right side and 4 x RH SR121 to cover the front and rear beneath the spaceship. All cabinets were attached to the spaceship. The amplifiers and controllers (consisting of RH X31 processors and Crest 4801 amps) were placed on the movable bridge.

Outputs 3/4: to control the front system for the hall: two stacks of RH C-1A cabinets, 1 x low cabinet and 1 x mid/high cabinet, flown on each side of the movable bridge. The cabinets were lowered at the time the orchestra started playing and were almost invisible at the time of the spaceship presentation. Ampracks with RH X310 processors and P2500 amplifiers were positioned on the movable bridge.

Outputs 5/6: to control the rear system for the hall: 1 x low cabinet and 1 x mid/high cabinet, flown on each side of the control bridge. Ampracks were placed on the control bridge.

Outputs 7/8: to control an extra left and right stack of RH C-1A. The mid-high cabinets were placed in front of the cyclorama, the low cabinets, the C1-A sub-low cabinets and the ampracks were placed behind the cyclorama.

Output 9: to control 12 x RH LR1 sub-low cabinets, positioned on the ground at the back of the studio. RH X120 processors and Crest 7001 amplifiers were controlled by a DBX 120XD5 boom box.

Outputs 10-13: to control four flown arrays of four x Galaxy Audio HotSpots pointed down towards the audience. These speakers were used for special effects (i.e. reverbs and general



Ampco Pro Rent's Peter van de Velden.

noise). The HotSpots were amplified by HH V800 Mosfets.

Outputs 14-16: FX sends for 1 x Yamaha REV-5, 1 x Yamaha SPX-9011 and 1 x Roland SDE-3000.

Outputs 17-20: to create four monitor groups for the orchestra (ASS 12" floor monitors and HH Mosfets).

Outputs 21/22: for monitoring at the control bridge (Turbosound TMS-1).

Additional equipment used at control bridge:

A Fostex D-20 DAT-recorder to playback the master-tape during the spaceship presentation. The timecode track was connected to six time displays (sound, motors spaceship, trolley-engineer, Superscans, lights, DeSisti) to help synchronise the presentation.

Sony DAT recorders and Pioneer CT 656 cassette decks to play back several sounds.

Klark Technik DN360 and Apex GE-232 graphic equalisers.

ASL intercoms.

BSS DPR 402 and DBX 166 compressor/limiters.

In the Foyer (Studio II) the mixing console was an Allen & Heath 12/4. Two RH C-1A stacks, positioned at the left and right of a screen, were used for the sound of the classical DAT-tapes played with the slide-show. Four x RH SR121 on stands and a flown array of 34 x RH SR121 were used for the speeches and the band. Additional equipment included Apex and Klark Technik equalisers, Yamaha SPX-9011, Casio DAT recorder, ASL intercoms, Crest and HH amplifiers, and Martin CXW floor monitors.

In the warehouse of Flashlight's rental department you could hear only the reflected sound of CDs played on a Sony CD player using a few hidden ASS T12 full range cabinets amplified by HH Mosfets.

Note on Ampco Pro Rent (APR):

Ampco Pro Rent was established on April 1st 1990 following the merger of Ampco Sound Systems and Protone PA Rentals, another Dutch sound equipment hire company.

The resultant company APR is one of the larger sound hire companies in Europe having built up an excellent reputation in many market areas. Its traditional market has been within the entertainment industry, but it has successfully diversified into the corporate market to supply systems for both musical and theatrical productions and also for product launches, company presentations and other AV applications.

Initially almost all of their work was within Holland, but over recent years this has changed so that APR now regularly work throughout Europe.

The People

who made June 12 possible

Organisation, Concept and Production: Gerard Jongerius, Henk van der Lely, David Schild.

Studio 1: Lighting designers Steve Kemp and Dennis van der Haagen. Lighting technicians: Martijn van Beverwijk, Yvonne Deege, Chris Foxwell, Hans Graafmans, Dennis van der Haagen, Wim Keller, Isabel Nielen, Robin van Oers, Gert-Jan Schröder.

Flash-Flite Shuttle: Concept, Script and Music: Henk van der Lely. Design: Steve Kemp, Dennis van der Haagen. Voices: Toni Peroni, Rene de la Rambelje, Paulette Willems. Recording Studio: Stustudioso, Utrecht and Albert Hartwig, Sander van Herk, Henk Temming. Rigging: Vanguard Rigging BV and Gert-Jan Brouwer and Vance Bryan. Special Effects: S.E. Fireworks and Harm Smallegenbroek. Time Code: Noriyuki.

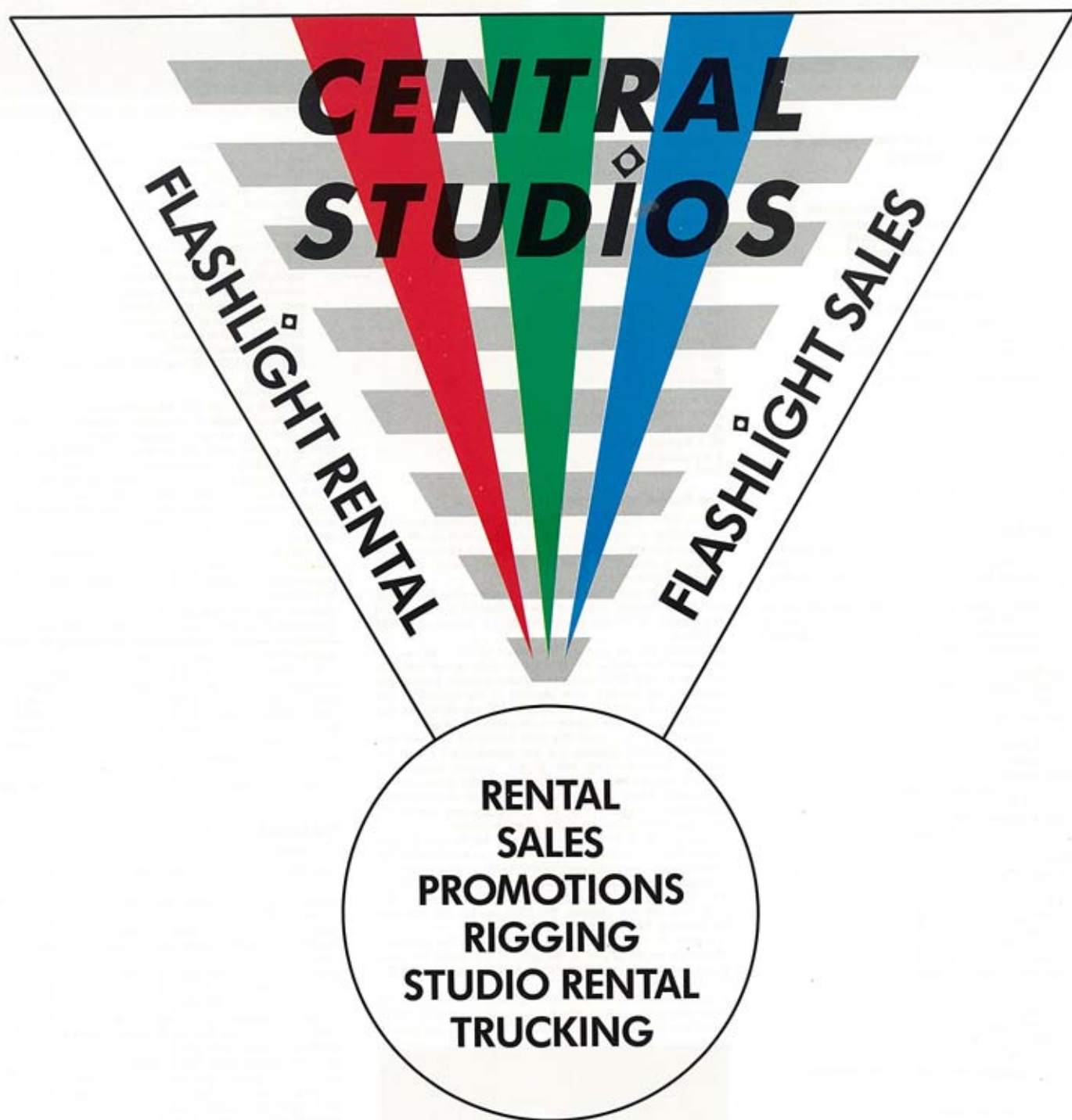
Studio 2: Lighting designers Wim Drensens and Gerard Jongerius. Slide Presentation: Henk van der Lely, Mat Wijnen (with thanks to Stephan Wienius). Music: Nederlands Blazers Ensemble. Photography: Gerard Helt. Projection technician: Huls Kamp Audiovisueel BV. Rental house department lighting design: Reinier Tweebecke. Car Park lighting design: Henk van der Geest. Sound: Jan Griesels.

Overall Sound Design: Frans Ockeloen, Dick Scheepbouwer. Sound team (Ampco Pro Rent): Otger Vermeulen, Richard Balk, Roel de Weerd, Eric de Bruyn.

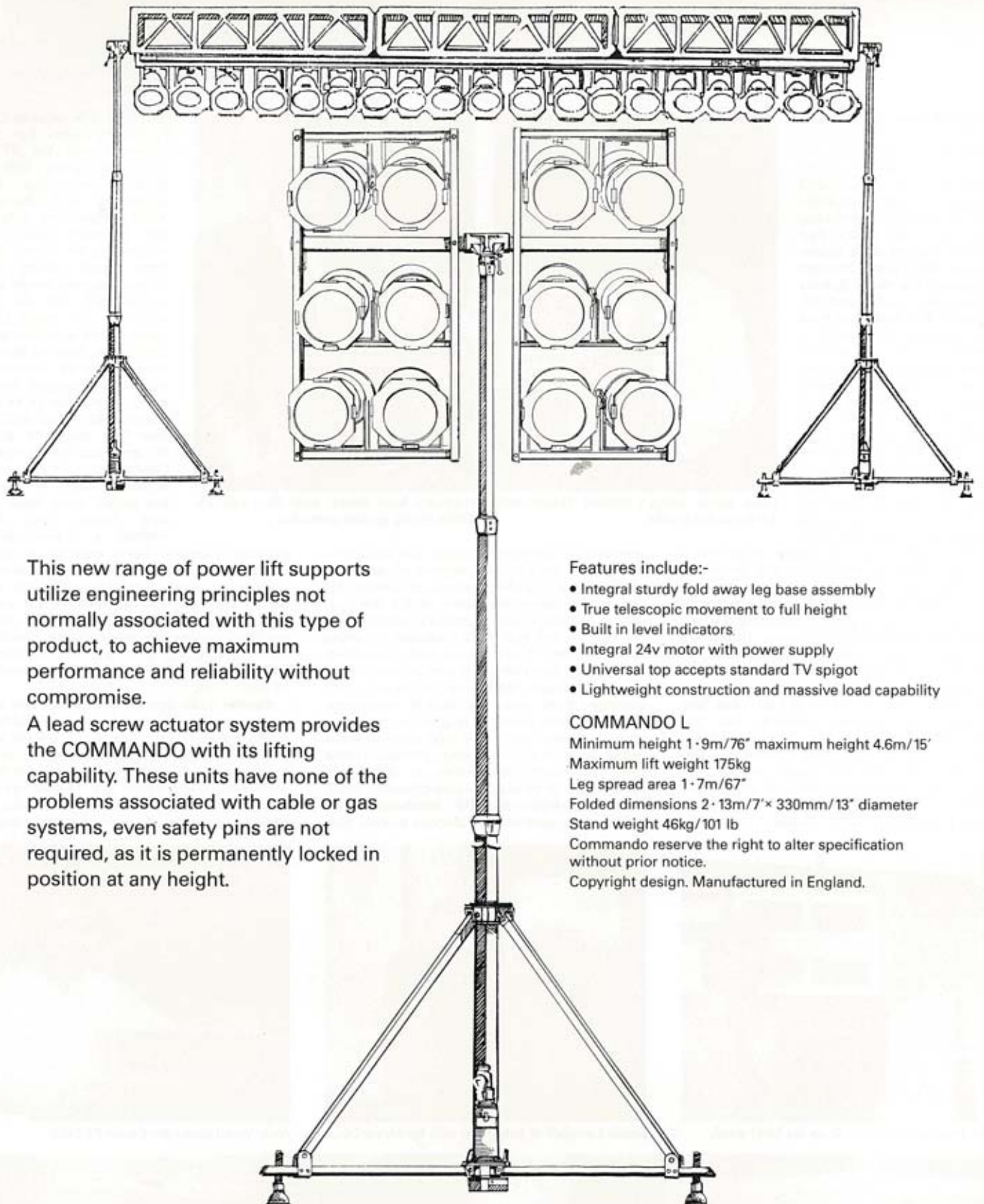
Full-time staff at Flashlight/Central Studios:

Paul Berge, Ed de Boer, Barbara Borstlap, Frank Brok, Arno Bronswijk, Jan Bruin, Vance Bryan, Fried Buttstedt, Rene den Daas, Yvonne Deege, Marco Frank, Dennis van der Haagen, Lex van den Haak, Ron de Haas, Marijke Hensbergen, Gerard Jongerius, Patrick Jordan, Erik Kroon, Ronald van Leeuwen, Henk van der Lely, Ruud Lukas Luyckx, Michel van Os, David Schild, Jan Sieders, Ton Tersteeg, Willem Verhaar, Joeri Vermeulen, Fons de Vreede, Joop van der Wal, Willem Westermann, Karin Wick, Dick van Wijk.

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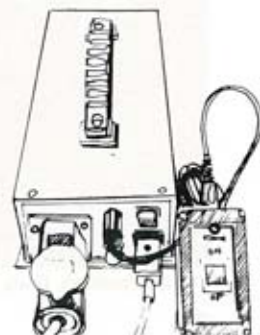
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BEN DUNCAN AT APRS 91

An exclusive L+SI report from Olympia 2 London

Autograph Sales were showing Meyer system components, including SIM and DS-2, the new mid-bass speaker. Comprising 2 x 15" horn-loaded drivers, it's made (frequency-wise) to fit between the existing MSL-2 mid and 650-2 bass cabinets, has the same dimensions as MSL-3 and is intended to enhance the Meyer System's mid/low-bass quality and SPL capability. **BSS Audio** had three new products. EPC-760 is a compact (2u), heavy-duty power amplifier or 'Electronic Power Convertor' offering 600W/ch into four or two ohms. It's based on the more powerful and successful EPC-780, which was launched two years ago and has since starred en masse in several major tours. FCS-960 is BSS's first graphic equaliser. It is a two channel, 3u package with three notable features. First, the centre detent has a grounded centre-tap, so the EQ is truly neutralised when the controls are set flat. Second, there's a two position Q switch. The low Q setting is optimal for producing gentle slopes while the high setting suits howlround suppression. Thirdly, the gain control only works in bypass mode, to provide effective loudness normalisation against the EQ'd output. FPC-800 is a hand-held remote controller for up to 16 of BSS's TCS-804 Dual Time Correctors. It computes distances and will automatically set signal delays using an integral radio link. Recall and editing facilities are also included, and the unit even switches off automatically (without loss of data) to preserve the batteries.

Court Acoustics were showing their new



Loose wires? Kelsey's Richard Vickers with ATM's shielded cable.



Harman's Sean Martin with JBL's new ES-52000 digital speaker controller.

generation of graphics, amplifiers and crossovers. The CN230 and CN250 crossovers follow Court's philosophy of providing ready-to-use speaker EQ and integral mono summation of the low bass output. Stephen Court is presently working on a test CD, the first ever that's dedicated for setting up PA systems. It will include solo instruments recorded by Alan Parsons, as well as band-limited pink noise tracks. **EMO** have developed a mic combiner that's useful for budget installations, where the client wishes to plug 16 mics into, say, an eight channel mixer, and can't afford to buy a bigger mixer. A polarity switch provides control over cancellation. Alternatively, it allows two microphones to be used in noise-cancelling mode for difficult assignments. **HW International** have published a cogent colour catalogue to show their

portable, automatic mixer expected to revolutionise the operation of PA systems in conferences, court rooms and council chambers. The mixer adjusts gain automatically, switches off unused mics, and generally sorts out the optimal settings, resulting in a complete absence of howlround and noise pumping. Up to 25 units can be slaved to handle 100 microphones, leaving the engineer free to read a book.

Harman Audio were previewing JBL's new digital speaker controller. Scheduled to be available this month, the ES-52000 combines a 2/3/4-way active crossover with driver EQ, signal delay and limiters. It's all done in the digital domain with FIR filters, which can provide filtering and EQ that's free from group delay and phase change. As a result, the unit offers exceptionally steep crossover slopes, up



Mike Reay and Mike Gentle on the EMO stand.



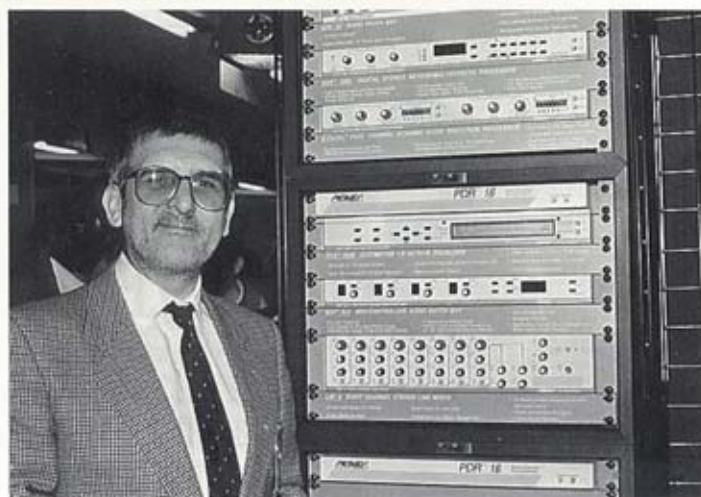
Simon Campbell of Autograph with the Meyer DS-2.



Andy Wood shows the Carver PT-2400.



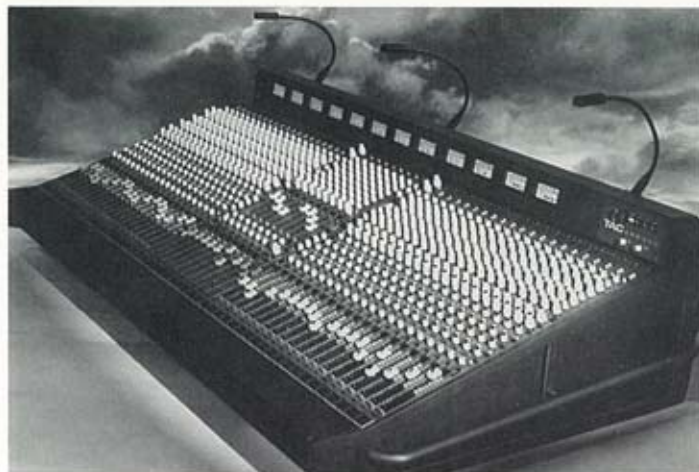
Richard Frankson, Doug Leighton and Bruce Elliott on the Meridien stand.



Peavey's UK managing director, Ken Achard.



HH launched the MX Series amplifiers – cheaper than the classic VX.



TAC's new PA console, the SR-6000.

to -100dB/octave. Processing is 18 bit A/D and D/A, with 24 bit arithmetic inside. Compared to other speaker 'processors', protection doesn't require sensing cables and there's no messing with crossover points. The latest addition to the Control series speakers include Control 1AT with integral 100v line transformer, Control 1CM for flush ceiling mounting, and Control 1AW for outdoor use. Harman were also showing C-Audio's new RA-500 1u high 125W/ch into four ohm amplifier, and Monster Cable's highly engineered, interconnects. Most notable for pragmatic installers is the EZ Strip, a cable whose sheath can be split without tools, and a chunky, four connector speaker cable. Hill Audio's stand was guarded by racks of the new Chameleon amplifiers, with music power ratings of over 1kW in a 1u enclosure. Also sharing the stand were Opusound (of Devon), who were showing their state-of-the-art PA speaker system.

HH's new West-Midlands management have revitalised production with investment in CAD/CAM and the in-house manufacture of most of the key components. At the show, they launched the

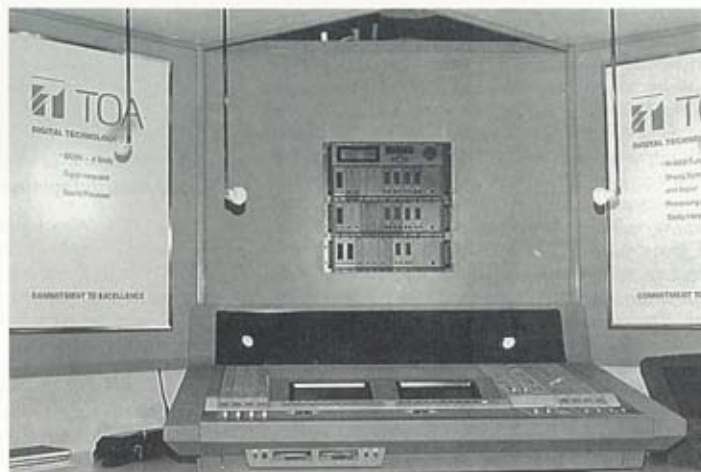
MX series amplifiers, which offers the same specifications as the older VX models, but which cost less, are built to higher standards and offer increasing savings in the higher power ratings. And with their newly efficient production capability, they can offer substantial discounts on volume sales to installers. Also on HH's stand, AVX Systems' induction loop drivers and Capricorn 1 digital delay, both distributed by Wigwam Acoustics. Kelsey Acoustics have taken on distribution of a new brand of cable. ATM's shielded cable is available as a Belden equivalent, with individually screened pairs for touring PA. It has the optimum balance between toughness and flexibility and is already in use by Britannia Row Productions and Electrotec; the latter are presently using four x 100m multicores on Rod Stewart's tour. Focusrite are also using it for their up-market recording consoles. All the above were wired by Kelsey Acoustics' in-house team. For installation, JTC is an overall jacketed multipair up to 24 ways, with each pair individually sheathed and two useful, time-saving features: Stripping the jacket removes the foil as well, and each pair is

numbered at 25mm intervals. The ATM range includes speaker, mic and video cables as well.

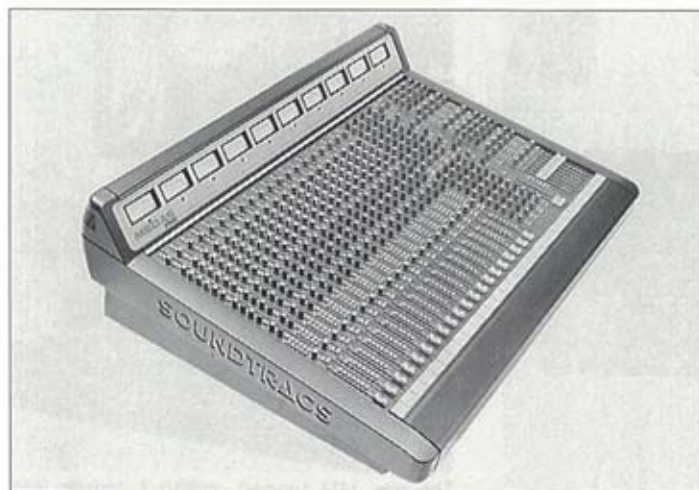
Meridien, the new division of Elliott Brothers, headed by Richard Frankson, are distributing Pastega. Sounds like an Italian health food, but it's really a high quality diversity radio mic system with switchable frequencies, currently gaining DTI approval. Which is fortunate, as the men from the DTI visited the show, looking for illegal wireless products; the news lead to a hasty rearrangement on a stand elsewhere. . . Meridien were also showing Audio Animation's Paragon digital audio dynamics processor. Working entirely in the digital domain, and involving 30 patents in its development, this advanced system allows you to connect up compressors, limiters, AGC, equalisers and filters in any required combination across four or more channels, and adjust their settings over wide limits. For example, each compressor has four knees! It's all done on a VDU with icons. A/D is 16 bit 64x oversampled, while the output D/A is 18 bit, with 24 internal arithmetic. So far, Meridien have installed units in hi-tech clubs in Paris and Oxford. Peavey's new catalogue includes UDH



Shuttlesound's Tony Oates and Soundtracs' Tod Wells with the Megas Monitor console.



TOA's IX-9000 digital concert mixer attracted a lot of attention.



The Soundtracs Megas Stage console.



Clive Green (right) explains the new CADAC 'Concert' live sound console. The range combines advanced automation features, including complete status recall.

SUB, which promises to surface at PLASA. It's a rugged sub-woofer containing four of Peavey's 15" Black Widow drivers with a program power rating of 2.8kW. . . . The 'bandpass' type of enclosure provides acoustic filtering of any mid-frequency distortion. Peavey's DPM-SX sampling expander is an affordable means to record 16 bit samples, and should interest disco installers and theatres.

This year's show saw the launch of four new consoles for live sound. One of which is Soundcraft's Europa. It majors on cost effectiveness, and facilities, which include master/slave linking, full VCA facilities, a button to clear all solos at a stroke, noise gates on every input channel and an optional stereo input module. Australian Monitor had some exceptionally sturdy and well-engineered power amplifiers on display, to be distributed in the UK by The Sound Department. Soundtracs were showing Megas Stage, a medium-sized live sound console launched at the Paris AES in February. Highlights include five band EQ, six aux sends and six mute groups per channel. The remote power supply is unusually small (at 2u) and lightweight, using switching techniques. There's also a Monitor version of Megas, providing 24, 32 or 40 inputs into 12 sends, scheduled for release in September.

New on the Shuttlesound stand were Crown's Geodyne I and II, and Macro Reference amplifiers. The compact Geodynes offer 300W and 440W/ch respectively into four ohms, each in a 2u, and come with a three year transferable warranty. Crown have even included DC protection, a feature that many competing pro amps have had for a decade. The Macro Reference offers 760W/ch into eight ohms, and double this power into two ohms, while noise is unusually low at -120dB. It can even drive one ohm loads. S-40 is ElectroVoice's answer to JBL's Control 1: a rugged mini monitor with 160 watts (EIA) power rating. In the realm of microphones, EV's RE20, the classic kickdrum mic, and RE38, the equally classic mic for horns and brass, are both now available with neodymium magnets; you just add N/D to the model name. The redesigned RE38N/D also benefits for improved, integral vibration isolation, so there should be no need to use external shockmounts. Samson radio mics have branched out to new frequencies. Their new UHF series operates in the (presently!) uncongested 944-952MHz band, each unit having seven channels available for simultaneous use. Shuttlesound have also taken over the reins of the Rane distributorship. Installers with bespoke needs should take a look at Rane's Flex series of signal processing modules.

TAC (alias AMEK) launched the compact SR 6000 PA console to fit between their long established Scorpion and top-of-the-range SR9000. The SR6000 features eight VCA/mute output groups, a 10x8 output matrix, split auxiliaries and stereo FX returns. Internally, all signal paths are balanced to reject crosstalk, hum and noise. Available in 40, 32 and 24 input versions, the 40 input model costs



Gisela Burg of Expotus and Richard Harris on the Allen & Heath stand.

around 25k. Also launched at APRS, the B2 is a four buss console for smaller PA jobs, available in formats from 8/4/2 up to 28/4/2. For install, it can be optionally rack mounted and the connector panel can be removed for ease of access. TAC/AMEK are presently developing sophisticated interfaces for computer and remote control, in conjunction with Steinberg's Mimix software.

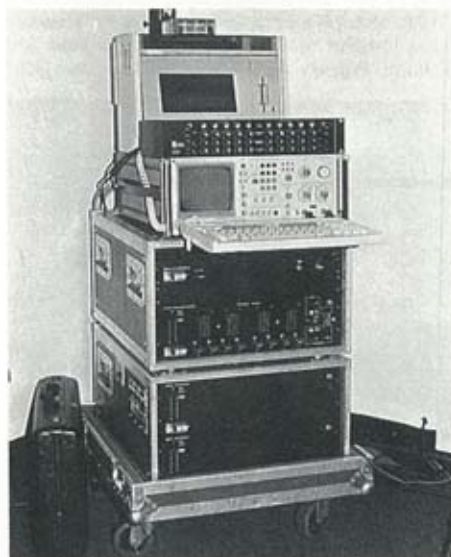
TOA launched one of the show's most impressive products, the IX-9000 digital mixer. It comprises a control surface, and two small racks to interface with the analogue signal path. Mixing is through a 64/48 matrix with 256 input and outputs programmed through the patching system. The control surface features twin, touch-sensitive 'Plasma' VDUs. The screens, illuminated buttons and motorised faders operate on many levels, with the legend on the buttons changing as you move from setting up individual channels to dealing with groups or auxiliaries. At the same time, the unit is intended to 'feel' familiar to the majority of sound engineers used to traditional analogue consoles. The screens can display a plan of the mics on stage, the settings of an individual channel, a list of cues, or the auxiliary control patches. D/A and A/D are 18 bit with 64x oversampling. All operations, cues, etc can be saved. The first unit was installed and beta-tested in Vienna's State Opera House last year, where its memory has proved invaluable for the painstaking construction and perfect synchronisation of elaborate productions. TOA have also introduced two new modules for their SAORI processor. Each provides

fixed or adjustable EQ for CD horns and up to 1.3 seconds of signal delay.

NOTE: The APRS Show was held at Olympia 2 in London from 5-7th June. There were 166 exhibitors, and registered visitors totalled 4,839.



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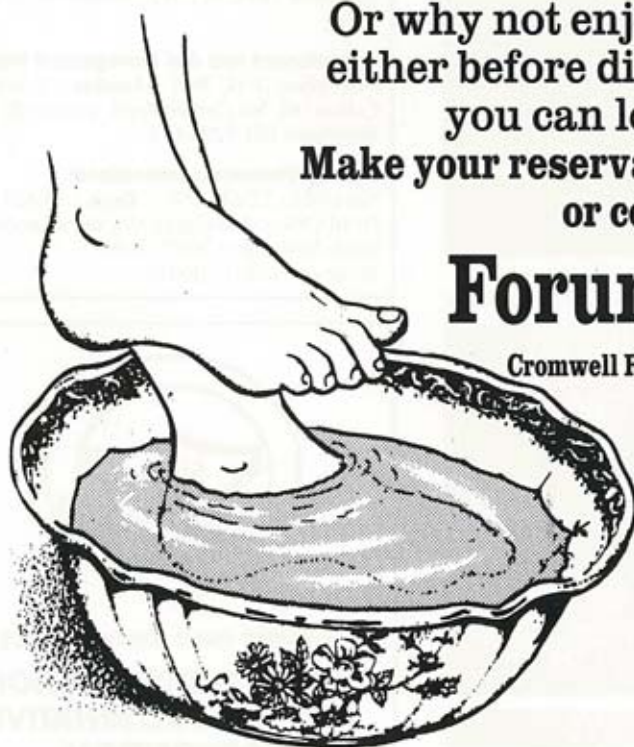
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PLASA News

PLASA Loss

The annual general meeting at the Professional Lighting and Sound Association (PLASA), held at Earls Court, London and attended by over 40 people representing 35 member companies, was told by Chairman Kevin Hopcroft and Treasurer Matthew Griffiths that the Association had made a loss in the previous accounting year.

"The loss, which amounted to £54,000, was largely caused by increased costs attributable to the Light and Sound Show," Hopcroft told the meeting. "Although bookings were up considerably, costs went up even further due to Olympia's way of charging out the second floor."

New Treasurer, Matthew Griffiths, advised that steps had already been taken to tighten up costs within the PLASA organisation, and that the arrangements with Philbeach, the new exhibition organisers, should ensure a profit this year despite the recession.

There followed a report from John Offord,

PLASA acting chief executive, in which he gave the meeting a summary of some of the activities undertaken over the past year and put forward his ideas for the future role of the Association. Later his report 'The Association and its Future' was commended by Tony Kingsley and unanimously approved by a show of hands.

After discussion, committee member Mike Wood proposed that PLASA should open its doors to associate members from abroad. There followed a vigorous debate after which the proposal was referred back for further consideration.

Tony Akers' proposal for an approved statement on trading practices was accepted by all but one member present.

Following lunch, those who remained were addressed by Simon Boyd, of Philbeach Events, who explained the detailed arrangements for this year's Light and Sound Show and later took those interested on a tour of the Earl's Court 2 facilities, a possible future venue for the show.



PLASA Treasurer, Matthew Griffiths addresses the meeting.

NJD Challenge Shield '91

Now in its third year, the five-a-side football tournament took place on Sunday, 9th June in Ware, Hertfordshire, the home of last year's winners Mode Electronics. Taking part this year were seven teams from Pulsar, Avitec, Leech, Luton Sound & Light, Mode, JEM and, of course, NJD.

Each team played three games with NJD and Leech competing in the final and Mode and Pulsar battling for the runners-up position. Leech emerged as this year's eventual victors.

Pictured right are the Pulsar team, and below the winners, Leech with NJD's Kevin Hopcroft.



Exhibition and Events Diary

BKSTS Conference & Exhibition

July 9-12, 1991 — London — British Kinematograph, Sound and Television Society, 547-549 Victoria House, Vernon Place, London WC1B 4DJ. Telephone 071-242 8400

Sound & Light Show and Pro Audio Asia

July 10-12, 1991 — Singapore — PLASA Head Office, 7 Highlight House, St Leonards Road, Eastbourne, BN21 3UH. Telephone (0323) 410335

Light and Sound Show 91

September 8-11, 1991 — London — PLASA Head Office, 7 Highlight House, St Leonards Road, Eastbourne BN21 3UH. Telephone (0323) 410335

Vision & Audio 91

September 15-18, 1991 — London — Emap Maclaren Exhibitions Ltd, 840 London Road, Purley, Surrey, CR2 2BH. Telephone 081-660 8008

Leisure Industry Week

October 22-24, 1991 — Birmingham — Independent Exhibitions Ltd, 2 London Street, Chertsey, Surrey KT16 8AA. Telephone (0932) 564455

ABTT North Trade Show 91

Oct 31 — Nov 2, 1991 — Manchester — ABTT North, Palace Theatre, Oxford Street, Manchester M1 6FT. Telephone 061-236 7671

Reproduced Sound 7

October 31-November 3 — Windermere — Institute of Acoustics, PO Box 320, St Albans, Herts AL1 1PZ. Telephone (0727) 48195

Entertainment and Arts Management Show

November 13-14, 1991 — London — Silver Collins Ltd, 148 Curtain Road, London EC2. Telephone 071-729 0677

Lighting Dimensions International

November 22-24, 1991 — Reno — PLASA Head Office, 7 Highlight House, St Leonards Road, Eastbourne, BN21 3UH. Telephone (0323) 410335.



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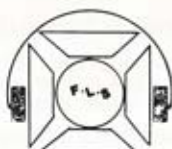
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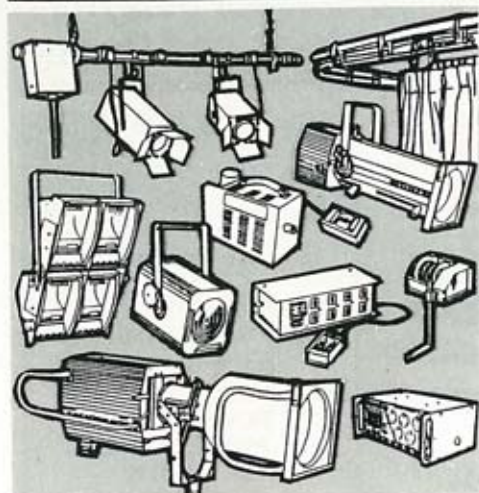
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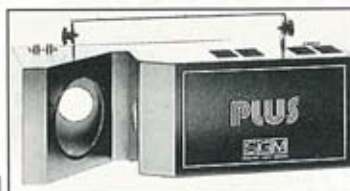
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VIEWPOINT

Freddy Lloyd lambasts the Europhobes and tells PLASA to open the door

I'm in a state of shock! I have just left the PLASA AGM where to my complete astonishment, I heard more than one of my contemporaries arguing against the proposal that a new class of associate member be created specifically for overseas members of our industry.

Why? Because we can't let all those nasty foreigners in — they may gain some sort of unspecified advantage over us!

My God! I thought we were in an international business. Some of the same arguments were offered against joining the EEC. As a consequence we joined 10 years too late, and instead of helping to make the rules of the club, we had to go in on terms that had already been decided. The same thing applied to the Exchange Rate Mechanism. Those of you into exporting or importing know how difficult it was to cope with the wild swings in the exchange rate of the pound. I remember being in New York when £1 = \$1, and a cup of coffee was setting me back £2.50, and I could hardly afford to eat breakfast . . . A few years later £1 was almost worth \$3, and I was quite well off. But business is not about cups of coffee, it is about stability. These wild swings make the product we are exporting either very cheap to the buyer, or very expensive — and nobody can build a business on such a basis. OK, some smart ass will say that joining the ERM has nothing to do with the dollar exchange rate, and of course it hasn't; I'm simply using it for illustration.

What has all this got to do with PLASA Associate members? Not a lot, except to reiterate my astonishment at the 'little England' mentality that still pervades even our industry.

So why do all these nasty foreigners want to join PLASA? I firmly believe the answer is quite simple — they want to **join the club**. PLASA's image overseas, especially in Europe, is very strong. We are perceived as being the front runners — the European leaders. And everyone wants to be associated with a winner. What can they gain? Cheaper exhibition space? Only if we agree. Access to our computerised data base? Same answer — and the same answer applies to any objections real or imagined that may be levelled by members. Associate Members come in on **OUR TERMS!** What the heck's wrong with that? Let them join the club — it can only make us stronger!

Now I want to change the subject and offer once more an idea which, despite the fact that I have been promoting it for a couple of years, seemed to come as a surprise to the majority of the members at the meeting: that PLASA, APIAD, and possibly VPLT organise ourselves to **jointly promote** one single major exhibition per year, and that it be a movable feast — one year

in the UK, the next in Italy, and the next in Germany, for instance. With the combined strengths of three of the major markets of Europe, this exhibition would quickly become the number one show in the world, rather than what we have at the moment where three or four shows are rivalling each other for the number one spot and dividing the potential audience as a consequence. Where does a Japanese buyer go: London, Rimini or the USA? He can't go to all three. APIAD would probably go for the idea because I don't think they get any financial return from the Rimini exhibition. PLASA relies upon London for its revenue but surely 33% of a much larger and more important cake would be better? There is also the added advantage that manufacturers would only have one target to go for in new product terms, instead of desperately chasing their R&D departments as each new exhibition dawns. Since September of last year, my own company, Zero 88, has attended or exhibited at eight shows — eight in 10 months — and now we have another one in Singapore coming up!

I fully realise that this will read like a manufacturer sounding off, but dealers need not despair. A smaller, leaner and CHEAPER show could be organised by PLASA for the alternate years.



Freddy Lloyd is sales director of Zero 88 Limited. He has spent a lifetime in showbusiness from performer through artist agent/manager and record producer.

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Index to Advertisers

AC Lighting	43	Doughty Engineering	15	Lighting Technology	7	Showtec	60
Aliscaff Limited	25	Flashlight	42	Lightpower Showtechnik	3	Slick Systems	40
Ark Light	28	Forum Hotel	47	Litestructures	40	Sofiscotech	10
Arri	6	Ron De Groot	40	Marquee Audio	33	Strand	26
Atmospheric Lighting	10	Jands	59	Nik Milner	34	Teatro	13
Celco	4	The Lamp Company	28	Optikinetics	15	TSL	11
Cerebrum Lighting	15/23	Laser Magic	20	Par Opti Projects Ltd	25	Unusual Rigging	33
Clay Paky	18	Lee Filters	8/9	Pulsar Ltd	19	Vanguard Rigging	40
DeSisti Lighting	39	Le Maitre	58	Raper & Wayman	29	Wilkes Iris Diaphragm	33
Direct Lasers	25	Light and Sound Show 91	5	RB Lighting	15	Wybron	2
		Light Engineering	17	Silk Screen City	58		

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