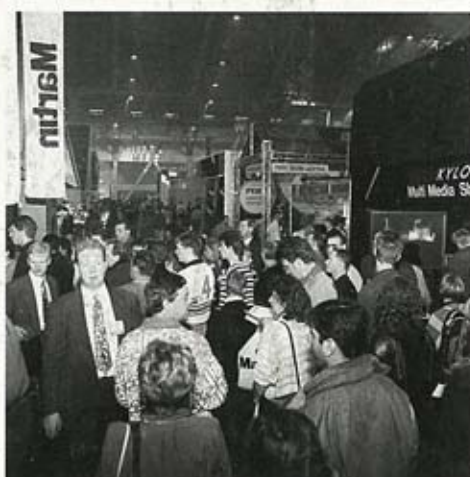


LIGHTING+SOUND *International*



EARLS COURT 2 LONDON: PLASA'S BIGGEST-EVER LIGHT AND SOUND SHOW

The PLASA Light and Sound Show got a definite thumbs up from visitors and exhibitors alike at its new Earls Court 2 venue. The buzz was in the air from the doors opening on the first day right through to the close of the show four days later. During the show 8,054 people, 18% up on the 1991 show, streamed into Earls Court 2 to view all that was new from more than 250 manufacturers and suppliers on 159 stands. Indeed, this year's PLASA exhibition was 25% bigger than last year's with much, much more to see. Almost 15% of the total number of visitors were from overseas with every continent represented. Buyers and industry professionals came from as far away as Israel, Saudi Arabia, Argentina, Brazil, South Africa, China, Japan, Australia, Canada and the USA. There was a particularly strong turn out from the EC and other European countries, accounting for almost 80% of overseas attendees. Commenting on this year's Show, PLASA Chairman Tony Kingsley said: "The PLASA Light and Sound Show is now Europe's premiere exhibition serving the leisure and entertainment technology industry. (Continued on page 7)

- Access All Areas: A New Presentation Style for Cliff Richard
- Australian Finale: The Theatre Scene Reviewed
- Picture Special (1): Theatre Projects Celebrate at The Royal National Theatre
- Picture Special (2): A 'Royal' Event for Light & Sound Design
- Pulsar Out Front with PMX
- On Tour: Marillion (UK), Superstar (Australia)

OCTOBER 1992

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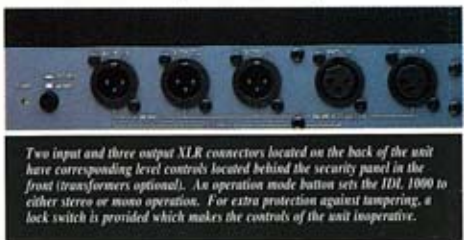
The IDL™ 1000 digital delay processor from Peavey Architectural Acoustics will make the task simple and accurate. With over 1.3 seconds of delay (over .25 of a mile), the IDL 1000 can align multiple speaker systems in churches and auditoriums, to even the largest permanent installations such as arenas and stadiums. Within an array, individual drivers can be aligned in 20.8 microsecond increments. If needed, a second delay line can be dynamically shared by switching to stereo "B" and output 3.



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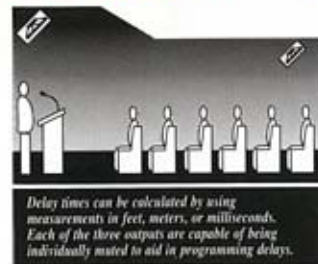
distortion low as well as to maintain a full 20 kHz bandwidth. Both the inputs and outputs are electronically balanced and use XLR connectors. Transformers for the inputs and outputs are optional.

To further speed setting the delays, the display can be set in units of milliseconds, feet, or meters. The IDL 1000 has a mute button for each output which can also be programmed to compare the current delay settings to a zero delay. The IDL 1000 utilizes a 16-bit Delta-Sigma A/D converter and a 48 kHz sample rate to keep the noise and



Two input and three output XLR connectors located on the back of the unit have corresponding level controls located behind the security panel in the front (transformers optional). An operation mode button sets the IDL 1000 in either stereo or mono operation. For extra protection against tampering, a lock switch is provided which makes the controls of the unit inoperative.

The IDL 1000 — simply brilliant.



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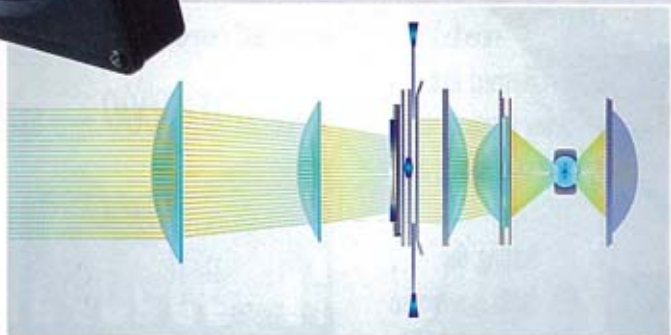
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LIGHTING+ SOUND *International*

OCTOBER 1992

7 News In Lighting+ Sound International

Full round-up of all the sights and sounds from the industry

25 Same Difference

Graham Walne visits some Australian Theatres

29 Catalogue Collection

33 Access All Areas



A new style: Julian Williams charts the philosophy and design of Cliff Richard's new touring production

37 A Trip to LSD

L+SI Picture Special (1) for LSD's Gravelly Hill opening

41 35 Years of Theatre Projects

L+SI Picture Special (2) for a night of celebration at The Royal National Theatre

46 On Tour

Catriona Forcer on Marillion and Julius Grafton on Jesus Christ Superstar

50 Pulsar and PMX

John Offord in round table discussion with Ken Sewell and Paul Mardon

53 PLASA's New Earls Court Light and Sound Show



Tony Gotteller, Paul Dodd, Ruth Rossington, Graham Walne, Tim Frost and Simon Croft provide the reports

83 International Directory

85 Directory of Suppliers and Services

90 Viewpoint

Earls Court 2: John Offord sees the industry take quick advantage of a new opportunity

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

LIGHTING+ SOUND *International*

published monthly by the Professional Lighting and Sound Association

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ISSN 0268-7429

Editor: John Offord

Assistant Editor: Ruth Rossington

Associate Editor: Tony Gotteller

Advertisement Manager: Barry Howse

Subscriptions: Sheila Bartholomew

Published from the PLASA Office

7 Highlight House, St Leonards Road, Eastbourne, East Sussex BN21 3UH England

Telephone: (0323) 642639 Fax: (0323) 646905

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The magazine is available on annual subscription

UK £45.00 Europe and rest of world £60.00 Airmail £85.00. Single copy price £3.00 plus postage

Editorial Advisors: Tony Akers, Peter Brooks, Wyatt Enever, Mike Gerrish, Matthew Griffiths, Kevin Hopcroft, Tony Kingsley, John Lethbridge, Ian de le Vingne, Iain Price-Smith, Neil Rice, Jackie Staines

Lighting + Sound International is published monthly for \$90.00 per year by The Professional Lighting and Sound Association, 7 Highlight House, St Leonards Road, Eastbourne, East Sussex BN21 3UH. Second class postage paid at Middlesex, N.J. Postmaster: Send US address changes to C and C Mailers PO Box 177 Middlesex, N.J. 08846, USA



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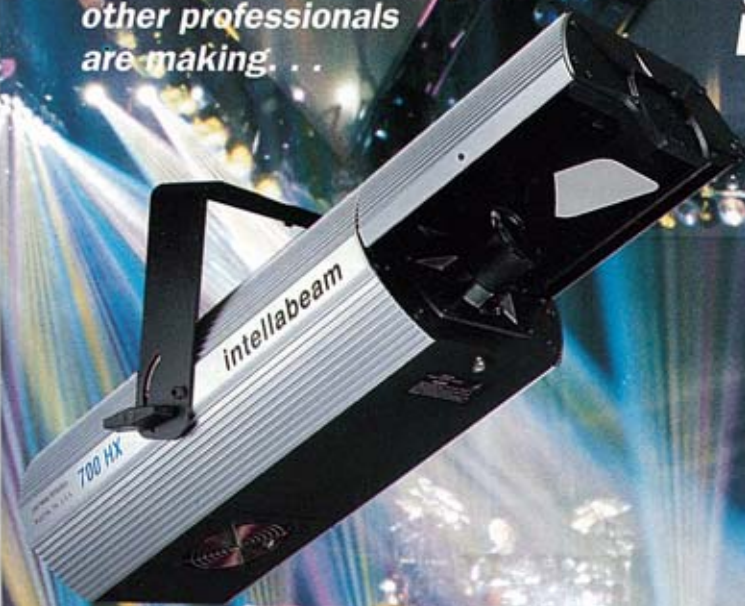
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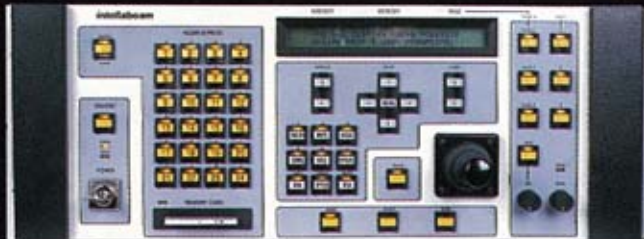
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Celco re-appoint Cerebrum for UK

Following several months of negotiation Celco have appointed Cerebrum Lighting Limited exclusive UK distributor for their new Aviator lighting console range. The arrangement, which has been designed to offer the Aviator maximum exposure through Cerebrum's extensive contacts in the industry and allow Celco to concentrate on the product training and after sales service. Keith Dale, Celco's divisional manager: "We explored many avenues in an attempt to establish a sales and service policy that complemented Aviator's upmarket position. It soon became apparent that this would be best achieved by separating the commercial side from those of product training and development. We considered Cerebrum as our exclusive distributor because of their long-standing association with high technology equipment, and in view of their past history, their passion for Celco products."

John Lethbridge, Cerebrum Lighting's managing director told L+S: "We are delighted to be embarking on this new phase of our close working relationship with Celco, a relationship that started 11 years ago when we took on the exclusive distributorship of the pioneering Gamma 300D console. Cerebrum Lighting have always promoted lighting technology that breaks new ground, and the Aviator is the most exciting

lighting console we have ever seen. It's innovative, it's priced right, it caters for the demanding needs of the market and what's more, it looks terrific. I can see the LDs queuing up to get their hands on this baby!"

Pictured above are Keith Dale, John Lethbridge and Colin Whittaker with Aviator on the Celco stand at the Light and Sound Show.

Earls Court Sign Up



PLASA Chairman Tony Kingsley (right) and Jonathon Goold, managing director of Philbeach Events sign agreements for organisation of the 1993 Show.

PLASA Goes from Strength to Strength

(continued from the front cover) It has become a business oriented show attracting quality visitors from the UK and overseas. The move to Earls Court 2 definitely raised PLASA's professionalism and as an exhibitor myself I can say that this was our most successful show to date."

Martin Professional's managing director, Peter Johansen, was equally enthusiastic: "This show is the most important in Europe and the only one we need to be at. Serious business is done at PLASA, so it attracts serious visitors. To be honest, exhibiting elsewhere is a waste of resources. PLASA is the only European show we intend to exhibit at in future."

Other exhibitors were just as positive. Steve Warren, Avolites' sales director: "PLASA has taken over from Frankfurt and LDI as the major international show for our sector - it's the new place to be." This was reinforced by Sean Martin, pro sales manager for Canon Audio. "PLASA was carefully chosen as the platform for our launch into the pro-audio sector and the response has been nothing but brilliant." Adrian Brooks, Lite Structures' managing director and winner of best stand at the show adds: "The exhibition was a cracker. The venue was fabulous with a broad profile of visitors from within the industry with real money to spend. We made quality contacts with potential distributors from all over the world."

Ian Brown, managing director of Coe-Tech enthused: "The move to Earls Court 2 has considerably raised the professional feel of the show. We saw representatives from all the major leisure corporations and the top dealers and distributors who brought their most valued customers with them." Italian company Teatro's Mike Lowe was impressed with the standards achieved at this year's show: "PLASA has come along in leaps and bounds and this year seems to have been the turning point for it to become a very successful broad-based industry show."

PLASA industry seminars were well attended with the automated luminaires, MIDI control and show controller sessions topping the popularity bill. John Offord, PLASA chief executive, was "very impressed with the standard of this year's sessions and the high standards speakers set."

The dates for next year's PLASA Light and Sound Show have been confirmed as 12-15th September 1993 at Earls Court 2. Stand reservations have already started coming in. For further details contact Caroline Clark at Philbeach, telephone 071-370 8215.

Action News



LIGHTING TECHNOLOGY

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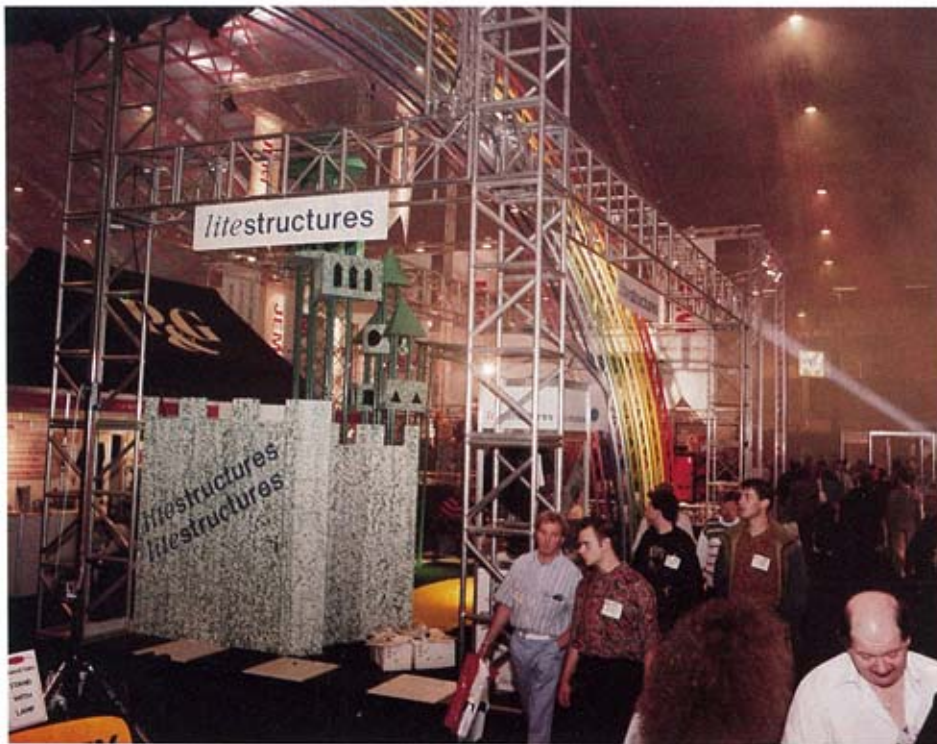
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Best stand: Lite Structures.



The 'highly commended' stand of Apogee UK.



Award line-up: Daryl Vaughan (Apogee), Nils Thorjussen (Flying Pig Systems), PLASA Chairman Tony Kingsley, Adrian Brooks (Lite Structures) and Neil Voce (Carter Voce).

PLASA Show Awards

This year's PLASA Light and Sound Show saw the introduction of a brand new industry awards scheme - the best new product and the best stand at the Show - which were presented to exhibitors at 5.15 pm on Monday 7th September.

With over 30 entries for the best new product award, the Whole Hog System (see main show report for more details) from newcomers **Flying Pig** was the outright winner for its innovative, and even revolutionary according to some judges, approach to lighting control. They were also presented with a lap-top computer donated by PLASA member Ramsa Panasonic.

VxLAN, **Carter Voce's** digital voice network for public address and safety applications was highly commended by the judges for its useful applications, with particular emphasis on the impressive built-in safety features, value for money and ease of use.

The judging panel included David Taylor, Theatre Projects Consultants; Martin Tasker, First Leisure; Vincent Rice, freelance lighting and sound designer; Rod Litherland, Society of Television Lighting Directors and Simon Croft, freelance pro-sound journalist. George Thompson, PLASA's standards officer, chaired the judging.

By a unanimous decision from the judges, the PLASA Par-can award for the best stand at the show went to **Lite Structures**. Almost every item on the stand was manufactured by the company and the design imaginatively utilised trussing to achieve a Wizard of Oz effect incorporating a refreshingly humorous approach to stand construction. **Apogee Sound UK** was highly commended by the judges for its impressive utilisation of an open stand design to effectively show off pro-audio products in a show environment where they are competing with lighting and special effects manufacturers.

The judging panel was chaired by Clare O'Brien, O'Brien Associates, and included Joe Hosken, Pro Sound News Europe; Jeremy Jehu, The Stage and Television Today; Ruth Rossington, Lighting and Sound International; Paul Day, Disco Mirror and Licensed Design and Patricia MacKay, Lighting Dimensions International.



PLASA treasurer Matthew Griffiths presents Best Product Award to Flying Pig's Nils Thorjussen.



PLASA Chairman Tony Kingsley presents Best Stand Award to Lite Structures' Adrian Brooks.



The 'Best Product' panel included (from left, clockwise) Vince Rice, Rod Litherland, Simon Croft, Nicola Hynes (awards co-ordinator), Martin Tasker, George Thompson (chairman) and David Taylor.



The 'Best Stand' panel: (from left) Ruth Rossington, Joe Hosken, Paul Day, Clare O'Brien (chair), Jeremy Jehu and Patricia MacKay.



Ramsa Panasonic's Ian Sharpe hands over an IOU for a laptop computer to Nils Thorjussen of Flying Pig.



Tony Kingsley with Apogee UK's Daryl Vaughan.



Matthew Griffiths with Neil Voce of Carter Voce.

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Show manager James Brooks-Ward (left) and show director Simon Boyd offer each other congratulations as the Sunday morning crowds surge through the doors of Earls Court 2. PLASA's Light and Sound Show bucked all exhibition industry trends by massively increasing its visitor count. Over 8,000 visitors were recorded for the first time.

A C Buys Luff Assets

A C Lighting have purchased the assets of Luff Light & Sound (UK) Ltd and L+S understand much of the hire equipment will be used to replenish the rapidly depleting second hand stocks already on offer as the result of previous buy-outs of Key Lights and Avolites hire. A C have stated that existing rental obligations will be honoured. Interested parties should contact Glyn O'Donoghue on (0494) 446000.

Inflatable Screens

On the 1st October, at the premiere of the film 'Olivier, Olivier' in Hotel de Sully in Paris, the audience was invited to take its place in the courtyard of the hotel. To the surprise of those assembled, a screen 16m x 10m was inflated in just under three minutes. The surface is suitable for film and video projectors such as the Talaria and giant projection of stills from Pani and Hardware systems. In the audience was Jean-Luc Michaud of Alien Products, and never a man to miss an opportunity, he has now been appointed UK representative for the rental of these products from Dorleans Screens. For more details telephone (0932) 872909.

Busy Fall for PAL

New York based Production Arts Lighting is experiencing a busy autumn with several major tours, large installations and other projects on the books.

The company is supplying the entertainment lighting for the first of three new cruise ships for Holland America's Carnival Cruise Lines. The fully integrated system features equipment from Altman, Clay Paky, Diversitronics, ETC, L&E, Lightwave Research, Midiman, Pulsar, Rosco, Thomas and Production Arts. Tourwise, PAL is supplying a complete lighting package to a national tour of Guys and Dolls, and projection equipment to the B52s. The tour is carrying four Pani projectors, three of which feature PAL's A-32 slide changers.

The company has added a new moving light console to its rental stock - the Compulite Animator MLC-48. One of the new Animators is currently on tour with the Big Apple Circus controlling Lightwave Research Intellabeams as part of a complete package supplied by Production Arts.

Read all about it

Several new company publications have this month landed at the offices of Lighting and Sound International. **Martin Professional** have produced their first newsletter which contains information on the new Roboscan Pro 218, the company's new multi-purpose headquarters in Denmark and international news from distributors world-wide.

The sixth edition of **Electrosonic World** is now out and carries features on such diverse subjects as lighting control systems, videowalls, multi-image and mixed media and museums and tourist attractions.

Watching Brief



Brian Croft of Vari-Lite Europe (left) and Alan Thomson of Theatre Projects Services in observation mode at the Royal National Theatre recently. We'll be happy to print all humorous caption ideas in our next issue, subject to the usual restraints of good taste of course. There'll also be a prize for the nearest correct count of how many times Brian made his way into our pages this issue.

Photokina and More

This year's Photokina in Cologne saw the release of several new products. **G E Lighting** launched four new lamps, uppermost of which was the CSR discharge daylight for use in a range of applications. **Philips** had a stand full of new products and enhancements to existing ranges including new MSR short arc lamps and a new series of square filament projection lamps.

Both companies will again be in evidence at Lux Europa, the European lighting conference which is taking place from 4-7th April 1993, at Heriot Watt University in Edinburgh, with the support of several major companies: G E Lighting, Osram Limited, Philips Lighting and Thorn Lighting Limited are all sponsoring the event, along with the Institution of Lighting Engineers. For further details contact CIBSE in London, telephone 081-675 5211.

Award for Media Projects

The multi-media show in the British Pavilion at Expo 92 in Seville (see L+S June 1992), designed and produced by Media Projects Ltd, has won an award at FIAV '92 - the international audiovisual festival held in Spain in September. An international team of judges decided the awards and gave eight in total across different categories, with Media Projects winning theirs for 'the exceptional use of the different audiovisual media'.

L+S Does It Again!

The exit survey of visitors at this year's PLASA Light & Sound Show has once again confirmed that Lighting and Sound International is the most widely read publication amongst its field. In the survey, conducted by Exhibition Audience Audits, visitors to the show were asked to provide information from reasons for attending to time spent at the show.

The survey concluded that 83% of visitors regularly read one or more trade magazines, with the most popular magazine being Lighting and Sound International which is read by almost half of the visitors - 48% in total. Further research revealed that Lighting and Sound International is especially popular amongst those whose main interest is lighting (52%) those who are concerned with the use of equipment for theatre (72%), TV/video/film production (72%) and live and touring (62%).

SCIF '93


SCIF Sound '93 - the 46th annual exhibition of the Sound & Communications Industries Federation will take place on 16th and 17th February at the Sandown Exhibition Centre in Esher.

Further details are available from SCIF in Slough, telephone (0628) 667633.

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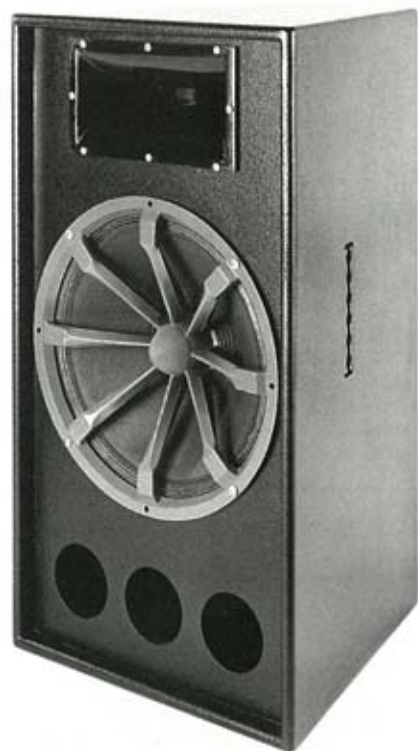


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White Light Pilot NVQ in new Demo Room

White Light has launched its new demonstration and training area, pictured above, with a pilot course of the new National Vocational Qualification (NVQ) for backstage staff.

The new 500 square feet demonstration room, which features permanently installed dimmers, is part of an on-going programme to improve customer service facilities at White Light's Fulham headquarters. The NVQ course, which took place in August, covered colour media preparation and is one of a series on technical aspects of theatre. Each element of the NVQ is assessed in the workplace as part of the new government initiative to encourage on-the-job training. The course was led by Francis Reid and Paul Simson from White Light.

Yamaha on Stage

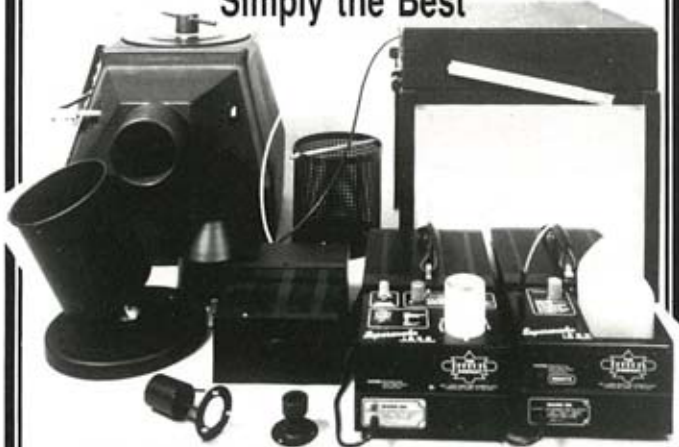
Yamaha synthesizers and digital equipment are to be used on the new production of 'Which Witch', an extravagant opera musical opening at the Piccadilly Theatre in London on October 22nd.

A full traditional orchestra is supplemented by the addition of two Yamaha SY99 synthesizers used on stage, plus a complement of hi-tech equipment behind the scenes.



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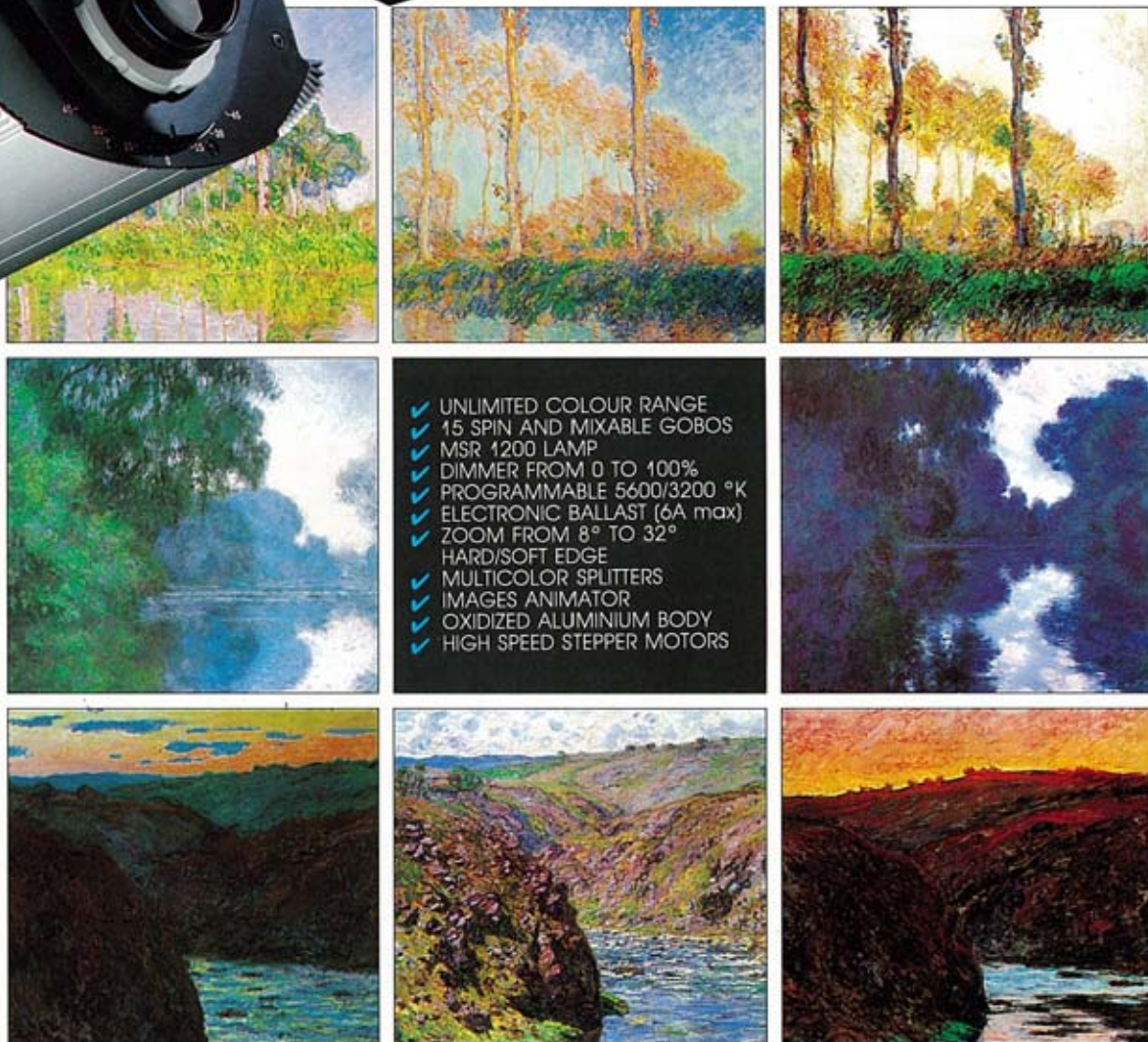


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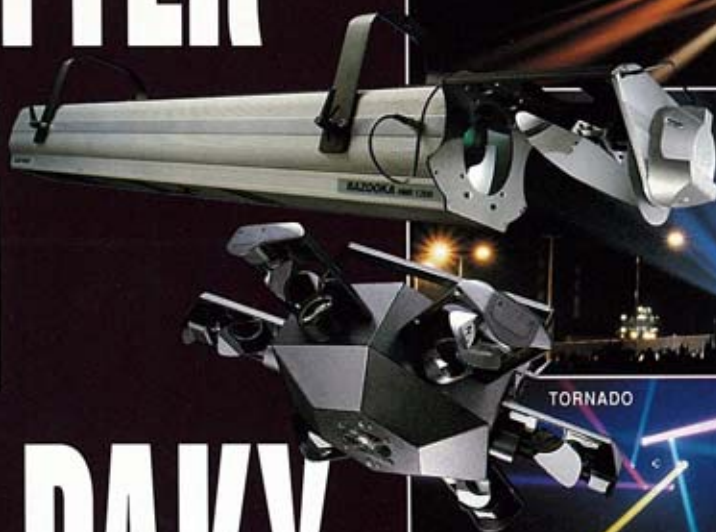
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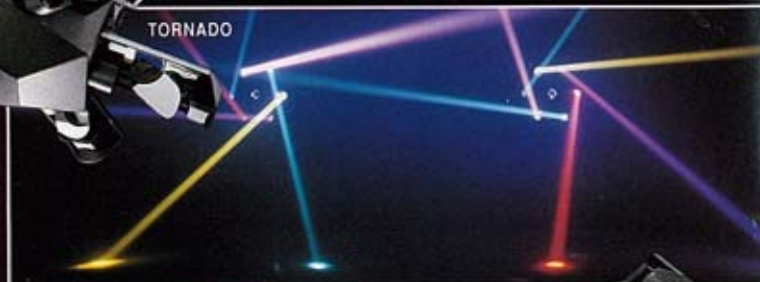
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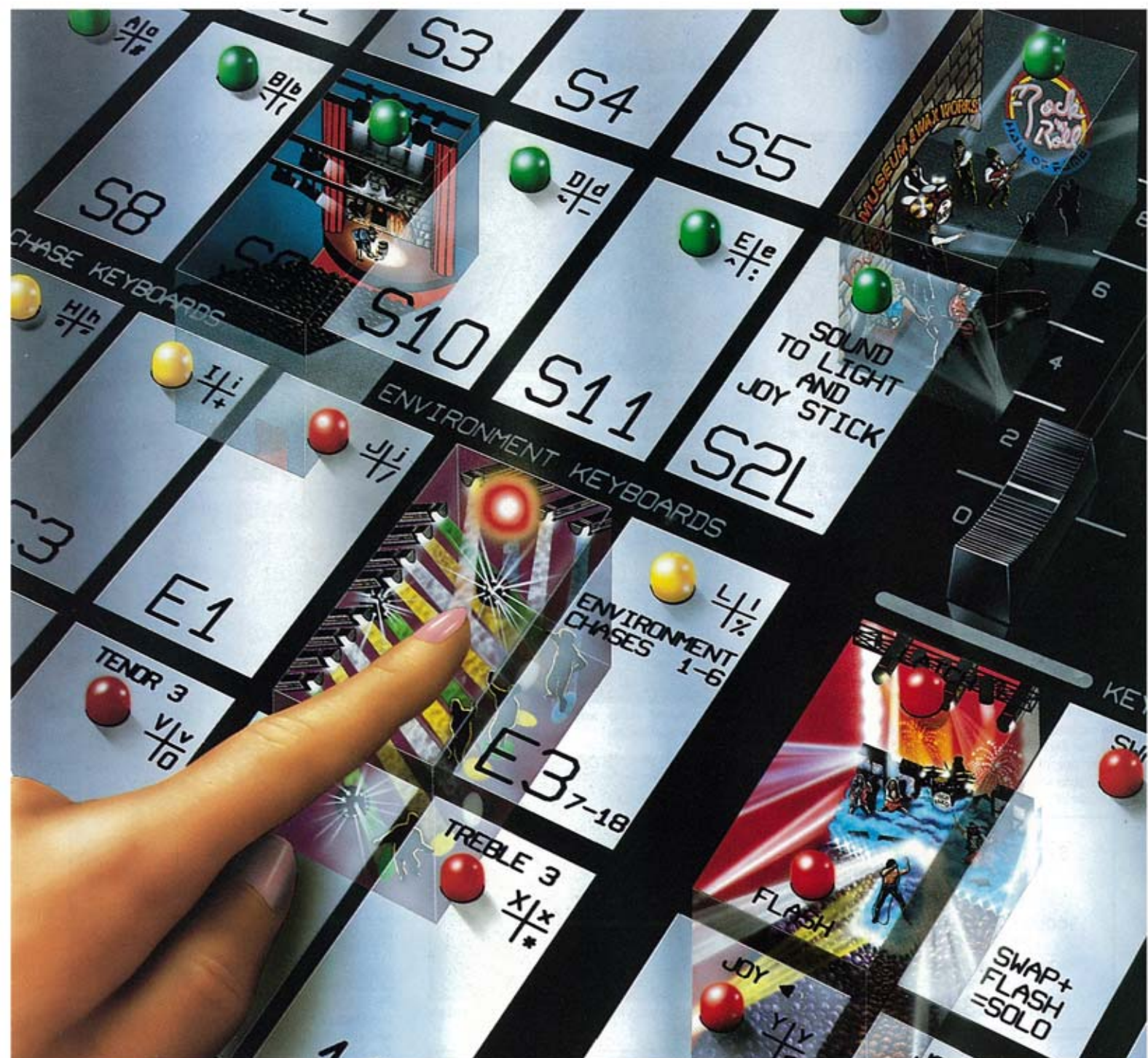
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Vienna Tours with Danzig



Soundcraft's Vienna front-of-house console is being put through its paces while out on tour with US heavy blues band Danzig, pictured above at London's Town and Country Club.

The complete PA system for the European tour is being supplied by UK company Roadstar who have the Vienna on loan from Sunderland-based New York Sound company. Performances have been enthusiastically received from both the fans and the band's engineer Rick Didamot. "Vienna has plenty of headroom which is great for a heavy rock band like Danzig. It's good to have stereo effects returns on faders and not rotaries, which effectively makes a 40 channel board into a 56 channel one."

Based around Soundcraft's successful flagship Europa, the Vienna has been designed, according to the company, with the engineer in mind. The control surface has been clearly laid out with the same attention paid to the console's ergonomics as the facilities specified. "Channels flash when they are muted - which is a simple but really valuable feature for live engineering," comments Didamot.

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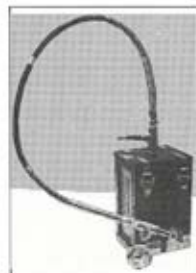
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Light and Sound Show Personalities (see pages 53-82 for full coverage)



A Vari-Lite quartet: Jim Bornhorst of Vari-Lite Inc, Brian Croft of Vari-Lite Europe, Tom Littrell of Vari-Lite Inc and Dave Hill, a freelance Vari-Lite operator.



Jim Bornhorst (left) and Rusty Brutsché of Vari-Lite Inc, Dallas.



The ubiquitous Simon Austin with Gordon Tourlemain.



Bob See of Seefactor USA (left) with Brian Croft and LSD's Simon Austin.



Martin Professional's Peter Johansen (left) with show organising executive Vivienne Orchard and show manager James Brooks-Ward.



PLASA's Sheila Bartholomew on stand with Jonathan Ciddor of Lightmoves Technology of Sydney, Australia. Jonathan is a key mover in the establishment of an Australian 'PLASA'.

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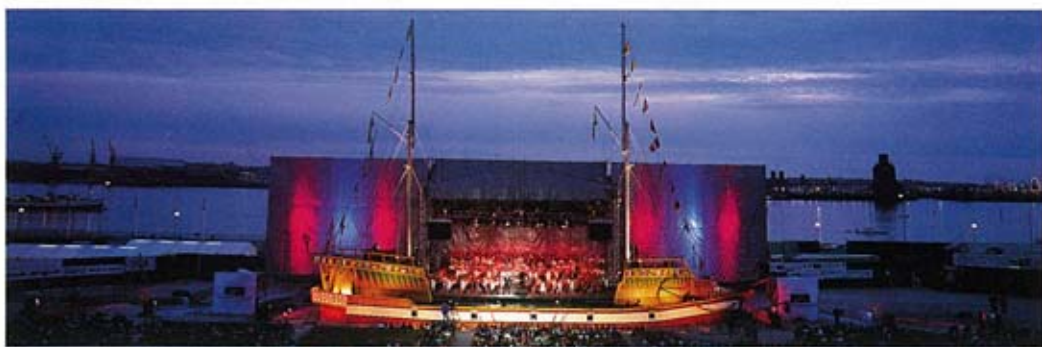
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Liverpool's Fanfare for a New World

Mid August saw Liverpool in the final act of an epic adventure celebrating both the return of the Tall Ships and the 500th anniversary of Columbus' discovery of the New World. The Kings Dock provided the site for one of the largest outdoor operas ever held in the UK, performed in the presence of King Juan Carlos and Queen Sofia of Spain and HRH Prince Andrew. The show ranged from classical to flamenco, and the glittering line up of performers including Montserrat Caballe, Alfredo Kraus, Dennis O'Neill, Rita Hunter, Justino Diaz, Mario Frangoulis, Dmitri Hvorostovsky and Julia Migenes, took a 14,000 audience through a three hour performance.

The show was produced jointly by Rod Gunner and Brendan Carroll and was designed by Andrew Doig. The massive stage, designed to look like a Spanish galleon, was framed by 3,600 sq ft screens and dominated by a pair of 200ft high ship's masts. On the front deck Sir Peter Ustinov, master of ceremonies, added his unique blend of wit to a remarkable presentation blessed by good weather.

The technical team was a reunion of those involved in *Symphony for the Spire* (see L+SI October 1991 issue), with Andy Doig lighting designer, being the driving force from concept to production, and Graham Feast operating the Vari*Lite. Meteorlites supplied the

generic lighting and most of the good humour, Wigwam delivered the sound standard and Alien Products supplied six Skylight 4kW followspots. Projection came in the form of Hardware 5000W units, and the stage was supplied by Star Hire.

Main photo by Nik Milner.



Andrew Doig seated at the Artisan with behind (from left to right), Jean-Luc Michaud, Gareth Crockford, Graham Feast, Richard Bleasdale and Tony Panico.

Donmar Re-opens

The smallest West End Studio Theatre will re-open on 22nd October under the new management of Maybox Theatres.

The 250 seat Donmar Warehouse Theatre has been closed for refurbishment since 1989. The former home to the RSC has added two spacious bars, wheelchair facilities and features extensive remodelling of the backstage area. The overall technical capacity of the Donmar has been expanded with improvements including the addition of walkways and a complete redesign of the lighting and sound facilities. Sound reinforcement is provided by two pairs of Tannoy CPA12 Contractor series loudspeakers, and the theatre is also one of the first to install the recently launched Soundcraft Venue Theatre console.

Book Ends



A corner of the Book Bazaar which did a roaring trade at the PLASA Light and Sound Show and parted company with approaching 530 titles, most popular amongst which were the new books by Francis Reid, and Joe Thornley and Brian Fitt.

American Honours for Strand Lighting

Strand Lighting has won top awards in the United States for a film and studio lighting kit and for CD90, the North American version of the EC90 digital dimming system. The film studio award for 'outstanding achievement in engineering development' comes from the Hollywood-based American Society of Lighting Designer's for Strand's 18k HMI Retrofit kit.

Pirates Lift Ancor

The recently opened 'I Corsari' (land ahoy!) underground water ride, constructed at Italy's famous Gardaland theme park is packed with technical goodies, with considerable UK participation. With input from many old friends, Media Projects International provided the AV production, DHA the lighting design, Electrosonic both the light (ANCOR) and the sound (ESTA). The ride is constructed in a 7,000sq.m subterranean bunker and based around a piratical theme. The 'people movers' are 40 seater boats which take visitors by water through 18 different scenes, replete with animatronic figures, water explosions and even water rates, plus many other special and visual effects. Full story in our next issue.

Palace Disco Centre

Robin Smith and Steve Lyons, formerly of Powerhouse, have founded a new company, Palace Discotheque Centre. Operations began on September 1st. "Without the assistance of Rob Peck of Vestax and Ian Brown of CoeTech the venture would probably not have been possible," said Robin Smith.

It will stock the full Vestax range, together with TAS, Coemar, Custom Sound, OHM, Adda, Citronic, Shure, Stanton, NJD, Abstract, LAD and Ortofon products, as well as neon signs and displays. The company offers sales, hire and installation, plus a 24 hour helpline/call-out service.

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LEE FILTERS

No.	Product description	Clo	Sim	Com
602	Bastard Amber		162	159 - 153
603	Warm Rose	212	103	
604	No Color Straw			
605	Pale Gold	206		
608	Warm Straw	HT010	147	237 - 248
609	Straw			
610	Light Flame		134	
611	Rose Amber			
612	Golden Amber	134	147	
613	Light Amber			
614	Flame	105	158	
615	Deep Straw			
618	Orange	HT019		
619	Fine	113		
620	Deep Salmon	106	153	
621	Light Red			
624	Pink	247	192	190 x 2
625	Pale Rose Pink			170 - 136
627	Rose Pink			
632	Salmon			
638	Light Rose Purple	HT052		
641	Lavender	180	HT058 x 2	
644	Deep Lilac			
645	Indigo		117	
647	Pale Blue	202	HT063	
648	No Color Blue			
649	Booster Blue			
650	Light Blue	174		117 - 203
651	Light Steel Blue			136 - 174
652	Azure Blue			
653	Zephyr Blue	196	174	144 x 2
654	Daylight Blue			
655	Steel Blue			
656	Steel Blue			
657	Primary Blue	118	HT079	
658	Medium Green Blue		132	
659	Green Blue		195	
661	Medium Blue		245	
669	Pale Yellow Green	244		122 - 218
671	Light Green			
672	Moss Green	219		
676	Blue Green	209		
680	Light Grey		156	
682	Chocolate			

CINEMOID

No.	Product description	Clo	Sim	Com
1	Yellow		102	
2	Light Amber		HT013	
3	Straw		HT015	
4	Med. Amber		179, 195	
			158	
			HT022	
5	Orange			
		106	182	
6	Primary Red		107	
			109	
7	Light Rose		130	
9	Light Salmon		132	
10	Middle Rose		111	
			148	128 x 2
11	Dark Pink			
			HT027, HT046	
12	Deep Rose	113	HT026	
13	Magenta			
14	Ruby	115	116	
15	Peacock Blue		117	
16	Blue Green		174	
17	Steel Blue		144	
			HT079, 118, 183	
18	Light Blue			
19	Dark Blue		119	195
				120 - 165
20	Deep Blue			
21	Pea Green	121		
22	Moss Green	122		
23	Light Green			
24	Dark Green			
25	Purple			
26	Mauve			
27	Smoky Pink			
32	Medium Blue			
33	Deep Amber			
34	Golden Amber			
35	Deep Golden Am.			
36	Pale Lavender			
38	Pale Green			
39	Primary Green			
40	Pale Blue			
41	Bright Blue			
42	Pale Violet			
43	Pale Navy Blue			
45	Daylight			
46	Chrome Yellow			
47	Apricot			
48	Bright Rose			
49	Canary			
50	Pale Yellow			
51	Gold Tint			
52	Pale Gold			
53	Pale Salmon			
54	Pale Rose			
56	Pale Chocolate			
57	Pink			
58	Deep Orange			
60	Pale Grey			

LEE FILTERS

No.	Product description	Clo	Sim	Com
101			HT010	
102			HT013	
103			HT015	
104			179, 195	
105			158	
106			HT022	
107			107	
109			109	
130			130	
132			132	
111			111	
148			148	128 x 2
113			HT027, HT046	
115			HT026	
116			116	
117			117	
174			174	
144			144	
119			HT079, 118, 183	
195			195	
120			120 - 165	
121			121	
122			122	

GAM COLOR

No.	Product description	Clo	Sim	Com
110	Dark Rose		127	
120	Bright Pink		128	
140	Dark Magenta		128	136 - 128
155	Light Pink		109	
160	Chorus Pink		110	
170	Dark Flesh Pink		192	111 x 2
180	Cherry		110	
190	Cold Pink	107		
195	Nymph Pink		157, 193	
200	Pink Magenta	148	HT046, 113	166 x 2
235	Pink Red	106	HT028	
245	Light Red			182 - 106
250	Medium Red XT		HT027	153 x 2
260	Rosy Amber	182		
270	Red Orange	HT019	135	
280	Fire Red			
290	Fire Orange		151, 176, 158	
340	Light Bastard Amber		158	
345	Deep Amber		105	
350	Dark Amber		HT015, HT020, 179	
			206	
			134	
365	Warm Straw	147		223 - 295
375	Flame		104	
385	Light Amber		102	
			159	
			102	
			HT010	
420	Medium Amber		102	
440	Very Light Straw		101	
460	Mellow Yellow		212	
480	Medium Yellow		245	
			138	
510	No Color Straw			
520	New Straw			
540	Pale Green	121	139	
570	Light Green Yellow		139	
650	Grass Green			
655	Rich Green	122		115, 116
660	Med. Green		117	201 - 213
720	Light Steel Blue			
730	Azure Blue	118		183
740	Off Blue		118	
			143	117 x 2
750	Nile Blue			117 x 2
760	Aqua Blue			202 - 203
770	Christel Blue			
780	Shark Blue		132	
790	Electric Blue		65	
810	Moon Blue			
815	Moody Blue			

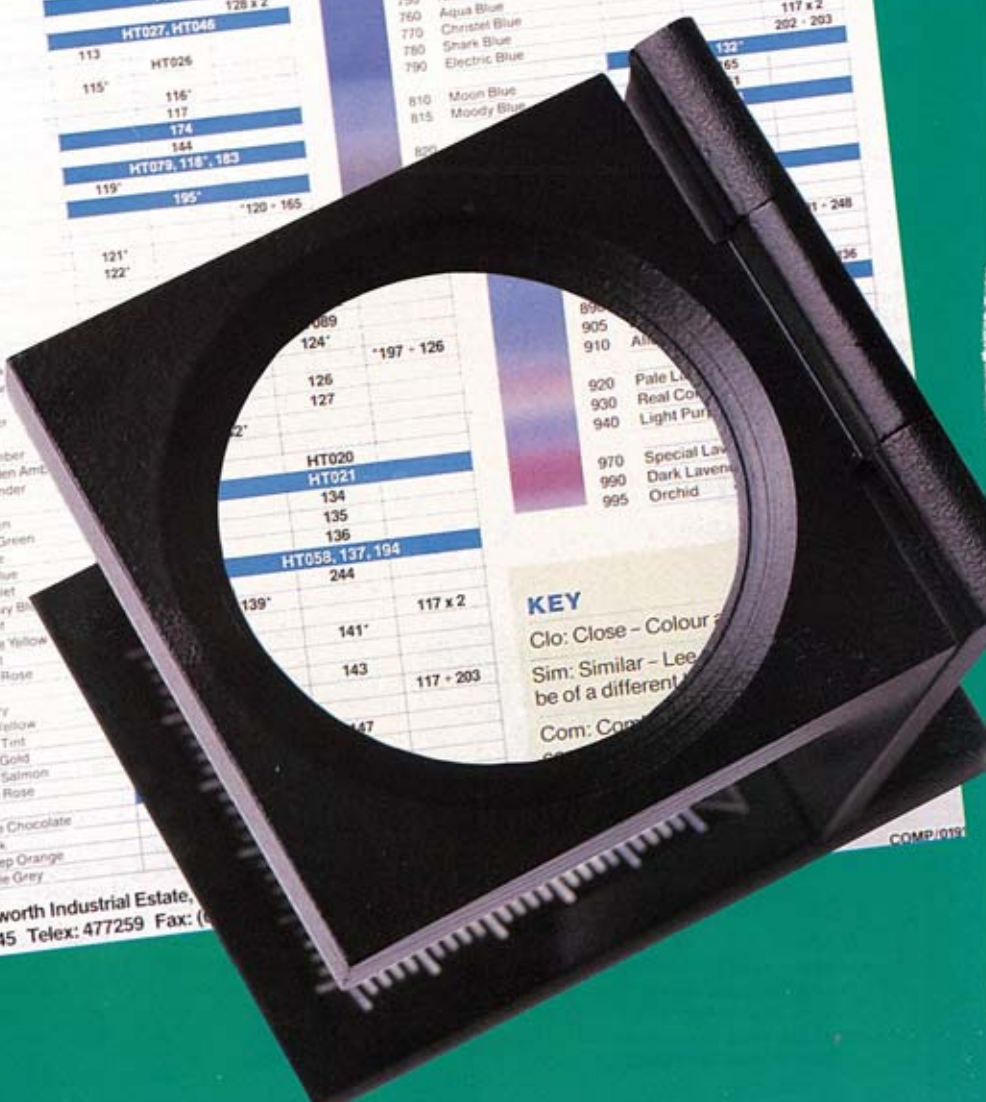
LEE FILTERS

No.	Product description	Clo	Sim	Com
127				
128				
136 - 128				
109				
110				
192				111 x 2
110				
107				
157, 193				
148			HT046, 113	
166 x 2				
106			HT028	
182 - 106				
HT027				153 x 2
182				
HT019			135	
151, 176, 158				
162			158	
105				
HT015, HT020, 179				
206				
134				
147				223 - 295
104				
102				
159				
102				
HT010				
101				
212				
245				
138				
121			139	
139				
122				115, 116
117				201 - 213
118				183
118				
143				117 x 2
117 x 2				
202 - 203				
132				
65				
117 x 2				
202 - 203				
132				
117 - 203				
144 - 298				
117 x 2				
115				
122 - 202				
183 - 209				
132				
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197 - 126				
126				
127				
134				
135				
136				
244				
117 x 2				
141				
143				117 - 203
147				
909				
905				
910				
920	Pale Lavender			
930	Real Colour			
940	Light Purple			
970	Special Lavender			
990	Dark Lavender			
995	Orchid			

KEY

Clo: Close - Colour
 Sim: Similar - Lee
 Com: Com - be of a different

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Sun, Sea and Sand for Rosco

During the first half of 1992 the Rosco group of companies ran an incentive scheme for their dealers based on sales performance against agreed targets. The incentive was a trip to Bermuda and in September 228 delegates from the States and Europe met at the Princess Hotel in Hamilton for three days of sun, sea and sand. The only formalities were a welcoming cocktail party and a farewell dinner. Pictured above are some of the lucky ones.

Guildford School seeks Sponsorship

Guildford School of Acting, one of the country's top Drama schools, is looking for industry sponsorship to enable its second year lighting students to 're-light' on next year's planned international tours.

The shows include 'Hard Times' by Charles Dickens, touring to the Academy of Performing Arts in Hong Kong in April. At the same time 'Man of La Mancha' will be shown at The Russian State Academy for Theatre Arts. A third production will be visiting Santa Monica College, Los Angeles in February.

For further details please contact David Ripley on (0483) 60701.

Flashlight buy new Followspots

Dutch rental and production company Flashlight have recently upgraded their rental stocks of followspots by placing two large orders for Lycian and Strong spotlights.

Their recent acquisitions include five Lycian 1275 Superstar 1.2, three Lycian 1278 Starklite and four Strong Gladiator II 2500W longthrow followspots. Both orders were tied up by European distributor A C Lighting at the recent PLASA Light and Sound Show in London.

Design Intervention

The former contracts and design managers of the defunct Light Angles Ltd have created a new company, Design Intervention.

Nick Riley and Chris Filippides have told L+S that they will use the experience they acquired whilst working at Light Angles to offer a design consultancy specialising in furniture and luminaire design as well as design and installation of specialist lighting schemes.

TPC Pivotal Project

To consolidate Singapore's position as a major business, tourism and cultural centre, a new Arts Centre is being planned for completion in 1999.

The centre will comprise a concert hall, lyric theatre, an 800 seat theatre, a 450 seat flexible open stage theatre and a 200 seat development studio theatre. The Singapore government has appointed Theatre Projects Consultants International to undertake the project.

TPC's current projects include many other large theatre and concert halls. In November the 200 and 500 seat theatres in Charlotte, North Carolina will open, and January 1993 will see the opening of a 1600 seat theatre in Cerritos, California. Other current TPC projects include the Glyndebourne Festival Opera House opening in 1994, the Disney Concert Hall in Los Angeles, and the remodelling on the 1928 Empire as the Festival Theatre in Edinburgh.

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LETTERS

PLASA Blues

Dear Editor,

I have just returned from the PLASA show and a colleague has asked me for my impression, to which I have to reply: "I have seen the future; it's digital, I can't afford it!"

I should also add that I can neither understand it nor see the use of it. I should start by explaining that I am primarily a lighting person originally with a theatre bias. My present position is as managing director of a lighting and sound hire company. As such I have a substantial equipment budget far in excess of most theatres and other users, and whilst in the past I have been concerned by price, it's not the overriding concern.

I appreciate that manufacturers need to generate excitement in their product in order to sell. I also understand that stand space is expensive, so it makes sense to show the unit with all extras fitted.

However, I came away with mixed emotions about products for which I can see no practical use, with prices that are outside the scope of the majority of users. One of the many items that falls into this category is the self-erecting 20m lighting stand. It looked jolly good, and I'm assured that its lifting capacity is excellent. But how do you transport it? One per three ton truck. My that is useful. And where is this person who needs such an item? It seems to be a case of let's design one to prove we can; someone might buy it.

There were several lighting boards offering the capacity of thousands of channels, multiple fade rates, and that most important feature - variable dimmer curves. What is the market in these monsters? Or is this a case of another unit that only Euro Disney can afford and that can only be operated by that rare breed of super technician, that appear on these pages with monotonous regularity.

My particular reason for attending the show, apart from the fact that I was sent a free ticket, was to look at dimmers. I was impressed to see that the word 'digital' is now being applied to dimmers. I rapidly realised that this shouldn't be confused with DMX, SMX, AMX, or, for those who like variety, RS232 which is a different thing entirely although it does involve digital somewhere.

No, true digital dimmers are for the technologically-advanced who travel to the outer reaches of science in search of perfection. Always ready to learn, I felt morally bound to enquire as to the many advantages I would soon benefit from having purchased these units. I was told that the advantage of digital dimmers is that I would no longer have to trim racks on tour. I don't anyway! I use self-trimming racks.

I was also told that digital racks compensate for long cable runs by boosting the voltage at the dimmer end making volt drop a thing of the past and negating the need to use larger diameter cables. I don't anyway. This particular claim was enforced by a salesman who assured me that one of their customers had saved £40,000 by not having to use bigger cables. I can't think of an installation that has £40,000 of cable in it, never mind the room to save it.

I was also told from someone showing a modular system that should you feel the urge, you could pull one of the modules out of the frame whilst under full load. Try as I might I can't foresee any reason why I would possibly want to do such a thing. I then asked would this unit work with RCCD, and it was pointed out that I could have this as a factory fitted option for just under £200. Further reading showed this to be a 300 ma unit, which is really useful. They obviously use this rating as more sensitive units would keep tripping as you keep pulling those modules out. Was I really being told that having a modular system makes servicing easier. If so, why not say so.

All of these advantages could be mine at approx £1,100 per six ways. You will no doubt find it hard

to understand why I resisted.

No doubt all of these arguments can be refuted by many of the PLASA members exhibiting, who will point to the advantages that the salesman forgot to tell me: space saving, less heat, easier fault finding (you plug in a new PCB) but my fundamental premise is that as manufacturers PLASA members are in danger of producing a range of products that we as customers neither want nor can afford. Neither can we mend it when it goes wrong.

I would like to address a few remarks to those who insist on shooting themselves in the foot.

We have the case of the speaker manufacturer who enclosed their stand in glass, and stationed someone on the door to frown at potential customers. Result: you didn't enter the stand unless you were a friend of the manufacturer and already knew the product. I must compliment the lantern manufacturer who stencilled 'Turbo' on their lanterns. I was nearly taken in that time.

I was taken in last year it appears by buying a new and exciting lighting desk. I was told this year in confidence that the board they launched last year used the same processors as one they launched in 1980. I'm sure there is a very good reason for this, but it makes me annoyed to realise that my hard earned £2,000 is spent on not only yesterday's technology, but more like last week's. I feel even worse when you consider I've bought a further four boards.

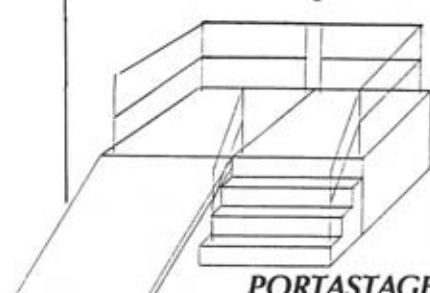
But my biggest gripe is the entry charge. I have had a stand at exhibitions and know that from an exhibitor's point of view there is nothing worse than having a plague of locusts in the form of schoolboys descend on your stand and strip it of paperwork, which you have spent a fortune producing. Setting aside the argument that they are the purchasers of tomorrow, by levying an entry charge, you restrict entry to those who are seriously interested.

So, if you accept the principal of a charge, which most exhibitions I go to manage without, is PLASA so strapped for cash that they need £8.00 to bolster their finances having already charged the exhibitors a healthy sum. The other alternative is that those on the organising committee in the rarefied air of big company upper management with salaries to match, consider £8.00 small change, forgetting of course that those who pay this charge are generally technicians and DJs who, as a rule, are not renowned for being overpaid, but still play an important part in the purchasing decision making process.

Alan Paulus
Trafalgar Lighting

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Expo Revisited

Dear Editor,

Having finally received your June issue I was delighted to read in your Expo review of the accolades you bestowed on our New Zealand pavilion.

I thought your readers might like to know the credit list. The design team was made up of Logan Brewer, design director; Grant Major and Peter Langford, designers; John McKay and Jeremy Collins, lighting design and Larry Elliott, sound design - the same team that was responsible for the highly successful NZ pavilion at Brisbane's Expo 88.

Lighting equipment was supplied by Selecon and comprised Zoomspot 2000s, 1200s, 650s, Selecon fresnel 1200s, minifresnels, low voltage Accent spots and profiles, Par cans and several hundred fluorescent tubes! Control comprises some 300 channels of our digital production dimmers run by four NSI Melange desks.

We are proud to have been involved in this project and to have won the recognition of international colleagues.

Jeremy Collins
Selecon NZ Limited

Meteorlites Purchase assets of Chameleon

Meteorlites have purchased the assets of Chameleon Lighting Limited. Chameleon were close to finalizing a deal with Samuelson Concert Productions but the deal fell through at the last moment, we understand. Committed to a change in direction, the company looked for an alternative.

Peter Barnes of Chameleon told L+S: "We were intent on changing the structure of our company, and in order to do this we required outside finance and therefore substantial personal guarantees to do so. For this reason we looked to other alternatives." Ronan Willson of Meteorlites Productions Limited expressed an interest in purchasing the assets of Chameleon to fulfil their present commitments and subsequently a deal was struck.

Chameleon directors Peter Barnes and Colin Jones are both contracted to Meteorlites Productions Limited. The addition of Chameleon should lend a new edge to Meteorlites, with the introduction of new age groups such as EMF, Pop Will Eat Itself and The Shamen being the first artistes Chameleon have transferred to the new association.

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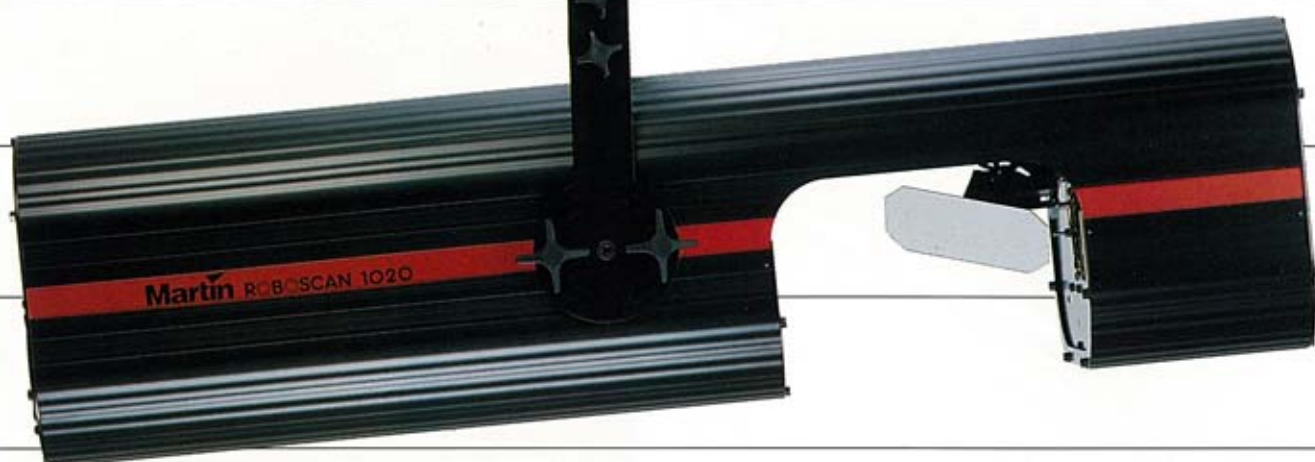
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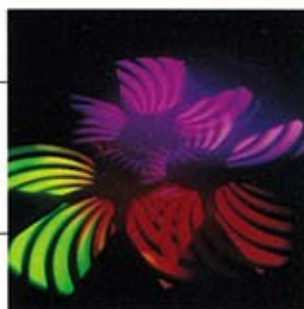


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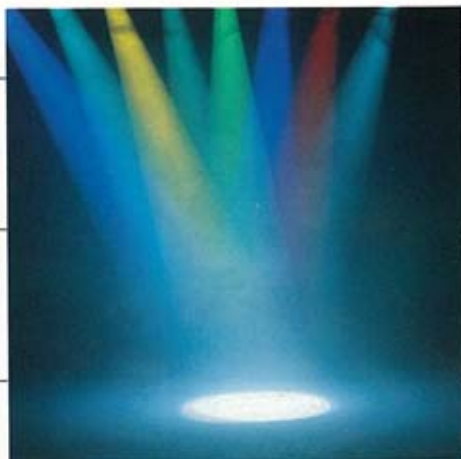
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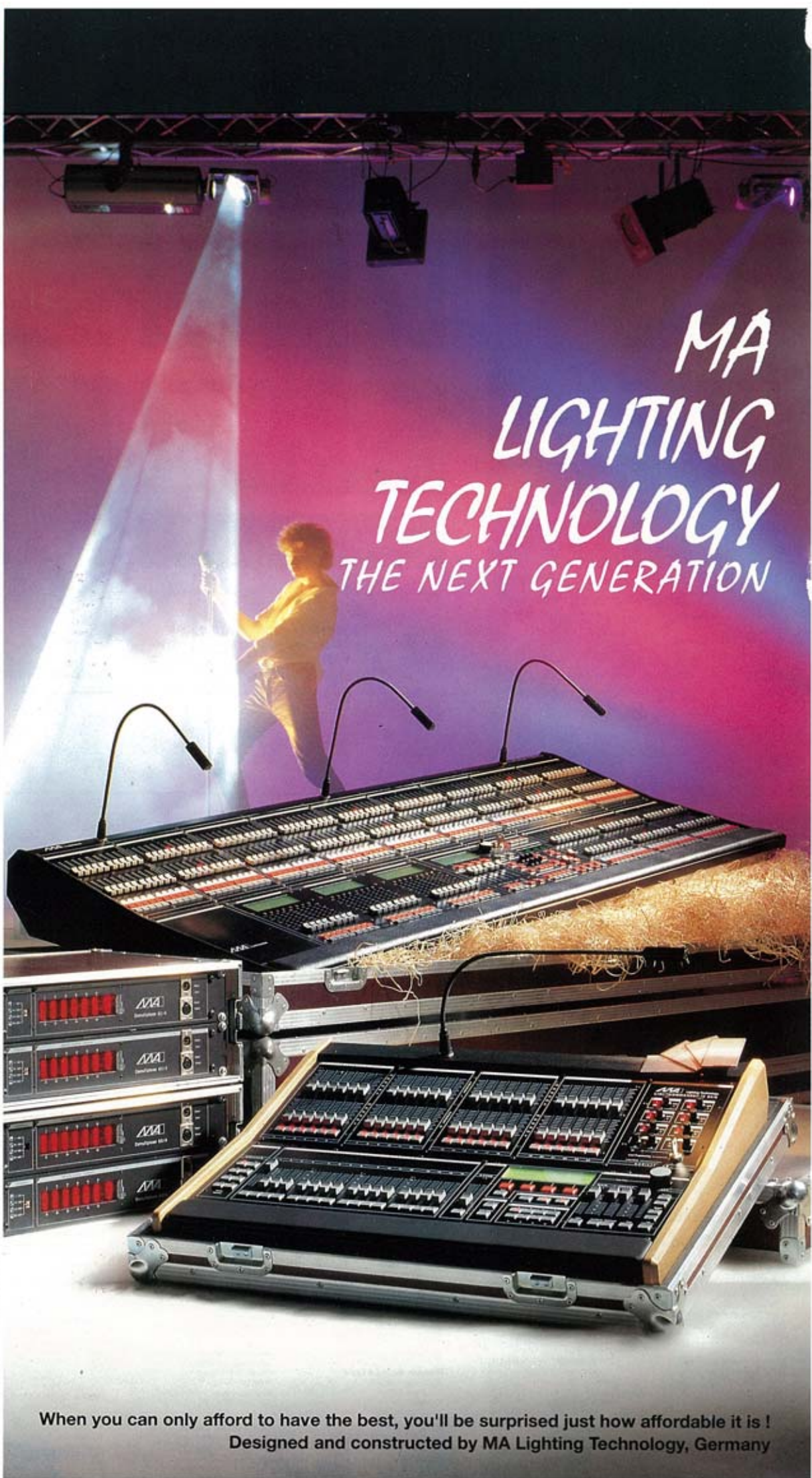
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SAME DIFFERENCE

Graham Waite visits some Australian Theatres

The most dominant topic in every theatre I visited across Australia was not the latest colour changer, or even the growing republicanism, but the Australian recession. Curiously countries seem possessive about these tragic and seemingly unavoidable consequences of modern life - "our recession is worse than yours". In Australia's case it might just be true; youth unemployment is running at 34% and national unemployment at 11%; like the UK, bankruptcies are commonplace, freelance people are heading for the safety net of salaried employment and employed people are being made redundant in order to be re-employed as casual staff. Again, like the UK, the mega-musicals are the only reliable income and the names Andrew Lloyd-Webber, Cameron Mackintosh and Helen Montague (whose 42nd Street is currently breaking all records) are the only source of regular cash flow to many suppliers.

Despite these familiar problems, Australia remains desirable - an almost lotus-land climate, excellent food and wine, right hand drive (to American road signs) on very quiet roads, and breathtakingly colourful scenery. The sobering side is three layers of government, heavy taxes, heavy unions and a suspicion borne of being the most isolated island on earth. The British influence is being purposefully diminished (55% of all books sold in Australia are now by native writers) but whilst the US influence is clear on the TV screen and in the urban landscape, it is the Asian invasion which provides the most stimulus and the greatest contention; for every person like Bill Passmore, one of Australia's senior designers, who feels Asia is Australia's biggest market, there is another who resents the Asian dilution of the Aussie heritage.

Of course, the genuine Aussie heritage belongs to the Aborigines and whilst they are featuring more and more strongly in crafts, dance and literature, theatre is a comparatively new territory. Keith Sinclair, acting theatre officer for the Western Australian Department for the Arts explains: "The aborigines have a good naturalistic style of acting but no experience of classical theatre, as yet, and so this places a great responsibility on a director."

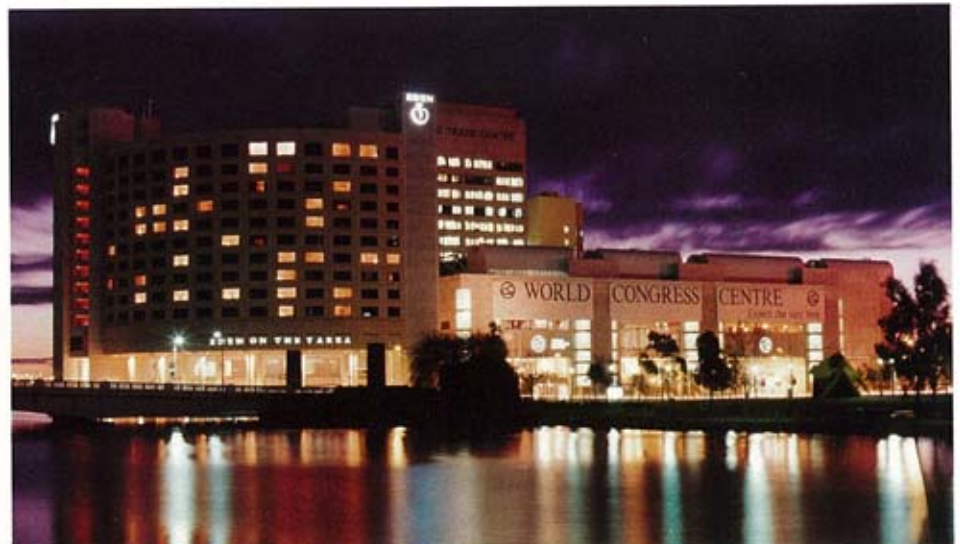
I asked Keith about the percentage of Aborigines in theatre audiences: "Whenever I ask companies about this, the question gets treated with contempt, but a lot of aboriginal theatre is antagonistic towards the whites so both sides have a lot to get out of their system. Of course, Australia has a number of other racial influences in its heritage too and it's fascinating in the run up to the elections to see the politicians try to favour those and yet promote an overall Australian identity."



His Majesty's Theatre, Perth.

The next 12 months sees elections at both state and federal levels and so the funding of arts projects is likely to come under particular scrutiny. Although people are divided as to whether the current Keating labour government can survive, they are united in a fatalistic belief that a change of government can make little improvement to the economy and hence to the public arts funding. Private funding is also very scarce and most 'angels' to whom I spoke confessed to playing safe. Against this backdrop two cities are attempting to raise sufficient finance to build lyric theatres suitable for the mega-musicals. Sydney, Australia's largest city with a population of four million, a quarter of the country's total, curiously lacks an appropriate venue and many musicals are either presented in stadium-like complexes - with consequent lack of atmosphere - or in concert format (albeit very successfully as the current concert tour of 'Superstar' is proving). Sydney has two theatre projects in mind, but each has its financial problems; in one the refurbishment of the old listed Capitol cinema is held up additionally because the necessary enlargements to the stage would mean closing

strengthen the city's boast that it has more seats per head of population than any other major city in Australia. The flagship of the Perth Theatre Trust's chain is His Majesty's Theatre, a 1225 three-tier house built in 1904 and beautifully refurbished in 1980. I was pleased to see that, unlike many other refurbishments, the backstage area was included in the scheme. My guide was the Trust's general manager, Englishman Will Quekett, and his pride and joy is clearly the Trust's box office computing system which is based on a system the Trust began developing themselves in 1978 and which was therefore one of the first in the world. Quekett explains: "Our international festival is one of the oldest in the world and accounts for 350 performances across 25 venues with 60 different ticket prices. With hard tickets we couldn't get accurate daily figures and would spend \$150 in overtime to find a \$3 mistake. The BOCS system has 100% of the tickets for all our venues available at seven outlets around the city or via the telephone room. We have two computers for full redundancy although the BOCS system is so good we only need back-up about 1.5% of



The World Congress Centre in Melbourne.

a street, in the other, the redevelopment of a warehouse in a revitalised docklands area cannot attract sufficient capital for the theatre component. However, the groundswell of support is changing as Sydney prepares its bid for the Olympic Games in the year 2000. 3000 miles away in Perth (curiously proud to claim that it is the world's most isolated city), the scheme to build a 2,400 seat theatre also awaits private investment.

The new Perth Theatre would complement a range of other venues and

the year, so the back-up runs payroll, cashflow forecasts, wordprocessing and generates faxes from terminals on every manager's desk. This has enabled us to increase our operation by 300% in ten years but with only one extra member of staff.

"I've taken a leaf from Cameron Mackintosh's book about running staff (both *Cats* and *Les Mis* played to record houses in Perth) because I believe that if the cast and staff are happy they will give better performances. So we give the artistes flowers and bottles of wine and go and talk to them; we also talk to the stage door keeper who gives us valuable feedback but the trick is to keep him informed so he can answer anyone's questions properly."

Perth's isolated location means there is little tourism, and this has led the Trust to hone its marketing operation to maximise the response from its 1.2m resident population. Quekett explained how this works. "By 9am we can produce a list with names and addresses of everyone who came to last night's show, where they sat and how they paid. This is invaluable marketing data; we direct mail existing clients with personalised letters and careful targeting has enabled us to reduce the print run over the years from 220,000 to 80,000. The savings have been spent on advertising, with the result that the revenue has increased by 17.5%."

The Australian cultural industry seems well served by its training providers because unlike the UK training industry, most colleges in Australia house television, music, theatre and dance schools on the same campus, thus providing excellent opportunities of cross-fertilisation of disciplines. This breadth of experience is useful because Australians cannot survive by working purely in one art form and thus there is much movement back and forth between theatre, film and television, a situation aided by there being fewer unions than in the UK. Also, unlike the UK, drama is part of the Australian national curriculum and not part of some other subject. Most colleges are part of the local university, thus ensuring that the students receive mandatory grants, and funding for courses is not driven by the number of students attending. Perhaps this prompted more than one lecturer to ponder the validity of training people for a profession with high unemployment; back in the UK training is a growth industry.

Australia's most famous training centre is NIDA, the National Institute for Drama Training in Sydney, but sadly my schedule prevented me from visiting their premises (as it did Brisbane and Adelaide). However, I did enjoy two extensive tours of other training establishments, firstly the Victorian College of the Arts which is situated in Melbourne's 'cultural city', a district which includes ballet



The Victorian Arts Centre Concert Hall, Melbourne.

rehearsal rooms, The National Gallery of Victoria, the Arts Centre and Playbox Theatre complex (both of which more later), and which will soon also contain a new school of film and television. The college contains schools of Art, Dance, Drama, Music and Film and Television and my guide was Chris Paterson, lecturer in lighting and sound to the school of drama. The most memorable part of the tour was an entire class learning the graphics program in a room full of Apple Macs! Indeed, the facilities at the Western Australian Academy for the Performing Arts in Perth were equally impressive. Here my guide was Duncan Ord, the head of the Academy's Production and Design Department who first explained that, as in similar Australian Colleges, entrance to the course is via project work or audition plus interview and is not dependent upon tertiary education, even though the course is technically placed at a University.

After passing through the outdoor amphitheatre, Duncan's tour took me into the Academy's main theatre, a proscenium/thrust building with air-pallet seating which must rank as one of the few theatres in the world to actually add a fly-tower in later life. The lighting control is currently a Strand 120-way M24 but is likely to be replaced by a Strand Galaxy, almost Australia's national emblem, and Duncan added "we are running a very sophisticated softpatch here developed in Australia by Bytecraft who give us their programs at cost but ahead of the industry so we trial them direct onto our PC. It's useful here because we have six different dimming types in the one system with DMX512 and analogue all

flying around side by side. Our new control will also have to drive automated fixtures. This is vital for us because the industry is looking to different parts of the training network to provide specific types of training, and we are looking at training to an advanced level which can produce head technicians. Currently, in the lighting course, the students light 30 productions each year which includes television and film productions and they also have to undertake maintenance on the equipment as well. We've also asked Bytecraft to come up with a hydraulic flying system so that we can train in powered flying as well." UK colleges eat your hearts out. And there's more.

Backstage the extensive workshops reflected the industry trend towards more and more metalwork, whilst still retaining the older crafts, and the props area was provided with properly ventilated toxic area with even an eye-wash station according to Health & Safety practice. With two recording studios the sound course, 'the only one around', was also well provided for, although Duncan clarified that the concentration tended to be on the broadcast and rock concerts rather than theatre, reflecting the expertise of the tutors who are all industry professionals. "Right now we are also looking into where technology is going in each of our course areas and deciding what base units we need in computer teaching. A lot of sound and lighting is already digital, but we haven't gone totally digital in sound yet because we want to wait till it settles down, if it ever does. Meanwhile, we hire studios outside so the students can gain digital experience, but we are also looking into costing and scheduling programs for stage management and of course into computer-aided set design - that's a bit controversial! But we have licensed AutoCad for all our machines and students can simply go into a studio, draw down the program from the main computer and get to work." Duncan concluded his impressive tour by reminding me that the Academy considers itself really part of the industry and not outside it.

This close link between the industry and its training is perhaps strengthened in Australia by a Federal levy which requires that companies whose payroll is more than A\$222,000 should allocate 1.5% of that to training their staff (Peter Brooke please copy). Unsurprisingly, I have to add that more than one person told me that some companies get round this by spending it not on the indians, but on one blowout for the chief. However, Australia is moving along similar paths to the UK in its development of standards of competence, and whilst in Sydney I visited Tina Jackson, the chief executive of Arts Training Australia; the AETTI is the reciprocal body for the UK and the ATA has kept in close touch with its UK counterpart,



The Victorian Arts Centre State Theatre auditorium right, and above left, the Centre by night with its distinctive tower.

reprinting the AETTI standards in its own publications. Ms Jackson explained that one result of Australia's strong unions is that there is an easier link than in the UK between standards of competence and pay awards.

The centrepiece of my visit to Australia was a tour round Melbourne organised by Denis Irving, a man who cannot be omitted from any article on Australian theatre because most of them have part of him in them somewhere. Additionally, he is a member of all the leading theatre associations around the world and has frequently spoken at their major conferences. A qualified illuminating engineer (he is also a mechanical specialist), Denis became general manager of Strand Australia in 1959 before leaving in 1979 to start his consultancy company Entertech. I asked him how the new idea of consultancy was to the continent.

"Tom Brown was the pioneer consultancy here," he explained. "After working with Guthrie in Canada he became chief of NIDA but was then recruited to do the Victorian Arts Centre project. Strand of course did a lot too, but there is less to do now. As far as I know I'm the only full-time consultant around now, although many people call themselves consultants when they are really suppliers or specialists in just one field. We do have some very experienced theatre architects here. Of course, architects who have never done a theatre before usually don't think they need help!"

Our first call was at an old Malthouse donated to the Playbox Theatre Company by Carlton and United Breweries in 1986, and, thanks to designer John Beckett is now one of Australia's most talked about theatre spaces because the Malthouse's two theatres are more flexible and exciting than the larger traditional venues Australia tends to build. John Beckett trained at the Central School of Speech and Drama in London, was lighting designer to the 69 Theatre Company and worked on the development of the Royal Exchange in Manchester and this experience is demonstrated in the intimacy of the galleries around the performing spaces, especially in the 200 seat theatre which carries his name. The larger space, the 500 seat Merlyn, is fitted with an excellent flexible lighting grid (designed by Denis Irving who also provided documentation and follow-up services) which provides a network of trackable IWBs, each of which can move horizontally, freely up and down the grid. A mobile gantry provides additional lighting positions, overhead suspensions and a movable proscenium arch. Seating configurations and tools are powered from numerous air points around the walls and even the smaller theatre has 16 air-driven winches. Space does not permit me to detail all the interesting features but worthy of note is the low-voltage lighting system in the dressing rooms which enables the actors to focus their make-up lighting to better replicate that on

stage; all the fittings and furniture in the dressing rooms are removable so that the room can have a dual function. John Beckett explains: "We needed A\$4m but only had A\$2m so everything has to serve two purposes!" The whole building design respects its earlier heritage, timber is much in evidence, and the Malthouse is rapidly becoming the social focus for the 'Cultural City' in which it stands.

Another recent building in Melbourne, and rather a contrast, is the World Congress Centre which contains the 500 seat La Trobe, the 1500 seat Batman Theatre and the 2500 Bellarine banquet hall. Adjacent there are numerous smaller function rooms, exhibition spaces and a 384 room hotel. Denis Irving was closely involved with the project management of the Centre and since he has written an excellent article on this venue (see L+S January 1991) there is no value in my repeating his words. Denis did comment that when fighting for improved budgets on the project the stock reply (which has equivalents in every country in L+S's readership) was "we're not building the bloody Opera House you know!"

On this occasion my guide was Bob Champion, technical manager. As we went around the building his intimate knowledge of the way in which equipment was constructed made me wonder if Bob was part of the last generation of technical managers who would come up through the ranks - especially in view of what had been said in the colleges about turning out head technicians. I asked Denis why so many technical managers were British and if this had produced any chauvinism on the part of their Australian crews. "I think very little; the British have the advantage of being politically neutral, which is useful in a large building; you also have more of them than we do, so we regard recent arrivals like Paul Chappell and John Montgomery as people to learn from."

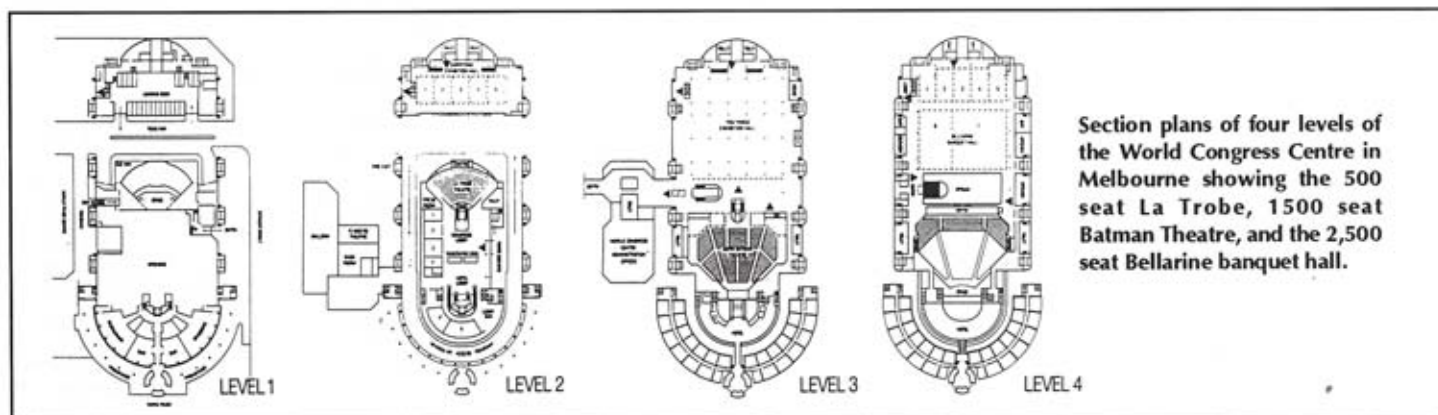
The final call in Melbourne was at the Victorian Arts centre, a vast complex containing the National Gallery of Victoria, the Melbourne Concert Hall and three theatres which opened in 1984: the 200/400 seat George Fairfax studio, the 880 seat playhouse and the 2,000 seat State Theatre. The stages are three floors below ground which has the dubious benefit of reducing the building's street profile but at considerable expense and complexity for the stage access. Vast hydraulic elevators carry entire 40' artics into the bowels of the earth. The front-of-house plush and gilt decor is best described as Civic Tandoori but the facilities are excellent with the State Theatre possessing a classic Germanic stage, revolves, side stages, elevators and all. In fact, it's so big that a time and motion study was carried out to identify how the journey times around the stage could be reduced!

The key technical feature of this building is the hydraulic flying system which the staff designed (with a consultant from Adelaide),

built and installed themselves without the theatre being closed. Powered flying was originally selected because the side stages precluded more conventional formats and the inaugural system, which the current one replaces, was laid out by Denis Irving and another legendary figure, Bill Tuttle. Denis also contributed the technical documentation to the whole project. The new flying system contains 111 winches, each of which can haul 450kg; the bars can be grouped for operation in any manner and can travel at any speed up to 2m per sec. Denis explained the significance of this system: "It uses high pressure and small volumes of fluid which makes it fundamentally different from systems in Europe, so instead of great big rams you have little motors."

Rod Brown, stage operations development manager, continued the story. "A lot of technology was imported from the Norwegian shipyard industries where some components were prefabricated. We get no leakage because the Norwegians use bolt stretchers so all the joints are really tight. There are four pumps which work in a cyclical system and as many or as few can be brought onto line at any time, but to keep up the longevity of the system pressure is low, they are not on all the time. We also have a power storage network which means we can fly small amounts without the pumps being needed at all. The storage system also provides averaging for peak loads and we can still fly when we have to shed electrical loads when we can't use the pumps. In fact, our total stored energy will drive the bars through 800 metres of travel which for most shows is quite enough! One way and another the system is under full breaking at all times because there is pressure on both sides of the system. You can even undo all the hosepipes and turn off all the taps and so it's safer than a triple-broken electrical flying system." The system also services the adjacent Concert Hall suspension network and the controls were designed and built by Bytecraft (a name I was hearing with increasing frequency) using systems they had provided for other powered flying systems, and in fact, some of their controllers are in use on 'Phantom' in Melbourne stage automation.

No visit to Australian theatre can possibly omit the Sydney Opera House which has become such a powerful symbol of that beautiful city that its promotion has masked Sydney's other considerable attractions. The Opera House dominates the downtown waterfront; from a distance it appears vast but as your ferry approaches then it seems to reduce so that it becomes impossible to believe that it can contain all it does, opera theatre, concert hall, drama theatre, studio, playhouse and library. The controversial roof of 'sails' does look wonderful when the sun is low but when researching photos for this article I deliberately avoided exterior shots because I thought the view too familiar; instead I sought interiors which have not received the same



Section plans of four levels of the World Congress Centre in Melbourne showing the 500 seat La Trobe, 1500 seat Batman Theatre, and the 2,500 seat Bellarine banquet hall.



Sydney Opera House: above, the Concert Hall, and right the Opera Theatre.

coverage.

My guide was Peter Marshall, lighting operational manager, and I asked him first about the building's troubled genesis: "The Concert Hall was originally designed to be a proscenium theatre with full German wagons; the Opera Theatre was going to be a smaller Germanic Theatre and pretty well stayed the way it was intended, but the bigger theatre had its wagons pulled out and was converted to a Concert Hall around 1965/66 before the building opened: but for all that it's one of the three best in the world. Nevertheless, this meant that opera (and ballet) companies had to move to the smaller theatre where there's absolutely no wing space". Peter explained that the Opera House is basically a touring house but that since most tours have started from bigger theatres built more recently, a visit to Sydney is a tight squeeze. Peter's conversation was thus punctuated with tales technicians tell the world over - namely how to beat the building. Even after all these years, improvements are still underway to the orchestra pit and stage lifts in the wake of the redundant drum revolve. Harder to solve are the low grids, which, in the drama theatre dictates that flown items are tripped; both theatres still have the original powered flying systems however.

The lighting controls are upgraded Galaxy 2s and among their interesting special features is a control which puts CCTV monitors to black (rather than to 'off' which would cause them to flair) for lighting fades. The Galaxys now drive Bytecraft dimmers installed in 1986/7 and which were specially designed to slot into the same housings as the Siemens' units they were replacing; this was essential because the theatres could not close for rewiring. Peter clarified: "Our dimmers are analogue but we are installing Bytecraft interfaces which use DMX, and which interpret the dimmer status and permit patching via an upgraded alpha keyboard. The DMX facility is useful because it means we can connect a hands-on desk for one night stands."

Despite its technical shortcomings Peter explained: "The Opera House has enormous public acceptance. For example, last year when the ballet company announced it would move elsewhere, a lot of people rang threatening to cancel their subscriptions unless it was returned. It's an event to come here."

My trip to the Opera House was arranged by its retiring technical manager Keith Yates whom many readers will remember as chief

engineer at the Palladium where he was my first boss in 1967. I spent an enjoyable lunch with Keith and his wife in one of Sydney's rooftop restaurants (why can't England do this?) and it is clear that the word retiring is an appropriate one to describe his future.

I used the title 'Same Difference' at the beginning of this article in an attempt to point out that in Australia, most UK technicians would not find themselves in a totally alien environment. One item which prompted my thinking on this was a meeting in July of 'Practitioners, Suppliers and Enthusiasts' to establish a 'new national association to serve the industry'. Sounds familiar? I did try to find out what was the Australian equivalent of either PLASA or the ABTT and really there isn't one, but there is the Australian Artists Federation, many of whom are designers (including TV) and technicians. There is also a similar organisation called the Australian Production Design Association which serves designers specifically. The main union, the Media, Entertainment and Arts Alliance serves actors, journalists, theatre staff and the amusements industry. In terms of numbers, the Cultural Ministry estimated that 40,000 people worked in the performing arts and recording in 1990, but this figure includes performers too. Some States do not have strong representation of these organisations and some are better than others at federal links. Generally issues and agreements tend to be local, hence there does seem to be a need for a new national technicians' body.

If I seem to have paid scant attention to the hardware in this article it's because most of it is not news, yet. Strand's hold on the bigger end of the market is evident by the Galaxys which most big theatres have, or to which most smaller theatres are aspiring. Peter Marshall said: "There's really no-one else at this level". Strand's hold on the luminaire market is still quite strong with CCT still quite a way behind and it will be interesting to see if the new CCT can alter this. US equipment curiously is not strong and, although I was told some stories of voltage and lamp problems, Denis Irving denied this was an issue, pointing out that 120v lamps are popular in Parcans because they are cheaper than 240v versions. Denis's explanation was that most Australian designers were brought up on Strand.

However, Strand, CCT and Teatro are likely to have a battle on their hands as Selecon from New Zealand promote their new range of luminaires at prices lower than Europeans can

touch (see the review of the PLASA stage lighting stands in this issue). Denis did point out that the new Coemar-DeSisti low cost range was being aimed at schools in Australia and queried whether this could become a platform for growth into the professional area. I asked him about his predictions for the future and Selecon again rose to the fore. On controls he nominated the AVAB Expert, the Jands Event and the Celco Navigator as ones to watch for his continent. The one company I think we should see more of in Europe is Bytecraft, whose machinery controls, dimmers, softpatches and sundry interfaces are well on the way to dominating the Australian market.

For the final word on how the UK theatre compares to Australia I will quote Will Quekett again: "I think Londoners see the West End as oriented solely towards tourists and if they want to see the 'cutting edge' they have to rely on theatres such as the Royal Court, the Almeida or Stratford East; companies such as Cheek by Jowl and Trestle spend their whole time playing one or two night stands in regional centres. We keep hearing of the West End's problems, but the 12 million or so people who live within an hour's drive of the West End would buy a lot more tickets if the programming was changed. For example, Cheek by Jowl and Trestle play Australian theatre seasons of several weeks, each very successfully. Of course there is tremendous creativity in the UK and I recognise that Australia is a younger country and we can more easily break through traditions, but, wherever we are, we are basically retailing entertainment, and we'll only survive if we make it more accessible."

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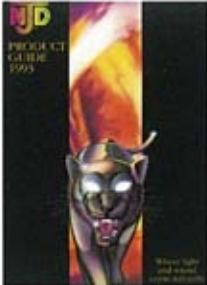
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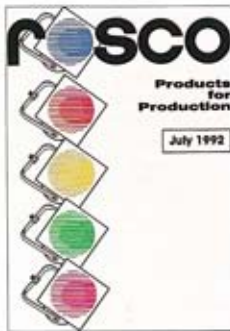
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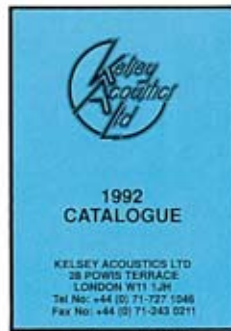
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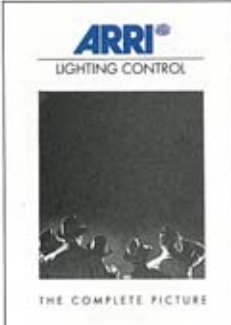
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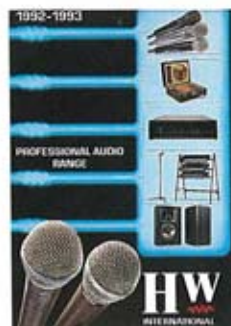
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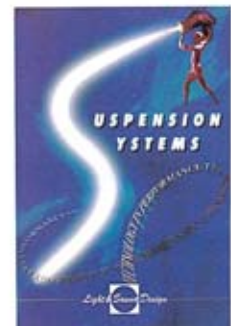
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A new style: Julian Williams charts the philosophy and design of Cliff Richard's new touring production

'Access All Areas', the new Cliff Richard tour, moves over from a hard-hitting rock style of show and takes on board the sophisticated and magic imagery of projection techniques, going for the highest degree of presentation style possible. Cliff has pushed the barriers of modern theatrical technology to the limits by combining the talents of some of the leading designers in the UK.

In this environment Cliff has all the facilities available to match the impressions of the music and songs with a visual impact, and he can successfully utilise animation to carry his presentation to enhance the meaning of his music. He believes that with this tour he has his biggest touring show along with the most up-to-date combination of media technologies as a vehicle to present it.

From 1st October Cliff embarked on a tour which lasts for a period of ten weeks, and plays in Birmingham NEC, Sheffield Arena, Glasgow SECC, Wembley Arena, Belfast and Dublin. With a repertoire of over 30 of his songs, in no less than eight, he will be performing in a heavily staged technical environment, encompassing lyric related images created from projection slides on a stage set 100 feet wide, 20 feet high and 40 feet deep.

Cliff explained to me that he wanted a

complete change from the usual visual high-tech style of rock show. He has always had a close affection for theatrical presentation and in 'Access All Areas' he is attempting to combine this with the scale of his traditional rock show. In contrast he wanted the complete rig to be masked into a proscenium closer to the style of a theatrical show, getting away from the highly 'produced' effects of lasers, arc line, moving trusses, smoke and the flashing lights of previous performances.

Having both collaborated with Cliff on the mammoth production 'The Event' at Wembley Stadium, the task of realising Cliff's new set of requirements was presented to production/tour manager Dick Parkinson and designer Mick Healey. They both looked extensively at the various technologies that would enable such a scale of production to be achieved and for it to run efficiently in a touring situation.

Projection designer Chris Slingsby from leading presentation company Imagination, was brought into the project following his highly acclaimed animation of projection images on Mike Batt's 'The Hunting of the Snark' with a view to presenting some of his own animated ideas for integrating images into the production.

Mick Healey's concept was to utilise the total

integration of projection with image effects produced from Vari*Lite's, and with custom designed gobos, and to design a large scale stage set. His set includes his own lighting design, which he then operates throughout the tour. On this occasion he collaborated on the lighting design in association with Vari*Lite designer Derek Jones.

Healey went for a clean and uncluttered look across its width, without any of the PA or lighting equipment being noticeably visible, and he wanted to create an interesting design which would integrate the use of gauze projection screens in three dimensions. The ground plan with this article shows how he has positioned the screens, which are on computer-controlled motorised rollers, to enable them to be raised and lowered to variable levels around the downstage or upstage sides of the eight raked hexagonal-shaped stages.

These stages are positioned so that they sweep around from the downstage right side, across the front, and up to the upstage area to stage right, where the band play on their own individual stage. On each of the hexagonal sides of the stages red, green and white lights are incorporated to form an illuminated trim.

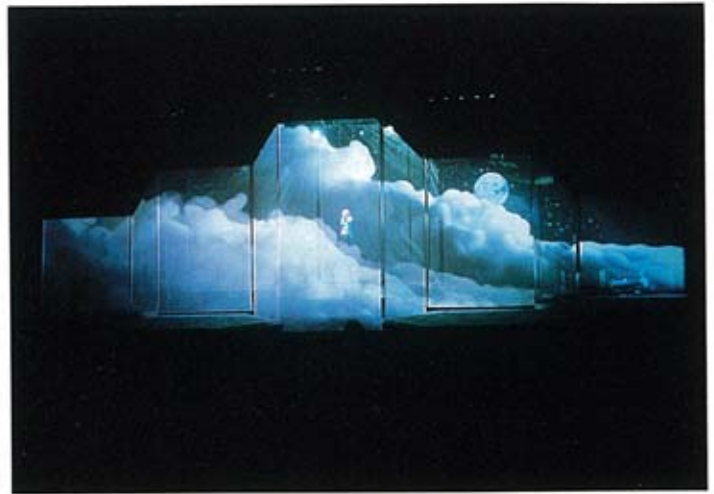
There are no less than 20 screens, ranging in



A totally new style for Cliff Richard and 'Access All Areas'.



Mick Healey's "clean and uncluttered" stage look.



Cliff in the clouds for 'Miss You Nights'.



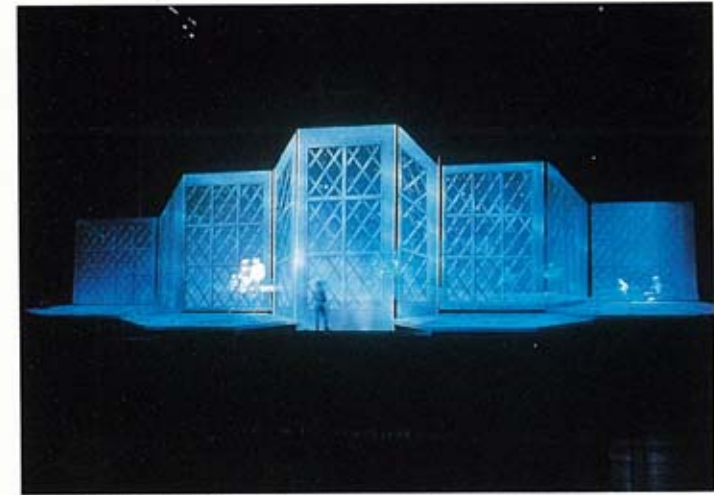
Gauze screens and projection wizardry for 'Peace in our Time'.



'Access All Areas': Cliff in close-up.



An emphasis on projection.



A seasonal look for the performance of 'Mistletoe and Wine'.

width from 7 feet to 14 feet which can form both a complete downstage and upstage gauze across the total width of the stage. They can also sectionalize each of the areas on this huge space, around the six sides of each of the hexagonal stages, to close off or reveal the band or backing vocals when required. Using this technique of 'bleed throughs' produces some of the theatrical magic. The backing of the set is completed with a reversible Venetian blind that runs the full width of the stage, and three suspended hexagonal projection screens in front of it.

The 32 ton rig is suspended from over 30 lines to lift the five trusses, situated at various heights over the stage. Located in the rig are 18 x 60 Watt Xenon projectors throwing images onto the back screens. There are also a total of 119 Vari*Lite's, which form the basis of the

lighting equipment and which are predominantly used as a pre-setting luminaire: of these there are 84 VL4 wash luminaires and 37 VL2B spot luminaires. The VL4s are positioned in rows of five in front of, and behind the screens to light them with coloured washes, with the VL2Bs providing gobo images. There are 80 Par cans on a back light bar.

At a distance of about 70 feet from the front of the stage is the front projection platform, suspended 30 feet above the audience and loaded with five 5kW and three 1kW Xenon projectors. Chris Slingsby told me: "It is pushing the capability of projection technology to project an image of adequate brightness onto a screen across the whole width of a 100 foot stage, from a distance of 70 feet. The image is projected from two projectors onto two centres on the screen."

As several projectors have to be lined up onto the same screen surface it is impractical in terms of maintaining brilliance to use a quantity of projectors as they would be so far off their own centres at this distance, and the limits on facilities are being stretched as the projectors have to be flown with the rest of the stage rig. These units are large to manipulate, and to achieve the accuracy of the projection centres for a continuously running project of 10 weeks demands ultimate precision when rigging to ensure the continuity and repeatability in each of the locations. Creating these images on a screen surface which has three dimensions requires highly accurate positioning and this has been achieved by careful planning and using keystone correcting techniques.

The on-stage projectors for the back screens run at a high temperature and being required



Lighting designer Mick Healey at the Celco 90 console.



John James, monitor engineer, setting the Roland track disc recorder.

to run each night of the tour will cause the film to suffer shrink deterioration. To solve this problem Wess Plastic Inc from the USA have been called in to make special mounts to hold the film sprockets for the slides.

The synchronisation to Cliff's performance on stage is by a new 'click-track' Roland DM80R Multi (8 track) track disc recorder sampler system, which also carried the SMPTE-

codes to the projection equipment. This is controlled by Genesis, AVL and Dove computer control systems.

Cliff's sound system has also seen some changes alongside his musical and presentation styles over the years. An unusual factor with modern rock sound has to be taken into account - to carefully project his sound taking into consideration modern volume levels whilst maintaining an original quality to the sound, at the same time avoiding any discomfort to the traditionally wide age-range of fans in his audience. He is using 36 pairs of Turbosound Flashlight TFS 780 speaker units and 20 Turbosound TMS 3 units. Most of the TFS 780 speakers are mounted above to the sides of the set in neat clusters of 18 units. There are also six pairs of these units, with four TMS 3s at stage level on each side and six units at the back on the side of the set.

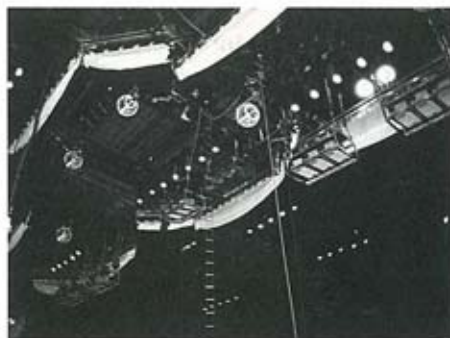
Due to the scale of the project, it has taken a month for the production to be mounted in the Docklands London Arena where Cliff has been rehearsing continuously for a period of two weeks with the designers and technicians. Cliff conceives his own ideas to start the whole process when he puts a show together. He attends most of the production meetings at the designers' offices and spends a lot of time with his technical people putting over his own specific ideas, and directs the staging himself.

He insists on a production that will give people good value and which they will go away and remember, as well as experiencing great entertainment on the night.

Additional Credits:

Visual Techniques provided the Hardware for Xenon projection system.

Samuelson Concert Productions designed and



View of the rig showing the Brilliant Stages custom-designed projector cradles.



Chris Slingsby, Cliff Richard and Mick Healey discussing cues at the lighting console.

provided the grid system.

Brilliant Stages custom designed and built the set, and supplied the computer controlled 20 x 4 metre length screens and Venetian blinds.

Specialist rigger Osi Marsh and his company Global Rigging provide the support for the heavy rig on 34 suspension lines.

Sound system provided by Britannia Row.

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A Trip to LSD

Words: Tony Gotteller Pictures: John Offord

One rainy afternoon in late September, Light and Sound Design opened their doors at Gravelly Hill to leading lights of the industry in a grand gesture. I thought we might see the launch of their driven Parcan, but lips were tightly sealed on that one. Still, if the event was intended to spread a little happiness, and do an excellent PR job at the same time, it certainly succeeded on that level.

It's a sign of the times in the industry these days that you see grey suits rubbing padded shoulders with the bomber jackets of the rock brigade; the financial in full suit with the fanciful.

So there followed a short pep talk from the Salvesen suit (respectfully, Chris Masters, the chief executive of Christian Salvesen), in which we were assured of LSD's continued commitment to grow even bigger and to rule the concert world, and just about everything else besides (aren't two vast 70,000 sq feet barns of factory and warehousing and 120 staff enough for anybody?); and to continue making all their own kit, of which there are apparently 250 different lines, in order to avoid any possible hiccups.

We were later graced with an appearance by that other ruler, your actual HMQ - the spitting image of Jeanette Charles in the flesh - for an official blessing. Her Faux Majesty asked: "Why should the Queen of the realm be standing beneath Spaghetti Junction talking to complete strangers?" The rhetorical answer: "We are here to celebrate a success story, the triumph of hard work over the adversity of being born with a strange regional accent, which does not necessarily mean you work the night shift at Leyland Daf!"

I was dying to point out that down in Beebeeceland, where the majority don't speak

the Queen's English either, their premises would almost certainly be known as 'gravely ill'. And, in a hot exclusive L+SI can reveal that the Queen herself cannot pronounce pate as in her son's famous bald spot, referring instead to 'patay' as in the fois gras variety which conjures up an image worthy of a cartoon.

LSD's future was secured by Simon Austin, who apparently had an obsession for lunching with everyone before he was 40 years old. As you may imagine, massive growth on all fronts followed. He never took me to lunch, I hasten to point out, so I made up for it when the buffet arrived.

Mind you, they also had a few product ideas and a lucky cat called James Thomas. (Graham please don't sue us, sue them; they can afford it, I'm told. As tin Lizzie informed the assembled company, they sold out to Salvesens "in an absolute whale of a deal" at the beginning of '92.)

On declaring the facility open, Her Royal Highness declared: "May God bless her and all who weld in her," a reference to the Total Fabrications alloy truss plant therein. There followed a tour of the acres, and very impressive it was too.

Earlier in her prepared statement La Reine had patronised the boys with "in the past few difficult months, when it seems that Britain's manufacturing base has shrunk to the size of a tabloid editors' scruples, it is heartening to find in the dark days of recession a company still manufacturing a light at the end of the tunnel."

Ain't that the truth?

Yup, the boys done good after only 15 years in a high risk business, and deserve all the plaudits. But can somebody tell me what patchouli oil is? And can I put it in a smoke machine? Answers on a postcard please. The prize for first correct answer? You guessed! Lunch with Simon Austin.



Chris Masters welcomes Her Majesty to Gravelly Hill.



The Royal Address, Gravelly Hill.



The Royal photocall: Light & Sound Design directors Nick Jackson, Steve Dawkes, Simon Austin and Terry Lee with HMQ.



Frank Ebeling (left) of Media Design of Hanover, Germany with Steve Dawkes and Nick Jackson.



A whistle-stop factory tour. The royal visitor was escorted by Steve Dawkes and Chris Masters, chief executive of Christian Salvesen.



An emotional moment and a last chance for pictures: the paparazzi close in before HM leaves for afternoon tea.



John Revill of Central Television with Dermot O'Riordan of RTE, Eire.



LSD's Chris Cronin with Charlie Kail of Brilliant Stages.



Brothers in arms: L+SI's Tony Gottelier with Brian Croft of Vari-Lite.



Freddy LLOYD of Zero 88 with Chris Masters of Christian Salvesen.



LSD's Terry Lee and Gordon Tourlemain of Christian Salvesen with LD Paul Dexter.



A television lighting trio of Michael Samuelson, Robert Byde and John Watt.



Peter Johns (LSD) with A C Lighting's Nic Tolkien.



Peter Clarke of Central Television and Robert Atkins of Specialist Theatre.



Chris Cronin (left) sets out to inspire his factory tour group.



A superior look-down from LSD's Dave Smith and Simon Austin for the L+S1 staff photographer. TP's Alan Thomson looks suitably bemused.



Jean-Luc Michaud of Alien Products with lighting designer Durham Marengi.



Michael Woollard of Mister Lighting with LSD's Peter Boott.



David Leggett of A C Lighting with consultant Brian Fitt.



John Hockley (second from left) leads a factory tour group.



Still smiling: Jean-Luc Michaud with Peter Johns and John Lethbridge of Cerebrum.



Graham Franklin and Howard Dean of Keylight.



Kevin Forbes and Simon Austin with Adam Wildi of Unusual Rigging.



Paul Butler (Mushroom Lighting), John Simpson (White Light), Freddy Lloyd (Zero 88).



Tony Gottelier (L+S), Garry Nelsson (Lighting Technology) and Ian Brown (Coe-Tech).



Bill Summers of Playlight with Peter Boott.



L+S's camera catches Bryan Raven of White Light looking cool and Mushroom Lighting's Andy Slevin with a mouthful.



Desperate for another drink, Her Majesty tips the waiter.



Peter Johns (again!) with Heather Penn.



Ouch! Wigwam's Mike Spratt tries to steal the Royal ring.

Richard Pilbrow's Day at the Royal National Theatre

On 24th September at The Royal National Theatre in London, I was proud to co-host with Richard Pilbrow (Theatre Projects Consultants) and Alan Thomson (Theatre Projects Services Ltd) a very special party to celebrate the 35th anniversary of Theatre Projects.

Today two separately owned companies, Theatre Projects Consultants and Theatre Projects Services are leaders in their respective fields. They have had a revolutionary impact upon stage lighting, sound and theatre design in Britain and around the world.

During the 1960's and 70's Theatre Projects literally changed the face of stage lighting and sound when a host of design and technical innovations were accompanied by a team of designers, many of whom went on to establish international careers. These include Robert Ornbo, John B. Read, Bob Bryan, David Hersey, Andrew Bridge, Nick Chelton and Benny Ball.

In 1983 Theatre Projects Services Ltd (a company including the lighting, sound and audio-visual services and rental divisions of Theatre Projects) was purchased by the Samuelson Group and in 1988 a management buy-out by partners in Theatre Projects Consultants reconstituted that company as an independent activity and today has offices in London, Connecticut, Los Angeles and Toronto. The company has been responsible for over 500 projects in 35 countries around the world.

As our picture parade shows, most of the big names, past and present, that have had a connection with 'TP', gathered at the Royal National for the occasion, many having travelled thousands of miles or seriously reorganised their diary dates to ensure they were 'there' on the night.

John Offord

Photos: Bill Cousins and Ruth Rossington

Our November issue will carry a major feature on the work, past and present, of all aspects of the Theatre Projects companies, including articles and comment from many well-known names in the industry.



Early TP powerhouse: David Collison, Robert Ornbo and Richard Pilbrow.



Richard Pilbrow with Sheridan Morley.



The Olivier Stalls Foyer at the Royal National Theatre with the Theatre Projects celebration in full swing.



LD line-up: Simon Bruxner-Randall, David Hersey, Bob Bryan, Andrew Bridge, Richard Pilbrow, Robert Ornbo, Durham Marengi, Simon Tapping, John Harrison and John B Read.



Tony Corbett, Don Hindle, Fred Bentham.



Debbie Cossington, David Staples, Vanessa Gray, Paul Jenkins.



George Ellerington and John Whitaker.



Brian Ridley, David Hersey, Bryan Raven, Anne Bryan, Bob Bryan.



John B. Read and Tony Horder.



Brian Croft and Anthony Field.



Robert Ormbo, Alan Jacobi, Anna Pillow, Molly Pilbrow, Ken Miller.



Abigail Pilbrow and Richard Pilbrow.



Howard Eaton and Andy Bridge.



Philip Talbot and David Pelham.



Mary and Laurie Blackmore with David Collison.



David Staples, Chris Cooper, Gavin Henderson, Nicholas Thompson.



Lou Fleming, Ken Miller, Bill Cousins.



Celebration hosts: John Offord, Alan Thomson and Richard Pilbrow.



Tony Horder, Bob Stanton, David Chivers, Richard Pilbrow.



Alan Russell with Paul Jenkins.



Bob Bryan, Howard Eaton and Alan Jacobi.



Jason Barnes, Bob Anderson.



Simon Bruxner-Randall, David Taylor, Chris Watts, Alistair Grant.



Robert Ornbo, Roger Norwood, John Del Nero, Tony Horder.



Fred Bentham, Claire Thompson, Nick Thompson, David Hersey.



David Collison and Duncan Webb.



Janice Williams, Mark Walters, John Del Nero.



Don Hindle, Richard Pilbrow, Rosemary Hindle.



Madeleine Cooper and Brian Croft.



Iain Mackintosh, Peter Copley.



Pamela Hay and John Harrison.



Tony Gottelier, John Offord, Julian Williams.



Graham Walne and Bob Anderson.



David Hersey and Richard Brett.



John Whitaker, John Pilcher, Liz Lomas, Philip Ingram.

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ON TOUR

Catriona Forcer

Marillion

Wembley Arena

LD: Alan Parker

Sound: Chris Hedge

Marillion is the first major band for which Alan Parker has designed the lighting, and at Wembley Arena beginners luck wasn't with him - things were not going well. There had been problems with the Wembley roof - the motors operating the grid seized up and so the grid couldn't be erected. A rigging company then had to be brought in to provide the extra motors needed before Alan could even think about flying his own rig. The result was a delay of three hours and a substantially reduced programming time. Surprisingly, he viewed it all with the air of a man who'd travelled these paths before, and was calmly programming right up until doors. For those in the audience it didn't matter, for the show was excellent.

No doubt his many years in the business have helped. After a short spell at Samuelsons, Alan worked at Meteorlites for four years, before going solo as a freelancer.

"Meteorlites supplied all the equipment for this tour and have given excellent backing," he explained. "The design for the show had to have its foundation in quick programming because of the time scale involved. There was one production day for these shows which was actually a show day with a smaller rig in Cologne. The idea was that I should install the entire system and programme, but, as it happens, it didn't turn out that way! I programmed most of the show blind in the warehouse as I had the desk a week beforehand.

"I find the band don't like to be lit when they're playing. As a result I set up a lot of cues and try to work every song with those because it's very important to me to try to light the parts that need lighting. I try to pick things out as they happen so that often parts of the stage are in shadow. I have a number of single channels on the board that I can pull up quickly if necessary. Generally, I use a lot of the big washes, 4k circuits, which speed up the process for me. I like to use ellipsoidals for their look, and I find Cadenzas, Cantatas - profile spotlights - give a



Marillion at Wembley Arena.

very nice beam edge coupled with a Par lamp. We have some drapes including a star cloth which is used in the last song of the set."

The band have a fair amount of input and lead singer Steve Hogarth always takes an interest in the overall look of the show. The rig contains approaching 300 Pars, seven 8-lites, some groundrows, four Cadenzas and four bars of ACLs. Control is provided by the Avolites QM500 which Alan favours because he finds it easy to programme.

"I wanted to be able to see lamp source sometimes," explained Alan. "I also liked the idea of different level spotlights as well. I like truss spotlights and I think they make the show. The look is so much tidier than with front of house spotlights as long as you can get decent operators. I'm using six HTI 400s and, as long as my cue calling is on time, they make the show look more polished."

The first part of the Marillion 'Holidays in Eden' tour was designed by Paul Devine and Alan took over in the USA about a year ago. Although Alan has worked with Paul Devine on many different tours, he never actually saw his show. As the tour has been quite sporadic, he has filled the gaps with other work including

a tour with Crowded House, and design for a few fashion shows. He enjoys the mix, and, true to the old adage, quotes variety as the spice of life.

After the UK shows, Alan travelled to South America with Marillion where they are playing 12,000 seat arenas. "It's always fun going into a house system where you want to put on a big show. After that I hope to work on the ski show. I'd love to do some more design work especially for someone like Jellyfish or The Spent Poets who hail from Los Angeles. I love the bands of the seventies and early eighties. Rock was big then and a lot of the bands were doing two or three nights in the Odeons and Gaumonts. Those theatres were putting on productions that everyone was competing with. I remember it being different. I go to shows these days and I'm not always inspired by what I see - some of them have been dreadful. I was a big fan of Living Colour but their lights seemed to lack something and should have been better. Recently I saw David Byrne, and the whole show was excellent."

Sound engineer Chris 'privet' Hedge has worked with Marillion for many years, and in between has notched up Live Aid, Gary Moore



Marillion sound engineer Chris Hedge pictured (above), and lighting designer Alan Parker on the Avolites console (right).



More Marillion.

and Status Quo. "Heavy metal just doesn't do it for me anymore," he told me. "There's no point in suffering for your art; I think I'd rather design for David Essex over Black Sabbath any day. Marillion are quite loud but they're powerful and they're really fun to mix because they've got so much dynamic in the music."

"Britannia Row supplied all the sound equipment for the tour. I'm using a PM3000

front of house desk with a Soundcraft 800B for effects returns. The actual speaker end is the fairly new Turbosound Flashlight system which is possibly the greatest thing since sliced bread. We've done some horrible rooms and it just seems to make a mockery of the acoustics. It seems clear and accurate in pretty much all frequencies in rooms where you wouldn't expect it to happen.

Jesus Christ Superstar Australia

Jesus Christ Superstar - the concert version, is breaking all kinds of records in Australia as you read this. The show is running in arenas in each capital city - the largest venues in the land, and has now been planned through to December, with a staggering 80 performances tentatively scheduled. The brainchild of veteran Australian promoter Harry M. Miller, Superstar originally looked like running about 12 shows, and was budgeted accordingly.

Harry M. Miller originally staged Superstar in Australia in the 1970s before retiring from show business. This new version marks an incredible comeback for Miller, who has teamed with promoters Garry Van Egmond, and International Management Group for Superstar.

Anyone familiar with an Australian tour will shake their head in wonderment, as the average international tour will transit this 18 million population continent in about three to four weeks, and sell six to 15 nights in the very same arenas Superstar is packing. Superstar is selling at about \$40 a seat, the same charge as an international tour.

The show is designed in-the-round, with a set that has the band playing at floor level centre, with a raised circular walkway surrounding them. The walkway is motorised, which caused some teething problems, and has four entrances, thus symbolising a cross. With audience seating right up to the extremities of the set, the technical challenge was to get all the PA in the air without subwoofers. Then the producers decided the whole cast would wear wireless microphones, so perhaps for the first time in the

world, 32 channels of wireless are used every night in every venue.

It's a massive show that is selling entirely on the strengths of the 100% Australian cast, led by John Farnham, Kate Cebrano and John Stevens. The score has been re-arranged with 1990's appeal by Australian David Hirschfelder, and all production equipment is supplied by Australian companies; all but one crew member are also home grown.

Lighting

Peggy Eiesenhauer is the lighting designer for Jesus Christ Superstar. As soon as the show opened in August, she departed the country, the job having been completed, and the critics suitable impressed. The lighting crew now ensure the design is faithfully replicated. In pre-production, Peggy established the cues and much of the 'look' of the show from her design, working with the local crew who were given plenty of input.

According to Vari*Lite operator Paul Kent:

"We've got two different crossovers; one system is base end and high end which is to cover the sides and the main system is all high end flown and base end coupled together on the floor with a few small infills. On the bass drums we're using RE20 mics, SM57 on the snare, Ramsa S5s on the rack toms, 421s on the floors and all the overhead mics are AKG 414s. We've got a Nady radio station with a SM58 on for the lead singer, SM57s on guitars and everything else is basically DI'd (direction injection). In the front of house we've got BSS Graphic EQs and the Turbosound time-aligned crossover for use with the Flashlight, a DN60 analyser and assorted reverbs and toys."

We're recording the show, which is basically just a mix of the left and right of the board, with two 414s in the audience onto DAT. It's yielded some pretty impressive results. We'll probably sell it to the BBC because they're recording it tonight! The desk that we've got isn't the one that I'd love to use as I'm a bit more of a Soundcraft chap. But then the old Series 4s are quite hard to get hold of now as people don't tend to use them quite so much."

Marillion own a rehearsal/recording studio in Buckinghamshire where, with Chris, they do B-sides and remixes. Chris has been trying to get more into the studio side of sound and finds Marillion's studio handy for polishing techniques. "I also get to go home now and again! I do love working gigs because there really is nothing like big piles of speakers to send shivers down your spine."

"Peggy would say 'well, this is the feeling I want, so create a chase, but please don't use these lamps because I'm using them elsewhere'. She would give us projects and then come back to us. She knew where she was going, it was interesting working with her, she's very clever - flowing all the time."

11 long days of production rehearsals taxed the lighting crew. "It was the hardest run I've done," said Paul. "Everybody was working flat-out hours." Jands Production Services are the lighting contractor, and also proposed the crew eventually selected by Peggy. "Once I gave her my own numbering of the system," said Paul Kent, describing how Peggy Eiesenhauer works, "she was very mathematical. Peggy would identify the group, the fixture and just tell us what she wanted - very organised. The programming ran really clearly."

Peggy has used Vari*Lite before, and everyone has different tricks and ways of going about running them. She sussed me out in the beginning and once she was confident, she let me go for it. Her associate sat with Greg on the conventional board, and she worked with me. They had a game plan, so we got to it a lot quicker. It was better than I expected."

Superstar is heavily reliant on Vari*Lite with 74 Vari*Lite 2B fixtures, and 24 Vari*Lite 4s - 98 fixtures all up. "This would be the largest Vari*Lite show I've worked on," Paul says. 345 cues are called, which if you add chases takes the cue count to 500 plus.

"It's a pretty easy show to operate, many of the cues we take off the music - it's pretty cruisey actually." This is once it is in the air, of course.

The lighting crew is made up of Paul as LD with Greg Yates operating the ETC Expression console that drives the



The Australian concert version of Jesus Christ Superstar is breaking all the records.



Clockwise from bottom left: John Vasey, Paul Kent and Sal; Chris Doyle and Tony Moffat; David Morgan; Warren Perryman and finally Simon Ambrose.

conventional (non Vari*Lite) fixtures. Garry Chamberlain is the lighting crew chief, and he also calls the six Lycian followspots, which are up in the grid, hung on chairs. Matt Wood and Jason Frupp are on the lighting crew and also work two of the followspots, while Kylie Morris is in charge of dimmer land during the show. Michael Kent runs the Skonjberg 'smarts' for the chain motor lowered Vari*Lite ring, and Nick Elvin is a Vari*Lite tech.

Sound

Superstar is a show performed in the round, so like all shows in this situation, the speaker system must cover 360 degrees. Unlike most other shows in the round, however, the speaker cables do not drop to amplifiers under the stage. That's because there is no stage as such, the raised set-in-the-round has the band in the middle, down at floor level and what it raised already has enough under it - certainly there is no room for 26 amp racks!

Every speaker lead is very very long - 300' in fact, in order to run the length and breadth of the mother grid, plus have 40' or so spare at the speaker box end, to allow the speaker boxes to be flown in and out while the grid is raised. "A couple of the runs might have made it as 200' runs, but in Melbourne they wouldn't have," said Jands system engineer Wyn Milson. "There's over two tonnes of speaker cables, for 60S4s and 16 DLPs." Two DLPs are hung under each S4 cluster, pointing down as front fill for the audience.

"We didn't have to make any speaker leads either, they were all in stock at Jands," said Wyn. What about the amps handling the run then? "Well, we haven't run that length of speaker cable before, it's a pretty rare occurrence. The conductors are 20 - 30 amps, so the loss is minimised, but I think we are losing a bit more than 4dB. Less of a loss than heavy EQ for example."

The amplifiers used for Superstar are all Phase Linear 700s being the most powerful amps that Jands Production Services have in quantity. The SR-3000 is not yet available in the quantity needed for this job. "The cable is adding impedance to the amplifiers, the reactive load can have strange effects too," explained Wyn.

"When they first told me there was no place to hide the amplifiers in the stage, I was a little freaked," said sound designer and house engineer David Morgan. I figured the longest run might be 250'. I'd never done anything with a run longer than about 100'. I thought I'd lose extremes of frequency with long runs; that was

my fear, which turned out to be irrational.

"It's like clothes, if you wait long enough, nothing really goes out of fashion! All of a sudden those wide lapels are back, so is the Phase 700. It shows you it was a good design, because it's doing it! I didn't want to start trying to figure out the capacitance being added, or the extra impedance, because then I'd try compensating for it in my mind. You try it, and see if it sounds any good!

"The show does have little identity problems in respect of whether it's an opera or a rock concert. I'm peaking at 102dB - that's C-weighted with the bottom end in it - with Paul Simon I peaked out at 105dB! This is a quiet show folks! In rehearsals we had to ask the band to turn down. When you're used to playing in a proscenium with monitors facing you and away from the audience, and your up high above their heads, you can be as loud as you want to be, basically. We spent the first week of performances searching for our compatibility," which is diplomatic speak for saying the band were too loud.

"In a proscenium, with the PA arrayed each side, you have a nice, coherent wave form travelling down the room. This is a whole new ball-game. I knew this job was dangerous when I took it," David asserted, adding that he didn't think every wireless mic in the show would work together before he started.

"The week of rehearsal in the Government Pavilion didn't work for sound, it was so damn cold, and the last three days I had to turn the speakers off because of the residents complaining. From a sound point of view the building was just awful.

"The week we opened the show in Sydney was really the rehearsal for us, it's the way things worked out. The preview in Sydney is where I was trying to find out how much gain I could get from each person before feedback! A lot of the show is downstage of the PA!

"I designed the show specifically for S4s. It's probably the only box that could do this, you can't use subwoofers for this show. I used Maryland Sound for round shows with Whitney, but that was because you could fly the bottom end. Every part of the arena is covered; Jands did a good job putting this system together - I couldn't be happier. Well, if I had Series II boxes maybe . . ."

The system has Clair Brothers' latest system drive electronics and is run mono with a left and right feed to alternate stacks of S-4s. This is because they are in groups of six and nine, so the six packs are EQ'd a little differently to the nine packs. The 16 DLP wedges used for

frontfill are crossed over with a JBL 522 crossover. "Off the shelf, it sounds fine. JBL's filter designs are real good, they've been at it a long time," says David.

"In kick I use a D112 and an SM-91, it's really great. It's a quarter sphere boundary mic, the EQ they built into it for conference work turned out perfect for kick drum. The low-mid EQ you usually take out I can leave in. Below 200Hz I use the D112. For hi-hats I'm using SM-98s, SM-81s for underheads (rather than overheads) 98s for toms, and an SM 57 for snare with a Beyer 201 underneath. The guitar amps are miked with SM 57s. I couldn't get Beta 57s, there's a couple of percussion items I'd use them on, drums that don't have an awful lot of low frequency in them Beta 57 work really well on. I used five or six of them on Paul Simon, it's a real uncoloured microphone. You don't use the Beta 57 for the same things you use an SM57 for; it's not an interchangeable thing like it is with the SM 58 and the Beta 58.

"The Beta 58 works better out on front of the PA. It's a much tighter pattern, the SM 58 goes omni a lot higher. It is essential to have a hypercardioid microphone with strong off axis rejection here; we get good isolation from the PA." Thus, every handheld wireless mic has a Beta 58 head. "Shure make a good rugged road product - you have to look at what we're all doing out here!"

Lasers

Harry M Miller called me on Saturday and asked if we could load into the Sydney Entertainment Centre the next morning at 8am. "Harry wasn't being slack booking a laser company for his production of Superstar, because he already had one - and it wasn't happening." Richard Skarzynski, a director of Total Concept productions, is telling me about his surprise call to arms, a call that came well after Total Concept had been outbid for the lucrative Superstar contract. Outbid it seems, but at the last minute Total Concept were back on board and "I'll be in tomorrow night to see it working - it's your reputation," said Harry - a typical understatement.

T.C.P. as they're known, were once something of an infant terrible of the concert production industry, but today they are without doubt serious purveyors of laser technology. "The guys on Superstar were trying to run the laser into the grid with fibre optics," Richard said, adding that a 20 watt laser can burn a hole in a brick, and easily melt fibre optics if the task is approached wrongly. Fibre optics can be used successfully, vis a vis Def Leppard

in-the-round but this was not to be for Superstar. By the time the T.C.P. crew were called in the 20 watt laser position was on the floor, under the catwalk, with the beam to project up into the grid, and be mirrored back down to the target point.

Senior laser technician Phil Greaves was installed on the Superstar tour, and joined later by John Mimlich, on his first major tour and another T.C.P. operative pressed into service. Safety is a major issue with Phil, who carries the company's interests at heart, and probably doesn't want to appear in court charged with drilling out the eyes of a major star. The T.C.P. guys, it seems, are on the job when it comes to lasers.

Wireless Microphones

Is 32 channels a world first? "If anyone had told me six months ago I'd be doing a show with 32 wireless mic channels, I'd have said 'hey - you're full of nonsense'. Well, Chris and Tony have done a great job, they (the 32 wireless channels) all work at least 98% of the time!" This is Superstar sound engineer and designer David Morgan, explaining the impossible. "I figured we could get 26 - 27 channels, like they did with Starlight Express, but even they had troubles. I figured if we had most of the chorus on, we'd be OK, but we're ahead of the game! Sometimes, it gets a little grainy on some channels - but it works!"

Chris Doyle from Pamit Services is in charge of the system, made up of 18 channels of Sony meg and 14 channels of Shure LA-4 VHF - and all used together!

Radio mic sound engineer Tony Moffat explains: "We generally get 27 or 28 clean channels in each city, it depends on what's around and if the venue uses any internal communication system inside. Our rider enables us to take control and shut them down, but they may still have to use some two way communication. When you run 32 frequencies simultaneously it's not the base frequency that causes problems, it's the harmonics of 32 together, plus any 400 meg or 147 meg 2 way communications. Sometimes, we have minor problems with the finale, where everybody is out together, the rest of the time we get 28 channels working together. There's a priority system of how the frequencies are allocated, generally we've never been in a situation yet where we've lost a line totally.

In Melbourne there was one problem frequency during the Last Supper scene, where the boys all sit down together on the revolve and it's all metal. In rehearsals we had a lot of interference, which we cured by grounding the stage. Because it's on rubber wheels we needed to earth it, and this cleared up a lot of problems. My gig is to listen in to all radio mics individually, like the frequency police!

"The headset mics are Countryman mics, the capsules are pre-equalised to be off to the side of the mouth, pointing across the face. Some of the chorus initially thought they had to have the mic around the front of them, which caused problems until we went and saw what they were doing. If you put them in the right place they're actually the most natural sounding mic I've heard, and the gain before feedback is quite amazing.

"What we're doing is technically impossible. All the computer programmes say it can't be done. Because it's a chorus show we can get away with it, we couldn't do it for a show like Phantom of the Opera, for example. Murray (Tregonning from Pamit) packaged all this in a tight time frame; Countryman had the mics out to him from the states in no time at all. Second to AS10, Murray owns more Sony wireless than anyone else!

"These new Shure's (the L4 wireless system)

THE SET-UP - HOUR BY HOUR

3AM: Technical manager John Vasey arrives at Sydney's Entertainment Centre, 23 hours after he has seen the last truck off from Melbourne. Now he arranges the trucks - 11 of them, in order of unloading.

4AM: Michael Kent is present at the 4am rigging call, to over see the assembly of the trussing - and what a load of trussing it is! 12 loaders first rolled in the 49 chain motor cases, from which the eight riggers then connected each motor to the roof of the venue. This is done by dropping a rope, onto which each chain motor's chain is hooked, the chain is then free to be pulled up to the rigging point while the motor remains down on the ground. Once power is hooked up to the motor, it can then climb up the chain, depositing the chain into a sack attached to the motor.

6AM: Each point was pre-painted on the venue floor, so the rigger simply had to look down 100' or so, and sling a point over the nearest grid beam. More typically, the rigging point would be between beams, so a bridle point would be made up, which entails some mathematics that those with a rigging ticket are familiar with. While 49 chain motors are rigged, the mother grid is assembled on the floor. This grid carries the cabling and supports the actual lighting trusses, fashioned in the shape of a giant star. Before the mother grid can be raised, a small round grid is flown above it, with eight 5k fresnels, barndoors, coloured sky blue. This 'ring of light', used to light the set before the show and in interval and casts an eerie, shadowed glow through the mother grid and the star truss. It is the lighting call, so the crew are joined by another 12 loaders; who work with them until the rig is airborne.

7AM: The mother truss is assembled and connected to its chain motors. The lighting crew oversee cabling, an enormous task that must be done in sequence. First, the audio crew run their speaker cables, because the speaker system is flown, naturally, but unlike other shows, the speaker cables are not dropped down to the amplifiers, rather they are run all the way to the end of the grid, with every other bit of cable. Tonnes of looms are extracted from cases, a daisy chain of loaders running each loom to its destination, called by crew chief Garry Chamberlain. This process is repeated so many times I lose count! Production manager Warren Perryman arrives.

8AM: The cabling is now a massive bunch of looms, each one run off the end of the mother grid to a neatly coiled pile. The 'pile collection' occupying a substantial lump of real estate.

8.10AM: The mother grid is raised two metres, enabling the star truss to be assembled on the floor below. The laser crew move in with their mirrors, while the star is built. The sound crew have arrived, as have their 24 loaders and two fork-lifts. They start unloading a couple of semi's outside, and set-up the FOH desks and effects racks.

9AM: S4s are connected to 'bumpers', bars that they are flown on beneath two chain motors. They are grouped in alternates 6 and 9 boxes, a total of 60 are flown in eight groups. Mats Frankl, Matt White and Anthony Hayes supervise this process, which takes two hours in total. The set crew arrive and start assembling the set, which is unloaded from three trucks outside. It is still several hours until they can move it into the venue, as the lighting grid is still lowered. Tour director Garry Craft arrives.

9.30AM: The front of house sound consoles are patched. Wyn Milson and David Morgan have connected multicores, inserted patch looms, and powered up the two PM3000s and 16 channel submixer.

10AM: The amp racks are patched, while Tony Moffat assists Chris Doyle with the wireless mic set-up. The laser crew can do no more until the set is in place, as their laser will sit under the walkway. Jands Production Services boss Eric Robinson arrives to check all is well - so far he has appeared at every load in around the country. The last truck departs, empty.

11AM: The round carpet of the inside of the set is positioned beneath the grid. Bob Daniels supervises positioning of wedges onto the carpet. His foldback racks are set-up on trolleys out of the way, ready to be rolled into position. Sections of the set are assembled at the far end of the auditorium, ready for positioning. Phillippe Dubois, Toby Pitts and Jeff Prior contemplate making the revolving walkway work again. Salken Engineering's Sal is on hand in case he is needed. Sal got the revolving walkway to revolve in pre-production. Gary Radbourne, Michael Costa, Barry Woods and Ross Clunes who have been on the job since 9am start moving their respective backline into place.

12 MIDDAY: The chairs are hung beneath the grid, each with a followspot rigged in front, all fixtures are in place. "Moving!" yells Simon Ambrose as the grid is raised.

2PM: The set is almost built down at ground level, where much adjustment is done to the motorised walkway and hydraulic lift - used for the Crucifixion, as this will raise (as opposed to propel) star Farnham, careful adjustment is the order of the day!

3PM: It is now blackout time, the lighting crew focus, while work continues everywhere else by feel. Water is connected by hose to the 20 watt laser, which drinks six gallons a minute. The hose runs from a backstage toilet!

5PM: Foldback is tuned and the backline is miked, the lighting rig is focused, the laser is tested again, the soundcheck is about to start, so the band arrive and tune.

6PM: Soundcheck allows each principal about 15 minutes, they deliver a subdued performance of whichever number they choose, then depart for the next. John Stevens is first, Kate Cebrano last.

7.15PM: Doors open, showtime is at 8pm, the Entertainment Centre ushers work hard at seating the audience - every seat is occupied. Normally, if this were a rock show, the audience would wander in during the support act, but because this is Superstar, they must have the whole 12,000 odd souls in place by 8pm - or wait until a suitable break in the performance!

7.45PM: The crew take their places. Sound engineer David Morgan at one PM3000, Wyn Milson and Tony Moffat at the other. Milson will submix the chorus, while Moffat will supervise each wireless mic feed. Chris Doyle is backstage, checking the cast have correct wireless transmitters, and that each microphone is either placed properly, or ready. Every battery has been changed.

8.10PM: Stage manager Mik Auckland reaches for the houselight dimmer, while his assistant Miles Miller is backstage ready to cue the performers.

The show starts. Show number 28, Saturday September 5th, one month into a record run that will end who knows when.

are particularly good; we're very impressed with the RF and the range from them. The VHF, which are the Shure systems, we are having no trouble at all with. The 900 meg Sony system we are running 18 channels - Sony say 14 is

tops! Frequency wise, the Shure LA-4s are all used together."

Julius Grafton
Julius Grafton is editor of the, Australian magazine Channels.

PULSAR PUSH PMX INTO THE OPEN

John Offord in round-table discussion with
Paul Mardon and Ken Sewell

Always independently minded, confident of their own decisions, and capable of leaving market and other natural forces to carry on doing much of the work for them, aside from the occasional nudge to keep things square on the track, I forecast that the industry will see an ever more obvious 'coming out' by Ken Sewell and Paul Mardon of Pulsar of Cambridge as they push their already strong company to ever greater status within the industry. Couple with this the high level of joint operation with leading Italian manufacturer Clay Paky in an increasing number of market places across the world, and the scene is set for some very interesting activity over the next few years.

One way of keeping an edge over the competition is to offer different, and hopefully better and expanded options, and Pulsar have decided, to a carefully measured degree, to go their own way on control protocols.

Ken Sewell explained: "DMX protocol, in its way, is somewhat limited for what we want to achieve and doesn't really provide for very great expansion. We have therefore developed PMX (Pulsar MultipleX) alongside this to give us a means of coping with much larger lighting systems which can talk intelligently to each other.

"However, we are keen on 'open' systems which allow interconnection of our products with anybody else's and in the future we would like all our products to continue to be interconnectable to recognised industry standards. We're not going to turn our backs on recognised standards, but we do feel that current standards rather limit expansion and what we are trying to do so we are providing PMX alongside as a means of getting more out of our own products."

Paul Mardon presented Pulsar's technical philosophy into a DMX versus PMX situation. "Although DMX512 is a USITT standard and widely used, extra costs are involved. As the baud rate is so high (250k baud) and all the data has to be transmitted all the time, it normally demands an extra micro and associated circuitry dedicated to its transmission or reception. Also, the high baud rate, together with the long cable runs found in today's installations mean that reflections from the end of the line can corrupt the outgoing signal. To

reduce this effect it is essential to terminate the end of the line with a 100 ohm resistor between signal+ and signal-. Unfortunately this does not always completely solve the problem, which manifests itself as a jerky, erratic response by units around the middle of the DMX line, as they discard corrupt data frames.

"There are further disadvantages with DMX. No branching is allowed as this changes the line impedance and creates more reflections from the extra ends, which produce the data corruption I mentioned earlier. Furthermore, the DMX protocol limits the resolution to 8 bits and nor does it allow for the transmission of data other than channel levels.

"With Pulsar Multiplex we have the disadvantage that it is not a USITT standard, and, theoretically, beyond 200 channels, with many levels changing at once, the lower baud rate of PMX would begin to produce jerky movements and fades. However, this has never been seen in any of our lightshows using Pulsar 108 channel Masterpiece control boards.

"On the plus side we have the advantage of no cost overhead as the PMX baud rate is practical (9600) and only the data changes need to be sent so the product's main micro is able to transmit or receive PMX and perform all its other tasks simultaneously. Following on, data corruption is not a problem as the lower baud rate means that even with the long cable runs found in today's installations there are no problems due to reflections from the end of the line. Termination of the line is therefore not needed and branching is allowed. PMX allows up to 14 bit resolution should it ever be needed.

"Other data can be sent conveniently by PMX. For example, we are using it to send key presses, slider moves, ASCII characters, page changes and the blackout command mixed in with the normal channel level information. Another big advantage is that PMX can be generated by any IBM or other computer and a number of people have produced their own software to drive Pulsar and Clay Paky products."

Pulsar's historical approach to their products has always been pragmatic and they haven't put mountains in their path and set out to climb them for the sheer fun of it. As needs have expanded, a building block approach has been adopted.

"I consider it bad engineering practice to entrust 512 channels to just one cable and one controller," continued Paul Mardon. "We are operating in a professional market where, although rare, if they do occur, breakdowns can cost a fortune. Our strategy is to use a number of 108 channel modules (Pulsar Masterpieces) to suit the size of installation. Failure of one module should not then spell disaster."

There is more typical Pulsar pragmatism when it comes to their PMX standard. "Although the specification of the Pulsar Multiplex protocol is available," said Paul Mardon, "I am not recommending that it becomes a 'standard' because I must be free to add or improve features whenever I choose, all along maintaining compatibility with existing products. DMX capability will be maintained wherever possible on Pulsar and Clay Paky equipment.

"At one stage people were looking seriously at SMX because they needed to. We were

beginning to get to the stage where we were wanting to transmit more data than just the channel levels. But SMX is a very heavy protocol; it's far more expensive engineering than even DMX is. What we are looking at is far less expensive but able to do the same job."

Ken Sewell: "It may seem a rather irrelevant argument when you start arguing about protocols, but from our point of view it's important because it affects the development of new generations of our products - it's fundamental as to how we are going to achieve solutions to our customers' problems and needs. We have to look ahead for ten or even 20 years."

Having visited Pulsar's demonstration studio and already witnessed a spectacular and tightly cued rehearsal run of the light show programmed for their stand at the PLASA Light & Sound Show at Earls Court, Ken Sewell went deeper into Pulsar's policy on lighting control.

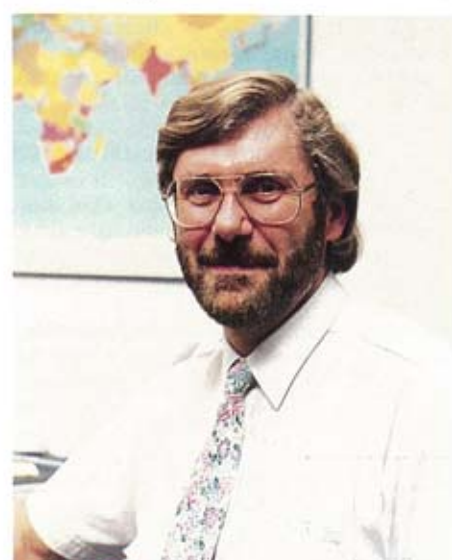
"It's a different concept. In the past, lighting control evolved with bigger and bigger desks, handling a growing number of channels, but all coming from one central processing unit. Ours is distributed processing where any number of different units talk to each other, each running its own section of a light show and under the control of a centre Masterpiece. "This allows us to have a much more economical control system and we can manufacture the standard product economically too."

Economics and provision of product for the mass market come even more strongly into the MIDI equation as far as Pulsar are concerned. Purists might love to take argument with the approach, but you can't knock the economics and the straight common sense, taking into account the ultimate use that is going to be made of any given equipment.

"We have yet to be convinced about the need for MIDI Show Control in our equipment," said Paul Mardon. "Our Masterpiece and Universal Interface are designed to respond to the 'ordinary' MIDI information which is produced now by the millions of existing MIDI products around the world. In fact, our whole light show at PLASA was synchronised by MIDI. MIDI Show Control is presently only produced by a handful of controllers and it means nothing to the vast installed base of MIDI



Ken Sewell.



Paul Mardon.

equipment. We reserve our judgement and wait to see if the market really needs MSC."

Derrick Saunders, sales director, and Andy Graves, Pulsar's project and sales support manager, pushed home the message. "Anybody out there using any standard sequencer, keyboard, drumpad or other MIDI unit can now cue Pulsar controllers directly," they explained. "It's highly effective, and it's working now!"

A major factor to keep in mind when considering the impact of decisions made by Pulsar described in this article is that they are in fact joint decisions adopted in conjunction with Clay Paky. Paul Mardon is in daily contact (in Italian!) with his counterparts in Italy, Pasquale Quadri (Paky) and Angelo Cavenati. "Effectively, we've got one large design department and it's magic working with them," he stated.

The steps now being taken on development and design become doubly important when you examine the impressive growth of the CP&P (Clay Paky & Pulsar) marketing, sales and service strategy world-wide, and more than adequately expressed in their stylish and powerful presentation at the PLASA Light & Sound Show last month. A highly co-ordinated 'front' has now been established and it's been set against a deliberate policy on customer support.

"Nothing has changed from what we've told you before," said Ken Sewell, "but we're getting much nearer in terms of actual implementation of our ideas, stage by stage. We are now actively trying to establish our philosophy in other places around the world by setting up companies that distribute Clay Paky and Pulsar products but as independent operations, as a kind of franchise. Where they agree with what we think ought to be done and we feel confident they can follow the concept then they can be appointed.

"What's important is that the end user is receiving what he needs in order to do his job properly - all the things we identified originally as being important. When the end user has a problem of some sort he must be able to go to a dealer and also receive support from the design side, installation, programming and commissioning and finally after-sales service. We have found from our own research that there are in fact very few re-sellers around the world who can provide this package of services, which means we have to devote our time to training as many as we can.

"First of all we've got to train the distributors in each country to supply the services we think are necessary. The second stage is they then have to train the re-sellers in each country to actually provide the services. We can then lend support towards that process.



Terry Cox (left) who programmed and prepared Pulsar's PLASA light show, with Ken Sewell, Paul Mardon, Andy Graves and Derrick Saunders.

"I'll give you an example. Autocad symbols can be incorporated into their own drawings, and we can expect to have a system in the future whereby people can call us with a list of co-ordinates and we can actually produce drawings for them. Another aspect is the seminars which we have been running for over a year where Andy Graves has been training dealers, distributors, end users, designers or whoever, from all sectors - and it's a free service.

"We envisage in the future that our distributors in each country will be providing the same service within their own national markets. As in many situations, ten per cent is theory and 90 per cent is applying it! It's not easy, particularly against different backgrounds in different countries. However, we are already receiving positive benefits from this approach and I hope that by the end of 1993 we will have at least 20 CP&P distributors who are actively operating to our laid down standards."

The early successes of the CP&P operation have already been detailed in the columns of L+SI. "It has made a 'night and day' difference to sales," said Ken Sewell. "We've got very good people in Germany, for instance, and we were able to operate the correct set-up from day one. The two things together, having a very good set of standards to start from and a philosophy to work with must have top class organisation and people to work with it."

The establishment of ever more CP&P operations brings other benefits, as Ken Sewell explained: "We can compare levels across the

market, country by country, and a set of standards and a pattern can be set. It's a matter of taking the best from everywhere - support, achievements, and so on - and applying that across the spectrum.

"It all goes back to the original premise introduced three years ago, and nobody's said a word against it. If you have decent statistical analysis, it's a question of translating in practice something that's really happening on the ground. That's what I mean about ninety per cent application."

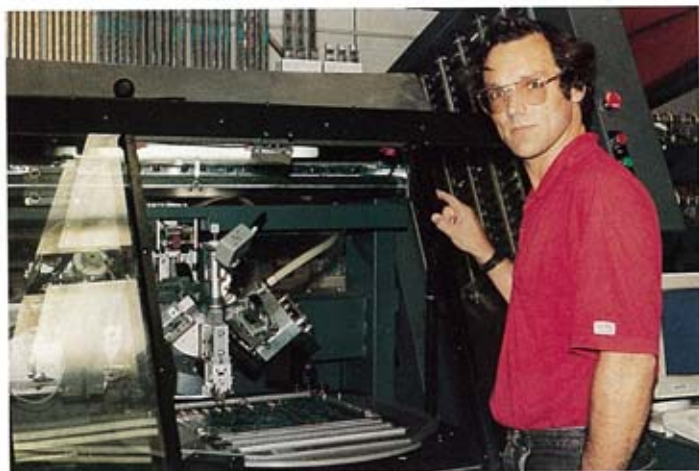
Pulsar's ever on-going determination to pressure themselves forward was evident all the way through our discussion, and comes from a desire to succeed and continually do better things. Ken Sewell and Paul Mardon were also anxious that their comments didn't come across as arrogant or heavy-handed.

In my view, all I heard and have reported here is to the point, practical and commercial common sense. And bear in mind that Pulsar and Clay Paky have to live with the fact that the plagiarists are always on their tails.

As Paul Mardon said at the BEDA Awards ceremony: "We are proud that like us Clay Paky take a pride in not copying other peoples' products. Unfortunately, not everyone works to the same moral code, and the Golden Scan, which was one of the first in its field, has been copied to varying degrees by many other manufacturers, even to the extent of using Clay Paky's die castings as patterns. "There are many people who would have been a lot 'tougher' in the same circumstances.



Part of the showroom at Pulsar's Cambridge headquarters.

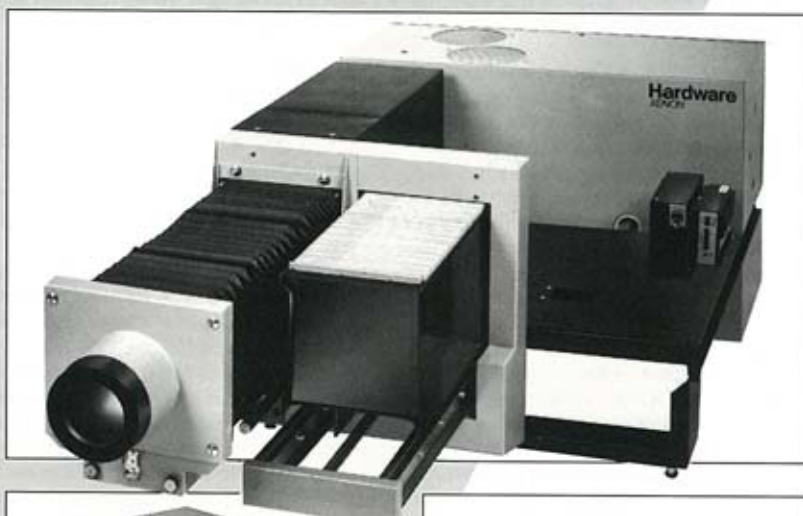


John Whittaker, production manager, shows Pulsar's latest investment - an automatic component insertion machine.

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**SALES AND
RENTALS**

PLASA'S NEW EARLS COURT LIGHT AND SOUND SHOW

Tony Gottelier, Paul Dodd, Ruth Rossington, Graham Walne, Tim Frost and Simon Croft provide the reports

A Marriage of Convenience?

... or was it a shotgun wedding? L+SI associate editor Tony Gottelier assesses the impact of this year's PLASA Show, for the first time at Earls Court 2.

And each year for four years, Temptation took him up into a place on high in Olympia and said unto him: "All this could be yours if you forsake your desk and spend just one day in London at the beginning of September." And four times he refused him saying: "It is not for me this PLASA show, get thee behind me Temptation!"

But on the fifth occasion, Temptation took him unto the Elect Club at Earls Court 2, from whence he could see a panorama of all the world's entertainment technology laid out before him, and once again the spirit said unto him: "All this could be yours if you forsake your desk and spend just one day in London at the beginning of September." And this time he was overcome by Temptation and made his visit in which he was most pleased.

The point of the piece of nonsense above, of course, is to amplify the major difference between the old Olympia-based show and PLASA's new home at Earls Court 2. Now, this is what I call an exhibition hall, with virtually every facility (except cashpoints, shame on them), and all set out on a single level which was probably the real bonus. While this one floor, with its wider aisles, conveyed the impression of a smaller Show with less visitors, the statistics proved to the contrary. For, in keeping with Parkinson's third law, the exhibition had grown to fill the space: 30% more stand space sold and visitors up by 18%. And for the first time at a PLASA Show, something we have been striving to achieve in this magazine for the past several months came to pass at Earls Court - the entertainment technology industry showed itself as an entity. All the old mistrusts and enmities went out the

window, cross discipline sniping ceased, at least for the duration, and people discovered that at the end of the day they all have a common purpose and that, actually, they are all quite nice people. Well, of course, we had been saying that for years.

Was this a shotgun wedding brought on by recession? Probably - but who the hell cares whether it was brought about through adversity or not; fact is that nothing will be quite the same again. All of this was brought home, not just by the vista across the room with splendid stand structure. But nothing emphasized it more than John Offord's invitation to the Players Theatre on the Tuesday night. While we delinquents went off to other fringe events at Camden Palace and Wembley's birthday party at the 100 Club, the backbone of the UK industry celebrated Fred Bentham, the man and his book, conveniently sponsored by Strand. Following a short reception, guests repaired to the theatre for an evening of old time music hall, which performance was reportedly a huge success, with supper afterwards at the theatre restaurant. They left clutching copies of a spoof pamphlet, the *Lighting Gazette*, based on illustrations of ancient gas lighting equipment and produced by Mr Ed O'fford and other worthies down in Eastbourne. Nothing cements the union better than a good night out, it seems, and everyone present was struck by the closeness of the union in a common cause. Let's hope this is remembered when the good times return, as they surely will (are you sure? Ed), and we are not necessarily focused in celebration of a lifetime's achievement.

The other gathering as always, necessarily exclusive because of the sponsor's sectarian interest, was DI's award night. This year at Equinox, formerly the Empire, Leicester Square, all the disco dignitaries turned out for this one including John Conlan, First Leisure's affable chief executive fresh from his holiday in

Cyprus. I had commented on what a remarkable job they had done with the old queen of Leicester Square, but John admitted to me that personally he prefers their new venue in Watford, which goes by the sobriquet of Kudos. (As with Italian lighting makers, First have come up with a whole new dictionary of names for this year's clutch of born-again venues. The letter X seems very much a la mode in the hallowed halls of the Haymarket Centre in Leicester.) Both are designed by the same architects, McNally Duffy, yet the contrast between the two interiors is considerable. The one soft, sunny and almost womb-like, the perfect tourist trap - the other hard-edged wide open and aggressive, on pitch for the local demography.

The other 'big name' was one, slightly restrained (shaken but not fazed) Peter Stringfellow who gave away the prizes, or at least attempted to, when the microphones, which had their own ideas, allowed him to.

Of course, the major controversy which was the focus of everyone's attention prior to the Show, was always going to be who would get the lighting design award following the demise of Light Angles who would, otherwise, might well have been the logical recipient for Equinox. It has to be said that the person in question, and the butt of considerable anger the week prior, was very much in evidence at Earls Court 2 toughing it out with considerable dignity. Anyway, the aforementioned award was finally given, to Ritzy, Bristol.

Back at the hall, some new low key plaudits were also introduced by PLASA, best new product, and best stand. I am not a fan of this scenario. I think trophies also piss-off far more people than they please (look at me I am pissed off). Furthermore, best new product for who? There is no such thing as a universal best product.

And there again, why didn't the Vari*Lite



The crowds form for PLASA's Light and Sound Show 92. Attendance went over the 8,000 mark for the first time.



Light show on the Lightfactor stand, one of many major presentations.

VL5 scoop the pool? Was it because it wasn't up and running on the stand in the glorious technicolour of its full plumage, but rather perched like a roosting parrot in John Cleese fashion, from day two onwards? (Its appearance at all, incidentally, in response to comments in this magazine last month, when we heard that it was planned for it to remain caged at Greenford.) Actually, this proved quite a popular move as lighting designers had the opportunity to stroke it on the stand before repairing to the aviary proper for the full works in the evening. The works, incidentally, not only included a splendid performance from a massed flock of VL5s designed by Andy Voller - a Vari-Lite service technician who will also be operating them on their first outing at the Albert Hall later this month, where they will be used to the exclusion of all else - but also the opportunity to handle the product on the bench with tuition provided by Rusty Brutsche and Jim Bornhorst.

But no, the prize went to Flying Pig for the Whole Hog (now a prize pig?), a splendid piece of control kit for handling automated luminaires. Carter Voce were highly commended for the VxLAN, an interactive sound control system. Lite Structures super stand won the Best Stand Award. Now Adrian Brooks, Structure's genial supremo, did demonstrate the value of such awards. For he was walking on air for the rest of the week, grinning from ear to ear, never having won an egg and spoon race previously. Had Barry Howse, L+SI's advertisement manager been less than the soul of discretion, he could have sold Adrian double page spreads in full colour from here until eternity and James Brooks-Ward has doubtless got an exhibitor for life! Highly commended stand award went to Apogee UK. Well done to all four winners.

Meanwhile, the seminar programme was proving highly successful, though I was disappointed that there wasn't a greater response to Mike Lowe's 'Distribution and the New Europe' panel - a lesson here, that perhaps forums devoted to management subjects are

better held away from the Show as most interested parties are busily doing business on the floor. Most of the rest played to packed houses.

Back at floor level, PLASA are to be congratulated for their noise pollution policy this year, designed to maintain levels at below 85dB which, after a few initial wobbles, seems to have worked really quite well (though I note that Paul Dodd doesn't agree with this assessment; see the report that follows). It is curious to observe that these days it is the lighting boys, with their ever more extravagant performances at these exhibitions, who are chiefly responsible for the din, not the sound people who have found better ways to attract attention. This, in great contrast to Leisure Industry Week which followed at the NEC, and which was a pandemonium of exhausting noise from start to finish, and LDJ, which is to come in November and for which ear plugs are de rigeur - and this is a lighting only exhibition. Still, the perennially charming Patricia MacKay was in London, and I really hope that she takes a leaf out of PLASA's book. Go to it Pat - call their bluff!

My personal award goes to the AVAB demonstrator, introduced to me by David Catterall recently (and deservedly) promoted to sales director of Zero 88, who gave me the most effective demonstration of a piece of unconnected control equipment that I have ever had. Of course, the fact that he was doing it in parallel for an underling of John B Read's, may have had something to do with the superior performance. But, nevertheless, it was a classic of its genre. He knew his product inside out, but demonstrated it in a practical and totally comprehensible fashion, sadly rarely the case elsewhere on the floor where it is too often assumed that everyone has a degree in obscuretics. Incidentally, Zero are to be congratulated on taking on the UK distribution of these high level theatre desks which, I am sure, will also go a long way to raise their profile at the serious end of the business. Looking around the hall, at the vast sum of money

invested collectively by exhibitors, in stand rentals, structures, staff, hotels, travel and entertainment, etc, etc, one couldn't help wondering where it was all going to come from. Was this last ditch desperation for some? Confidence of an upturn by others? Or just an accepted expense at persuading distributors? In fact, true or not, as it turned out none of these things mattered and there are certainly no signs of those infamous green shoots, yet the satisfied smiles of virtually every exhibitor revealed the truth.

This year, finally, everyone agreed that London was the place to be, and everyone came. The industry has shrunk to the size of its new marketplace, leaner and fitter as the Tories should have us believe, and so, with no expansion, there was more than enough business to go around those remaining.

Visitors, exhibitors and organisers were delighted.

Paul Dodd on Effects Lighting

In trying to decide just where to start with this review of new effects lighting and control as pertaining to the club environment, I feel that as the majority of my time was, typically, spent in the noisy zone, I shall in typically perverse manner say a few words about the sound levels to be found there. Despite the extremely co-operative stance of John Revington, sound officer, the cacophony of sound rolling around (dare I say) spoke for itself, and intruded to detrimental effect on many stands, often in the midst of their own demonstrations.

The problem for the spectator being to identify just which music track the lights were actually following. This was a particular problem on stands which did keep to the 85dBA limit; they often had significantly more than the regulation level incoming from other stands; 95dBA was measured in our instance on the Avitec stand. Personally, I enjoy a good level of sound to add impact to the lights in a lightshow, but in an exhibition environment consideration of others is vital or one ends up



The stand of leading distributors MSL Pro Light and Sound.



Smoke quality examined on JEM.



Peter Ambrose with the Celestion line-up.



Lou Farina of Lycian on the top deck of the A C Lighting stand.



Canon's Sean Martin shows a V100 cluster.



Steve Demeza with Sound Engineering's DJ boxes.



John Jeffcoat of 'Yes' promoted a new range of fog machines.

The Lighting Directors

Sachtler's new Director Series of luminaires is a comprehensive range of Fresnel lighting fixtures.

The Directors are no ordinary lights: their light output is exceptionally high and the fresnel lenses produce a very even light, controlled by a smooth running gearing-guided focussing system.

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Formed into the casings are efficient light traps and convection vents - cooling is so good that bulb life may be considerably extended while light leakage is virtually eliminated.

Which all adds up to more light, where you want it, how you want it.

Accessories such as poles, stands, clamps and spigots are all part of the comprehensive Sachtler Director series, which comprises the following lights:

- Director 125D (HMI Daylight)
- Director 300H (Tungsten halogen)
- Director 270D (HMI Daylight)
- Director 575D (MSR Daylight)
- Director 1200D (MSR Daylight)
- Director 650H (Tungsten halogen)
- Director 1000H (Tungsten halogen)
- Director 2000H (Tungsten halogen)

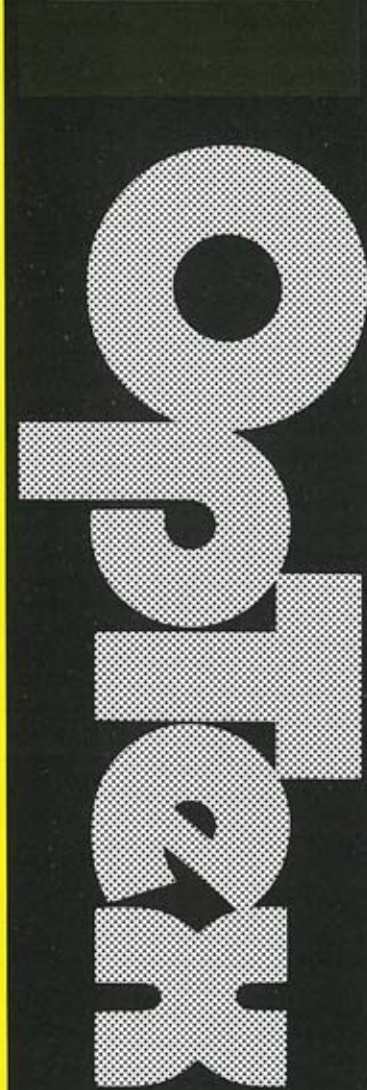
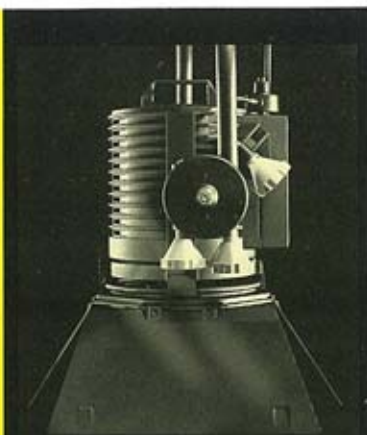
Lens diameters available:

- 80mm,
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with the no-win situation that I have witnessed in Reno, Singapore and now London. Perhaps, as one wag suggested, we should all wear headphones and just switch over, or plug into each stand we visit.

To return to the brief and the searching out of new equipment. The pleasure of setting one's eyes on a prototype is often tempered by the frustration of having to wait for it to become available. However, a preview of some of what is yet to come is always interesting. **Lynx Lighting** have joined together with **Mode Electronics** to produce a narrow beam spot that is as revolutionary as any spot can be. Tentatively named the 75SX, it features a splendidly narrow beam that is very bright. A clue to its unique nature is the minimal 500 gram weight, achieved thanks to a brand new electronic transformer from Mode. This eliminates the turn on surge from conventional transformers, presents the controller with a resistive load and will be completely dimmable.

Probably the most spectacular prototype, visually, was the Intellalaser, another co-operation, this time between Lightwave Research and Laser Grafix. Demonstrated to great effect on the **Lightfactor/Meteorites/High End Systems** stand the system comprises a Nexus head that will fit to an Intellabeam projector and couples to a laser via fibre optic cable. The system on display used

two Purelight lasers feeding four Intellabeams and a standard scanning system for conventional beam and scanned effects. The laser was controlled by Laser Grafix' own Prisma system, and the Intellabeams with their own dedicated controller to produce a stunning display of simultaneously projected smart scanner and laser beams.

Laser Grafix are now sensibly looking to use ShowCAD to co-ordinate the entire system, all of which brings us adroitly to ShowCAD itself. Working demonstrations of this eminently comprehensive control software were to be found on the **Cerebrum** stand, the exclusive distributors of Axon Digital Design's new baby. The final version for public release is now imminent and may be available by the time you read this. ShowCAD consists of software and an interface card for installation in most PCs with a mouse and DOS, and permits control of 1024 DMX512 channels.

Rounding off the prototypes were four multi-lens beam effects from UK manufacturers **Fabtronic**. A dichroic coloured or straight white version of each unit will be available and all possess on-board sound animation. The units have not yet been christened so suggestions for names on a postcard please! One final moistener of the tastebuds is the only unit that I really wanted to take home and cuddle but was not actually to be found on a stand at Earls Court. Wiggling well up a wall at

Camden Palace, a trio of Wynne Willson Gottelier's Caterpillars were to be found and played with. Although two dozen have been installed on the Royal Caribbean Majesty of the Seas, they are not in production, which saddens me as they've the most deliciously organic movement I have seen to date.

On a more pertinent level, just what was new and available for immediate purchase? Reassuringly, there were a good number of new products premiering at the show and many making their UK debut. **Abstract** were showing their new Spectrabeam, a 150 watt colour changing lantern with seven dichroic colours plus white taking a 0-10v analogue control signal or sound animated through an internal microphone. Updating the successful Scatterspots comes the Scatterspot II now updated to 150 watts, and also on display was the already widely publicised Monster Moon a dynamic blending of rave and flower technology producing suitably incestuous multiple beam effects. On the same stand but from Savegrange was a Par-bar, a powered T-Bar with integral sequencing of four 1K channels, IEC and Bulgin connectors.

In a thankfully quieter section of the hall, **Anytronics** were creating a lot of interest with their new products, launched at the show. The Strobe Pod, designed to fit into a Par 64 lantern is an interesting re-shaping of the established Superstar slave strobe, but had its limelight



Mike Pollard (second Left) of PKE Lighting with Ian Grey, Steve Hall and Don Hindle of CCT Lighting.



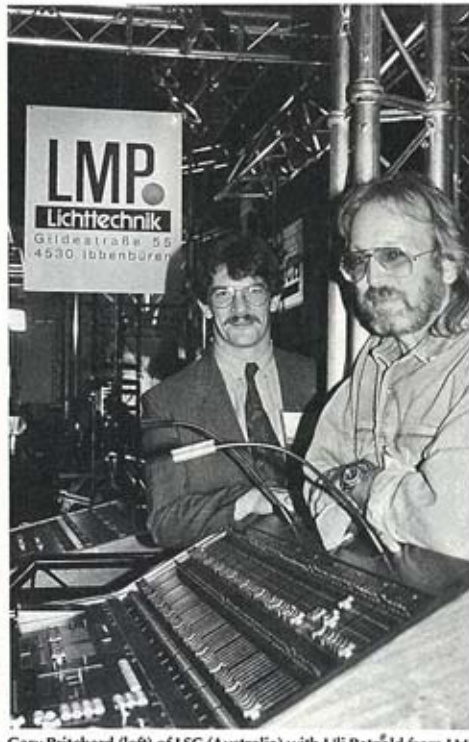
New Laserpoint distributor: Ron Turpie (right) welcomes their Cyprus 'connection'. Also presented at the show was the 100th Aquarius control system.



The award-winning Whole Hog from Flying Pig Systems.



A battery of projection from Ludwig Pani.



Gary Pritchard (left) of LSC (Australia) with Uli Petzold from LMP (Germany).

stolen somewhat by the seriously anti-social Deathstar strobe. Although the flash tube is rated at the same 1500 watts as the Megastar II, the light output is approximately double, making it bright enough to probably save a lot of people a lot of money on recreational pharmaceuticals! Control for these, or indeed, any strobe requiring a +10v pulse can be provided by the new eight channel Strobe Chaser. Uniquely, the controller detects how many channels are in use and will adjust its sequence to that number of channels so that you can smoothly chase any number of strobes (1-8) without any dead-spots in the sequence run. Anytronics have also extended their wide range of power packs, now offering DMX512 digital interfaces in all of their 19" six channel dimming packs, and by adding three new members to the 'Black Box' switch pack family. The DP405, DP805 and DP410 are respectively 4 x 5A, 8 x 5A and 4 x 10A dimming packs each also with low voltage DC outputs.

Avitec's subtle reworking of last year's Trilite masterpiece contained a host of products making their UK debut. From FAL, Italy, two smart scanners, the Supercleverscan Plus and the Primoscan. The former is a cost-effective fully featured projector with unique bi-colour dichroics (3 of 7), seven gobos, micro-stepping and HMI575 lamp, and accepts all standard control protocols. The latter, being the little sister, has five colours and gobos but should not be underestimated. It uses the MBI 150 Arcstream lamp which is not only very bright (12,000 lumens) but has an incredible 6,000 hour rated life. The Fal Octopus is a clever variant on a popular Italian theme with several distinguishing features. Unlike others the inner effects mirrors are not all identical, opposite pairs combine to produce a variety of different effects. An optional remote control is now available for those without another 0-10v source. The Twin Flower, also from Fal, projects twin concentric circles of coloured dots that can be rapidly spun to produce cones which are bounced around the room/floor by two independently sound activated mirrors. The popular Fal Laser Simulator made an updated Mk2 appearance in a smart new body, emitting an upgraded variety of pattern displays. Also dramatically enhanced was the Fal Scorpion with the new 800 watt 'tunnel' lamp giving it a powerful new dimension.

No less than eight new products from **LED** were launched into the UK, four of which, the Winner, Dizzy, Sundream and Wheel also utilise the 800 watt 'tunnel' lamp. All produce conical coloured beams that move in a variety of directions and patterns to good effect. Two versions of the LED Peacock are now available, both produce a 'propeller' of multi-coloured spikes which rotate bi-directionally to sound, the Peacock 400 fitted with 36v/400w lamp and the Peacock 575 with an HMI575 lamp for real power. The LED Sharp utilises an 800w linear lamp, giving a multi-coloured conical fan of flat beams. Cleverly remodelling the long established Scatterstrobes the LED Strobe 100 has a neat case and a reflector to increase flash brightness. Colin Hammond was on stand demonstrating the new Russian manufactured Arbeam, an inexpensive fan of seven Par 36 lamps and 'ET' flat beam spot. Also from Meteor was the Blazer, a variant on the 'Rave' theme, and an updated Cobra 2, producing powerful twin rotating and opposing beams from two 400w lamps. The entire display, with the exception of the smart scanners, was controlled by the Meteor Infinity System, and had been recorded onto a VHS VCR, an option with the Infinity system, to be simply played back for the frequent comprehensive lightshows and

demonstrations. Peeking out from between the Italian items was the new Lynx Synchronosphere produced in the UK by Nick Searle. The new attractively domed styling and considerably increased angles of beam movement (350 degrees x 180 degrees) and a soon to be available DMX interface make the Lynx Lighting unit a serious contender in the moving pinspot stakes.

Over at the **Batmink** stand David Churches was concentrating on products from Lampo and his newly acquired distributorship of Genius. The tightly packed stand had many effects that were new to the UK, although much had been on view at Rimini earlier this year. The Flipper from Lampo was a unit that had caught my eye in Singapore. It is a smart scanner (eight colours and gobos) without the moving mirror and looks very effective - could this catch on? Looking good were the Steady and Music Cone, static and sound animated fans of conical beams which in the Music Cone appear to widen and shrink. The MIG is another variant on the 'Rave' theme whilst the Frisby is an interesting alternative to Griven's Shark. Full marks go to the Mini Derby for the miniaturisation of such a well known effect, which despite its now minuscule size and 50 watt lamp, appears disproportionately bright. New additions to the Genius range included three units all utilising the 800 watt Roundlux 'tunnel' lamp. The ConoRay, ConoFlash and Galaxy produce a variety of bright, coloured conical beams that are sound animated in different planes in each unit. The ConoFlash changes colours as the beams move giving the extra dimension of appearing to strobe as it is animated.

Upstairs for a few brief moments of respite in the Aviator suite. **Celco's** new console deserves brief mention here as, although not its primary intention, it is attracting some serious attention from the club market. The vast array of facilities and features that have been accommodated in this beautifully attired desk are better described in detail elsewhere, suffice it to say that Celco have taken an innovative approach resulting in many new features that allow the operator access to vast amounts of dimmers, channels, cues and sequences. The discotheque interest was a surprise to me, and the various models may well be beyond most clubs, but perhaps, to be flippant, it could have the equivalent pulling power of being seated in a Porsche!

A brief blinding followed the demonstration of the upgraded Stunflash II from **C.L.A.S.S. Commercial Light and Sound Systems** claim a 2500 watt rating for the flash tube in this strobe that also has, perhaps thankfully, a brightness control. Two new models from last year have been combined to produce the Super-Scanflower, a front mirrored unit that CLASS dub 'the most versatile flower effect to date.'

Coe-tech had created a highly ambitious stand in the form of an enormous Coemar Samurai projector. Bravely battling against

some serious delays in the build-up period, Carl Dodds and John Lindsell used ShowCAD to put the veritable plethora of equipment through its paces. A motorised, scrimmed triangle showed just how smoothly Lynx Lighting's new designer Powered Fairlead winch system can move. Laser Grafix had installed a Purelight laser with Prisma control and graphics animation package to provide beam sculpture and graphics displays. A contented but exhausted Ian Brown was able to announce at the end of the show that all 16 of the Coemar Samurais (the first shown in the UK) had been sold from the stand. Alongside many other Coemar products on display were some units from TAS. The Synchronosphere, recipient of the Disco International New Lighting Product of the Year Award, gave a suitably splendid display. In the smart scanner category comes the Mini Ultrascan 250, a smaller budget version of the Ultrascan 700 with 10 colours and gobos, electronic dimming and an ENH250 lamp. Adding to the range of beam effects were the Dominator UK, a unit that produces multiple spikes of light that can be sound animated or 0-10v analogue controlled in their rotation. A simple colour frame allows filtering with colours of choice rather than the predetermined pastels of many other manufacturers. The Nabila UK is similar with the exception that the beams produced are flat fan shaped rather than spiked. The Mini Multipoint and Mini Twin are flower effects, the latter a dual version of the former and both, this time, pre-coloured. Again, rotation is controlled or sound activated. Also to be seen on stand was Jem's new Water Cracker, more of this unit later, but as a humorous aside, Nigel Morris was overheard lamenting the incredible efficiency of his new machine in that it used so little fluid in operation!

British manufacturers **Electronic Lighting and Music (ELM)** have made a nifty 1u 19" rack mounting four channel strobe chaser, exclusively distributed by the ever-active Ian Potter's UKD. A wide variety of effects can be produced from different combinations of the front panel parameters.

Griven, having unfortunately lost their UK distributor, took a stand themselves introducing four new products to the UK. The biggest of these being the powerful Skyrose 1200. Fitted with the HMI1200 the unit is designed for outdoor use, will scan through 175 degrees and projects a cone of flower-like beams with a 22 degree spread which equates to a diameter of 400 metres at one kilometre! An HMI575 version is available for indoor use. Rotomaitre uses the more modest 800 watt 'tunnel' lamp which is rotated to create a twisting fan of cones that may be coloured by filtering the front lenses. Developed from the still new Cyclope is the Centron, again on the theme of central lamp and eight surrounding mirrors, this centrepiece effect takes a 650 watt T12 or T26 lamp. The SuperTwin 575 utilises an HMI575



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Roof structure of the CP&P mega-booth was suspended from the roof structure of Earls Court 2 by eight winches. Inside the lighting rig contained around 100 Clay Paky intelligent moving projectors.



Showing Apogee: Nick McGeachin, Daryl Vaughan, Steve Farr and Jim Sides.



Light Processor's Robert Field with the Integrator, first seen in Singapore.



Photo interrupt for Shuttlesound's Tony Oates (right).



Euro-combo of Mervyn Thomas (James Thomas Engineering, UK), Nicholas de Courten (Power Light, Switzerland) and Uli Petzold (LMP Germany).



Jos Peters of Stage Accompany (right) with L+S's Tim Frost.



Jean-Luc Michaud (right) of Alien Products pictured on the Skylight stand with production manager Trevor Smith.



A gallery-style stand for Cloud Electronics.



Steve Wright (right) of Washburn with the Sound-Tech pro-sound range.



Anytronics: new dimming and strobe products.



Tony Cockell (left) hosts a flow of information seekers for Formula Sound's PM90 mixer.



John White of AKG with the Turbosound range.



Mitch Clark of Tomcat Inc of Texas (left) on the Wybron stand.



Volt's David Lyth (left) launched his new 12" radial loudspeaker.



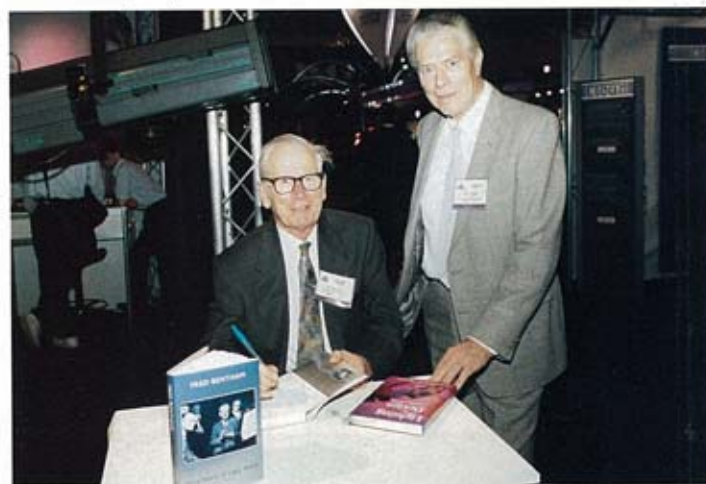
Osram: 'light sources for all walks of life'.



The TOA stand, complete with sound booth.



The massive stand of Martin Professional.



Two authors sign for each other: Fred Bentham (left) with Joe Thornley on the Strand Lighting stand.



ADB trio of Christian Léonard, Dirk Van Nieuwenhuysen and Raph Janssens.



Howard Eaton (left) takes a look at the Avab controls on the Zero 88 stand with assistance from Ralph Dahlberg.



Three from LSD: Peter Boot, Peter Johns and Chris Cronin await Cerebrum's Rod Bartholomeusz' words of wisdom.



Strand's Celia Pope with the new Galaxy Nova.



The launch of the Kaleidolight video lighting system on the Kaleidovision stand.



Zero 88: a new platform for AVAB.



A lighting plethora deep in the Martin Professional cavern.



Meeting point for the Samuelson group.



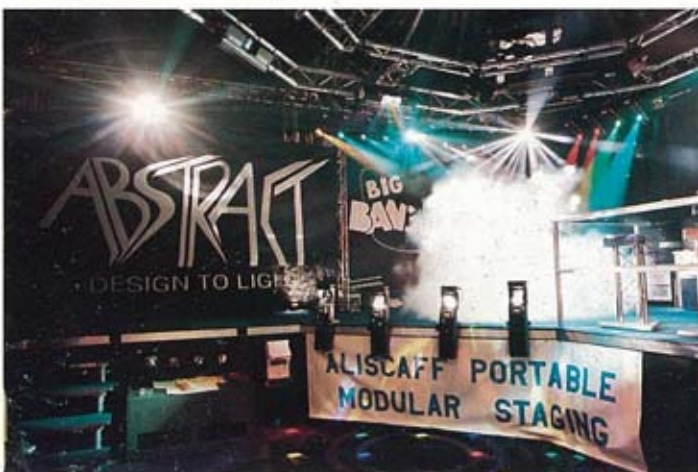
Mike Gerrish (centre) with the Citronic/MSL SM250 mixer winners.



A Sunday crowd for Vestax Europe.



Strand: more new controls and luminaires launched.



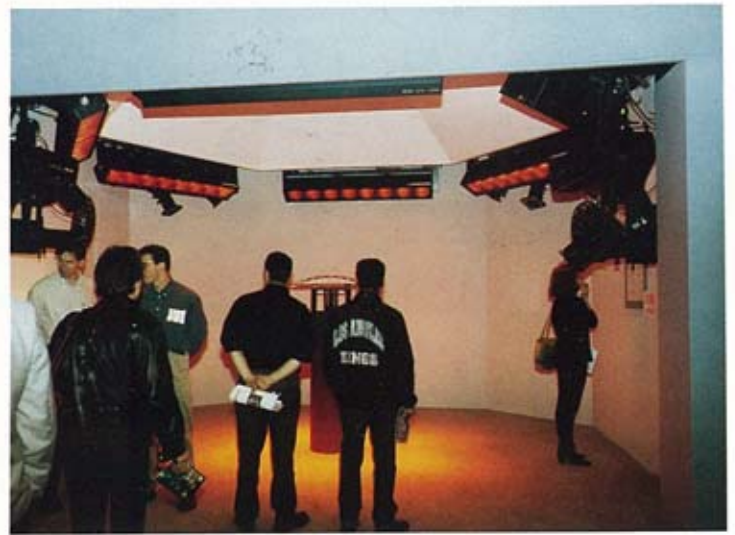
Abstract: all set up and ready to roll.



Catriona Forcer with Celco's new Aviator, launched at the show.



DHA: gobo and fibre optic exterior presentation.



DHA: step inside for lighting and projection.



LMC: a mix of Crest, Soundcraft, BSS, Drawmer and Beyma.



Judy Nunn talks to the lights on the BBC Engineering stand.



Syncrolite on the Apogee stand: Charlie Malings, Jack Calmes (president) and Daryl Vaughan (MD for Syncrolite International).



Wybron president Keny Whitright (left) with Don Stern of Bash Theatrical Lighting, USA.



Triple E's Unitrack junction.



Wharfedale's attractive presentation and largest-ever stand.



Trilite imagination for Avitec and Panasonic.



'First on the left'; the majestic stand of JEM.



The double decker stand of A C Lighting.



John Turpin opens the door on the Arri SmartRack.



Batmink foyer area - light shows featured Lampo and Genius equipment.



The world-travelled Cerebrum team arrive 'home' at PLASA.



New companies in tandem: The Effects Company and Blakes Fireworks.



Autograph Sales: 10th anniversary and a successful PLASA 'first'.



Hazy highlight for the stand of White Light and Modelbox.



A Samurai-style stand for Coe-tech, the new UK distributor for Coemar.



Optikinetics projection table - the oval projection screen was 10 metres above.



The Canon coach, on tour with the ultra-new V-100.



John Booth (left) mid-demo on the Yamaha PM4000.



ADB: fresh from Expo success in Seville.



First-time PLASA exhibit from Mobil-Tech of France.



The Rosco shop with Laserpoint's display in background.



Peter Wynne Wilson (left) with Daniele Canuti on the Nu-Light Systems stand.



Soundcraft's Spirit Live 4 on Wigwam.



Craig Fenney shows the HH Electronics line-up.



Patricia MacKay of Lighting Dimensions (USA) with Florian von Hofen of VPLT (Germany).



Alan Kilford with Court's big boxes.



Arthur Barnes and Eminence.



Catherine Harrower and Mike Goldberg of M & M Lighting with Adrian Sant of AJS Theatre Lighting.



Keen interest for Laserpoint.



Roy Millington of Cloud Electronics with Ray Wilkinson of Northern Lights.



The Hoffend Starlift rises up from the Glantre stand.



A scene from the Pulsar/Clay Paky presentation.



Concert and television lighting from Light & Sound Design.



Andrew Morris (left) and Dick Steward (right) of Mode demo their new Mirage Scenario architectural lighting control system to Ray Scott of Sound Electronics.



Michael Kitching and Colin Durber of Mico Lighting.



Heather Penn of Nexo on the Wigwam stand.



Guy Hawley of Harman International.



Pyro (right) and smoke from Le Maitre with Keith Hardy demo'ing the Genesis (left).



Birthday boy Paul MacCallum cuts his cake on the Wembley/Volt stand.

SHOW SEMINARS

Speakers and delegates on camera at Earls Court 2. Many of the seminar subjects and their discussion will form the basis of future articles in L+SI throughout the coming months.



The MIDI Show Control panel of Matt Deakin, David Bertenshaw, Charlie Richmond (chair), Vidar Eggen and Richard Bleasdale.



A big speaker line-up for a full house on Automated Luminaires. The panel included Jean-Yves Morvan, Pio Nahum, Brian Croft, Tony Gottelier (chair), Durham Marengi, Bob Schacherl and Peter Barnes.



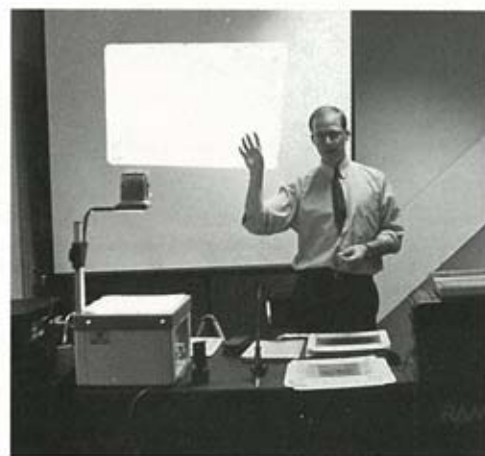
Another full house for Latest Technology in Tools for the Lighting Designer. Panel members were Peter Ed, Tim Burnham, Philip Nye, David Taylor (chair), John Lethbridge, Peter Byard and Steve Warren.



Audience view of the MIDI Show Control session.



Graham Walne leads discussion on Qualification and Training - the European connection.



Going solo: Mark Burgin of Shuttlesound presented 'The Future of Computers in Audio'.



'Show Controllers - their role in the future of Multi-Media'. Speakers were Malcolm Lewis, Richard Gray, Tony Gottelier (chair), Bob Simpson and Malcolm Clarke.



PLASA Standards officer George Thompson (centre) led the discussion on Radio Microphones. With him on the panel were Paul Chapman, Brian Copsey, John Willett and Joe Sonke.

lamp producing what Griven aptly call a 'double similaser effect' which can be switched to produce a multi-coloured flower like pattern of multiple high powered beams.

Two years of R & D have gone into the new water-based Aqua Haze Generator, otherwise known as the Water Cracker from **Jem**. Operating, as previously mentioned, on the Coe-Tech stand, it was also to be found alongside new ranges of smoke machine and pyrotechnic goodies on Jem's spacious stand. The Water Cracker uses an innovative technique permitting a non toxic water-based fluid to produce a fine haze that is almost invisible until hit by a beam of light, an effect that works wonderfully with smart scanners. The system, which will be available in November, is very economical in usage of both power and fluid and interestingly does not require any warm-up time. A new 'E' range of smoke machines to be available early 1993 was announced, as was a November expansion to the range of pyrotechnics with gerbs, outdoor smoke cartridges, glitters, streamers and confetti cartridges. The Stage FX system is also to gain new 12 and 24 channel rack mounting controllers. All this, together with on-stand demonstrations of the various pyrotechnics effects, attracted quite a crowd.

Drawing my attention to a new UK distribution agreement for **Le Maitre (Sales) Ltd** was that doyen of exhibitions world-wide Dick Carrier. Uni-Par manufacture a range of coloured Par 64/56 lanterns that are gaining in popularity. Le Maitre now offer the UP-1 and 2. Produced in Noryl (black) and Lexan, standard colours include white, transparent red, blue, green, amber, salmon and bright pink. Virtually indestructible, this rainbow range is also low in weight and price. The UP-2 is similar in dimensions to a Par 56 lantern but is designed to take the screw-fitting Par 38 lamp, whilst the UP-1 will take Par 64 sealed beam, raylights or Par 56 lamps.

Surrounding the Paraflex Mk II rig, the only off-the-shelf lighting rig, **Light Engineering** were showing a selection of the range of SGM Lighting that they distribute.

Disproving that the display on the Integrator could only be handled by Mr Spock, the definitely non-Vulcan Graham Norman was working hard to keep up with the interest created by this very versatile controller from **Light Processor**. Making the most of their excellent pedigree in control systems, Light Processor have cleverly combined the traditional facilities of chase sequencer, memory lighting desk and intelligent fixture controller into a single control desk. The simplicity of programming and operation belies the sophistication and power in this 256 channel DMX512 controller. Other news from Light Processor includes a remodelling of the popular Q24 lighting desk into a more sensibly shaped package, with new flash buttons that give a greatly improved feel to their operation, and the sensible addition of an XLR connector for the DMX output. The Q12 will soon be receiving similar treatment.

Lightfactor staged a combined production with Meteorlites, Laser Grafix and a strong representation from High End Systems whose operator, Tim Grivas, demonstrated just how well the essence of rock and roll can be distilled for discotheque consumption. Apart from the previously mentioned Intellalaser, three other products from Lightwave Research had their first UK outing. The Trackspot with 10 dichroic colours and 10 gobos, is a smart scanner with 100% dimming, microstepping and replaceable gobo options, all at an entry level price. I was momentarily worried to be greeted by a hammer-wielding Laura Cohen, but this

was just to demonstrate the new break-resistant mirror now fitted to both the Trackspot and Intellabeam. On the control front the **Lightwave Research** Touch Dimmer 12 is literally packed with features. Offering 12 dimmers, 10 matrix presets, 10 chase presets of 127 steps, real time delay and crossfade modes, total MIDI compatibility 0-10 volt and TTL outputs and a whole lot more, the term touch sensor seems, frankly, inadequate. The third unit was the new Intellabeam controller, with its LCD display that greatly speeds programming and operation with prompt messages etc, and smart card memory back-up for program storage and transfer, all of which should make the Intellabeam system even more attractive, especially to the stage LDs. The new Trackspot seems a surefire winner in the discotheque market, particularly as the replacement halogen lamps cost under \$20 US. With 10 dichroic colours and the same number of gobos and full dimming, in a lightweight package which cost below £1,000 retail, they should sell by the basket load.

Occupying (probably) the largest stand at the show were **Martin Professional**. Contrary to the report in Theatre Crafts International, this Danish company is firmly established as a prolific lighting manufacturer, the sound on their stand being provided by OHM. Two of the new units from Martin both utilise the new MSD 200 lamp developed in conjunction with Philips and carrying a six month guarantee. The Pro218 is a compact smart scanner which boasts 17 dichroic colours, including two multi-colours, plus white and 18 gobos. In addition microstepping, variable speed control of all functions and an extremely fast shutter for strobe effects, are all combined in robust bodywork in a modular format for easy service access. Demonstrated to good effect within the lightshows, the Pro218 also featured in a dedicated hands-on display in the VIP bar with both the unit and its price attracting much interest. As with the Pro218, the new Robocolour MSD200 can run from its own pre-programmed sequences with or without music trigger from an internal microphone. This dimmable colour changer has two colour 'flags' each with four dichroic filters, allowing colour mixing, and a shutter for blackout and strobe effects. The new modular construction of the tentatively named Roboscan 1020 Pro were also on (pre)view. Utilising the MSR1200 lamp, this unit is designed primarily for the touring market and contains all the features of the well-known Roboscan 1020.

As described at the beginning of this section,

Mode Electronics were previewing one application of their forthcoming electronic transformer, but this was by no means all they had to show. Recently, they have dedicated a lot of time to developing the Mirage Scenario architectural lighting system, designed to control multi-channel lighting environments 'at the touch of a button'. Although not effects lighting as such, and with applications reaching far beyond this industry, it is, of course, admirably suitable for controlling the non-effect lighting in any club environment. Moving away from their renowned control prowess, Mode also distribute the Ariane range of French lighting equipment. Proving very popular was the Hawaii, a centrepiece with four individual mirror heads, each with five colours and gobos, that sequence through 830 pre-programmed effects with sound activation, illumination provided by a central MSR400 lamp. Andrew Morris confirmed the interest in the unit, having sold several pieces at the show.

From **Multiform Lighting** come two new control products. The DMX648 is a versatile one unit rack mountable DMX/MIDI converter that will decode serial multiplexed digital control signals into a number of 0-10 volt analogue outputs. Protocols can be DMX512, MIDI music or MIDI Show Control codes selectable on the front panel. The demultiplexer has 48 output channels and a variety of user-selectable output back-up memories in case of input signal loss. The Zodiac is an 18 channel, two preset memory lighting desk with 180 level memories usable as pages of scenes, or as a block of sequential memories. As well as 0-10 volt analogue outputs, the desk provides options for DMX512 and MIDI format serial outputs and a memory card is provided for storage of programmed data.

Across on **NJD's** well visited stand a new range of lighting had Kevin Hopcroft positively beaming. Totally manufactured by NJD, the first in the range is the IQ250 luminaire and its IQ-MX40 controller.

A projector with front mounted moving mirror, the IQ250 has eight dichroic colours and four gobos. Each unit can react independently to sound, via inbuilt circuitry, or be linked together to provide synchronised operation. Alternatively, the dedicated IQ-MX40 controller will synchronise multiples of four units permitting manual control and a multitude of pre-programmed effects. Control protocol is DMX512 and the projector takes the 250 watt 24 volt A1/259 lamp. The Dancer is the second in the range and utilises two



The new IQ250 luminaire from NJD Electronics.

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Lou Farina of Lycian (left) with Glyn O'Donoghue and Debbie Potter of A C Lighting and the Jands ESP II.



Keith Dale, Matt Deakin, Colin Whittaker and an Aviator cake - all part of a special Chinese night out for Celco and friends.



Avolites new Rolacue Sapphire, centre stage, with Richard Salzedo, May Yam and Steve Warren in attendance.



Ulrich Mall of D & B audiotechnik (left) with Michael Cooper of Bespoke.



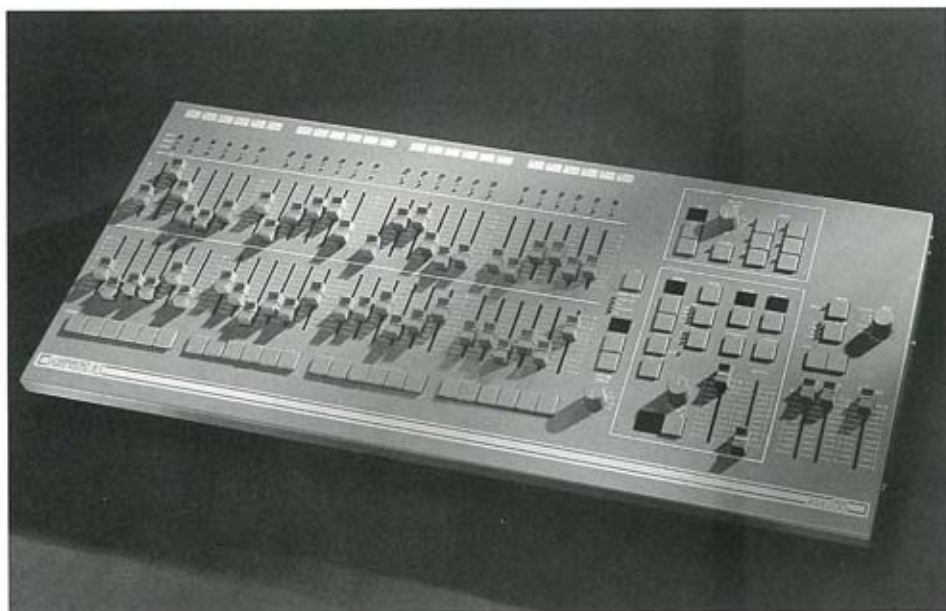
The Paul Dodd designed light show in full flow for Avitec.



Lighting designer David Hersey (centre) stops off at the M & M stand.



David Bissett-Powell and Sara Kendrick front the Martin Audio 'house of mirrors' stand.



The Lightmaster XLS from Zero 88.

independently sound activated dichroic reflectors, individually adjustable to produce shafts of vivid coloured light that criss-cross each other from the two A1/231 100 watt lamps. Adding to the already wide range of NJD touch panels are the Logic S12 and S12 LV. The two versions offer powered or low voltage alternatives, respectively, of a straight manual 12 channel latch and/or flash touch sensor for those that do not require the Logic T12's programmability. Entering the realms of MIDI control comes the MP820 an eight channel power pack responding to note and velocity. Outputs are via two Bulgin sockets and maximum rated current is 20 amps. A trio of tinys follow with the Fade4 low voltage four channel slider dimmer panel, the MC4E, probably the smallest four channel, 4 amp per channel, manual or sound chaser (127mm x 38mm x 73mm) that I've ever seen, and oh yes, you need to be aware of the FS50, a footswitch for the Logic 8000SB, that remotely activates the flood or blackout functions of that controller.

Nu-Light did very well to accommodate products from Novalight, Fly and SLE on their stand. The excellently well featured, if perhaps expensive, FOS range of smart scanners was accompanied the Novalight Booster. All really required the greater space they had in Rimini, and several suggestions were made regarding sending Harry Coch and his infra-red remote controlled, high powered SLE P4 fog machine back out there for the rest of the year!

Highly visible from pretty well everywhere in the hall was the ten metre high Trilite construction that formed **Optikinetics** excellent display. Suspended high above everyone's heads was an inclined oval of Trilite with projection screen across its centre. From a large circular 'Table' directly below, an array of the new Optikinetics Solar 575 projectors with deflector mirrors, bounced their beams onto the projection screen. On display for the first time was the well-named Solar System, a programmable attachment for use on any of Optikinetics effect projectors. 16 'effects carriers' may carry any of the designs from Series 80, mono colour and beam effect cassettes and also accept proprietary 'D' size metal gobos and dichroic colour glasses. Control from seven channels of 0-10volt or DMX will allow combinations of pattern selection, speed and direction of rotation to be chosen, programmed and memorised. Commissioned from a variety of art students and projection artists, already familiar with

Optikinetics equipment, come the latest additions to the range of 6" effects wheels, with some very impressive up-to-date imagery. Providing protection for these, or any other 6" liquid or effect wheel is the Solar Wheel Safe, a rotator with metal housing that guards the wheels in both use or transit. Previewed in prototype form on Avitec's stand last year, the Club Strobeflower System is now ready to be ordered and could be seen dazzling visitors from quite a distance.

Describing the **Pulsar/Clay Paky** stand as well hung would probably be an understatement. The CP&P co-production was as well stocked as ever. All the Clay Paky products released at Rimini were there, making their debut in the UK and included the Piper, the huge Bazooka, Pinscan, the six-headed Tornado, Astroaggi Twin, Atlas, CP Spot and Tiger. The Tiger is available in several forms, the Single Rotating Gobo (SRG) and Multi-Rotating Gobo (MRG) to name but two. Clay Paky used the PLASA show to launch the next logical step. Tiger Scan MRG is a smart scanner with five standard 'M' size gobos which can be individually selected and rotated in either direction at a variable speed. A second, static, gobo can be super-imposed onto the rotating one to create an even wider variety of effect. A continuously rotatable colour wheel provides seven colours plus white but can also be halted at intermediate positions to produce bi-coloured effects. An integral shutter allows strobing from 1 to 7 flashes per second and two lamp versions are available; HMI575 and HMI1200. Pulsar took the opportunity to launch a new series of power packs to be known collectively as the Datapak range. Specifically designed for the cost-effective permanent installation, the units may be wall or rack mounted. All models accept the major protocols, namely 0-10 volt analogue, RS232 (PMX) and DMX512. The units are available in five or ten amp per channel, 12 or 18 channel switching or dimmable versions. A comprehensive front panel display features 'status' indicators and channel fuses, and all units have temperature controlled fan cooling. Showing that they have not forgotten the small discotheque or mobile, Pulsar also launched the SLC4000 in free-standing or rack-mounting versions. Full of chasing and sound-to-light effects, the unit provides four outputs each capable of up to 5 amp loading, resistive or inductive, and can also be remotely enabled.

The ebullient Freddy Lloyd was trying



JBL 4894 compact two-way loudspeaker.

(successfully) to out-express the Italians with the strength of his coffee on the **Zero 88** stand, but, come the last morning of the show, this was highly welcome. We have two new products to mention here, first off being the new 24 channel Lightmaster XLS control desk featuring 216 cues and 250 sequence memories. This well enhanced upgrade of the best selling Lightmaster XL also has an independent 24 channel colour memory with 54 separate cues as well as twin fully programmable effects, MIDI, DMX and analogue as standard. The second is released in response to the now almost universal acceptance of DMX512 as the standard multiplex control signal. Zero 88 have introduced a retro-fittable DMX input kit for all the Betapacks and includes XLR5 input and output connectors, address switching etc, providing an economical route to digital dimming.

Audio (1) from Tim Frost

The PLASA Light & Sound Show was almost over-run with loudspeakers jostling for attention. Over 30 brands were shown from the major systems to the tiny 1U half width RTS comms monitor on the Meridian stand.

The trend for compact high power boxes continues from last year, but what was quite different was the number of the big PA names introducing lower cost systems coupled with a re-emergence of cheap but effective disco and musician boxes.

Changes in distribution also made themselves noticed. On the **Wigwam** stand **Nexo** announced that they now have a completely independent distribution company 'Network' headed by Paul Ward, who is totally in support of Wigwam work for Nexo but explained: "We have set up a new company that is purely distribution. We are handling Nexo and KT and so we will be developing the market in the UK." He starts out with a new speaker, the compact PS10, which like all Nexos is a controller system, but one that can be bolted to a pole or used as a wedge.

Harman did justice to their speakers, as did several other companies, with a good dem room. Apart from distributing EAW (more about which later) **JBL's** main thrust was the Array series, so named because of their clustering capabilities. These use completely new customised drivers, horns, and JBL's digital controller. Showing that the European market, and PLASA especially, is of increasing



Chris Cook (left) in mid-DMX talk on the XTBA stand.



Truss trigonometry from Penn: new was their 'Truss Two' system.



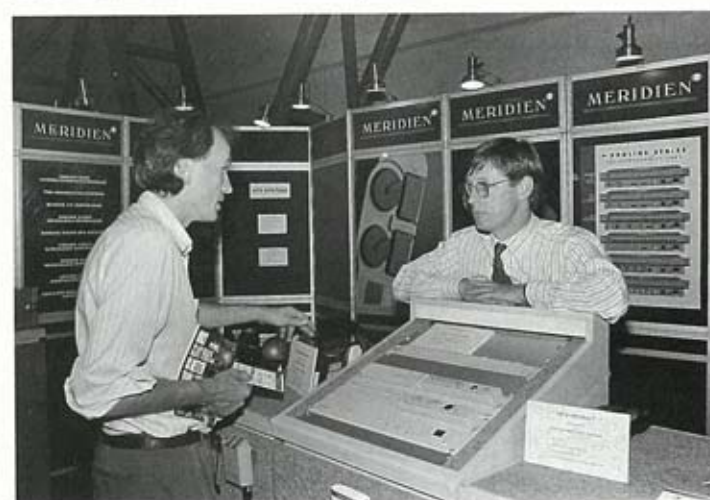
Peavey's Ken Achard (left) with Adriaan La Roy of La Roy Sound and Theatre Projects (Belgium).



Hardware for Xenon lined up an impressive array of giant image xenon projectors, together with 2,000W and 5,000W versions of their high power xenon followspots. Yves Ruellan and Alan Bardouil were on the stand to add words to the pictures.



Twenty five years of Lee Filters: their anniversary swatch 'sold out' within hours.



Richard Frankson (right) of Meridien: building up on communications.



Mics, mixers and a new mini PA system from Audio Technica.



Leisuretec's Mike Henden (left) with Terry Douris of Stage Two.



Derek Gilbert and Mary Martin of Glantre (centre) with Francisco Revilla of Chemtrol (left) and Carlos Lafayette-Barcellas from Brazil.



A comprehensive and popular line-up from Teatro of Italy.



Tom Crellin and Iain Price-Smith of Multiform.



Re-award: Pasquale Quadri of Clay Paky gets his hands on the BEDA award courtesy of chairman Tony Marshall.



Paul Raymond and David Press were on duty for Par Opti, with their parade of fibre optic lighting components, including a new side light woven cloth.



Cheryl Bereznykyj (left) and Monica Saunders of ADDA Supercases.



The Computite stand - part of the Lighting Technology Group.



The hand of Paul Raymond and a touch of fibre optic fantasy.



Roland Vulpillat and Stéphane Colin of RV Electronique with David Stressing (right) of E.S.P., UK distributors for the RV range.



Xylo control: from clubs to complete show integration.



The gregarious lighting emporium of Action Lighting.



HW International: a wide range including new QSC amps and the latest radio mics from Shure.



Stefan Ettmayer (Pani, Austria), Jonathan Park (Fisher Park, UK) and Anne Johnston (Production Arts, USA) on the Ludwig Pani stand.



Over from the States: Sandy Macdonald of EAW.



CCT's lighting tree.



KAM: own products plus Stanton, Gemini and Numark.



A flashy parade from Fabtronic Lighting.

importance to international manufacturers, the Array 4894 full range and 4893 sub-bass were world-premiered at the show and more Arrays are expected by the end of the year.

D&B's Uli Mall came over for the show to present his new baby, the 902. "We introduced it primarily as an MI speaker, but our major sales has been to the rental markets." The 902's major claim to fame is that it weighs in at only 26Kgms. "All the other systems are somewhat more 'robust'," commented Uli.

One new face at the show was Canon with their first foray into pro audio with the unique V100. Whilst the brand and product are new the faces are very much part of the industry with Andy Szeliga, Glen Harris and Sean Martin all ex-Harman. Once explained, the V100 makes a lot of sense as a background installation system and the stand was busy with genuinely impressed installers.

AKG were showing the Turbosound MI range, which is the company's move into retail product. The series are just now rolling off the production line and being delivered to a UK dealer base. Meridien displayed a digital multi-core manufactured by Bec Technologies. The Pro-Line/Audio Plex can handle up to 16 channels of full bandwidth audio, on a standard cable, and up to 128 64 each way on a single fibre optic link.

There was a whole new series of speakers, the EM range, on Martin Audio's stand. The company had previewed the EMs to the press a couple of days before the show when they invited us to a shoot out (clay pigeons 46: journalists 18). The EM series is aimed purely at the installation market. Martin's Dave Bearman explained the philosophy. "We are trying to give Martin performance as its most cost effective. We've cut down the road-going parts, making it much more cost effective for installation work."

Apogee's prize winning stand was excellent, but the main demonstrations were down the road at Laser Creation's offices. New products shown and played included AE5, the ubiquitous dark compact high power trapezoid box and a 2U processor amplifier engineered by Carver.

Moving towards the lower cost market Apogee also had the Artist series. Colin Lane-Rowley commented that Artist was in response to market comments. "Apogee kept getting approached by musicians for a more 'approachable' product," he explained.

EAW, although being distributed by Harman, had its own large stand showing a very compact JF200. Originally designed for EuroDisney as a high power compact for the floats, it has already done good business in the US and Europe. Sandy Macdonald had come over from EAW's US base to promote the new deal: "The Harman deal is working very well but we will also continue to operate in the UK as a completely separate entity," he said.

Shuttlesound continued to compete with Harman as to who has the most speaker brands. A few of the key new speaker systems on their stand were EV's S-181 sub-£600 sub-bass and the £425 S-152 full range box. This was followed up by Shuttlesound's own Greystone brand - a 400W EV driven horn system.

Dynacord, which is new to Shuttlesound now that it is part of the MK IV group, featured the P3 a complete easy to assemble and operate. "A top flight system for those who don't want to know how to set up a system," commented Shuttlesound's David Fisher.

RCF have moved into the background speaker market with a neat Control 1-like box. The Monitor 5S uses a carbon fibre bass driver handling 175W and a range of mounting hardware of their own devising that enables the creation of clusters. The units work with an

optional equaliser box that tailors the response and filters out dangerous extreme low bass.

Having shown nearly everything at the company's launch at APRS, Court Acoustics used PLASA to consolidate their position and add the SL500 sub-bass system to the range. Protek have moved factory and have two new ranges - the K and SR aimed firmly at the middle market. Audio-Technica have taken on UK distribution of the Italian FBT mixer and speaker range and the main thrust of the speaker side were the Jolly and Joker compacts.

Stage Accompany moved sideways by launching the S26 screen speaker, a super slim-line system designed to go behind a film or video screen. SA are also moving into the musician market with the Performer series.

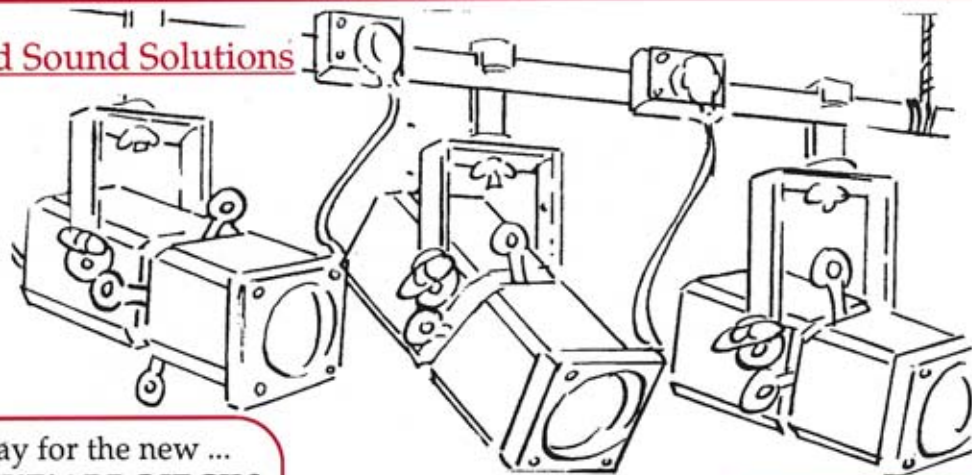
Components from both the UK and abroad were well in evidence. American McCauley drivers were on the Adam Hall stand, Eminence on their own stand and SoundTech components were featured by Washburn.

Alongside Wharfedale's additions to the Force loudspeaker systems, they also featured Fane drivers. Fane have gone back in time with a new guitar chassis driver using an Alnico magnet to recreate that 70's sound. This was paired with a more standard Guitar Legends range and the mighty 18" Colossus.

Also sharing a stand were Volt and Wembley. Volt's new 12" driver, with the frame's spider in front of the cone, was shown in use on Wembley's new two-way Spyder system, launched to celebrate the company's 21st birthday.

LMC have split their operation so that the distribution side, which includes Beyma drivers, now operates as a separate entity under the Audio Projects banner. Peavey were in evidence with their most successful system to date the Hisys and Panasonic showed many of the smaller Ramsa speaker systems.

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Community didn't have their own stand but helped **Carter-Voce** display their VAX voice evacuation and safety systems and a full VAX/Community system was recently installed at Wolverhampton Football ground.

Although much of **Celestion's** systems have been seen at previous PLASAs, there were new SR4 and SR8 with their more disco sound as well as an upgraded controller. This has been completely redesigned for improved sonic performance and now allows the use of 4 or 8 ohm speaker systems.

The mobile DJ and smaller venues were also spoilt for choice at this year's show. **HH's** range, so new it doesn't have a name yet, comes in three sizes with the largest 3-way unit retailing at £630 a pair and their Invader continues with a new self-powered version.

OHM have gone through a complete face-lift, new looks, new brochure, and an attitude to future business that would make a bull seem timid.

There were several companies specialising in the lower cost sector of the market. Hertz are designed and manufactured in the UK, according to their Dave Roberts, as "an answer to the US imports." Weather-proofed and with well designed polypropylene cabinets, they certainly looked the part.

Sound Engineering were totally un-apologetic about their mobile DJ range with a single 12" Celestion-powered box retailing at £127. "There's a market for the JBL," said SE's Steve Demeza. "But really there is a much bigger market for this type of retail product."

Graham Walne on Stage Equipment

It's been quite apparent for some years now that parts of the theatrical community have acted with snobbishness about the PLASA Show, and have assumed a patronising and superior attitude about these jumped-up disco people. I mean, 'look at all that smoke, and oh the noise!' (Well yes, I've never understood how anyone can seriously pretend to demonstrate loudspeakers in that environment, and of course the real pros don't, they bring their own environment with them). OK, if that has been your attitude then I'm here to tell you that you'd better change it because this was the year the PLASA Show signalled that it is now an unmissable part of the theatre calendar.

There is essentially only one reason for this development and that is the effect that the UK recession has had on PLASA itself and on its member companies. Put simply, the cutting edge has been obliged to get keener (readers can put their own cliché here, but the result is not so trite). The exhibition designers and organisers have moved the show from

Olympia's complex tiers to the single level of Earls Court's new annexe. The transformation that this move has effected has ensured the future of the show and its organisation because PLASA 1992 was about happy faces. In past years as I have wandered about, an increasing percentage of comments have been negative: "It's too noisy" . . . "It's too big" . . . "We're fed up with this location" . . . This year the ease of strolling around the single level meant that most people, including me, assumed the show was much smaller. Wrong. The statistics prove that the display space was 30% greater than in previous years. The wider aisles gave the impression that numbers were down. Wrong again.

Most UK readers have little experience of big trade shows against which to compare PLASA. Most of us, and again I include myself, have never been to one of the big European shows. Consequently the tendency for theatre people here is to compare PLASA with the ABTT Trade Show, and again this year, this hardy perennial was much in evidence. In the past the comparison has been ridiculous because the shows have a different purpose - PLASA is honestly commercial, the ABTT is more social and the two will probably always remain so. But this year the single level and wider aisles meant that PLASA had a social air about it for the first time. Like most people I always go to the ABTT Show to meet old friends and the centrepiece of the ABTT has always been its bar because this is theatre's traditional meeting place and because the ABTT's development was fostered by Strand in King Street which meant that 'B' Bear went with the premises. This man was skilled at introducing new members to famous names and magically ensuring that your right hand always held a full glass. The beneficial effects of having such a host glued the early ABTT together and set its social face. PLASA has always lacked that because of its size. Earls Court has changed that, and the recession has forced PLASA to listen to its members' complaints; so look out for more and improved catering and seating areas next year.

The recession has also forced exhibitors to look long and hard at themselves. The results this year were clear from the moment you went through the door - more variety, invention and interest. It also showed in the exhibitors' response to this journalist's questions. When you have 25 or so stands to cover, and not the entire issue of L+SI in which to write about them, you need from each exhibitor a clear, ideally single, new product on which to hang a few sentences. I always ask what's new, and in the case of products which seem to be on everyone's stand, I always ask why I should buy their product above anyone else's. In past years

these questions have not always been readily answered; this year they've been rehearsing. In past years only the biggies provide press packs; this year nearly everyone had one.

The recession seems to have made people examine their product range and where no new kit was deemed necessary then the old kit has been overhauled, improved, repackaged. Nothing has been left to stand. Recessions are good for the survivors and the users. This trend is particularly apparent in luminaire design and all the main manufacturers have revitalised the whole or part of their range to some degree; we've seen condenser optics in the recent past, this year it's the turn of the reflectors to be upgraded.

Teatro now has the cache of having had DHA include them in their list of manufacturers for whom effects are now available, and the company displayed four new developments, a new 575W MSR followspot which is cooled by convection and not fan, and a 1200W version with a slow, silent fan which was cool to touch despite being on all day. Also new are a short-nose Par 56, higher light transmissions from the profiles, thanks to optically-coated quartz lenses, and a new base for the Tratto range so that the luminaires can change over to take T19 and T29 lamps without the need for tools. **Spotlight** on the **A C Lighting** stand demonstrated the smallest 1kW spot on the market, ideal for following or effects. **CCT** were in the shade of their alloy tree, the branches of which held their range. My usual question brought forward this quotation from Don Hindle: "We're back, we're flourishing, we've sorted out our delivery problems and we'll soon have our hire business back in action from Nottingham." The core product, the Silhouette, is now improved and relaunched as the Turbo Silhouette. Don explained that this new naming was essential to delineate the improved range (it gives up to 120% more light) from the models which were still around from 1972, and still called Silhouettes.

Strand were attracting a lot of favourable attention with their new 2.5k Alto range of PC, fresnel and three profiles and which are around 25% lighter than previous 2kW units and overall have improved access and safety features (including a double-pole microswitch) in addition to a fully rotatable gate, an innovation Strand introduced to the world. Fresnel and PC versions have returned to front and rear focus control - sometimes the old ideas are the best!

Optex, a company new to me, demonstrated their new axial softlight, it's design influenced by Ian Lake's solid industry experience. This again was a trend this year, with more engineers meeting the customers and not staying in the R&D lab.

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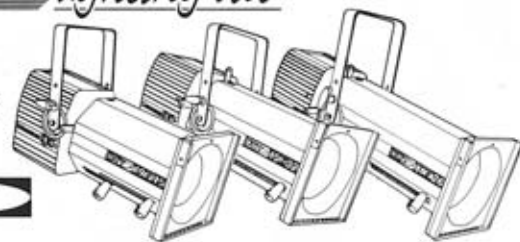
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Links like this have also been made at **Selecon** from New Zealand, a company whose staff includes a high percentage of lighting designers, lighting riggers and operators, with skills they are constantly encouraged by the company to use. Perhaps no company in recent times has overhauled its range more than Selecon (who exhibited on the M & M stand). When I was in Australia this summer I constantly encountered a growing respect for this company's product from technicians right across the continent. Selecon knew that in the past their range just couldn't compete in Australia against Strand and CCT, despite a price advantage generated by not having to pay import duty (a distinct advantage to a company which sends 85% of its output offshore). As a result they spent four years writing down user comments (their questionnaire asks 'why does client buy competitors' products?) Simon Garrett confirmed: "The industry is the best R & D you can get." Improvements in the mechanics have brought faster rigging and focusing times. All luminaires have adjustable yokes, vital in today's theatre as scrollers and effects devices alter the balance. I was sceptical about the profile range's interchangeable lenses which come out with the bottom opening door, but it was demonstrated to me and the change can take as little as nine seconds. Bigger lenses of superexborasilicate mean better (up to 50%) and whiter light output (check out their fresnel which has now been picked up by Niethammer, and check the edge on Selecon's PC - "like a profile diffused by Rosco 114" said one designer). Significantly the company has acquired quality assurance certification ISO9000 (question: which other PLASA members have this in addition to Strand?) and are now seeking relationships with companies outside Australasia.

Lee celebrate their 25th birthday this year and have marked the occasion by revising their swatch books which are still available in numeric or chromatic versions and which include the new range of colours. All the existing HT polycarbonate colours are now available in the cheaper polyester. **White Light** promoted their portable computerised high voltage appliance tester, reminding us that recent amendments to the Health and Safety



ARRI's SmartPack portable dimming system.

Act require electrical equipment to be regularly tested; the company also announced that they have been appointed the official Strand service agent for the London area.

Next time you need a lighting stand take a look at **Doughty's** very wide range, enhanced this year by the launch of the Combi multi-head accessory top which can accept either a 19mm or 29mm spigot and fit most UK originating equipment stands. Whilst on rigging, **Glantre** demonstrated the Hoffend Starlift, a self-climbing column which can lift a payload of 2250kg vertically through 20 metres. This machine was constantly in action throughout the show and many people watched fascinated as it literally unfolded before our eyes, proving again that the best ideas are sometimes the simplest in this digital age.

However, a digital age it certainly is and it was hard to find your way around if you didn't understand the icons DMX, PC and MIDI. **CCT** have revived the old Green Ginger idea of making a two preset desk patch together to either extend the number of channels or extend the number of presets and these will be available in their hire stock. The system is DMX based which means that its response time is far faster than possible under 0-10. The CCT colour wheels also now run on DMX which means colour wheels can now be controlled from your DMX manual or memory system.

Howard Eaton Lighting is always a name worth keeping an eye on because of their unique effects such as the xenon flash which can be fitted to either Altman axial leko or Parcan, their radio-controlled dimmer for

props, and their UV tubular ripple machine (which was designed in conjunction with DHA). However, their new product is SoftCue - a data card-based cueing system which can store five shows for up to 99 outstations, although the system can be used as a manual cue light control (it has the customary standby and go pushes). Its designer Peter Willis tells me that by the end of the year it will have MIDI Show Control. Sceptical stage managers should note that the first system is going to Glyndebourne Touring Opera.

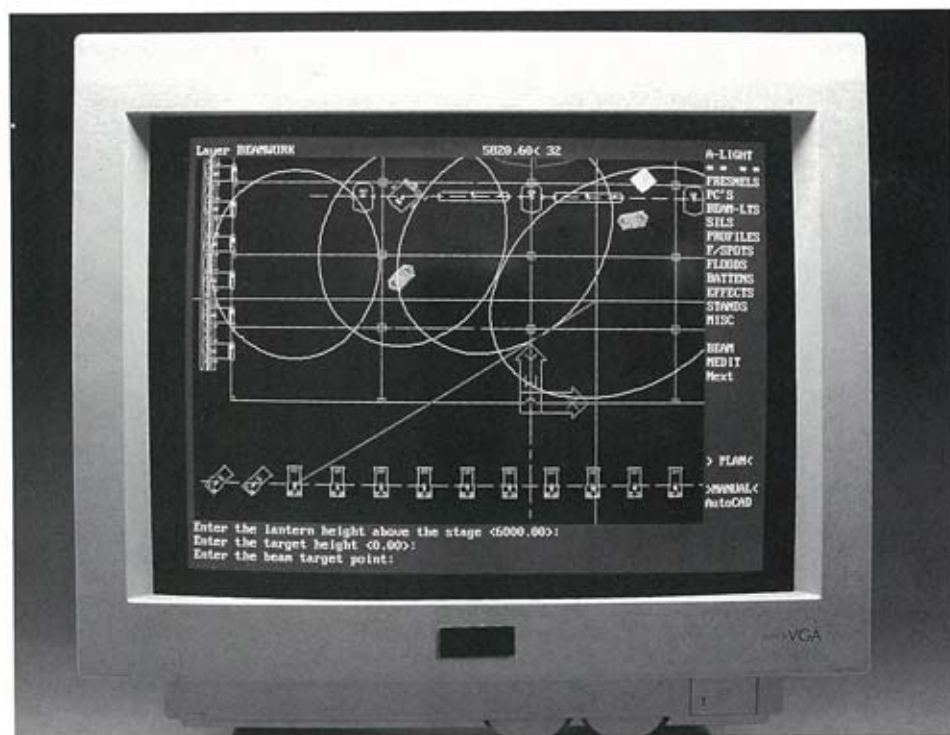
MSC is set to become another acronym in the theatre thanks to the Command Cue MSC system designed by Charlie Richmond and demonstrated on the Glantre stand. This product was borne out of Charlie's work for Disney in Orlando and two systems are already on their way to West End theatres. The device can control 4,096 faders (for dimmers, autofaders, smoke machines and motors etc) all programmed and operated through the internal clock SMPTE code or triggered from an external computer. The operator adjusts the pace and intensity of the cue system in real time and live commands take priority over those programmed. If you have complex production to cue then don't ignore this product.

Arri's name has been around the studios for 75 years and more recently has become a company that it would be unwise for theatre to ignore. After looking at their new SmartRack I'm glad I'm not the competition. The dimmers have been designed to fit easily a number of European niche markets, not easy with different regulations and habits, and their modular format should ensure that all tastes are satisfied. Not only can the same rack house 2.5, 5 or 10k digital dimmers without any adjustment, but circuit breakers and RCDs (if you want them) are also standard and very easy to effect. The rack is shipped empty of its dimmers and should please installation engineers with its sensible and accessible interior design; once connected the electronics simply plug in. Portable versions are also available.

Lighting design is always a challenge because you have to get the right balance between the technical and the creative, and the one cannot exist without the other. Today, the complexities of productions, the expense of



The new Performer 1200 from Selecon (New Zealand) designed specifically to meet the requirements of followspots operators, and now available in the UK through M & M Lighting.



Autolight - a lighting design programme from Modelbox used to simplify and more accurately address a number of lighting tasks.

technical rehearsals and the weight of rental costs all require that designers manage the logistics of their craft very skilfully and recent years have seen a plethora of CAD systems the more recent of which deliver the plan's inventory. PLASA included systems from Rosco (the Lightwrite) and from **Artistic Licence** (the Light-Cad which is an off-line editor. I've always had a soft spot for **Modelbox** because I was the first designer to use it to draw a lighting plan, so I am especially interested in their new Laplight, a disc based CAD/inventory package which carries the vital statistics of 1400 luminaires in addition to a venue file and which can check potential current overloads and even issue colour calls. Uniquely, Laplight also stores five company's rental price lists and by the end of this year will talk to more CAD systems.

Strand have also entered the system management arena with a PC-based fault reporting system, the SV90, for their EC90 dimmers. MX has been upgraded to include a terminal facility and Strand also notified that their Colour Call scrollers will soon be available with dual DMX/MRL protocol and the company also launched the latest Galaxy, the Nova, which combines intensity with colour and motion control together with dimmer reporting and which runs on DMX512, Strand D54 and MRL protocols.

LSC showed their 'Softlink', which can proportionally patch up to 256 input channels to 512 dimmer channels utilising DMX512. The company also showed their Lightlink which converts analogue to DMX512 and vice versa.

XTBA introduced into its growing range of DMX512 products the Smart Merge, a unit that combines two DMX data inputs into one complete DMX output. The two DMX inputs can be merged at any point by the use of the address switches on the front panel. The second data input can be fully offset to create a single data output with both inputs joined end to end - or overlapped with highest takes precedence - or both. This allows two separate DMX controls to be fed down one data line, thus simplifying data distribution and making maximum use of decoders, patches, and splitters. Also on stand, the Goddard DMXter claims to be the first portable DMX test system - what's more it has only seven buttons and speaks plain English. With all this DMX flying

around it could prove to be the show's most useful product.

However, the 'Product of the Year' award went to the new control from **Flying Pig Systems** - "we might as well go the whole hog". This is a desk specially designed for intelligent luminaires and although other desks do have dedicated controls for the intelligent functions such as the Animator on the **Complite** stand (L+SI will be doing a feature on these controls in 1993), this is the first one I have seen which also provides a display of the selected function's component through 23 high contrast LCD screens. This means that the desk tells you what colour and gobo is selected and what intensity, pan and tilt are in use. But there's more... the desk also enables presets of colour and beam settings to be created and easily updated. The adjacent PC screen becomes a system schematic once the desk is programmed. An exciting 'switchboard' to use - a term Fred Bentham might have coined.

ADB launched five new products including zoom profiles which initial users claim are the best on the market. Also launched were a second generation of digital dimmers, both rack and portable, the Tango 24/48 way memory desks and a manual version known as Bolero.

Pani showed a new 2.5k HMI prism effects projector with greater and flatter light output than previous models and which also accepts the company's new image scroller (which can accept 100' long films) and slide changers which were demonstrated by **Production Arts**, and which included a random access slide changer which houses 32 18cm slides and a new grey-scale shutter which improves dimming. Nearby, **Hardware Xenon** demonstrated their high-powered machines.

Elsewhere, **Rosco** introduced fluorescent paint starter packs with 10x1 oz pots for £10.00; better value than buying the larger pots, not all of which tend to get used. The company also launched 24 new gobos which are only available from Rosco themselves, and they have extended the Supergel range with 10 new colours plus a light tough silk. A pack of 12 colours is available as a starter pack to back up the successful handbook 'Choosing Colour'.

DHA have this year extended their range of animation wheels and effects so that they fit a wider range of luminaires. New break-up discs are also available, and DHA's elegant room

provided an ideal setting for a constantly moving display from both the effects and digital light curtains.

Many people will have cause to remember this PLASA Show because it was the one at which they bought a signed copy of Mr Bentham's biography. I realise that there will be people reading this who don't know who Bentham is, suffice to say that the history of stage lighting in the UK this century is dominated by the development of Strand (Electric) and the history of Strand is dominated by the developments for which Bentham and his team are responsible.

The juxtaposition of the book, the man, and the show set me pondering. The book is published by Strand themselves (thanks to Andy Collier) who have a long tradition of supporting their wares with things which don't light up, the most famous example of which was their magazine 'Tabs' which Bentham edited for 16 years. This uncommercial publication remains a unique chronicle of theatre lighting enthusiasts, their buildings and their equipment, and not just Strand's either. To an extent, in this more commercial age, the tradition continues through Strand's 'Lights' magazine, their Education pack, their distribution of my lighting videos and the insertion of Francis Reid's guidance notes in their catalogue. Strand Electric was the master of the soft sell (which included free lighting lectures) and it was all this which won them a special place in our hearts. Curiously, few other lighting companies have followed this pattern to the same extent, yet. That 'yet' is there because the PLASA show demonstrated how competitive the stage lighting market has become and I expect other companies to raise their future profile (no pun intended) by the use of soft-sell items.

The other item on which I pondered was concerned with the man, because as I wandered around I wondered why no contemporary lighting company is as dominated by one man as Strand Electric was by Bentham. Is it because Bentham's don't exist anymore? Is it because today's complex equipment requires a greater team effort? Is it because corporate structures have changed? Whatever the reasons I also wonder who young lighting people look up to. My generation avidly awaited the next 'Tabs' and later at the ABTT eagerly caught 'B's eye so that we could



Alongside their range of updated lighting controllers, Complite used the show to launch their new range of intelligent digital dimmers.



OHM launched no fewer than five new products, one of which was an addition to the LE range of loudspeakers.

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be introduced to Basil Dean, Joe Davis, Charlie Bristow, Richard Pilbrow or Francis Reid. When they come to PLASA, who do today's young people want to meet? Do they just head for the Vari-Lite stand?

Audio (2) from Simon Croff

The audio sector at this year's PLASA was extremely lively. On one hand, there was a diversity of product, which covered live sound in the broadest possible sense. On the other was the quality of visitors. According to virtually every audio exhibitor, PLASA was a 'buzzy' show that was attracting important audio clientele.

Audio exhibitors were also complimentary about the Earls Court 2 venue and the way the event was zoned by volume level, which allowed individual companies a fair amount of freedom without imposing on anyone else.

Right in the centre of the sound area was **Court Acoustics**, where sales and marketing director Alan Kilford said he was meeting 'serious contractors' and 'real club owners'. Court had sold over £100,000 of equipment at the show to four club owners and appointed six new overseas distributors.

Further up the hall, in the background sound area, **Wigwam** managing director Mike Spratt was also pleased to report money changing hands. He was showing the first of the new Soundcraft Live 4 consoles, which was snapped up by an eager purchaser on the first day of the show. On show from Sennheiser was the new multi-channel radio system.

OHM Industries managed to be several places at once. Not content with a busy stand of its own, the company also had its speaker enclosures on several other stands including Martin Professional's. Paul Levinson from OHM's sales team said it had been an 'absolutely brilliant' show that had seen new distribution arrangements made for Japan, Australia, Argentina, South Africa and Malta. OHM has also taken on the distribution for the Spanish made Ecler range of amplifiers, mixers, crossovers and other audio units.

Ecler was actually exhibiting in its own right and one of the centre-pieces of its stand was the new MAC605 11 input disco mixer with 23kHz, 16-bit resolution for second sampler on board.

Digital audio is becoming increasingly important in live sound, as a number of exhibits demonstrated. In fact, if audio had a theme at this year's PLASA, it was digital.

Carter-Voce was showing the VxLAN Digital Voice Network. Awarded second place as PLASA '92 Best New product (pipped to the post by the radical Wholehog lighting desk from Flying Pig Systems) VxLAN showed that digital can bring important benefits. Basically, an intelligent routing and transmission system for distributed public address, VxLAN can cover an entire multi-zone installation using only a double ring of fire resistant data cable. The result is improved safety and significant cost savings due to the elimination of copper cabling. The front end of the intelligent system is a touch screen controller which provides clear displays of all the zones in the system and logical, on-screen controls.

A completely different application is addressed by the automated products from **Databeat Digital Music Systems**. Based around CD 'jukeboxes', the company's audio systems use PC-based software to compile automated playlists. There are a number of features to assist in the creation of a seamless production, including compatibility checks between tracks based on factors such as tempo and key. The idea is that a venue, restaurant or outlet can



Amongst many other products Meridien demonstrated the professional CD player from Barco-EMT now earning its keep at the Royal Opera House.

always benefit from appropriate programming, even when it is not realistic to have a DJ on site.

Continuing the CD theme, **Vestax** was showing its CD-DJ2 programmable twin disc player with 90 track memory self-locking laser, 12 per cent pitch shift and 'super fast' track find. Denon also addressed this market, with players that accommodate CDs held in cartridge casings for rapid loading. The latest DN2000F dual player, with large radio-station style buttons was among new products on the **Marquee Audio** stand.

Yamaha was showing its latest DEQ5 digital equaliser and D2020 stereo four channel digital crossover. In addition to optimum sound quality, the main benefits of the digital approach are the degree and accuracy of manipulation, as well as the ability to store the parameters as a patch for later recall. Big news (literally) from Yamaha: the flagship PM4000 is now shipping, with limited quantities now available across Europe. Yamaha was also showing the MC2410M and MC3210M 12 bus monitor mixers.

TOA has a foot in the door(!) of digital processing with its Saori digital limiter, equaliser and crossover, which the manufacturer was running under PC control as part of its demonstration of speakers and amplifiers. Toa has also introduced the L1102 leveller/limiter, which takes a feed-back from the power amplifier's output in order to achieve more intelligent limiting than could be achieved by monitoring at the input.

On the **Glantre Engineering** stand, **Richmond Sound Design** was demonstrating a theatre automation system that controls sound and lighting from a Commodore Amiga-based package called Command/Cue. The software side allows the compilation of events lists and cues that can then be communicated to external devices via RS232 and MIDI, the musical instrument digital interface.

The audio side is pretty impressive as Command/Cue includes an on-screen mixer that can have up to 4,000 channels controlled by a mouse or an external fader box, again communication via MIDI. Audio channels and large-scale matrices are configured from plug-in cards. Vapourware? No sir, the system was first available in 1986 and clients include Disney World.

Yet more digital: **Harman Audio** was demonstrating a D/A converter card for the C-Audio IA series power amplifiers, allowing digital devices to be plugged straight in and long cable runs to be made in the interference-free digital domain. **Peavey** was running its sound system with DECA (Digital Energy Conversion Amplifier) units and the new PC-4XL, programmable crossover and driver alignment delay unit. The manufacture was demonstrating in conjunction with Pulsar and Clay Paky.

And digital control of analogue: **BSS** was showing the FCS-960 Varicurve equaliser/analyser slave on the AKG stand. As

the name implies, the new unit is designed to be remotely controlled from the existing FCS-926. Offering two channels of six band parametric equalisation with 30 band real time analyser, the device can be addressed through MIDI, PA-422, SMPTE, FSK or radio remote.

The majority of live sound equipment however remains resolutely analogue; microphones and loudspeakers especially so. All microphone manufacturers now appear to have responded to the new regulations in the UK by producing DTI approved radio microphone systems.

These include the latest systems from Shure agent **HW International**, Samson agent **Shuttlesound** (legal systems from 450) and **Audio Technica**. The latter's UK operation has recently taken on the Italian made FBT range of equipment, which includes some rather stylish small mixers. **Shuttlesound** was offering a clutch of 'value for money' products, including Behringer processors and some very affordable Electro-Voice mics. The company has just taken on distribution of Dynacord in the UK. HW was also promoting the new mid range Shure BG mics.

Dedicated disco equipment made a major showing at PLASA, with a stack of new products. **Citronic** was showing its new Teknodek, a 200 watt per channel console with crossfade and crosspunch in buttons. Updated products included the VS100 video controller, which replaces the VM340 and SM350 which updates the SM450. Citronic was also showing its roadworthy PCX computers, which can be used for any number of audio visual applications.

KAM Electronics was showing its latest turntable with belowplatter rollers to 'help scratching', and the US built GM mixers with user-replaceable cross-faders for users who have scratched a little too hard. **Cloud Electronics** has continued to expand its CX series of units, adding the CXM M1 master module, CXM M2 master module, a zone module in the shape of CXM Z3 and a CX compression limiter.

LAD offers a range of turntables with the selling point of 'almost zero acoustic feedback' and quick start. Models include the EL80 with mute and pitch control, which LAD recommends for broadcast applications and the 942SP, designed for disco. MEL90 is a chassis turntable offered for console mounting. LAD was also showing the quintessentially English sounding Dorset, York, Devon and Anglia amplifiers, while the mixer range confined itself to the Home Counties. Richmond has 12 inputs, a sampler and crossfader as well as graphic equalisation. Epsom has 15 inputs, graphic and crossfader, while Hampton has 110mm faders with fader-start for decks.

Peavey's disco mixer range includes the CD Mix 9072 (notice the digital influence again) with CD/phono switches on all three disc inputs. There are seven music inputs in all and other addition include crossfader, programmable graphic and socket for gooseneck lamp.

Formula Sound showed their already highly successful PM90 modular console, which allows individual channels to be removed for servicing without losing the use of the entire unit. It has eight channels with selectable crossfade. Having helped to create the sound with its mixers, Formula then offers venue owners the chance to turn it off again with the Sentry environmental noise control system. As regulations across Europe put greater responsibility on employers, this kind of device can only become more common in workplaces of many kinds.

Show first-timers **Washburn UK** were showing a selection of the vast range of Sound Tech loudspeaker cabinets, portable mixers and amplifiers, for which products they are sole UK distributors. Pictured right is Steve Wright, sales director discussing loudspeaker technology with interested visitors.

Autograph Sales, a newcomer to the show, celebrated its 10th anniversary with several firsts at PLASA. The company's product portfolio brings together some of the best known names in the audio business including Milab microphones, Micron radiomics, ATM Fly-Ware's flying hardware, and signal processing equipment from Lexicon, BSS and Klark Teknik. Two of Meyer Sound's most recent launches were on show: the SIM System II acoustic analyser and the USM-1 stage monitor with its S-1 control unit. Other featured products included the AVX induction loop system, together with the QSC range of power amplifiers. The company also announced their appointment as exclusive European distributor for Los Angeles-based ATM Fly-Ware.

Everything from Control to Cases and Pars to Pyro from Tony Gottelier and Ruth Rossington

E.S.P were demonstrating the entente cordiale with French company RVE for which they are sole UK distributors, with a first-time appearance at PLASA for both companies. On stand was the full range of RVE dimming equipment including the new, fully digital, modular, flight-cased touring rack with hardpatch. Included in the range are the Diafora CC1000 and CC5000 colour changers in analog or DMX, together with the Chroma 16 control desk. The stand was also catching passers-by unawares with the mark II version of its snow effect machine, which spewed out its wintry offering with venom.

Speaking of scrollers, there were plenty in evidence at this year's show. The Strand/Camelont combo which produced ColourCall (which was to be seen, amongst other places on the stand of **Futurist**, along with Strand's Eurosystem, for which they are main distributor) has already been well documented in these pages, but there were others also worth taking a look at. **Camelont** cemented their union with **M & M** with their Rainbow colour changers, including the newest 22", produced specifically for Theatre Projects for use on Sky Arts, and the new TWO16, a standard par size Rainbow which will scroll through as many as 16 or as few as two colours in 1.4 seconds. The TWO16 has an auto cut-off device which senses any electronic component problems and prevents the gel roll from moving until the fault has been addressed. Existing Rainbows can be updated using the TWO16 upgrade kit. Our old friends from the States **Wybron** came to PLASA for the European launch of ColorExpress, an overnight service for gelstrings, already established in the US. (Though since they are five or six hours behind us and the flight takes six hours plus, overnight to the UK might prove a little hard to fulfil to the UK - or have they got an office here? They also made their world-wide introduction of their SDLC Colorams, a studio version of the Coloram series of gelstring colour changers. **Cerebrum** used the occasion to launch their Gel-Stream scroller, an up to 12 colour mover, its USP being the snap-on scroll carrier designed to save rigging time. It is also very quiet and competitively priced, according to John Lethbridge.

Xylo, fresh from their successful multi-media 'show in the round' in the Spanish pavilion at Seville, were back in disco mode at PLASA. Or were they? Confirming two nightclub orders for the US and South America through their US distributors, Tim Davies told L+SI that this was the first PLASA Show where enquiries for their Turbine show controller exceeded those from discotheque operators. A sign of the times. Incidentally, there was a lively discussion at one of the seminars as to what constitutes a show controller. It became clear that the AV boys have their own idea as to what the word means and theatre recognizes it as something else again. Perhaps the word 'canned' could be added in the former case.

Memotech were just one of the many companies at the show who'd chalked up successes at Expo 92 in Seville. They launched three products in their own right, and one in conjunction with Barco, the latter being the Probe SCM 2850 system. From their own stable came the XDEF 3000 is the first videowall electronics with 3D image processing - 2D digital filtering and time-dependent motion adaptive non-linear filters, which according to Geoff Boyd, results in almost complete elimination of pixelation effect. The Mini 2x2 - V4 is a four source 2 x 2 videowall with video output for hook-up to a standard TV monitor, and the Mid-Res 1200 is a new budget videowall system, with a wide range of effects, that Memotech hope will find most favour with the discotheque world. While **Kaleidovision**, originally rental distributors for Bit Bopper, launched their own video effects generator, amid some controversy, Alex Bloc, Bit Bopper's originator, announced his new entry level product for 1993 at a price of only \$3,000. A statement issued by Alex from California, effectively severing all links with the company, indicates that there is still some tension between the two parties as the result of these developments.

The **BBC Design Group**, on part of the PLASA stand, chose the show as the first international viewing platform for the prototype of a revolutionary speech recognition system, which gives voice control of broadcast systems. Dave King was to be seen putting it through its paces.

Mega-importers and wholesalers **A C Lighting**, dominating the centre aisles with a huge structure, brought together a global supermarket. This week's 'special offer' was the launch of the 48 and 96 channel versions of the Jands ESP II console, a small desk with big ambitions featuring one or two preset lighting console with 500 memories, ten chases, 99FX memories, 9 x 99 memories, cue stack, DMX or analogue option, MIDI or softpatch. Lycian and Strong followspots from the US were there of course, and so were the barrage of Space Cannon searchlights, chief amongst which was the Galaxy - a powerful, and apparently versatile effect offering 100 moving beams of coloured light which we understand can be seen, though it couldn't be put to the test, up to 5km away. Which is approximately the height the shorter of L+SI's roving reporters felt she'd reached in the Genie tower, though on reflection it was only a matter of 30 feet or so, before the nerves and the knees went, and the panoramic views ceased to compensate for the awful nausea. The same apprehension arose when offered the opportunity to be lifted on high on Hoffman's fabulous Starlift, handled in Europe by **Glantre**, with a view to taking some aerial photographs - a rigger we is not - guess it was a case of the rigger tremblens.

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The ShowCAD shown on the screen of a PC and a laptop.



Roland Hemming, customer technician, Theatre Projects Sound explains the benefits of Multi-Art at Vari-Lite's VL5 demo.

service; for **Five Star Cases**, recent major contracts have taken them into new territories of the design and build of exhibition and display material, which of course, come complete with matching flight cases, to which they have added a new range aimed at pro studio and theatre consoles; for **Trifibre PLASA** was the perfect window for their range of polypropylene and aluminium cases, and for **Autopia Kit Cases** an arena in which to introduce their Wyse-Mant constructed cases to a wider audience.

With a couple of major lamp manufacturers conspicuous by their absence and preparing for Photokina, **Osram** and **Sylvania** had the field to themselves. Osram introduced the HSR400W and HSR700W lamps with outer jackets which offer a long service life, 5600k colour temperature and which can be operated on standard HQI ballasts. Sylvania meanwhile had a comprehensive selection from their continually increasing range of AV and STTV lamps. Main talking point was the introduction of single ended metal halide lamps and a high output daylight lamp to the BriteArc and BriteBeam lines. On the supply side there was the usual glitzy emporium of **Action Lighting** plus **Mico Lighting** and **Primarc**.

DeSisti were up fronting with their new Magis 300, 500 and 650 watt tungsten fresnel spotlights, and the 200 watt Rembrandt, a single-ended daylight fresnel spotlight, whilst across the aisle **LSD** were putting in their first appearance at the show. The company launched the latest addition to their already comprehensive range of colourchangers with the Mini MoleMag with rotary dowsers. Many studio lamps are of the discharge variety (eg HMI's) and cannot be dimmed in the conventional manner. Others such as followsots, cannot be dimmed remotely or

simultaneously, since each requires an operator. To overcome this problem, mechanical dowsers are employed progressively interrupting the light beam to effect fade-out.

LSD has incorporated a mechanical dowsers inside the Mini MoleMag, using rotary vanes which are motorised, operating under remote control. The FaderMag, inside, receives commands from the standard ColourMag control console. Fade speed is therefore variable from very slow (about two minutes) to very fast (about 0.25 of a second), and because it is rotary (like spokes in a wheel) the fade is much more even. A one button command can set colour, change speed, light intensity and fade speed. **LSD** has manufactured power distribution systems for many years, and it was no surprise to come across a new range comprising two master units. Each one is a frame for 19" output modules of varying types. The first, the Main Distribution Unit can accommodate six rack output modules and has a 400A three phase supply input. The second, the Auxiliary Distribution Unit, a slave module to the MDU, can accommodate two rack output modules and has a 125A BS4343 supply inlet.

Also of interest on the stand, or rather part of the stand itself, was **Total-Lite**, a new lightweight trussing system from **Total Fabrications** which is available in a multitude of lengths, configurations and colours. Trussing, of course, did well at this year's show with the best stand award going to **Lite Structures**, who notched up credits on no less than 13 stands at the show. **Mushroom** were there with **Slick** trussing, alongside a whole gamut of production lighting hire equipment. Incidentally, **PLASA** was the launchpad for 'Stage Stock' a new trade sales outlet operating

from **Mushroom's** premises selling a range of consumables and hardware. **Stiers**, could well have been a candidate for best stand for its grotto-like appearance, courtesy of a host of rainlights, starchains, neonstrings and water columns, as could **PW** and a giant starcloth; both seemed to promise of mysteries within.

Vari-Lite decided not to keep their splendid new 'wash' light totally under a bushel, as had been suggested, and as from day two the VL5 was in some evidence on the stand they shared with **Theatre Projects**, **Brilliant Stages** and **Samuelsons**. However, to see the lantern put through its paces it was necessary to repair to **Greenford** in the early evening for a staged show and tour of the premises. Getting over the disappointment of missing the **Cliff Richard** 'Access All Areas' tour, thwarted by last minute production delays though **LD Mick Healey** desperately wanted it, **Brian Croft** was able to announce first outings for the VL5 shortly after the Show. These include **Genesis'** pre-Earls Court town hall dates with **Marc Brickman**, **Steve Nolan's** 'Opera Spectacular' at the **Albert Hall** this month which will use nothing else, **Extreme** and **44** in use on **Patrick Woodroffe's** design for **Simply Red**.

There's been a lot of talk of **Portable Appliance Testing (PAT)** in recent months and furthering discussion were **Le Mark TVS** who were at the show with a new range of computer-compatible bar-coded labels for use on PAT equipment. **Triple E** launched four new products, namely the **Trac Drive** motorised tracking, the **Linear Motor System**, part of the **Unitrack** system, the **Unicyc**, a new curtain track system for television studios, and a new hook clamp. It was the latter that seemed to be attracting most attention probably because it is a simpler and more robust version of former models which will fit to all tube sizes between

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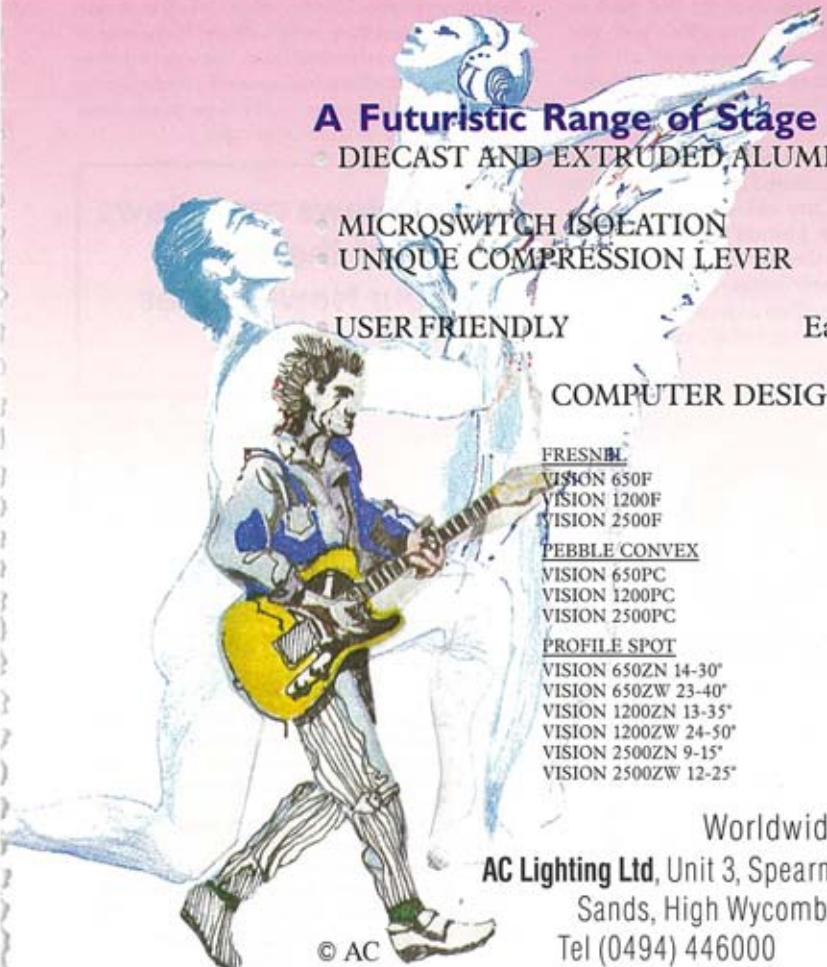
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48-62mm, and which has also addressed the problem of clamp damage to aluminium tubes and truss, an all too common occurrence.

This was the show when the results of much collected development to solve the problems of programming moving lights bore considerable fruit. At the high-end, the Wholehog grabbed the limelight, and the prizes for its pragmatic and logical approach to the problem, pushing Celco's Navigator for the top slot. Other solutions were provided by Compulite's Animator and AVAB's Expert. It was especially impressed with the latter when hooked into MIDI through an Apple Mac, when the most outrageously complex cues can be easily recorded for playback, through the board. Now available in the UK through Zero 88, Expert is well worth a hands-on experience.

A search for more entry-level product, at least in terms of cost, would have drawn you to Cerebrum Lighting's stand where two different solutions were shown - one hardware based, the other soft. Scancommander from MA Lighting is a tactile control surface with a common sense approach to the management of DMX viable articulate projectors. (I have assured Bob Sachacherl that we will stop calling them waggly mirrors.) Promised to be ready for LDI, the panel has the capacity to talk to up to 16 fixtures each with up to 15 functions and provides 96 extra channels for normal lighting functions, generally for scrollers as these are better programmed by such a board. It offers plenty of access through lots of buttons. The soft approach was demonstrated by Axon's long awaited ShowCAD, which is a 1024 channel DMX card and management software which includes, among many other facilities, a highly intelligent 'Ramp' facility which makes extremely complex moves with automated lights a piece of cake for the programmer. This is an immensely powerful package for use with any PC-AT 386+ compatible and certainly attracted a great deal of interest from those who discovered it on Cerebrum's busy stand.

Part of the problem of course with all these systems is the downside of DMX512 which is certainly low on resolution for this purpose for which it was never intended. While its the only common protocol we've got it will have to do, but something better must be a matter of some urgency. Out of frustration, both ShowCAD, Wholehog and Navigator will offer a 16 bit solution within DMX, if there are any instruments out there to receive it.

On the subject of boards, Celco launched their Aviator amidst much ballyhoo. Having sat with Keith Dale at LDI last year and received little support for my announcement of the

impending demise of the analog fader, it was quite a surprise to see not a one in sight on this new megaboard. Billed both as a 'revolution' and a 'standard setter for console design well into the next century' Aviator makes its first impression by the lurid orange of its back-lit digital faders, developed in association with Penny and Giles. It is this flight deck look which provides the clue for the new name in their intrepid Explorer series. While these are essentially touch controls which follow the position of our finger, Celco have realised the error of others with such devices and applied a tactile element to the process so that they can be practical in use while watching the stage. 32-bit transputers provide accurate level transmission stored at 16-bit level, thus overcoming the in-built inaccuracy associated with the A to D translations of the recent past. You need to get hold of one to appreciate the full features, which proved extremely difficult at the Show due to the huge interest it generated, so just a summary of the statistics for now: five models in the range each capable of 1000 cues, 100 multi-part cues, 100 of 99 step sequences and 25 lists. The smallest Aviator has 180 channels into 1024 dimmer channels up to the largest with 720 into 2048.

The rate at which such developments are moving these days with ever cheaper processors, the 21st century may prove a bit of an exaggeration for the boys at Hawley Mill and certainly Avolites are out to prove them wrong with the Rolacue Sapphire which rolled out right on cue at PLASA. Keeping the familiar fader layout of traditional desks, its design allows for easy programming, simple control of moving lights and complete operator control courtesy of ergonomic theory applied to layout. An important facet of the desk is its intelligent fader patch, a feature that is comparable to having numerous personality disks resident in memory. The operator chooses his equipment type from a choice displayed on the built in screens, Superscans for example, and the intelligent fader patch connects all the individual parameters to the correct fader banks. The Rolacue Sapphire uses an industry standard disc drive to store lighting programmes and user-defined personality patches, and the data stored on the disc may be read and edited on any industry standard PC. A quick follow-up phonecall to Avolites' London offices revealed pandemonium as the company worked their socks off to ship their first desk to Sweden within a week of the Show.

Le Maitre are poised for a renewed onslaught on their traditional smoke market with a new 'revolutionary' block called Genesis, on which

they plan to base a complete new range of machines. Considerably smaller than the traditional item, they have managed to combine this diminution with increased throughput of fluid by up to three times more than that which was previously possible. This not only means that a far greater smoke output can be achieved, but also it can produce a vapour very similar in its properties to cracked oil. That is, Genesis produces a haze which stays in the air for a very long time, but at much the same cost as ordinary smoke with none of the unpleasant disadvantages. Almost as important, with the ubiquitous smoke generator is the fact that Le Maitre claim that Genesis is fully serviceable to an extent never before possible - and we all know why that is significant! If Genesis proves as cost effective and reliable as the company claims, its potential in retrofit and hire stock replacement alone, should perhaps, make Mick McManus think twice about his early retirement!

Blakes Fireworks introduced both themselves and their range of pyrotechnics and plug-in cartridges at the show. The Torch! system offers such features as theatre flash, silver and gold star, coloured fires and smokes, streamer, confetti, glitter and smoke puff as well as a complete range of maroons. Most effects come in a sealed cartridge, which can be inserted into the Torch! Flashbox, ready for firing. Sharing the stand with Blakes were The Effects Company who brought to the show their range of Supersmoke machines and accessories. The star of the show, however, was what the company claim to be a 'world first' - the Supersmoke 3000 Turbo. This has a built-in compressor fan that injects air into the smoke stream and gives a power boost to the whole effect and comes complete with the EC300T controller.

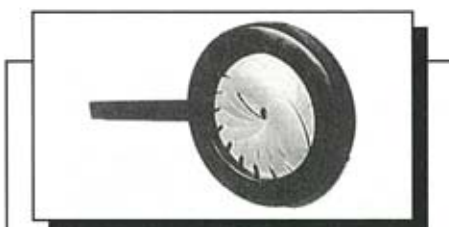
As a final word, Laser Creations who were perched on the Apogee stand resplendent in their new Peacock livery, have asked us to say how impressed they were with the high level of enquiry received from all over the world during the Show and which has opened a dialogue for a number of future events. We hope to see them back next year in their own right.

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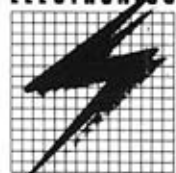
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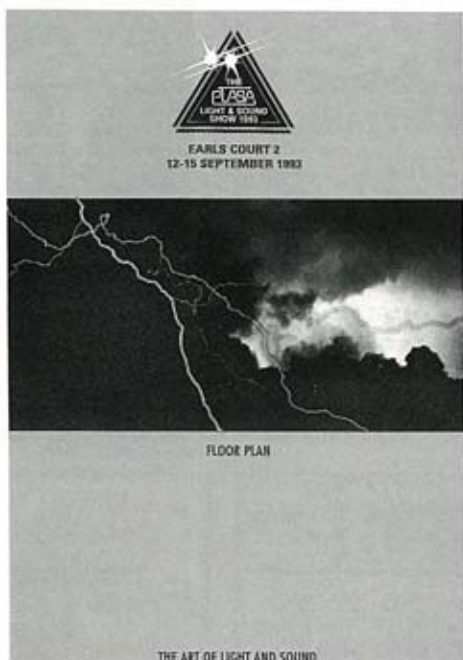
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VIEWPOINT

PEOPLE COUNT

Earls Court 2: the Industry takes Quick Advantage of a New Opportunity says John Offord

And I'm not talking just about selling more space or attracting more visitors, even though we bucked the exhibition industry trend and became stars in the Earls Court exhibition firmament.

There was something very different about this year's Light & Sound Show at Earls Court 2; and most of it was connected with the sudden increase in opportunity for people contact. The noise problem was largely mitigated, there was more space to move and 'perform' as far as stand design was concerned, and all the visitors were on one floor. There were no lifts to jump them from one level to another, missing a floor or two on the way, and no corners they could miss or hide in.

The result was that the full industry mixed together properly for the first time, a point noted by contributors to our show reports.

Tony Gottelier:

"For the first time at a PLASA Show, something we've been striving to achieve in this magazine came to pass at Earls Court - the entertainment technology industry showed itself as an entity. All the old mistrusts and enmities went out of the window, cross discipline sniping ceased, at least for the duration, and people discovered that at the end of the day they all have a common purpose and that, actually, they are all quite nice people."

And Graham Walne:

"The transformation that the move has effected has ensured the future of the show and its organisation because PLASA 1992 was about happy faces. In past years as I have wandered about, an increasing percentage of comments have been negative: 'It's too noisy'... 'It's too big'... 'We're fed up with this location'. This year the ease of strolling around the single level meant that most people, including me, assumed the show was much smaller. Wrong. The statistics prove that the display space was 30% greater than in previous years. The wider aisles gave the impression numbers were down. Wrong again. This year the single level and wider aisles meant that PLASA had a social air about it for the first time."

It's not often an event can get bigger and grow more intimate at the same time, but it certainly happened at Earls Court 2 in September, largely for the reasons noted above.

So, if we have more people contact, and more crossover of ideas, what happens next?

We've taken note. The PLASA Show will grow and more 'people facilities' will be added; better meeting places and more opportunity to exchange ideas, meet old friends and make new ones. That's from the organisational side.

On the stands themselves I predict you will see a lot less equipment badged specifically for one market sector, and, I hope, a lot less people putting an industry sector prefix in the job title on their badge.

The PLASA Light & Sound Show is the only one in the world that annually brings together the full gamut of lighting and sound technology for performance and presentation across the whole spectrum, and our lucky UK audience now have the chance to see all the latest technology in one go. On the other hand our exhibitors have the magnificent opportunity to catch the vast majority of overseas buyers in one take.

Whilst recognising this, it is important to persuade the technician from the small venue, with the minimum number of channels to command, not to be overcome by the big fellows with the big products. What goes into Disney today will often create useful spin-off around the industry tomorrow - and who knows, you may end up working there.

The small exhibitor too shouldn't be forgotten. One enterprising company has already suggested to PLASA a scheme for grouping together smaller companies under one 'market-style' roof, and I hope our organisers and committee will take this idea further.

Leaving the Show, but still on the people front, I had two further opportunities to witness the amazingly broad-based synergy that is developing ever more rapidly in our industry. Light & Sound Design of Birmingham, with a gutsy and forthright approach, brought in both competitors and all for a right royal event at Gravelly Hill. And at the Royal National Theatre the previous week, near 200 leading lights celebrated the 35th anniversary of the founding of Theatre Projects in 1967 by Richard Pilbrow. In my book, the RNT 'do' was a major event of the decade (both events have picture coverage in this issue).

I congratulate all those who took part in and enjoyed all the events I've mentioned. They helped put the word 'people' firmly back into the industry vocabulary, and let's make sure it stays there!

To conclude, I will declare my personal award for the best paragraph in an industry magazine in 1992, even though the year isn't up yet, and the winner has clearly stated elsewhere that he doesn't like awards. It's from this issue of L+SI (naturally), and is included in Tony Gottelier's brief tongue-in-cheek report from Birmingham (page 37). It also neatly reflects the theme of this Viewpoint.

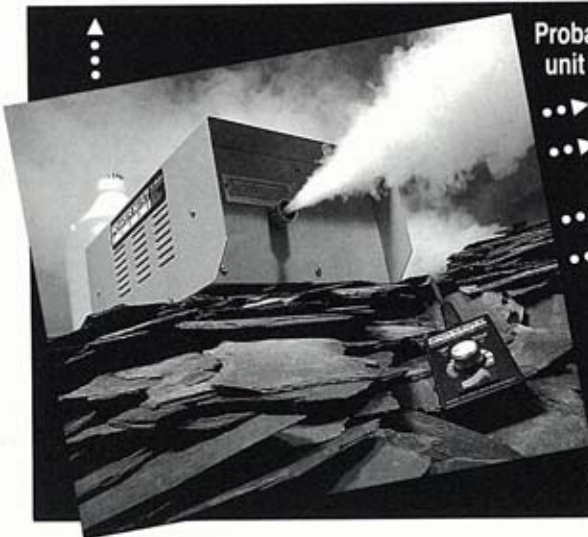
"It's a sign of the times in the industry these days that you see grey suits, rubbing padded shoulders with the bomber jackets of the rock brigade. The financial in full suit with the fanciful."

John Offord is editor of L+SI and chief executive of PLASA.

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ADB	4	Cerebrum	21/36/55	Lightpower	6	Optex	20/55	Universe	45
Aliscaff	16/20	Cloud		Lightwave Research	19	Par Opti	16	Unusual Rigging	82
Apogee	17	Court Acoustics	77	London Laser Co	79	Peavey	3	Wembley	12
Ark Light	16	Doughty	21	Ludwig Pani	9	Pulsar	14/15	Wharfedale	11
AudioTechnica	5	ETR	80	M & M	82	R B Lighting	74	Wilkes	82
Avitec	10	Hardware Xenon	52	Marquee	22/23	Scratch Music	74		
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