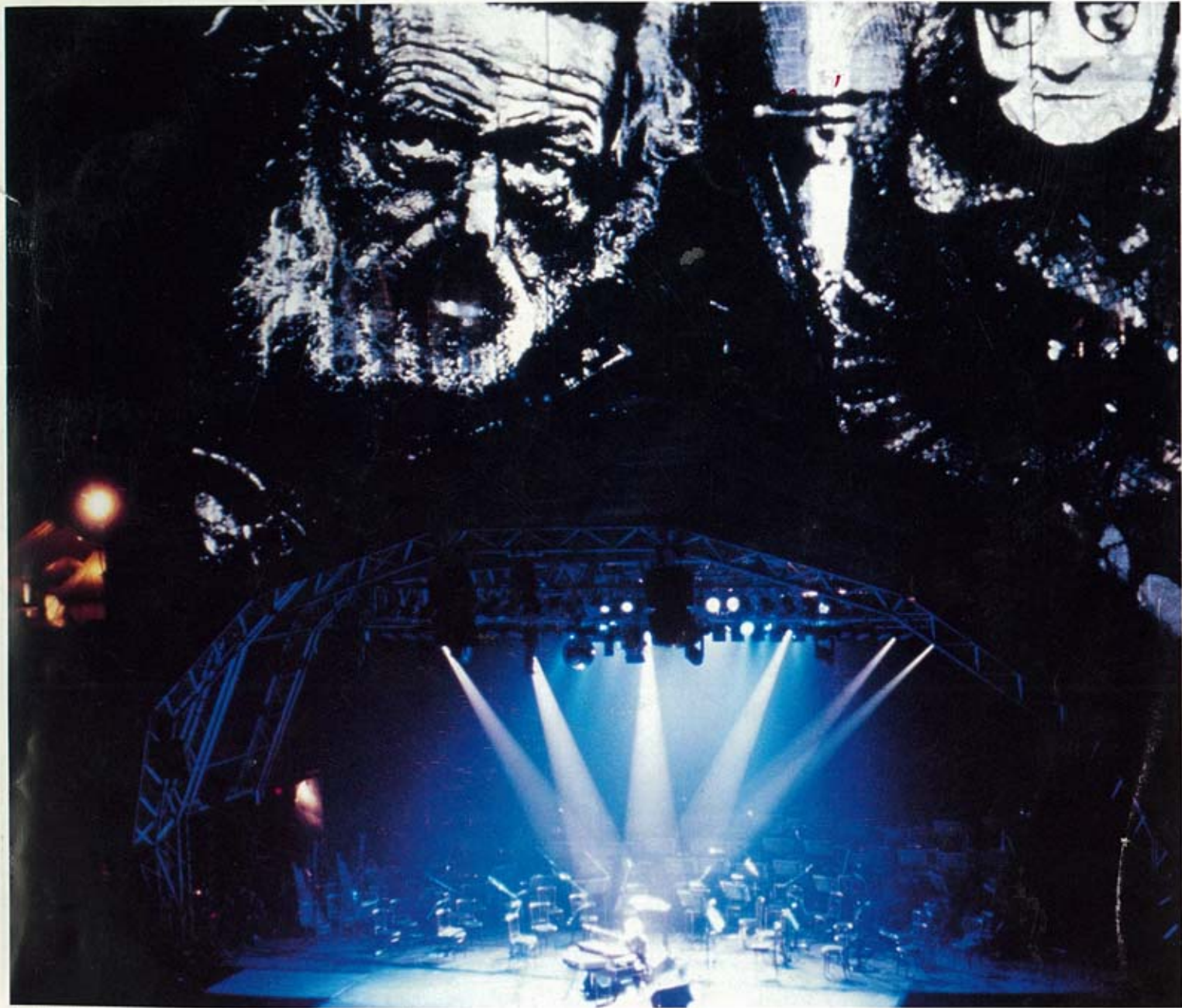


LIGHTING+ SOUND

International



SYMPHONY FOR THE SPIRE, SALISBURY

- PLASA Light & Sound Show 91: Reports and Pictures
- Salisbury: a Symphony for the Spire
- Light Palette 90 at Cambridge Arts
- New Pavilions at Plymouth and Rhyl
- Steve Kemp: a Tribute
- Simple Minds/Guns 'n' Roses on tour

OCTOBER 1991

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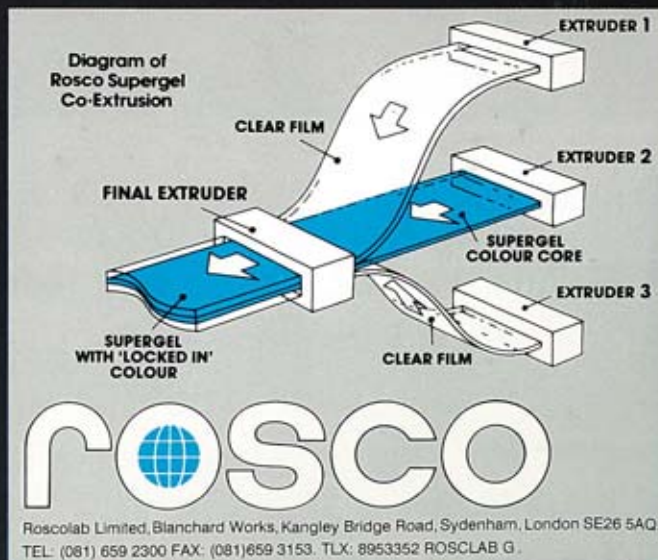


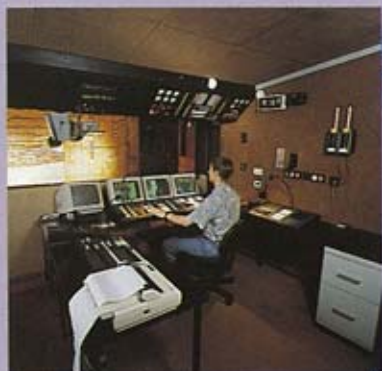
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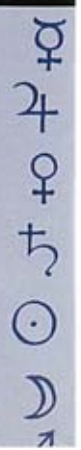
personality interface



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LIGHTING+SOUND *International*

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

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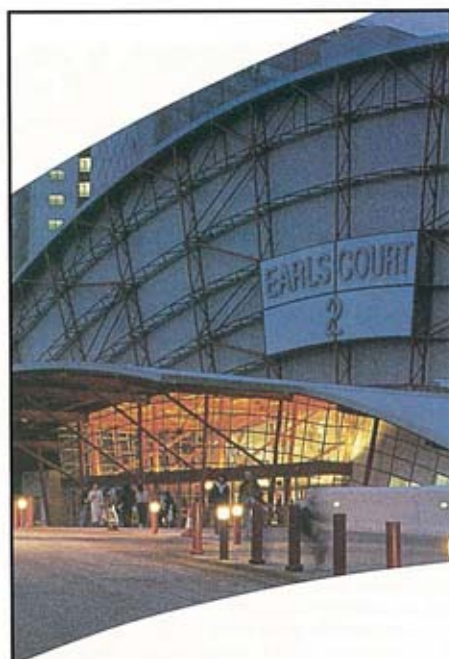
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For Ever, Amber Turns Red in France

Ever-Radio Violette, the Brussels-based distributor of professional lighting products, has closed its eponymous operation in France. However, High Light Systems, the High End/Lightwave Research distributor in France, owned by the same group, will continue to operate, but probably from new premises.

"The problem is localised to this one particular company, which was trading as Coemar-France, for a number of reasons," explained Madame Everaert E-RV's forthright chairperson, "not least of which is that Coemar Italy have withdrawn their support for the operation." In fact, according to Everaert, the company had run up considerable prior debt when, with Coemar as a minority (30%) shareholder, they established a company (Ace Technology) - which proved to be loss-making - to manufacture electronics for Coemar Italy for which demand proved much less than anticipated. Subsequent cash flow problems resulting from slow payment in recession-hit France were the final cause of the closure. "Nevertheless, we believe there may be more to Coemar's withdrawal than meets the eye," says Everaert, hinting at competitive stresses over High Light Systems to which set-up Coemar Italy had apparently assented.

"However, in complete contrast, our sales in Belgium are 65% higher than at this time last year, and customers generally pay faster," Everaert said. She also stated that they hoped to retain Coemar in Belgium.

L+SI requested a statement from Coemar's president Bruno Dedoro, but our offer was politely refused. When we requested confirmation of a suggestion that J. Collyns might become their new distributor in France, effectively swapping with High End Systems who left Collyns for Ever/High Light only last year, Coemar again declined to comment.

British company Zero 88 Lighting are manufacturing the electronics for Coemar's latest generation of robotic luminaires.

Strand Widen Distributor Network

Strand Lighting has announced a further strengthening of its distribution network. Ian Haddon, general manager UK trading, told L+SI that Cerebrum Lighting, PLaylight (London) and P&G Stage Electrical of Manchester have been appointed for the UK market.

On the overseas front Oscar Lighting of Sweden and Maho of Finland are taking over the distribution of Strand products in their respective countries. All these appointments become fully effective from November 1st this year.



PLASA Light & Sound Show Gives Industry Boost

The PLASA Light & Sound Show (full report pages 56-72 this issue) exceeded the expectations of many with visitor levels only five per cent down on last year. A total of 6,814 visitors passed through the doors of Olympia 2 in London over the four show days in September with 15 per cent from overseas and with every continent represented.

Simon Boyd of organisers Philbeach Events told L+SI that he had expected visitor levels to almost match last year's. "We were extremely pleased with the exceptionally high quality of visitor we attracted," he said. "There was a lot of business done at the show, particularly with overseas buyers, and exhibitors were surprised at their success. We are looking forward to continuing this success next year at Earls Court 2, the new home for PLASA's Light & Sound Show."

Pictured above is part of the ground floor at Olympia 2 with the stands of Zero 88 in foreground and the Optikinetics-designed Avitec stand behind.

Management Buy-Out for Luff Light & Sound

Luff Light & Sound has been rescued from receivership by a team of current and former employees, and the new company has agreed to service all existing customers and contracts, saving the jobs of all employees in the process. The new operation will continue to distribute Strand, Bose and Allen & Heath equipment and continue technical and support services to all branches of the entertainment and leisure industry.

John Ball will head the new company as chairman with directors Ian Ferguson and Ken Priddy responsible for lighting hire and technical services. Richard Harris will take care of sales and marketing. The managing director is Michael Chuter who also has responsibility for finance.

New to the business, Chuter is a chartered accountant and former finance director of a major retail chain.

LSD Buy Best of Lumo

Light & Sound Design Ltd of Birmingham have purchased plant and machinery from the administrative receiver of Lumo Lighting Ltd. This will be used to enhance their manufacturing set-up which will soon be re-sited within a new complex in the city.

LSD's Peter Johns told L+SI that it will give the company the ability to supply lighting and support equipment to all areas of the lighting industry from rock 'n' roll to television, film and theatre.

LSD have also purchased all the 'intellectual property' of Lumo including their famed flicker-free ballasts.

Action News



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STAGE FX**JEM****STAGE FX**

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STAGE FX



THE NEW STAGE FX PYROTECHNICS SYSTEM FROM JEM PYROTECHNICS REPRESENTS A QUANTUM LEAP IN ELECTRICALLY-FIRED CARTRIDGE PYROTECHNIC DESIGN. WITH JEM'S PATENTED NEW SEALED CARTRIDGE SYSTEM, NEW SAFETY STANDARDS HAVE BEEN REACHED IN CONJUNCTION WITH NUMEROUS NEW OPERATIONAL ADVANTAGES. THE CONTROL SYSTEM ALSO INCORPORATES MANY NEW CONFIDENCE-CHECKING FEATURES AND JEM'S NEW SMARTPOD IS THE WORLD'S FIRST INTELLIGENT FIRING POD.



JEM

PYROTECHNICS



SYSTEM CONTROLLER

The System Controller is at the heart of the STAGE FX concept. It gives the Supervisor complete status feedback to ensure reliable firing under safe conditions. No other control system offers a comparative level of safety and confidence checking. It is designed to operate four separate channels of up to three pods (12 cartridges in total).

Key features of the unit are:- (a) an illuminated Firing Button (b) a quality Supervisor's Lock and Key (c) open and short circuit testing (d) detects "live" cartridges in conjunction with the JEM SmartPod (e) rugged XLR connectors (f) remote cueing option from a lighting desk with Supervisor's authority (g) system shutdown in event of potentially serious fault (h) "System Live" LEDs on panel.

The STAGE FX System Controller has the highest level of safety and confidence-checking features ever built into a pyrotechnics control system. These features are not gimmicks — they offer real operational as well as safety benefits.

The unit will control the firing of up to twelve cartridges on four channels. A quality Supervisor's lock-out key is provided that enables the Firing Mode. Once activated, twin "System Live" LEDs light up on both the controller and all connected pods. This important feature serves to remind all personnel (stage crew and performers alike) that the system is in a state of readiness, thus loaded pods should be treated with respect. It is a particularly important reminder to stage crew approaching a pod that the Supervisor has not disabled the system.

Once the system has been fully connected, the status of all wiring and pods can be seen from the control panel. Any short circuit in the cables or pod will cause the "System Fault" LED to light up and the system will automatically shut down. This is an important safety precaution to avoid any temptation to operate a system with bad cables. Assuming that all is O.K. at this stage, the pods may be loaded in the normal manner.

Once loaded, selecting each pod in turn with the button provided will cause the "Pod Status" LED to glow green to signify that the unit is ready to fire. If the LED glows red it signifies one of three fault states:- Either the cartridge is faulty (rare), the cartridge is not screwed in fully, or there is an open circuit cable fault. A simple matter of eliminating sources cures this fault.

With JEM's confidence-checking facility, the operator can be absolutely sure that he/she will get reliable firing a crucial point for many shows where a pyrotechnic event is likely to be an important cue or highlight.

Pods can be fired in turn by simply selecting the appropriate channels. The large "Firing Button" is illuminated for easy location in the dark.

For situations where remote firing from a lighting desk or other button is desired a facility has been provided that allows for this while at the same time retaining full Supervisor's authority and ultimate control. A stereo jack socket at the rear of the controller provides two possible states:- Connecting a cable to tip and ground allows firing from a lighting desk providing +10v. Connecting an on/off button to the ring and ground allows for straightforward firing from an external button or switch. In both cases, firing can only proceed if the Supervisor depresses the firing button on the system controller thus authority is not transferred.

Retaining Firing Authority with the Supervisor is important otherwise control is lost which could have consequences from a safety viewpoint. To ensure proper communications between the Supervisor and a remote operator, a talkback communication system is recommended. A provision has been made to also confidence-check a remote firing circuit:- The Firing Button will only illuminate if the circuit is closed. To check the circuit, the remote operator must "test" the system and the Supervisor can report if the Firing Button illuminates.



JEM

PYROTECHNICS



THE JEM SMARTPOD

The SmartPod actively communicates the system status to the System Controller via a four pin XLR. This enables the controller to accurately differentiate between short and open circuits and between "live", "used" or even faulty cartridges. It features JEM's new patented quick-insert threaded sockets — allowing cartridges to be inserted rapidly with one simple short twisting motion. Another key feature is the pair of "System Live" LEDs on the pod which give a clear warning to anyone approaching the pod that the Supervisor's key is in the "Armed" position. Also two fire leds give visual identification of a fire signal reaching a pod.

The JEM SmartPod is the world's first intelligent Firing Pod. Designed to work specifically in conjunction with the JEM System Controller, the SmartPod "talks" to the controller and reports on system status.

The main feature of the SmartPod is the provision of two "System Live" LEDs that provide operators and performers on stage with a crucial warning that the Supervisor has not isolated the system. This warning prevents stage crew from accidentally attempting to load or change over cartridges on a potentially "live" system. And as an additional safety feature special circuitry in the pod cuts off the firing voltage after a short pulse thus ensuring that any controller faults don't result in any accidental ignition.

Electronic circuits in the SmartPod will detect when a "live" cartridge is in place (thereby lighting up a green "Ready" LED on the System Controller) and will also warn the Supervisor if there is a problem that will prevent firing from occurring. This could occur if there is a fault in the cable, such as an open circuit, or if there is a fault in the pod itself.

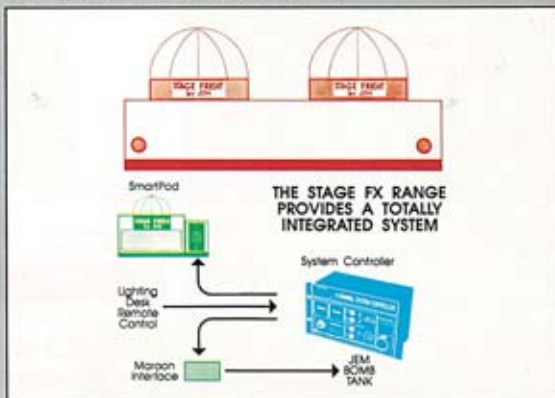
Faulty cartridges are rare, but nevertheless possible (cartridges dropped onto a hard surface could conceivably suffer from internal damage, although the SmartPod would respond to such an event by lighting up a red LED on the System Controller).

The confidence-checking circuits and safety features raise safety levels and reduce the possibility of accidents. No other firing system has this level of protection for the user.

A highly desirable feature of the JEM system is the quick-action "twist-and-insert" method of loading. In a cartridge changeover situation on a live show, stage crew need to be able to re-load pods in seconds with the minimum amount of fuss. The special thread used was specifically developed for the system and is a patented feature. It allows the cartridge to be easily inserted with one hand and positive locking takes place in approx. one third of a turn. This method avoids fumbling to locate pins which is difficult and cumbersome.

All connections to the SmartPod and links to additional pods are by rugged 4-pin XLR. This is a major improvement on other systems using non-standard plastic plugs.

A "Y" link cable is available for connections to additional pods and a "Maroon Interface" is available to allow links to the JEM bomb tank. The interface allows the confidence and safety checking features of the SmartPod to be extended to Maroons.





JEM PYROTECHNICS



THE JEM CARTRIDGE

JEM's unique patented cartridge is the most innovative component of the STAGE FX system. Developed after years of painstaking research and development, this plastic-domed sealed unit is a totally new concept and brings the design of cartridge pyrotechnics truly into the 21st century. Completely new specialised plastics processes had to be developed in order to achieve the level of accuracy necessary for this new style of cartridge. The dome incorporates pre-stressed lines of weakness which rupture instantly on detonation, but which retain all pyrotechnic material within a safe sealed environment until fired. Thus STAGE FX is the first system to be suitable for use in damp and wet conditions. In addition, the JEM system is the first ever to meet the rigid NATO recognised standard AQAP 1, in addition to UN Classification 0337 1.4S.

The new Stage FX patented cartridge brings pyrotechnics into the 21st century! Designed to offer a big safety advantage over normal paper-top cartridges, the cartridge contains its pyrotechnic charge within a sealed damp-proof environment that eliminates traditional spillage problems. It also eliminates the problem of ingress of damp which can lead to unreliable or erratic firing with paper-top systems — unreliable firing can be a safety hazard.

A BRIEF HISTORY

JEM's concept of a sealed cartridge with a plastic membrane dome was a simple, if not unorthodox idea, developed after careful study of other cartridge systems. However, turning such a concept into reality was considerably more difficult — indeed many said it couldn't be done! New techniques in injection moulding had to be developed in order to achieve the high degrees of accuracy needed to make the dome.

Also developed from scratch was the special thread on the stem. It was recognised that a single screw-thread

offered a distinct advantage as location in the socket was easier than by any other method, however, existing thread patterns did not offer the 'quick-twist' action necessary to achieve fast loading (and un-loading) on stage. JEM therefore developed a cartridge that has a special three-spline thread that always ensures instant positive location and full insertion occurs within about one third of a turn. This reduces changeover time to a minimum — essential for many live productions.

SAFETY STANDARDS

JEM's cartridges are the first ever of their type to meet the stringent manufacturing and quality criteria demanded under the NATO recognised standard AQAP 1.

What this means for the end-user is an assurance that quality, reliability and consistency is un-surpassed. Even the packaging has been approved and every box comes with full safety information and guidelines on their use.

The cartridges meet U.N. Classification 0337 1.4S and have been submitted for relevant approvals in all major foreign countries (contact JEM for details of applicable overseas approvals).

PERFORMANCE

Because the JEM cartridge has quite different physical properties to other systems, completely new pyrotechnic mixtures had to be developed for every cartridge type. This has allowed JEM the opportunity to vastly improve performance. The dome construction also allows larger charges to be stored so the effects are more spectacular.

JEM have also introduced a number of new effects including a complete range of coloured flashes — and the aptly named "Stage Fright" range provides novel and unique sound effects.

The JEM cartridge system is protected by worldwide Patents (pending).



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CARTRIDGE RANGE

JEM's range of STAGE FX cartridges consists of a completely new list of special effects. It includes the following groups:-

1. **Coloured Flashes:** These are the first ever available on the market, giving off a powerful flash with intense coloured light.
2. **Silver & Golden Burst:** These give off a spectacular shower of silver or golden stars.
3. **Stage Flashes:** These give off a "thump" with a beautiful mushroom cloud of smoke.
4. **Stage Frights:** These give off a loud, piercing shriek when fired! They are unique to the Stage FX range.

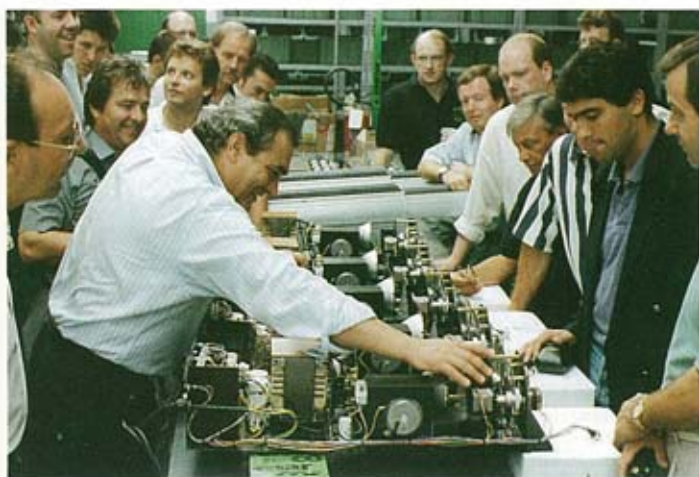


CARTRIDGE RANGE

5. **Coloured Fires:** These burn with a dramatic, intense coloured fire.
6. **Coloured Smokes:** These give off dense smoke in spectacular colours.
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Bruno in the works. Coemar boss Bruno Dedoro played host to customers enjoying a weekend in Venice, courtesy of WB Lighting. More next issue.



Colour competition from Ocli Optical.

Allen & Heath and MBI Join the Soundcraft Group

Harman UK, a subsidiary of Harman International and the holding company of Soundcraft Electronics has announced the acquisition of Allen & Heath, Allen & Heath USA and MBI. Based in Brighton and Cornwall, Allen & Heath (AHB) will be retained as an independent trading company with its own dealer network and international distribution. DOD Electronics (another subsidiary of Harman International) will handle distribution of AHB products in the North America market.

MBI, which offers broadcast products complementary to the Soundcraft line, will form part of a Broadcast division within the Soundcraft Group. Product design and manufacture will in time be fully integrated within Soundcraft. World-wide distribution has yet to be finalised.

Make A Date

Meckler have announced that they will be organising **Virtual Reality 92** and that the event will be held at the Olympia Conference Centre in London on the 1st and 2nd April next year. The conference will again be chaired by Tony Feldman who recently led the VR session at the PLASA Light & Sound Show seminars. Details from Meckler on 071-931 9985.

The **Waldram Lecture**, sponsored by Osram, will this year be given by David Brooks of Strand Lighting Ltd. The venue is the Bradford Museum of Photography, Film and Television. Details and booking forms are available from Mrs D. Barnes at the Institution of Lighting Engineers on (0788) 576492. There is no charge, but admission is by ticket only. Date is 2nd December.

The Sound and Communications Industries Federation is organising a one-day conference on **Sound Systems for Emergency Purposes** at the Horticultural Hall, Westminster, on 23rd

October. Details are available from Brenda White of SCIF on (0628) 667663.

APRS has announced that **APRS 92** will be held at Olympia 2 from 3-5 June next year. Details from the Association on (0734) 756218.

Discoscene Midlands, an exhibition of sound, lighting and special effects equipment, will be held at the County Cricket Ground, Edgbaston, Birmingham on Sunday 3rd November. For details call Terry Lees on 021-707 1925.

ABTT North, with both exhibition and seminars will take place at the Royal Northern College of Music from Thursday 31st October through to Saturday 2nd November. Further details from ABTT on 071-434 3901.

Golden Scan 2s Missing

One of Pulsar's customers has recently had four Golden Scan 2 575 HMI units stolen. The serial numbers are: Bodies - 05, 315, 312 and 313; Heads - 744, 750749 and 753. If anyone can help please contact Pulsar on (0223) 66798.



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Martin effects in full flood at the Light & Sound Show. Photo: Disco Mirror



The ever-amazing Mick McManus of Le Maitre in full voice on the Martin Professional stand at PLASA with Wembley Loudspeakers' Paul MacCallum killing himself laughing (left) and Pulsar's Derrick Saunders killing himself physically on the drums.

'XL'ent for Some!

As part of the launch of their new range of products at the recent Light & Sound Show, Zero 88 offered a daily free draw to all-comers, with a new Lightmaster XL as the prize.

The three winners were D. S. Saunders, technical manager of Busbys nightclub, London, drawn by Catriona Forcer, well-known contributor to L+SI. John Twine, lighting hire company owner from Bath, Avon, drawn by Simon Boyd, show manager of Philbeach Events, and Les Allen from Powell Allen Associates in Aston, Oxfordshire, drawn by Charles Vance, editor of Amateur Stage. Entries for the fourth and final day will be drawn at the offices of PLASA during October.

Equipment Stolen

Rochdale-based DBN Lighting recently had a range of equipment stolen including a Celco Baby, and various Zero 88, Anytronics, Kodak and other equipment. For a full list of stolen items, please contact DBN direct on (0706) 40559.

Dream Up Champagne

To mark the launch of their new brochure, which includes details of all the major new products recently launched at the PLASA Light and Sound Show, Arri are offering a bottle of champagne for the writer of the best caption for the brochure's intriguing front cover photograph. Call Dee Reed on 081-848 8881 for a free copy of the brochure and to start dreaming up captions.

Four to One Line Up

Four to One the quarter scale lighting and design studio has recently played host to an interesting and contrasting group of artistes.

Aside from providing a scaled-down studio facility for Dire Straits 'Calling Elvis' video, the studio was put to use by Status Quo's lighting designer for the group's 'Rock Till You Drop' world record attempt. More recently, Vince Foster who is designing the lights for Seal's forthcoming tour, has been at Four to One going through his paces.

Portable Aliscaff

Aliscaff of Tottenham, who are becoming increasingly well known in the light and sound industry for their extruded couplers and other fittings, now offer an associated product - portable stagings.

The system is modular, with each standard unit (8' x 4') consisting of an aluminium frame with the ubiquitous Aliscaff couplers in the four corners which accept aluminium legs supported with two knee braces that locate on pins in the main deck bearers. An adjacent unit coupler ensures that all units can be coupled together preventing movement under all conditions. For further details contact Aliscaff on 081-808 5005.

Read all About it

In Pulsar's attractive new 'Product News' brochure a page is given to a full description of their stand at the recent PLASA Light and Sound Show, describing how the complex was planned and operated. Ring Pulsar on (0223) 66798 for a copy.

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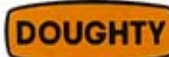
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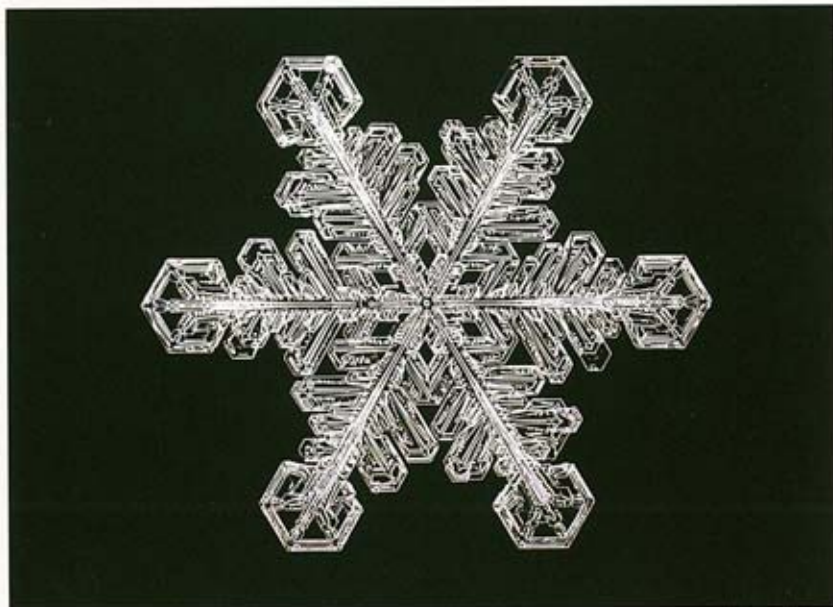
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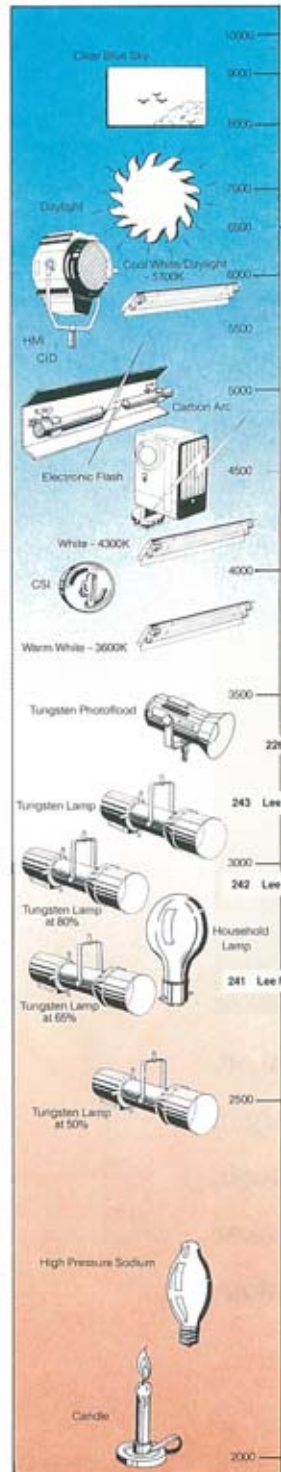
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Light Source Conversion Calculator

Original Source (Kelvin)

(Kelvin)



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

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

- | | |
|---|---|
| 247 Lee Minus Green | Coral 14 (Mixed Shift +234) |
| 248 Lee Half Minus Green | Coral 13 (Mixed Shift +216) |
| 249 Lee Quarter Minus Green | Coral 12 (Mixed Shift +194) |
| 219 Lee Fluorescent Green | Coral 11 (Mixed Shift +186) |
| These Filters correct the colour cast of fluorescent tubes without affecting to colour temperature. | |
| Fluorescent FL 5700 - B (Mixed Shift +137) | Coral 9 (Mixed Shift +158) |
| 236 HMI to Tungsten (Mixed Shift +136) | Coral 8 (Mixed Shift +144) |
| 85B 85BN3 85BN5 85BN8 (Mixed Shift +121) | Coral 7 (Mixed Shift +126) |
| 85 85N3 85N6 85N8 (Mixed Shift +112) | Coral 6 (Mixed Shift +113) |
| Fluorescent FL 4300 - B (Mixed Shift +93) | Coral 5 (Mixed Shift +99) |
| 81EF 81EFN3 81EFN6 81EFN8 (Mixed Shift +82) | Coral 4 (Mixed Shift +83) |
| Fluorescent FL 3600 - B (Mixed Shift +75) | 85C (Mixed Shift +91) |
| Coral 1 (Mixed Shift +26) | Coral 3 (Mixed Shift +89) |
| Fluorescent FL 3600 - D (Mixed Shift +75) | Coral 2 (Mixed Shift +84) |
| 81B (Mixed Shift +18) | 81D (Mixed Shift +42) |
| 81 (Mixed Shift +9) | 81C (Mixed Shift +33) |
| 226 Lee UV Neutral Density ND 0.9 ND 0.6 ND 0.3 | 81A (Mixed Shift +18) |
| 213 White Flame Green | 81 (Mixed Shift +9) |
| 243 Lee Fluorescent 3600K (Mixed Shift -34) | 218 Eighth CTB (Mixed Shift -18) |
| 242 Lee Fluorescent 4300K (Mixed Shift -76) | 203 Quarter CTB (Mixed Shift -32) |
| 241 Lee Fluorescent 5700K (Mixed Shift -137) | 202 Half CTB (Mixed Shift -74) |
| | 1/8 CTB - 203 + 202 (Mixed Shift -113) |
| | 201 Full CTB (Mixed Shift -137) |
| | 1/8 CTB - 201 + 202 (Mixed Shift -215) |
| | Twice Full CTB - 2 x 201 (Mixed Shift -274) |



Converted Source (Kelvin)

(Kelvin)



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

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

T1 is the colour temperature of the original light source in degrees Kelvin.
T2 is the colour temperature of the required source



The Art of Light

revealed

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

That's why it has developed a series of technical posters - available free of charge - to help filter users make the most of its products. To understand more fully how the art of light works. To create better images. The first poster in the series - shown on the opposite page - has been designed to provide a simple and instantaneous reference for the calculation of filter requirements when converting from one light source to another.

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

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

**Lee Filters Limited,
Central Way,
Walworth Industrial Estate,
Andover, Hampshire SP10 5AN,
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This is what you've come to expect from Lee Filters. The art of light. And more.

Sound News

Two big JBL systems have recently been installed in two Irish nightclubs. At the Oasis in Carrick Macross the original custom-built system has been replaced by a 9kW Sound Power rig, and at Busters in Bambridge four JBL 4751APs have been flown around the dance floor and there are two 4785A subwoofers. In addition a multi-purpose JBL system was installed at the Marine Hotel in Ballycastle.

Pro Sound Systems of Southampton have installed a **Soundtracs** Megas Mix console on the Sealink Stena line's 'Normandy' cross channel ferry which operates on the Southampton Cherbourg route and which features a daily cabaret programme on board.

The Warehouse Sound Services Ltd opened their new showroom and service depot in Glasgow in early September. It will supply rentals, sales, maintenance and repairs of professional sound equipment to the film, TV, radio and entertainment industries in West and Central Scotland.

The Japanese Festival featured an unusual Kabuki production of Jesus Christ Superstar at London's Dominion Theatre in September and the show used the first **Cadac** console fitted with integral motor faders.

TOA Electronics has just completed the first phase of a new £500,000 sound system for Brands Hatch with the installation of over 1000 speakers capable of delivering 28,800 watts of power via 120 power amplifiers.

Robert Lingfield, managing director of **Hill Audio Ltd**, has announced that the recent proposed voluntary agreement to ensure the company's survival was accepted at a meeting of creditors on 25th September. "We are confident that we are now on a path of recovery," he said.

Swiss PA company Audio Rent supplied the total sound system for Switzerland's biggest open air festival at Frauenfeld this summer where a Clair Bros 200kW rig featured 20 channels of **EMO Systems'** equalisation controlling front of house and stage monitoring.

Soundcraft's recently launched Europa desk has just completed its first UK tour with Voice Of The Beehive. PA company Entec had already put the Europa through its paces at the Reading festival in a special deal with Soundcraft dealer **Marquee Audio**. Other Soundcraft desks have recently been delivered by Marquee to JHE Audio, the UK based hire division on John Henry Enterprises, and Skan PA Hire Ltd of Reading.

A 2,300kg cluster of JBL Sound Power cabinets is now flying at the new Olympic-size Blackburn Ice Arena. It is part of a massive system capable of delivering a massive 24kW of power. The system has been installed by **Venuetech Ltd** and has been designed to accommodate the many functions of the arena which includes everything from ice skating to rock concerts and sporting events.

PLASA Show People . . .



PLASA chairman Tony Kingsley announces Earls Court 2 as the 1992 Show venue.



Pio Nahum (Clay Paky) and Derrick Saunders (Pulsar) check out Earls Court 2.



Ralph-Jörg Wezorker (Lightpower) with Michael Hall of Rosco.



Debbie Potter of AC Lighting with Cerebrum's Rod Bartholomeusz.



Mike Lowe (centre) of Teatro wins an order from Tania Borton and Derek Gilbert of Glantre.



Tony Kingsley welcomes Rick Wakeman on the Celestion stand with Clive Bradbury.



Keny Whitwright of Wybron and a handful of Scrollers.

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

Name _____

Job Title _____

Address _____

Laser Show

Joe Bananas in Bath was the venue for the first club showing of American Laser's new 300mW air-cooled white light laser, first seen at PLASA.

Bristol-based Euro-Research UK, who were responsible for arranging the event, plan to take the laser show on tour in November. The company hope to do 10 shows over a two week period, and are looking to hear from nightclubs who might be interested in being involved with the tour. For further details contact Richard Pearson at Euro-Research on (0272) 863627.

Soft Option from Axon

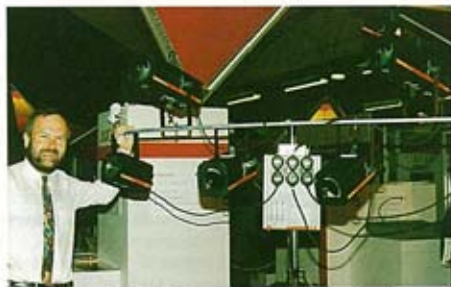
ShowCAD is the latest control concept from the originator of Oska. Intended as a generic database for performance lighting control, it is available to lighting control manufacturers on an OEM basis for incorporation within their own hardware packages. The manufacturers claim that this will save on the cost of duplicated software effort, while allowing full integration with existing surfaces. Mick Martin, Axon's director of development told L+SI: "The advantages of being compatible with the vast range of well-made off-the-shelf computer hardware for the PC-AT are self evident and the extra ability to interface the system to standard lighting boards and controllers makes ShowCAD the ultimate flexible control system."

The OEM kit consists of a standard computer expansion card providing 1024 DMX512 channels and two diskettes containing the operating software appropriate to creating a universal showcontroller, with MIDI in-out-thru, SMPTE, RS232/422 and other optional add-ons. The anticipated cost for OEM users should deliver an attractive individual selling price.

In the UK ShowCAD can also be bought as a PC-AT-based system in one-off quantities. Additionally the software is also available in an interactive demo version which can be run on a PC.

At the same time, Axon announced that their enhanced Oska control system is now available directly from them and not just from Pulsar. Distributors in other territories are being sought.

PLASA Show People . . .



Peter Brooks with Zero 88's first luminaires.



PLASA's Jan Shepherd with show guests from Russia.



A balcony view for John Jeffcoat and Chris Pike.



Neil Rice (Optikinetics) with David Neale.



Hugh Leslie of LHS makes a surprise appearance.



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People

Rocyn Williams has been appointed the new general manager of Sylvania Special Products Group in Europe. He first joined the company in 1982 as area sales manager for the UK.

Celestion International has recently appointed **Martin Brady** as sales and marketing manager for its Pro-Audio division.

Kiera Leeming has joined Harman Audio as marketing manager for the Professional Group, with Guy Hawley moving to oversee the entire UK marketing operation for both professional and consumer products.

Litetask, the Leeds-based lighting company, have appointed **Ray Wild** as sales engineer.

Meteorlites Productions have appointed **Derek Halliday**, formerly managing director of Avolites, as marketing manager. His role will be to develop and implement a marketing strategy. Derek will represent both the British and American sides of the company, but will be based in London.

The Association of Lighting Designers has elected a new chairman to succeed Robert Ormbo. **Michael Northen**, well-known theatre lighting designer, was elected to the post as head of the Association at their recent annual general meeting.

Brian Dobson has taken up the position of technical operations manager at Birmingham's International Convention Centre. He will be responsible for monitoring the development of all large-scale events at the ICC.

Hertfordshire-based Soundcraft have appointed **Andy Farmer** to the role of product analyst. He will work with recently-promoted sales and marketing director Alison Brett.

Mark Perrins has joined Fostex as product manager, and his responsibilities include support to both Fostex dealers and the sales team.

Lawrie Taylor-Duncan, formerly of JEM Theatrical Services has joined US-company Meteor as marketing director.

The projects team of Bob Massey Associates in Nottingham has been strengthened by the appointment of two additional members. **Geoff Dudley** joins the company as senior projects engineer and **Ruth Jackson** takes on the role of technical administrator to provide additional support to the team of project engineers.

Colin Mitchell who rejoined Juliana's last year has recently moved to Singapore to head up their technical design, installation and maintenance department.

Tannoy-Audix has appointed **Charles Williams** as sales manager of its public address division. He will spearhead the sales operation of all public address and voice fire products, both in the UK and overseas.



Bill Little (right in picture above), the man who put the Par 64 in a can, died on July 29. He was 67. With his wife Margaret (with him in picture) he was a frequent visitor to PLASA shows representing his Dallas, Texas, based company Little Stage Lighting. "Bill was an inventor," said Pulsar's Derrick Saunders, "and was always looking forward but with old school values. We shall miss him and I know Bill Little Jr. will be making his mark in the business soon. We all offer our condolences to his family." Readers will note many well-known industry names in the photograph taken a few years ago at Pulsar's factory in Cambridge.



More faces at the PLASA Light & Sound Show: Sarah Bradford and Sussi Christiansen of Laserpoint (above) and PLASA past chairmen Kevin Hopcroft and Peter Brooks with chairman Tony Kingsley (below).



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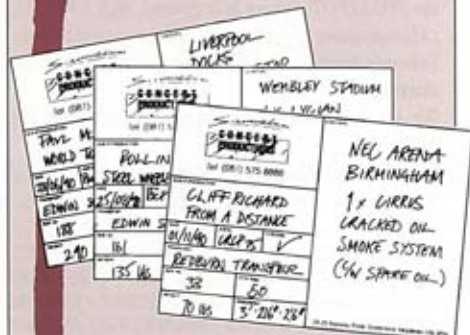
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We also exclusively represent **AMPTOWN** (Manufacturers of the *POSISPOT* moving light system), **MA LIGHTING TECHNOLOGY** (Manufacturers of professional lighting control consoles), and **SUNN** (Manufacturers of *MIDI* lighting systems) in both the U.K. and certain overseas markets.

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TRADE SHOW 91

to be held at the
Royal Northern College of Music
 Oxford Road, Manchester

DATES & TIMES

Thursday	31st October	14.00 - 19.00
Friday	1st November	10.00 - 19.00
Saturday	2nd November	10.00 - 14.00

ENTRY TO TRADE SHOW IS FREE

Zero 88's Grand Prix Night

On the Monday evening of the Light & Sound Show in London Zero 88 whisked away a bus-load of industry 'luminaires' to a secret destination. Somewhere out west in Park Royal, and in the midst of an industrial estate, guests were unloaded into a go-kart warehouse that had to be seen to be believed. Zero had rented the place for the entire evening and had set up three hours' worth of competition, fun, food (but no booze) for their guests.

After a full and highly professional briefing from the track marshalls, 40 stalwarts from all corners of the globe (or at least from where there are Zero 88 distributors) shoe-horned themselves into full Grand Prix gear and started to get somewhat anxious about having to drive the hot little cars lined up waiting for them, bearing in mind that they could also be black-flagged for any misdemeanour.

There were heats, semi-finals and, of course the big final itself. The first heats (each competitor had to drive in four, from varying grid positions) were the easy bit. Then our 40 trusty racers realised they were scoring points, and it began to get a bit more serious, although nobody dared to admit it. L+SI's Ruth Rossington was desperately trying to beat boss and editor John Offord on points (but sensibly refrained from doing so), and John Offord himself was trying to keep his advertisers happy by not being too competitive. Meanwhile the Zero 88 hosts were grinning wildly on the sidelines, having decided not to compete and leave it to their guests to provide their own fastrack fun.

Three action-packed hours into the evening and the final line-up for the 'Grand Prix Final de Zero Quatre vingt huit' saw an international line-up of eight drivers: Lars Berge (Norway), Kimmo Juntilla (Finland), Thomas Karper (Germany), Claude Schockmel (Luxembourg), Noel Skyrnski (Canada), and three Brits Glyn O'Donaghue (Lancelyn Lighting), Mark Morley (AJS) and John Offord (L+SI).

20 exhausting laps later Glyn O'Donaghue crossed the line well ahead as winner followed by Noel Skyrnski and Claude Schockmel. L+SI's John Offord, oldest man in the final by a long chalk (that's his excuse anyway), eventually toddled in sixth, and tired out. However, he'd already beaten many of his friends(?) including Gerard Jongerius (Flashlight), Ralph Dahlberg (Avab), Steve Terry (Production Arts), John Lethbridge (Cerebrum) and Ruth Rossington who were all obviously delighted to see him do so well and go up to receive his little medal. So who cares about the ads anyway?



Zero 88's directors congratulate the winner.



Eight gallant finalists.



Winning trio do the honours.



Ruth Rossington gets a helping hand from Steve Terry (left) and John Lethbridge.



Ruth Rossington on the grid.



Editor John Offord gets a medal.

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As part of the expansion of its highly successful lighting control business, ARRI (GB) Ltd wishes to recruit a Product Manager to look after a range of professional lighting control consoles and dimming products.

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Optikinetics' Solar



Optikinetics' latest: projecting on the Avitec stand at the Light & Sound Show was the new Solar 575. Into full production next year, pre-production units are currently on tour with 'James' and 'Level 42'.

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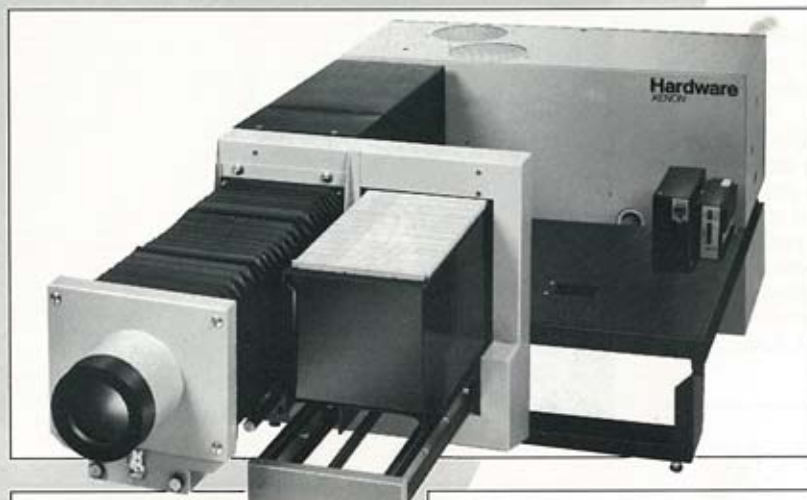


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**SALES AND
RENTALS**

SYMPHONY FOR THE SPIRE

Mike Lethby with the Inspiration behind the Spectacle

Any homeowner who has opened a surveyor's report about their cracking walls to discover the house needs underpinning will readily sympathise with the trustees of Salisbury Cathedral.

For their surveyors, probing the beautiful 404 feet high spire's foundations in the mid 80s, found the 6,400 tonne edifice to be in impending danger of collapse. You can imagine the shock. The Cathedral was started in 1220 and took 100 years to complete, and when the tower and the spire were added soon after, it became the tallest building in the country - a title it was to hold for well over 100 years.

Despite those medieval builders' skills and imagination however, the laxity of 14th century building regulations has finally been exposed. The spire rests on just four feet of foundations, and the more modern afflictions of acid rain, pollution and subsidence have taken their toll to devastating effect. It is, you could say, the underpinning job to end them all.

An appeal fund was soon launched to raise the estimated £6.5 million needed to save the spire - and HRH The Prince of Wales agreed to become its President. The Prince's interest in matters architectural is famously large (and, indeed, enjoyed by many of his future subjects when dinner talk turns to modernist excesses).

Earlier this year, with the Appeal dragging on the Prince decided to break with Royal protocol and put his name to a fund-raising concert on September 6th in the grounds of the Cathedral itself: the Symphony for the Spire.

Typically, not content to be a mere figurehead for the PR people, he immersed himself in the project, helping to shape the show's format and personally asking Placido Domingo to fit it into his packed diary.

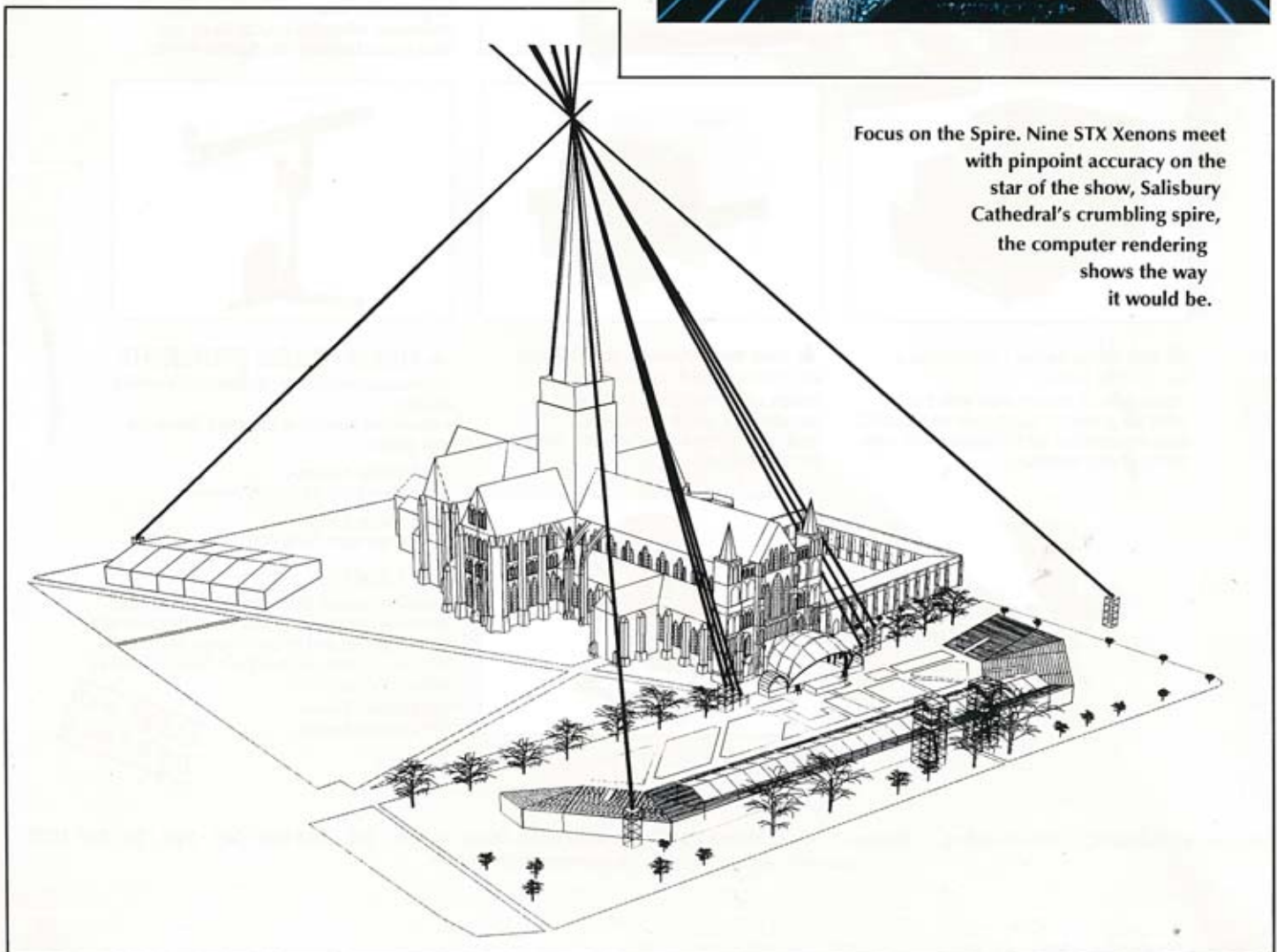
Billed as the opening event of the Salisbury Festival, the outdoor concert took six months to plan, involved 200-plus performers on stage, including the 87-piece English Chamber Orchestra and 100 strong Philharmonic Chorus and a total of some 400 staging, sound TV and lighting crew, who created a covered stage and temporary arena on the lawn opposite the West End wall of the Cathedral. It was by any

standards a spectacularly successful concert, watched by a live audience of 10,500 (paying between £50 and £100 a head), broadcast on networked TV and BBC Radio 2 and recorded for video release.

With hardly any rehearsals worthy of the name beforehand, a cast ranging from Placido to Phil Collins, from jazz pianist Peter Donahoe to Charlton Heston and from the English Chamber Orchestra to Kenneth Brannagh created, as the Daily Mail put it, an evening to remember.

It made around £1m for the Spire Appeal, less any losses via the Keith Prowse farrago, and headline news in the national papers. Both live and on TV, it was good to watch and hear - thanks largely to organisers The Creative Concern, joint LDs Andy Doig and Robert Hyde, Wigwam's Chris Hill and Robert Edwards of TVS, the show's sound co-ordinator and post-production supervisor.

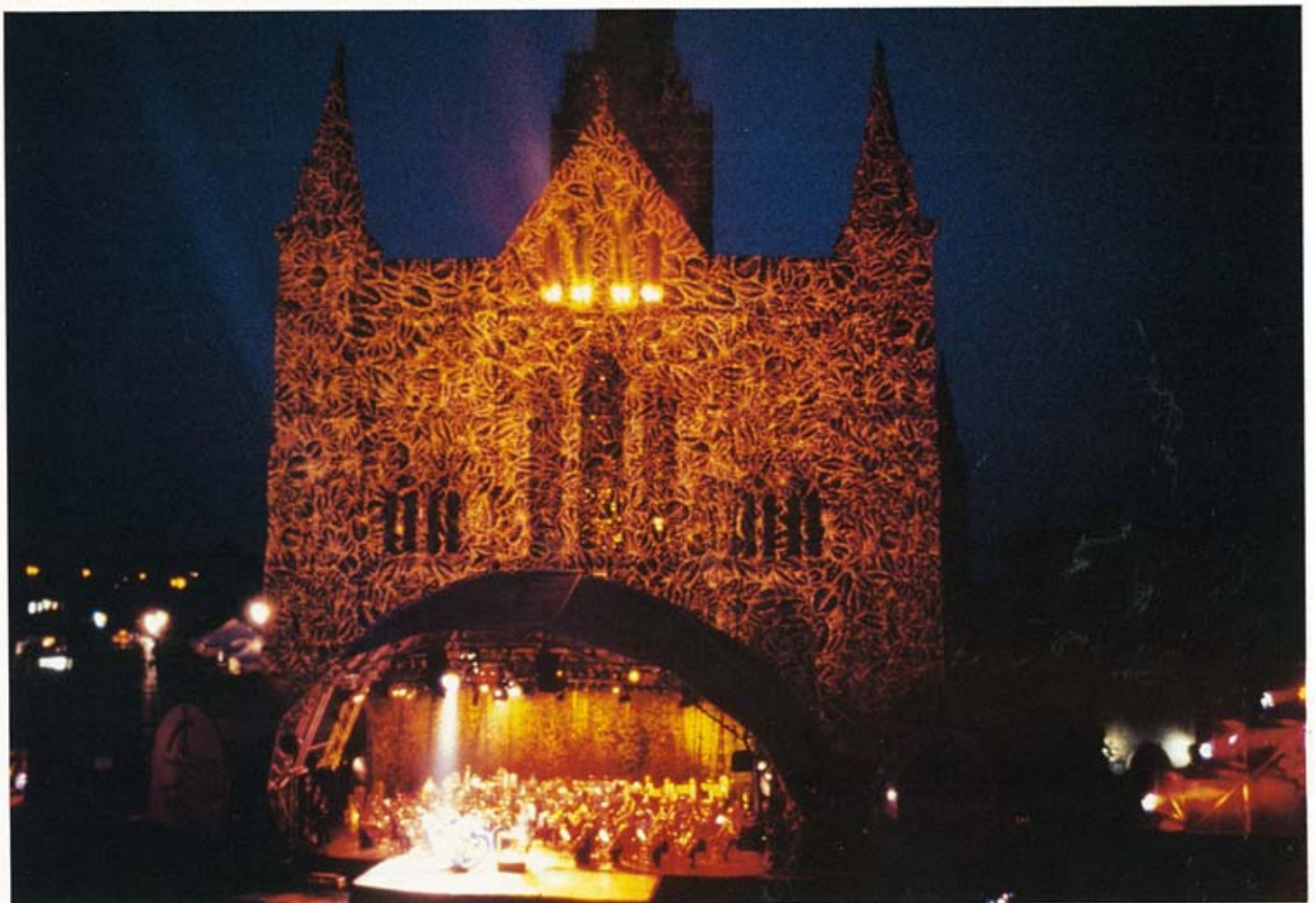
On that sunny afternoon in Salisbury I talked to Andy and Chris about their roles in creating the Symphony for the Spire.



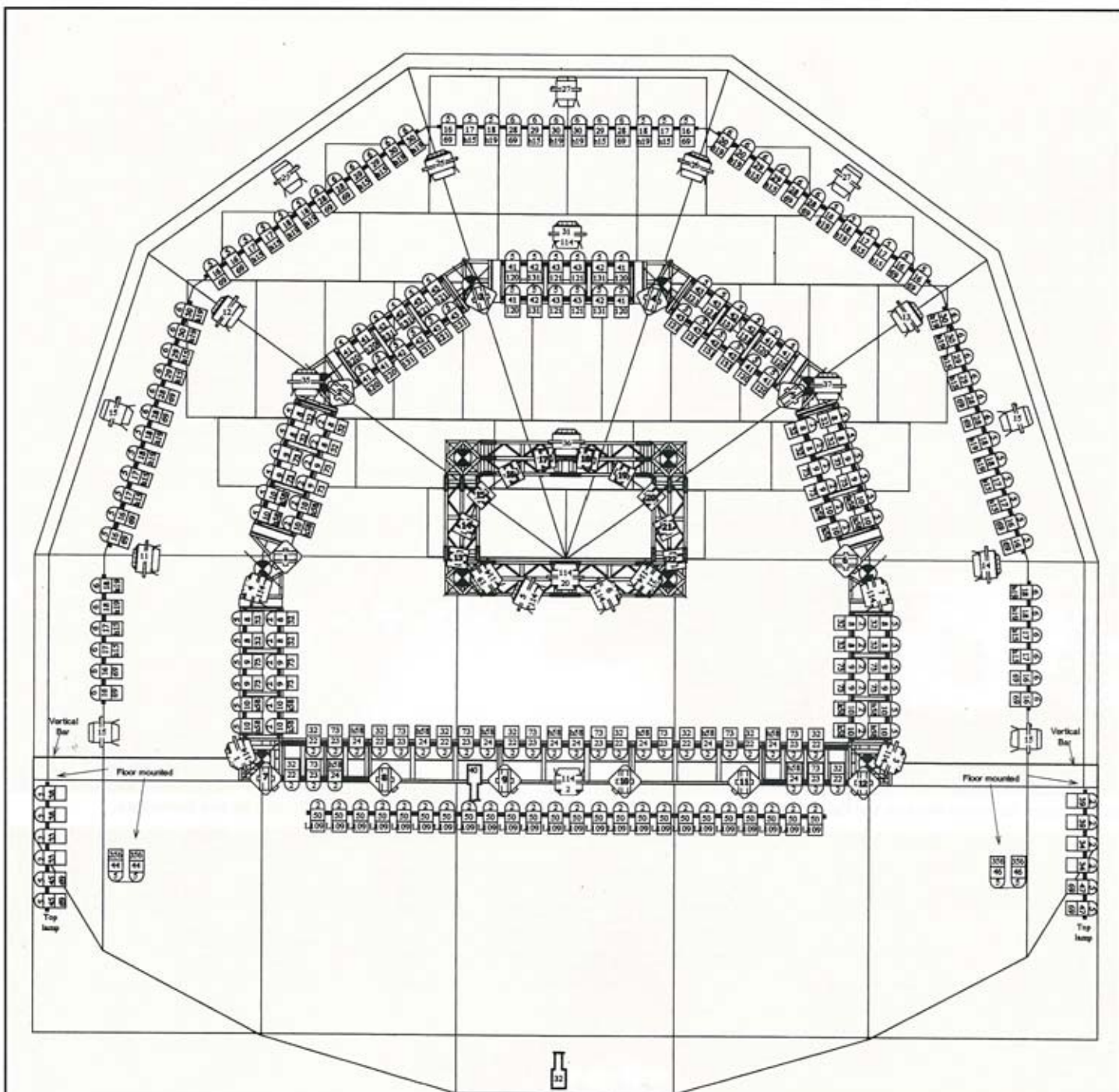
Focus on the Spire. Nine STX Xenons meet with pinpoint accuracy on the star of the show, Salisbury Cathedral's crumbling spire, the computer rendering shows the way it would be.



Two Hardware for Xenon 4ks turn the Cathedral into a giant projection screen during Domingo's aria from Aida. Art was by Ken Sutherland.



Light and Sound. HMIs and 10ks back light the windows as another projection coats the wall, this time in leaves. Later, during a Saint-Saens' organ symphony, massive pipes are projected as the sound of the organ emanates from within.



S.S.S. CAD DESIGNS
Save Our Spire
 Carol and Andrew Deig
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 Barbican Entry KT8 4DL
 01 300 0664

Do not Scale
 All substitutions or alterations only by prior agreement with CAD designs. Any discrepancies to be corrected immediately in CAD designs.

Designer: Robert Hyde + Andrew Deig
Drawn By: AD
Client: The Creative Concern
Job Title: Symphony for the Spire
Drawing No: CAD 91 SOS
Revision: Master 3
Date: 15.8.91
Scale: 1/100 or 1/50

REVISIONS
 Channels 8, 9, 10, 22, 23, 24, reconfigured
 Channels 18 + 30 colour corrected to H19 from H15
 channels 36 and 20 reversed

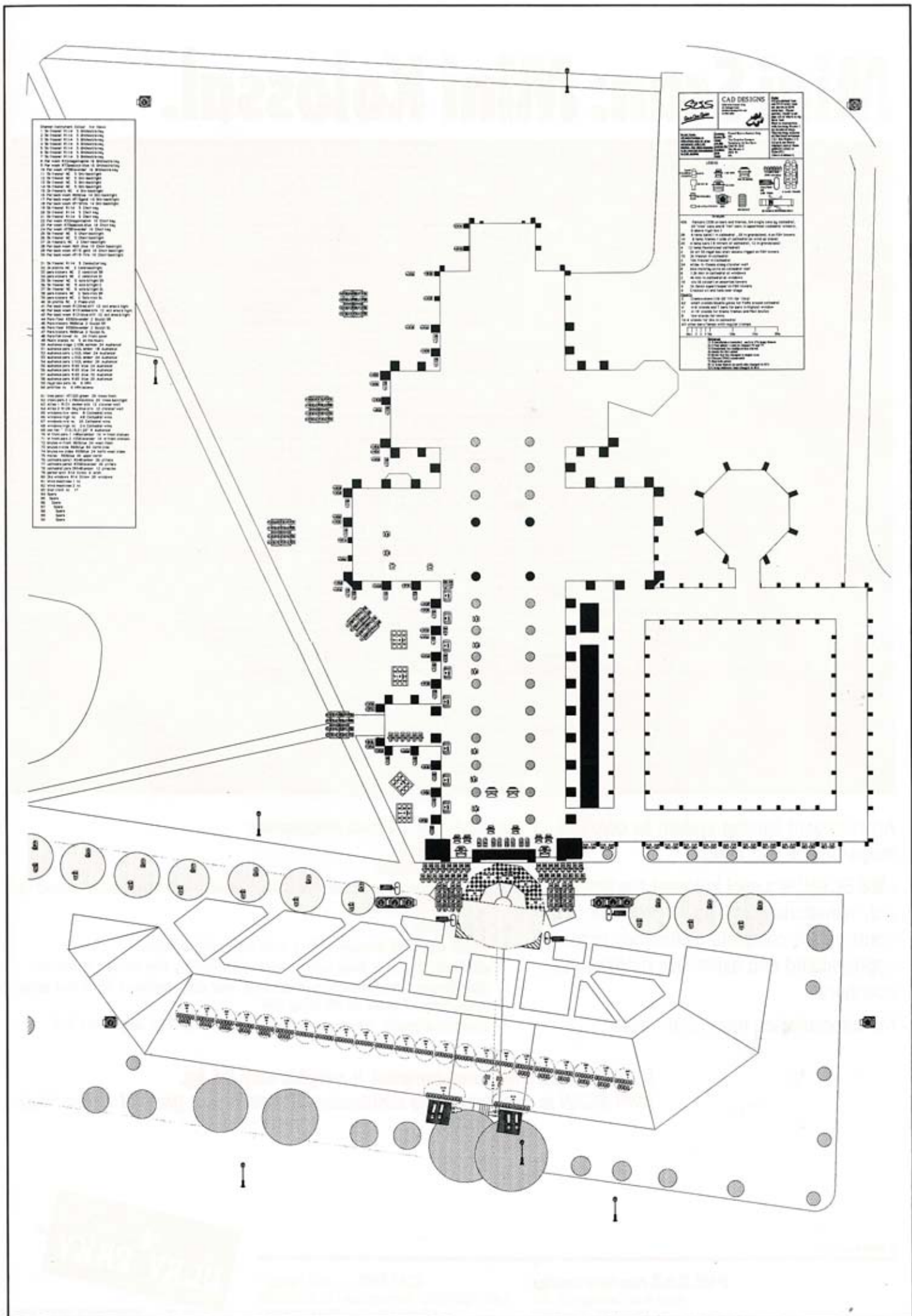
All gels are rosco except those marked with L (lee filters) or H (Lee filters High temperature)
 Main grid hung from 8 motors, telestage grid hung on 4. 5'15" + 2'16" scuff pipes required to hang single row of pars off of roof frame.
 4 floor cans are short nose, all other cans are long nose.
 2 bars rigged vertically at sides of stage.
 32 amp 3 phase supply required for scissor lift dimmers on PA wing stage right.
 1 xil 15 2k rigged on lip of canopy

LEGEND

Lamp channel colour	PAR 64	VL4
5k fresnel	5k fresnel	VL28
2k fresnel	2k fresnel	2k xil 15
Telestage 5'	Telestage 5'	Telestage Corner
Thomas 5'	Thomas 5'	Thomas Corner
Thomas 77"	Thomas 77"	Thomas 90°-150° corner
Thomas 6" spacer	Thomas 6" spacer	Rigging point

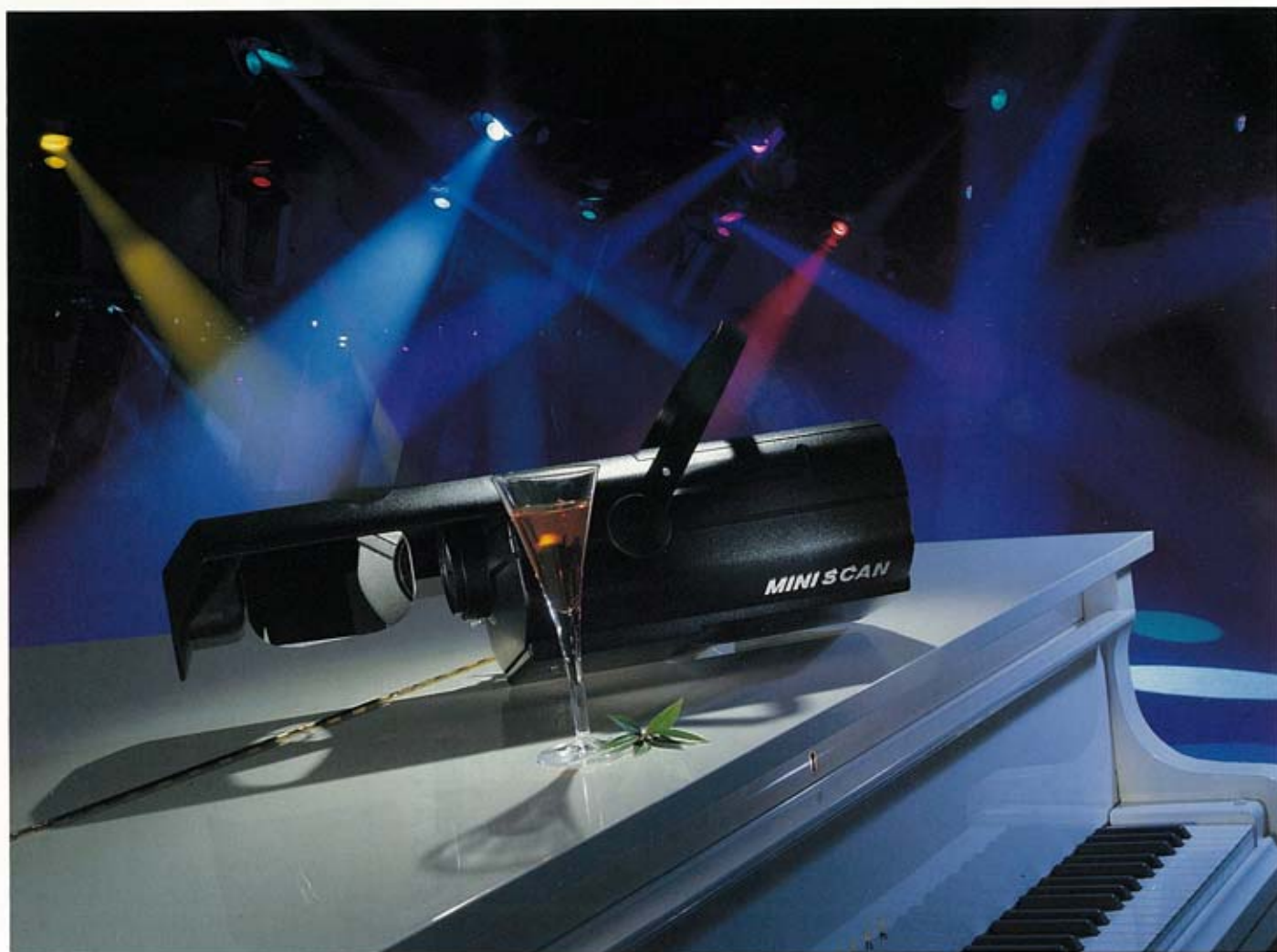
Analysis

226	Parcans (including 2 on floor)
35	6 lamp bars (including 2 vertical on floor)
4	4 lamp bars (including 4 with only 3 cans)
7	2k Fresnels
2	2k profiles
20	5k fresnels
12	VL 2b
10	VL 4
10	Thomas PRT 77" truss
2	Thomas PRT 5' truss
2	Thomas PRT 90° corners
6	Thomas PRT variable corners
8	Thomas PRT 6" insert
6	Telestage 5' truss
4	Telestage 90° corner
12	Verlinde motor point



Inside Out. Andy Doig's 'architectural' lighting concept for the rest of the Cathedral and interior lighting for outside effect.

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Salisbury Lights

Lighting the concert was a joint effort between Andy Doig of CAD Designs and Robert Byde of TVS. I asked Andy Doig to outline the initial concepts.

"My job was to present the spectacle for the live audience, adding 'sparkle' to make it a dramatic event, working hand-in-hand with the television people. Robert's crew of Hugh Rose, the board operator, and Steve Williams, the chief chargehand were both excellent technically. In fact the whole team - particularly Meteorlites - did a stunning job."

Of the choice of Meteorlites, Andy explains that both he and Robert had used the company in recent work. "We were very happy with their service and their crew. Plus they had 90% of the gear in stock already."

"The main concept was to make the spire look as dramatic as possible, so the key external elements were the projection, the searchlights and the architectural illumination. The Creative Concern had considered some form of searchlight and I suggested we look at an STX automated system. Instead of being constricted to just one look we could have several controlled and programmable scenes, and also use the same heads to illuminate the Cathedral."

I asked Andy why he favoured STXs over SkyArts. "I worked with Skylight - the French company who lease this equipment - on Chris de Burgh's tour last year," he told me. "Like Theatre Projects they bought a system of ART heads and extensively modified them; but a factor in choosing STX was that they had a colour changer which runs through the same console. Skylight have also rebuilt their heads so the colour changer doesn't affect the balance."

"Producing a coloured beam wasn't a major reason for wanting colour changers. Because the source is so bright, beam colour is quite hard for the eye to determine, especially between light colours. They're working more as diffusers and silks - movable light sources to light large parts of the Cathedral in blocks dramatically. And to light inaccessible points; I can direct and shape each beam for spot effects."

Although the concert took place outside, the organ and a small ensemble were to be used from within to supplement the orchestra. Lighting from inside the Cathedral was aimed at bringing the building alive, to turn the light back onto the audience. Andy again: "We have some very bright HMI sources behind clear glass windows and 10k Fresnels on high stands for the stained glass windows. On the north side there's a cluster of 2K Fresnels

to light the arch windows for long camera shots and the side-stage audience."

The idea of using the Cathedral's West Front as a giant projection screen - a strikingly integrated element of the show - was also Andy's. "I don't think anyone had contemplated it because the surface is very uneven. But by choosing material that was appropriate to the surface we achieved quite dramatic visuals. The images came from a multitude of sources. Ken Sutherland, the head projectionist, sourced a lot of the material, and mounted and aligned everything; a tricky task - it's not a square screen by any stretch of the imagination. Some elements were masked extensively, at other times we let things bleed onto the stage."

"We started by projecting 35mm onto a model of the Cathedral, then ran a site test with a 5k Xenon projector to see how the real building would take images. Then we overlaid a photographic image of the West Front with drawings of the stage, produced on computer, and a masked outline of what we wanted to project. I was very pleased with the two Hardware 5k projectors; they're easy to use. The slide format is 18 x 18cm, mounted in plastic frames which make mounting and alignment very quick: under a minute if you're in a hurry. As well as Cibachrome, you can also use Ektachrome which is useful as the colours are richer."

Kenneth Brannagh provided some of the material for Henry V from his own archives, including the RSC portrait of him doing 'Once more into the breach'. The orchestra provided a 'film score' to accompany the scenes which for me it was the highlight of the show.

For co-ordination, all the external parts were linked so that the architectural lighting and the audience lighting - a key element for TV - were controlled through one desk. "The STXs and the Vari-Lite systems were run independently, but generally we aimed to keep things simple," explained Andy. "The audience lighting was mainly for TV. We hung nearly 200 Pars off the front edge of the grandstand canopy which was removed on the day, because we had a 100% guarantee from the RAF that it wouldn't rain. Perhaps they have access to something the Met Office don't!"

I enquired about the use of TV cameras on cranes. "We had to be careful with follow-spots, in that cranes going through beams of light are a potential problem - shadows falling on soloists' faces. It's one aspect one wonders about . . . the use of two cranes in close proximity like that. There's a fine line between the balance of responsibility and good

camera work."

My impression of the stage lighting was of a fairly lush 'look' with lots of rich colours. "I wanted to avoid it being 'classically lit'," explained Andy. "Using stronger colours to put strong moods across. There are a lot of pieces where one can use quantities of colour that would normally be associated with rock-style lighting. But at the same time we deliberately chose TV colours: especially the reds and blues, which are lighter than the colours I'd use on a rock'n'roll show."

The stage lights' layout was dictated by the dome-shaped Serious Stage. A D-shaped truss was placed as high as possible in the dome, with a small box for central lighting positions and another layer of Pars and 2k Fresnels to backlight the dome's outer rim. "We also had 22 Vari*Lites in the capable hands of Sean Nugent, who did a fine job providing our main effects," explained Andy. "Due to the lack of rehearsals artistes sometimes appeared in unexpected positions, and the VL4s got us out of backlight problems when a 5k wasn't quite where we wanted it."

Looking at the Show

A few days later, I asked Andy to explain how the lighting ideas had worked out for each piece in the set. "It started with the National Anthem, which we played fairly straight, followed by 'I Was Glad', a large choral piece. It was still fairly light so we couldn't use any projection - just warm stage colours and some audience light to minimise shadows. 'Rhapsody In Blue' was the first time we used the STXs - on the Cathedral and around the stage structure."

"Charlton Heston's poetry reading was lit straight although he's definitely an interesting character to light in close-up for television." The old stager was followed by Canadian cellist Ofra Harnoy. Her set also provided the first opportunity for the projection to shine through.

Andy: "We had a large projection, almost like a 'leaf' gobo, on the Cathedral and STXs lighting the trees in autumnal colours - even though the trees were green at the time! 'Hungarian Rhapsody' was moody with slightly darker, richer blues, magentas and lavenders, followed by 'Flight of the Bumblebee' with a fast chase effect on the STXs to simulate the bumblebee's wings."

"Jessye Norman's management gave us a fairly strict technical rider stating exactly which colours we should use, although we used colour equivalents in the Vari*Lites. In opera it's not an uncommon demand, actually. We used the West Front as a lit backdrop without any projection, to give her a classical feel, changing the STX colours in blackout between songs."

"The Saint-Saens organ symphony was the first time all ten STXs focused on the spire when we also brought up the internal lighting in the transept and the nave, and a projection of organ pipes."

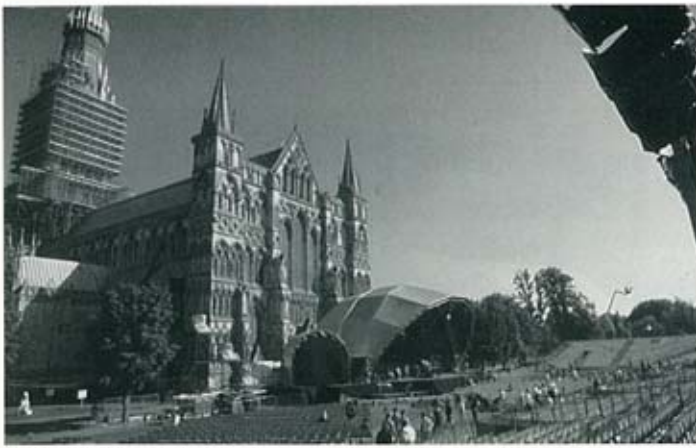
Phil Collins' 'In The Air Tonight' was lit very classically with just the Vari*Lite rig. For 'One More Night' there was a solar eclipse projection to 'rim' the stage with warmer colours; 'Doesn't Anyone Stay Together Anymore?' was next (a subliminal plea to the Royal couple perchance?) and for 'Another Day In Paradise' projections from the NSPCC and other charities were used.

"Henry V" was our major AV demonstration!" continued Andy. "We started with a heraldic shield, followed by a host of images of Kenneth Brannagh. We used the STXs for the battle sequence in time with the tympani to stir the audience. It was all quite dramatic!"

Then came the turn of perhaps the evening's star draw - Placido Domingo, by Royal command. He was lit classically, with architectural illumination on the Cathedral, while



The TAC Scorpion 40/12 monitor desk.



The lights' layout for the stage was dictated by the D-shaped truss and featured Pars, Fresnels, and 22 Vari*Lites.

his piece from 'Tosca' featured a projection of starlight complemented by star cloth behind the stage. 'Aida' saw projections of Tutankhamen's death mask and a composite of Egyptian figures during the trumpet fanfare, STX colours adding spice and drama.

Andy again: "For the 'Royal Fireworks' we used everything to bring the Cathedral to life. The real fireworks were supposed to be synchronised, but for political reasons the contractor was only appointed a few days before the show, so those were a little disappointing." Incidentally, the two tons of fireworks, by Skyfires, were amongst the most spectacular I have ever seen, and were even given an encore.

'Jerusalem' the final scene was lit for long TV shots, all the STXs were focused on the spire's tip with the projection cutting through.

Other producers who've worked with Andy may smile when he adds: "I think it's the first time I've not lost my temper on a show! I felt it could have looked a touch better on TV - and it was the ten hardest days of my working life - but I really enjoyed it and all it stood for."

Salisbury Sound

Live sound was provided by Wigwam, with Chris Hill in command, working in tandem with the TV and radio audio requirements specified by overall sound co-ordinator Robert Edwards.

Chris explained that after Wigwam's appointment four months previously, the project grew and grew and when they came back the layout had changed considerably. "We'd allowed for a conventional layout with a downfield delay but by then it was too late to alter things substantially. Sightlines were pretty bad and so were the delay problems. The spec changed as the TV people became involved, so it was only in the last week that we could put anything down on paper - we just had to come on site and make it happen, with very little rehearsal time. Still, they needed to maximise audience capacity; we worked within those constraints and the results have been OK."

There was no formal sound limit but Chris adds: "With the amount of classical things we do people assume there's not going to be a problem. We've been careful not to upset the locals too much!"

The mix, explained Chris, included a variety of stage mics (both radio and conventional). Then there was a nine piece orchestra inside the Cathedral along with the organ (accompanying some parts of the programme on a mix from the Fleetwood Mobile). "Fleetwood did the TV sound for TV, so we worked closely with them and they were really helpful," added Chris. "And the BBC's Transcription Unit provided live radio - we had a total of 92 ways of BSS active splitters on stage plus 40 ways in the Cathedral. Plus 80 talkback tie-lines to FOH, the monitors,

the truck and the Cathedral.

"Fleetwood mic'd the organ, aiming for simplicity with an AKG C-34 stereo pair on tall mic stands which were fed into their truck. We took a mix of that and the Cathedral orchestra into our stage splitters. We provided monitoring facilities inside the Cathedral of what was happening onstage, and vice-versa. There was a TV monitor of the conductor and Bose monitor cabinets."

Robert Edwards, who hired the Fleetwood mobile with Tim Summerhayes at the controls, relates a major practical hiccup. "The truck was 3" higher than the archways into Cathedral Close. We deflated the tyres - and just cleared it."

Robert also followed the broadcast audio recording through editing to TV transmission two days later. He comments: "I had to harmonise Salisbury Cathedral's organ in post-production, it's slightly out of tune."

Wigwam in Action

An early hassle for Wigwam concerned finding space for their FOH console. "They assumed we'd go in one of the scaffolding towers but being 50 feet up in the air wasn't suitable for us at all - we wouldn't have got any feel for it. We fought for room in the grandstand with the cameras and finally fitted it into an 8 x 6 feet space. We decided to use a sub-mixing facility to keep it down to one 40-way Yamaha PM3000 and a Soundcraft 16/4/2 Delta for extra channels.

"Those take various feeds from our own mobile and from Fleetwood - and we supply them with back-up feeds in case anything goes down. We brought in our Omnibus Mobile to mix the strings and brass down into 10 sends for FOH, where it's brought down to one orchestra VCA - it's easier with a TV-style presentation."

The Omnibus Mobile is a joint venture between the directors of Wigwam and freelance engineers Charlie Jones and Mike Thornton, based at Wigwam's Heywood premises. Chris: "With the type of work we do we saw a niche for a small 24-track mobile truck which could go out at affordable rates for clients who haven't got big budgets. We bought an ex-BBC OB truck and kitted it out with two 24-track Tascam machines, Dolby S, two 2-track Tascams and a couple of consoles. And it's never stopped working! It's an interesting thing for a sound company to be involved in - on a show like this we can drive up with everything ready and wired up to broadcast standards."

The PA layout was finalised on-site. "For the main area there were two stacks left and right of the stage at 45-degree angles with 10 MSL-3s per side and eight 650 sub-bass units underneath. Covering the front area was more difficult with soloists working out on the 'thrust'; so we placed 12 UPAs under the canopy edge. They were right on the weight

limit up there so the system had to work around how much we could physically hang.

"There was also one delay system down to stage right with four MSL-3s and two 650s. The PA was driven by HH V800 and Crest 4801 amplifiers, the usual Meyer processors and Meyer CP-10 parametrics, KT DN300 graphics and 716 delays, and a couple of 1-in/10-out balanced and isolated distribution amps provided 'press feeds' for visiting film crews.

"HH have been the most reliable power amp we've ever had. We've had over 200 in hire and very few problems. With Meyer what goes in comes out. We've an old saying that you can't polish s**t - and it's true! It's very critical.

"It was quite a feat sorting it all out on FOH - listening on cans to the various feeds and the producer's talkback. We really had to be on the ball with no run-throughs apart from two hours the previous night with Charlton Heston and Kenneth Brannagh. On the actual morning the orchestra and choir walked on stage with the first solo act and just went for it - we flew by the seat of our pants!

"On stage we had Levalier radio mics on Charlton Heston, Kenneth Brannagh and a few others; Jessye Norman and Domingo used Schoeppe mics. The orchestra was on a combination of semi-close mic'd Neumanns, Sennheisers and 414s - but the best-sounding microphones of all were the three PCM-50s picking up a general mix from above the orchestra: they sounded great. There was a TAC Scorpion 40/12 monitor desk which supplied half-a-dozen outputs and again took feeds from various places.

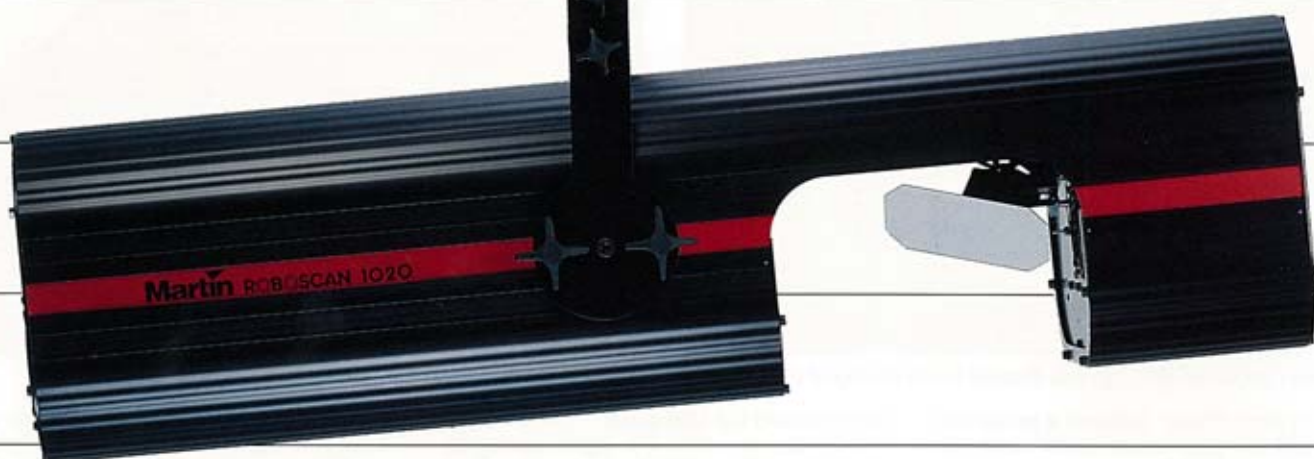
"We tried to avoid giving them all monitors for obvious reasons - we would have been fighting for level all the time. Meyer UPAs gave them a feed of what was happening in the Cathedral; also for the narrators - Charlton Heston and Kenneth Brannagh. Phil Collins had his own monitors and a Soundcraft 200B and we took a split feed from his piano, vocals and FX.

"It was as tight as possible; from experience, once you've given people an inch they'll take a foot. Given more time we'd have done things a little differently, but no-one complained that they couldn't hear. The classical soloists like Placido can judge their level from the PA and back off the mic as necessary.

His final comment concerned the awesome security operation in force (e.g. when an unusually fit and lean-looking steward asks to see your pass, you reach for your pocket ever so slowly). Chris observes laconically: "It does rather put you off your job when you look up to see a man pointing his submachine gun at you!"

Pictures were provided by Southern Newspapers PLC, Meteorlites, and Mike Lethby. This month's front cover was taken by Adrian Willson.

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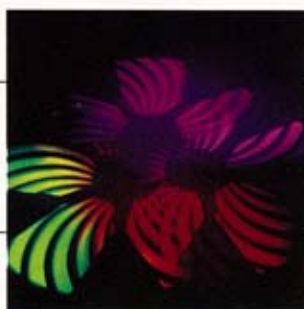


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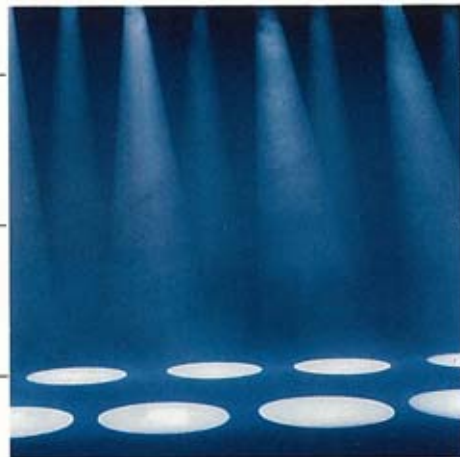
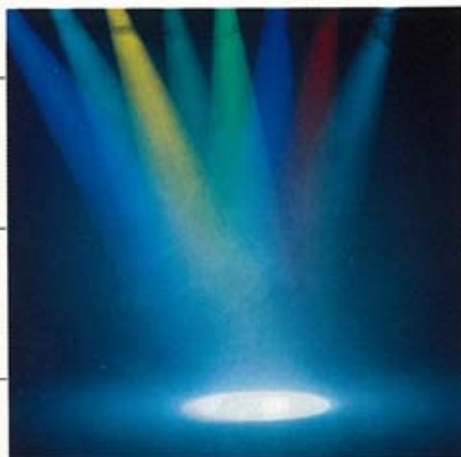
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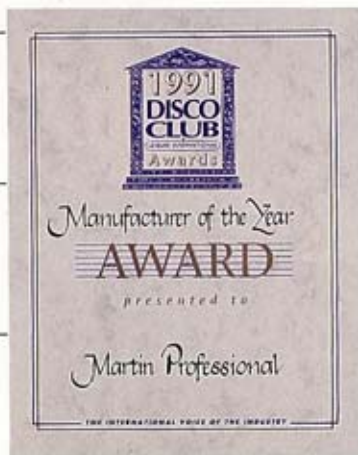
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LIGHT PALETTE FOR THE ARTS

Ian Lake reports on an installation

The year - 1980, the place - Cambridge Arts Theatre and Rank Strand are installing one of their new Light Palette 1 desks, giving the theatre its first modern memory lighting control system.

The year - 1984, the place - Brentford, West London and I join Rank Strand's engineering service department. Two weeks later, I am introduced to a large perspex fronted 'coffin' on legs and a pile of strange looking electronic circuit boards, from which I am expected to produce a working Light Palette 1. So began an association with American-made control systems, which although interrupted temporarily in 1988 when I moved to sales, ultimately leaving the company in 1990, has now in 1991 been brought firmly up to date when I had the 'honour' of installing the first British Light Palette 90 into the Arts Theatre of Cambridge.

Introduced in 1979/80, Light Palette was seen by many as a stop-gap replacement between the massive selling MMS and its very secret replacement, Galaxy. Although experience had been gained on the other side of 'the pond' with this nascent system operating on 120v, little was known of it or its peculiarities in this country. It would not therefore be unfair to say that these early systems caused R & D and service engineers alike plenty of headaches in the first installations utilising, as it did, unfamiliar technology with its DEC LSI 11 processing system and Century-brewed interface cards.

Even when I inherited the system in 1984,

it was still viewed as a strange beast, with its totally un-Strand-like operating system, its unusual (for Strand) output stages, which when used with the so-called Dimmer Common system (a modification which 'fooled' the dimmers into thinking the 0 to +10v output was actually 0 to -10v that they expected) brought the whole rig to full in the event of a main system 'crash'! However, I rapidly became aware that amongst the 12 Palette users in this country, there was an enthusiasm for these systems which didn't seem to exist amongst, for example, Galaxy or Duet users of the time. It's not that these systems were unreliable (I am sure that a show was never lost because of a Palette 1 failure), more that their idiosyncrasies were too much for people raised on a diet of UK Strand control philosophy.

Yet, the dedication of the people who did use these systems must have been based on more than mindless enthusiasm which exists, for example, amongst certain minority classic car enthusiasts who simply refuse to fall in with mainstream thinking that suggests their pride and joy is a piece of doody. Users who have made the effort to learn the different approach of Palette soon find the operational gems buried in the system.

And so the scene was set for the Arts Theatre's replacement system. I met Simon Bayliss (technical manager, Arts Theatre), at ABTT last year after a break of some two years following my departure from the service department. For some reason, he had experi-

enced difficulty in persuading Strand sales to take his requests for Light Palette 3 seriously, and so I was requested to enter the 'battle-zone' and investigate which competitive systems were available. Several systems were discussed including Galaxy, Gemini, Light Palette 3, Imagine, Impuls, even the ageing Data-Lite. However, following Light & Sound Show '90, the field was narrowed to the new (to the UK) Palette 90 and Imagine. After several further long discussions, the Board of the Arts Theatre finally decided, in February of this year, to purchase the Palette 90 and an order was placed with OpTex.

Discussions between Simon and myself indicated that the first full week in August was an appropriate installation period, and the machine was geared up to fulfil this requirement. It had been decided that the system would be provided with both designer's remote and focus (rigger's) remote capability, so appropriate cable runs were measured and specified, and I started trying to source the correct cables as detailed by Strand Lighting (North America). For those unfamiliar with Palette, these cables are usually of Belden manufacture and frequently impossible to second-source. One of Belden's idiosyncrasies is that they (and their distributors) refuse point blank to supply cable in any lengths other than 100, 500 and 1000ft. Additionally, these high quality computer cables are usually prohibitively expensive, and it is not therefore possible to consider purchasing 500ft to cover a 120ft run. Consequently, the



The main console.



Ian Lake (right) and Simon Bayliss discuss the finer points of LP90.



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runs were modified and re-modified until they matched the specifications.

Having addressed the cable problems (or so we thought), I started to look at the socket outlets for the riggers' and designers' buses. This developed into a problem because of unfamiliarity with this system, resulting in several faxes passing between Barnet, Isleworth and LA, finally allowing orders to be placed for the correct connectors.

Based on previous experience with control systems in theatres and in the light of the now uncertain supply quality in this particular theatre, discussions followed, culminating in the decision to supply this new console via a UPS (uninterruptible power supply). This is a device designed specifically for computer systems connected to 'grotty' mains supplies, and provides voltage stabilisation, impulse (spike) suppression and ultimately, in the event of mains brown/blackout, a transparent transfer to the machine's own back-up power supply, derived from its own internal batteries and an electronic inverter.

As the installation period was rapidly approaching, I started to chase some of the equipment previously ordered. First the cables, where I was calmly informed that one of the 100ft drums had failed its final quality test in the States and would I be prepared to accept an odd 150ft that they had. Given the price (yes, I would have to pay for 150ft) and the problems caused by the previous blind insistence that I had to accept 100 or 500ft, as a matter of principle I refused (major mistake Ian!). However, the suppliers assured me that I would still receive the goods in time, albeit a little later than originally expected. Needless to say, when the system finally arrived (there had been some glitches during production) it was discovered that all of the requested modifications necessary for compliance with UK regulations had not been carried out, thus requiring some midnight oil burning in engineering. As for the required socket outlets, they would appear to have dropped through a hole in the space/time continuum.

Nevertheless, Simon and I were able to go to Isleworth to accept the system the week before its installation, a very reassuring meeting which confirmed to both of us the correctness of the original decision to procure the latest variation of this fine system. The Belden cables also turned up that week and were promptly despatched to Cambridge. Unfortunately, because of the theatre's work load, it was not possible to pull them through the previously installed conduit until the following week.

After what seemed like an eon of planning, plotting and scheming, the installation week had finally arrived, the culmination of months of hard work. There was an air of quiet excitement in the theatre when I arrived, to find that the control room had been cleared, as agreed, and that all that remained of the previous system were some control tails lying forlornly on the floor. Upon inspection of the 'rats nest' (control termination chamber) it was decided to remove all of the old terminations, which had been originally installed in a manner which allowed a second system to be wired in, if required, isolated from the main system by diodes. Unfortunately, this had all been implemented on paxolin solder tag boards, and it had suffered somewhat through the ravages of time and over-enthusiastic use of a soldering iron with plenty of 'hot glue'. Consequently, all of this was removed and replaced with modern screw-down connectors, and all dimmer terminations were re-made.

The theatre carpenter had been asked to fabricate a table to support the new system, which allowed both follow spot and console operation to take place simultaneously. This had been a criticism of the old set-up, which due to the significantly smaller size of the new Palette has now been solved once and for all.

The theatre had sourced a 19" rack which was used to house the two Arri Connexion Output Modules and a mains power distribution unit, thus providing a neat and tidy solution to the problem of placement of these units. The UPS was powered up and after configuration of the demultiplexers and the system, the new Light Palette was allowed to drive the dimmers for the first time, a small cheer escaping from those who had been waiting with bated breath.

The previously mentioned socket outlets, which had finally dropped out of their hole in the space/time continuum, had been promptly despatched from Isleworth directly to the theatre. With all of the riggers' receptacles installed and wired, it was found that the Oyster terminal worked perfectly, so with a score of 2 - 0, we addressed the final phase, the designer's remote. Upon trying to pull the so-called 100ft of cable through the conduit, we were alarmed to note that one end disappeared before the other end had appeared... result PANIC!!

The conduit was re-measured and found to be less than 100ft, so the cable was withdrawn and found to be 91ft and eight inches - whoops!

This small reduction in length presented us with one very large problem, notably any replacement would inevitably attract the same six week lead time as the original. Having already compromised on the most desirable positioning of the designer's socket box, from centre circle front to PS circle front, trying to accommodate this shortfall would require mounting the box above the circle entrance door, which was deemed unacceptable. Equally unacceptable was waiting for a replacement, particularly as the Strand man was due on site the following day to commission the system. OK, so what lurks under the circle itself? Investigations revealed a bar store which must end up just behind the slab supporting the first row of seats, so let's try drilling through. Suffice to say this proved the solution, and showed Simon and his crew how effective SDS drills are when compared to the standard masonry variety. A lesson I had learnt (ironically) whilst in the employ of the 'gong man', during the transfer from Bos-

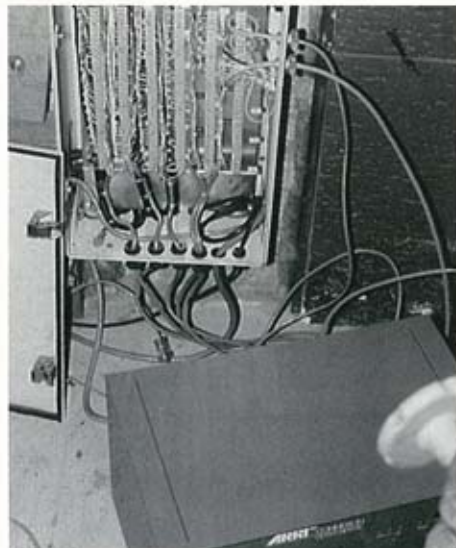
ton Manor to Isleworth.

Having now achieved a run which allowed the supplied cable to connect these two parts of the system together, the designer's remote socket box was affixed to the slab, and both ends wired up. The following day, after the Strand service engineer had arrived, we attempted to persuade the designer's console to talk to the main system, which ultimately resulted in the power supply in the remote desk expiring with a large blue flash, and shuffling off to the great electronic scrap-heap in the sky. Mis-wiring of the remote console cable was suspected, so several variations on the theme were attempted before the problems were eventually ironed out. After tidying up the wiring to the house lights and assigning them to channels 150/60 (last stage channel currently 140), the system was declared to be installed and commissioned.

So what has the Arts Theatre achieved for all the expenditure involved with this project? On the face of it, a modern dual electronic control system with 24 submasters, with all features available on a remote designer's console, and an advanced rigger's control all supplied from a dependable source of power. Digging a little deeper and letting the users have their say, this is what Simon had to offer: "Light Palette 90 is a vastly superior control system when compared with its predecessor. I find it much easier to operate as the desk layout seems to have benefitted from a lot of additional thought. Many new features have been introduced which streamline the plotting procedure. For example, the appearance of an '@ FL' key is an excellent addition, allowing a circuit to be taken directly to the top, establishing it in an existing scene, before wheeling it down to an appropriate level. I like the multitude of 'enter' keys, which allow left or right handed operators to use the dominant hand to access number or command keys and terminate the sequence with an 'enter' falling easily to the other hand. As a board operator and a lighting designer, I'm finding that plotting is much faster.

"The QWERTY keyboard is a useful feature, allowing annotation of cues etc. so there is no longer any need for a paper plot. This allows the control room lighting to be run at a lower level than previously, causing less distraction for the audience at the back of the circle, but also causing less reflection on the windows, thus allowing the board operator a better view of the stage.

"The effects package is light years ahead



The rat's nest in its final form (Arri Output Modules in foreground).



Main Console, UPS (white box) and LP90 Electronics Tower (black box) underneath.

of Palette 1. The editing process is much improved, allowing access to individual items, rather than having to re-plot the whole line, as before. I like the new in, out and dwell times, which like the high and low levels can be uniquely specified for each step.

"There is an increased multi-fade capacity by virtue of eight playbacks and now that each cue will support eight parts, this currently allows 64 simultaneous fades. This will apparently increase to 128 when the promised new software is installed, because the system will allow cues to be assigned to submaster faders. I accept that in most cases this is overkill, but when I am designing for a panto or a musical which requires a lot of things to happen at once, at least I'm secure in the knowledge that I'll run out of needs before the board runs out of capacity.

The 'link' facility is a real boon, allowing not only jumps out of sequence, but also the ability to specify the number of times the system will run through a loop before passing on to the next cue.

The 24 submasters are a vast improvement over the nine on Palette 1. Firstly, they are truly overlapping, so now a channel can be assigned to as many subs as I want. Secondly, each sub is uniquely definable, so I can programme as many inhibitive or pile-ons as I need, and assign a 50% over-run where required. Thirdly, I can assign an effect to a submaster, so it's always available and can be faded onto the stage gently whilst retaining overall level mastering. Finally, the sub bump buttons now seem to work in real time.

The macro facility at present is a useful programming aid, but with the advent of the new software, will become even more so. This is partially because I will then have access to 999 macros, but mainly because macros

can then define a cue triggered event at which point they become a playback feature for which the possibilities are endless.

"The Oyster terminal is an improvement over the old system's Focus Remote because it allows access to many more functions and provides a bi-directional link to the main system. In fact, this remote can be used as a simple programming device in its own right, additionally allowing me, at long last, to run point cues. Another nice point is the introduction of 'Rem Dim', so I no longer need to send the system back to 'Cue 0' to clear previously selected circuits. One minor criticism is that the buttons are too small, and associated legends are difficult to read in gloomy conditions. Additionally, it would be nice if the LCD display was back-lit for the same reasons, particularly as the device is phantom-powered so there are no batteries to prematurely flatten. As the Light Palette 1 was an inherently reliable system, I am not anticipating too many problems with Palette 90. However, should the unspeakable happen this system has a full tracking redundant back-up, selection of which should be entirely transparent to an audience."

I would gather from the foregoing that Simon (and hopefully his crew) are happy with the new control system, which is particularly gratifying for both myself on a personal level, but also for OpTex as this was the company's first foray into the world of theatrical control. In closing I would like to thank several of the 'supporting cast' without whom, none of this could have happened. Firstly, Colin Farrell and John Elliot (Arts Theatre LX) whose tireless efforts throughout the installation period ensured that things happened on schedule. Secondly, Steve Jenkins, Sean Farrell (no relation, we suspect)

and particularly Robert Copping of Strand Lighting, all of whom had to fight their corner on more than one occasion. Finally, to Simon Bayliss who, having decided what was needed, dug his heels in until it happened. Thanks chaps, I wish I could guarantee having you all on board for the next one!

Ian Lake commenced his secondary education at a Northern grammar school, which he left shortly after completing his O-Levels to train as a marine engineer with Shell Tankers. In 1979 he left the sea to pursue a degree course in marine engineering at the University of Newcastle-Upon-Tyne. Leaving Newcastle in 1984 after a final year as sabbatical social secretary, (his first introduction to entertainment lighting), and finding little left of the British shipping or shipbuilding industries, he took up an appointment with Rank Strand as a service engineer where he learnt about stage and studio lighting control and dimming systems. Leaving the service department in 1988, he took up an appointment with Strand sales with responsibility for the southern studio markets. In 1990 he was appointed as the senior lighting sales executive with Optical & Textile, assuming responsibility for establishing both OpTex Lighting and Sachtler Lighting in the UK markets. Ian Lake is 35, lives in Essex and maintains a widely-known passion for, and in-depth knowledge of, Jaguar cars.

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STEVE KEMP - A TRIBUTE

Compiled by John Offord and introduced by Julian Williams

News of lighting designer Steve Kemp's tragic accidental death on September 1st at the age of 40 stopped his many friends in the business in their tracks when news filtered through to the UK on the first Monday in September. It was something very difficult to comprehend.

"He was the nice one who always had the time of day to speak to you," was the comment offered by Bill Platt, one of this country's longest serving chief electricians, and it was typical of similar remarks made in tribute by friends and colleagues throughout the lighting world who had worked with Steve.

I had known Steve for many years, having worked with him on various occasions in the theatre - which also meant in the majority of cases a social involvement too - and I appreciated his loyal friendship. You could call on him any time - even for breakfast if you needed to.

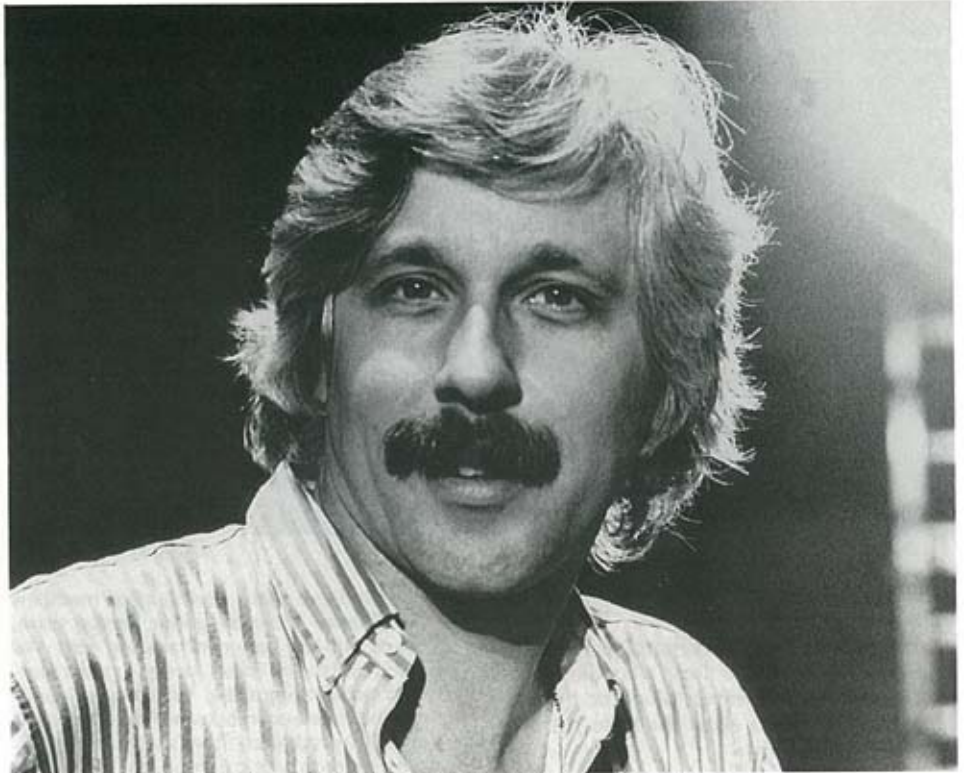
He would offer his support to anybody and he gave me various openings in the business. It was his friendly attitude and genuineness that drew people to him and he combined with this a calm and often humorous approach whilst in the midst of working under intense pressure. It was almost as if he was never really aware of himself, but there just because he loved it so much - and those who worked with him on a show couldn't help but enjoy their work in the same way.

When Steve first went freelance he impressed me by telling me about how he went from his home in Surrey by train to London carrying his fold-up bicycle. It enabled him to get round to all his appointments in a day, and at the same time keep himself fit for the next rigging job. His interest in lighting started in amateur dramatics while still at school. He later took the stage management and technical theatre course at the London Academy of Music and Drama (LAMDA) under the tutelage of Robert Stanton. With the help of an Arts Council Lighting Design Bursary he then joined the original Theatre Projects Lighting Ltd division in London as a lighting design assistant at the beginning of 1970.

Steve then went out to work in various theatres around Britain. He had a spell as chief electrician with the Welsh National Opera and as an electrician at the Prince of Wales Theatre in London prior to a period as a freelance production electrician. In 1973, following a short time with 'Gypsy' at the Piccadilly Theatre as a sound engineer, he became a director of the industrial show producers Commercial Presentations Ltd.

A significant turning point came in 1974 when he joined Theatre Sound & Lighting (Services) Ltd as a lighting designer and became assistant to the legendary doyen of lighting design, the late Joe Davis, one of the longest-serving professional LDs in this country who pioneered the profession here, and who at that time was also the busiest theatre lighting designer in the country. I remember Steve saying that he very often found himself handling several productions at the same time, communicating with Joe from their various production desks.

In 1976 he was asked to join the lighting design department - a division within Richard Pilbrow's Theatre Projects Group, where he worked through to 1979 before going freelance as a designer. Here he worked along-



Steve Kemp, lighting designer: 26th February 1951 - 1st September, 1991.

side other leading practitioners such as Robert Ormbo, Robert Bryan, Nick Chelton, John B. Read and Andrew Bridge.

At this time TP was heavily involved with lighting many large star act transatlantic shows

Steve Kemp has written articles for *Lighting and Sound International* on several occasions, and as everyone will imagine from reading the tributes on these pages, it was always a pleasure to work with him. His copy was clean, correct and lively. The pictures had their captions, and anything you worked on with him was a project without problems.

We met frequently at different events, from Dallas to London and Amsterdam. Our last meetings were at Central Studios in Utrecht just three months ago, and Steve provided L+SI with the background information on his lighting for the Flash-Flite Shuttle, our cover story for the July issue. I went back to Utrecht two weeks after that event to tie-up the loose ends and had lunch with Steve for the last time. I'm glad I took the camera . . .

Steve Kemp's list of credits runs to no less than 28 pages, a measure of his busyness and brilliance. I am proud as editor of this magazine that so many of his friends wished to include their tributes on these pages and apologise to those we were unable to contact. I'm sure they will feel that the spirit of their thoughts is well represented by those who have taken part, and I hope all those who knew Steve will view this as a permanent and industry-wide tribute to his life's achievements.

I originally suggested a guideline of 40 words - but some just kept on writing. No matter. The words and thoughts on these pages are all perfect: the editing work tiny and a great privilege.

John Offord

as they came into London, and Steve lit for some of these artistes including Andy Williams and Sammy Davis Jr. It was on one of his last visits to the London Palladium that I had the pleasure of working with Steve myself as lighting operator at that venue.

His career spanned lighting design in all areas of theatre, opera, ballet, concerts and industrial and conference presentations, and when TP developed their interests in Holland, Richard Pilbrow asked Steve to become their representative as head of lighting design.

He had been in the Netherlands since 1983 and, deciding to stay as a resident, he set up his own design and consultancy office in 1986 while continuing to light major productions.

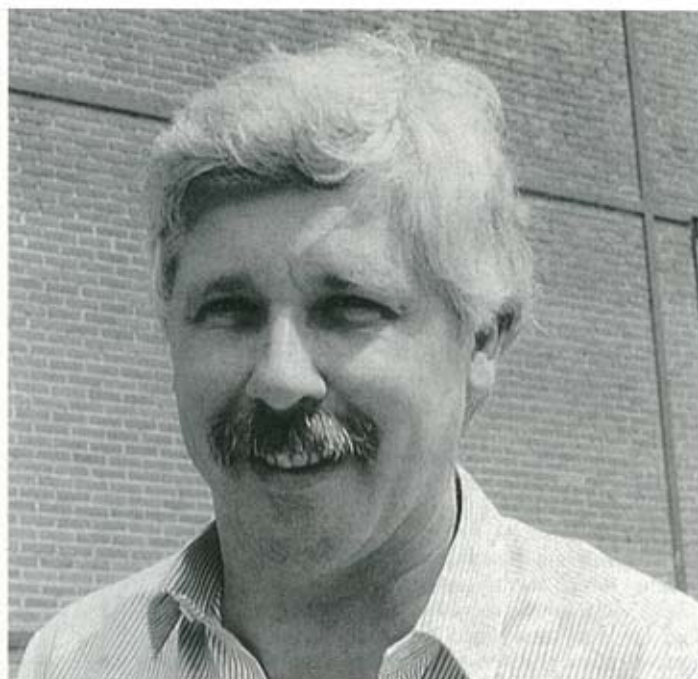
He was one of the first independent lighting designers in the country, and his work also took him to other European destinations including Paris where he joined David Hersey as lighting supervisor on 'Cats' as he had in Amsterdam a couple of years before. In America he again joined David Hersey as associate designer at the Mirage Hotel in Las Vegas.

In the January 1988 issue of this magazine Steve Kemp wrote about his experiences while lighting the spectacular Lee Towers Gala in Rotterdam, the Dutch entry for the Golden Rose of Montreux. Later, at the Showlight symposium at Hilversum in 1989, he presented a paper on the production.

Readers would have noticed an endearing comment he made in describing how they went about finding something spectacular for a design theme. "We played around with a lot of silly ideas, and eventually came up with a star," he said. In actual fact this gig turned out to have six separate trusses to form his star, involving a huge rig of luminaire equipment. The stage was 30m wide and 50m deep and the production is reputed to be the largest Dutch-produced live show in the country



Flashlight Studios, Utrecht. June 12, 1991.



Utrecht, July 2, 1991.

with an audience of 7500 for each of its 10 performances.

This was his way of preparing for things, and it will be familiar to those who knew him as it personifies the way in which he treated his work. He didn't allow things to get too seriously above him.

Julian Williams

Steve Kemp and I go back a long way. He was one of a special group of people who were the lighting designers of Theatre Projects in a golden period. It included Robert Ornbo, Bob Bryan, John B. Read, Nick Chelton and David Hersey. Steve started even younger with the TP Trust at LAMDA. Like Andy Bridge he started under the tutelage of Robert Stanton and graduated with the help of the Arts Council Lighting Design Bursary to TP.

He was talented and independent. Life and love took him to Holland where he made a unique place for himself as one of their leading lighting designers. His work was always distinguished by dedication and innovation. A pioneer in moving light, he was also a pioneer in English design in Europe. His loss is a deep loss for his family, all his friends and for lighting.

Richard Pilbrow

Steve was nothing if not enthusiastic. In his early days at Theatre Projects, when he was learning his craft, he became my assistant and his cheerful willingness and attention to detail meant there was never any possibility of 'designer droop'. Later he became a friend and business colleague and his loyalty and devotion were wholehearted and unstinted. His death leaves us all the poorer: his life serves as an example.

Robert Ornbo

Steve has been a very close friend for over 20 years, from college at LAMDA to being best man at my wedding, and on many, many professional jobs from Hong Kong to Caracas. Your friends will never forget you.

Mark Huffington

Even though he'd spent some 20 years in the business Steve always managed a freshness and enthusiasm for his work and friends. He embraced new ideas and maintained a sense of proportion which made him a pleasure to know and work with. His delightful sense of the ridiculous and gentle good humour made him a very special friend. It goes without saying that he will be much missed by all who knew him.

David Hersey

In the 70's Steve and I were original members of the Theatre Projects lighting design team, crammed into the basement at Long Acre. We swapped ambitions, ideas, designs, pens, stencils and pubs - frequently. When we all graduated and freelancer became an acceptable word, I always admired Steve's tenacity at creating new markets within Europe. He was always enthusiastic, unflappable and enjoying his craft - a great ambassador for British Lighting.

Andrew Bridge

I will always remember Steve as a warm person with a wonderful sense of humour. He was well liked by everybody. His enthusiasm and tireless efforts in the theatre, combined with talent, helped him to establish his success, particularly in Holland where he led the field.

John B. Read

I worked closely with Steve Kemp during the formative years of Theatre Projects in Holland and he really found his forte when he became involved with the lighting of major entertainment and cultural events. The Dutch liked him and he enjoyed living in Holland where he went on to build up an enviable reputation as a lighting designer. Steve will be remembered by all his friends as a man at the very top of his profession.

John Ball

Steve and I first met and worked together some 12 years ago during the hey-day of the freelance explosion; our office was Covent Garden and the pub The Crown at Seven Dials. He was a professional who paid attention to detail, but also an eminent prankster - qualities which ensured his popularity with everyone who knew and worked with him. He will be sorely missed.

Alan Jacobi

I was probably one of the first people to use Steve as an assistant, back in the 'heady days' at Theatre Projects Ltd. He was then, and remained so, a hard working and constantly cheerful companion. These two attributes and his talent led him to a successful career in Holland. His constant good nature will be sadly missed by his many friends.

Robert Bryan

My flight to Schiphol was late. Steve had patiently waited for nearly two hours, but was still as cheerful and amusing as usual when I finally arrived. "Eating may be a bit of a problem," he said, "but I've got an idea." We took a short drive to Haarlem and arrived at one of his favourite restaurants. It's now very late. The patron says

"no problem". There was a limited choice but food was soon served. Patron wants to go but Steve and I are only half way down the agenda of the next day's production meeting. "No problem, Steve," says patron. "The coffee percolator is still on behind the bar, beer is in the fridge, the wine lined up. Here's the restaurant key; turn the lights out when you go and lock the door behind you. We'll settle up later!"

Steve Kemp was a man you could trust, more usually to turn the lights on and lock the grid. Anything he did he tackled very well indeed. He was fun both to work and relax with, a real European with an English sense of humour, a great innovator with a huge depth of knowledge. Proud of his work and proud of his family, all Steve's friends will miss him greatly.

Paul Staples

Unlike most of his English friends and colleagues, I got to know Steve only after he had moved to Holland. In the eighties he was part of the management team which Theatre Projects put into its Dutch subsidiary; a company for which I subsequently inherited responsibility. Steve and I immediately struck up a friendship, and it was with great pleasure that I saw him grow steadily in stature as a lighting designer in the Dutch theatre scene. His obvious talent took him to the top of his profession.

As a supplier of, first, conventional and then automated lighting rigs, I worked with him on many productions over the years, and at the time of his death we were working on ideas to incorporate Vari*Lite luminaires into a production for the Nederlands Dans Theater.

Steve was a person of enormous warmth and charm. He had a very lively sense of humour, was generous, optimistic, up-beat and always good fun to be with. Above all he was extremely courteous at all times. His accidental death in the prime of his life is a tragedy beyond words for his family and for all of us as his friends and colleagues. He will be sadly missed.

Brian Croft

I first met Steve Kemp after I took over his job as assistant to the legendary late Joe Davis, and his work with Joe left me with a hard act to follow. Steve was a very likeable and able colleague who always brought a great deal of professionalism and humour to any project he was involved with. Having gone to work and live in Holland, I'm sure his skills learnt in England played a notable part in the growing status of the industry in that country, and he will be missed by all who worked with him both there and in the UK.

Howard Eaton

Can forty words describe our feelings?

No. Not in a lifetime of words...

Is there a language so beautiful?

Yes. You invented it.

As long as we open our eyes to see the sun,
you live.

A word a year.

Forty.

Reind Brackman

When, in 1978, I asked Steve to come to Rotterdam to do the lighting for 'The Balcony' by Genet, I had no idea that it meant the beginning of a long and uninterrupted collaboration and friendship in more than 30 productions, all different in size and nature and done in different places around Europe. Neither could I foresee Steve's importance for the theatre in Holland and Belgium.

It was undoubtedly through his presence and professionalism that lighting design was put on the map in these countries. His influence on all aspects of lighting is undeniable and will certainly remain for a long time to come. So will the irreplaceable empty spot next to me before, during and after lighting sessions.

Franz Marijnen

Steve Kemp is dead. It's almost impossible to take it. No more his beautiful theatre lighting, no more such a good co-operation between lighting and set designer, no more his sense of humour and his ability to see things in their proper perspective.

His timing was there even at his funeral. On a cloudy day the sun began to shine when we arrived at the cemetery - so he didn't miss that cue. He died in the autumn and it seems that he took over the lighting up there. When we look at sunsets we'll feel it - that's the only comfort now.

Mirjam Grote Gansey

Music and Addresses at Steve Kemp's Funeral

Introductory Music: Concierto de Aranjuez, Rodrigo

Pieter Hofman, acting joint director, Muziektheater Amsterdam, who welcomed everyone and introduced the other speakers

Music: choir of Aida, Verdi

Fran Mackereth, Steve's youngest sister

Music: Après un Rêve, Faure

Alan Jacobi, Unusual Rigging of London

Music: aria from Aida, Verdi

Guy Joosten, artistic director Blauwe Maandag Compagnie

Music: Traurigkeit, Brahms

Reind Brackman, director Brackman & Okx

Music: Che Puro Chiel, Gluck

Mirjam Grote Gansey, set designer

Music: Theme of 'Bookends', Simon & Garfunkel; Teddy Bears' Picnic

Since the moment Steve and I got to know each other some 12 years ago we met and worked together many times. It was during these years that a large number of my colleagues and I have become very familiar with his admirable attitude towards friendship and professionalism - the very mix which made him a tutor from all points of view.

Pieter Hofman

The lighting will always be different without Steve Kemp. The crew from Flashlight (Utrecht) misses a very respected lighting designer and a very close friend.

Gerard Jongerius

For years Steve was a real support to the Blauwe Maandag Compagnie. As our regular lighting designer he shared our triumphs and failures. His renowned talent gave that inch more to our performances for which we can only be grateful.

When Steve was there something special happened. His light turned the chaos into an exciting structure. As a gentleman he always inspired the crew, gave them 'breath' to fight to the finish. Words are meaningless now to express our sorrow. The Blauwe Maandag Compagnie will never be the same as it was with Steve.

I was with him one hour before his death. We made plans for our new production 'Wilde Lea' and had a lot of fun. We laughed like schoolboys because we could finally make 'theatre of bad taste'.

Well, my dear friend, we shall have lots of fun and therefore in tribute to you: 'Wilde Lea'.

Luk Perceval

I've lost a pal, a partner and a colleague. That hurts for a while but there are plenty of pals, and partners and colleagues. I've lost a real good friend - and there aren't many of those.

Erik Verwaaijen

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PLASA NEWS

The visit of Steve Terry, vice-commissioner of the USITT Engineering Commission, to the Light & Sound Show provided PLASA members with an ideal opportunity to learn the latest in the debate on **lighting control protocols** from the other side of the Atlantic, when they attended a specially convened meeting.

On this side of the water, PLASA members are currently involved in the decision-making process regarding the future of DMX. Under the guidance of Standards Officer, George Thompson, the PLASA office has issued a comprehensive questionnaire to appropriate members to establish their views on the subject and what stance they feel PLASA should take on their behalf. Various possibilities have been proposed and the route ahead will depend upon the members' replies.

The meeting of representatives from the **USSR Ministry of Culture** and PLASA members during the Light & Sound Show, has provided the PLASA office with an opportunity to develop contacts made with a view to reciprocating the visit.

Discussions are currently underway between PLASA and the Department of Overseas Trade Services, the British Embassy in Moscow and the Birmingham Chamber of Commerce. The BCC fits into the picture because they are arranging an Outward Mission to the USSR scheduled for February next year with the DTI support that such missions attract.

As the pictures on these pages will testify, a lively and enjoyable evening was had by all at the **PLASA Annual Dinner** held on the first night of the Light & Sound Show. Although numbers were down on last year's, there was no lack of atmosphere - the ice having been firmly broken when guests discovered their novelties, courtesy of Stardream Audio Visual! In between the eating, talking and dancing a multilateral challenge was developing on who could produce the most elaborate projectile out of air-powered balloons. The continentals, who tend to be thought of as more sophisticated than us British, loved it.

The double seminar, **1992 and Sound**, is scheduled to take place on Tuesday, 12 November at Forte Posthouse, South Mimms, Potters Bar, an easy and popular location at the junction of the A1(M) and M25.

The 1992 seminar will include speakers from DTI Information Technology Department, to cover such topics as the CE mark and standardisation plus Customs and Excise will cover VAT, excise and customs changes.

Tapes of the various **Seminars** held at the Light and Sound Show '91 are now available from the PLASA office. Fax or call for a detailed price list/order form.

A reminder to all those who exhibited at the Light & Sound Show, the **visitor mailing list** is now available from Coventry Data Systems. For all details please contact Coventry Data Services, Data House, Curriers Close, Tile Hill, Coventry CV4 8AW. Telephone: 0203-474733, fax: 0203-468834.

Any PLASA member company issuing a new product **catalogue**, can send a copy to the PLASA office together with contact names. The catalogue will be kept on file for reference and details of its availability will be printed in the following month's *Lighting and Sound International*, along with contact infor-



PLASA members meet the Russians at Olympia 2.



Steve Terry leads the DMX discussion.



PLASA chairman Tony Kingsley (centre) with Chris Hey and Brian Grant of Britannia Row.



James Brooks-Ward and Simon Boyd of Philbeach Events with George Thompson (PLASA standards officer) and Mrs Thompson.



Florian von Hoffen of the Smoke Factory (Germany) and VPLT with Tony Kingsley of Avitec (PLASA chairman) and Hermann Sorger.

ANNUAL DINNER ON CAMERA

The pictures above and on the next page were taken at the Royal Garden Hotel on Sunday September 8th on the occasion of PLASA's Annual Dinner.



Hermann Sorger of Ludwig Pani with Teatro's Mike Lowe.



Tim Davies and Vince Rice of Xylo (left and right) with Sara Kendrick and David Bearman of Martin Audio.



Günther Olbricht and Ralph-Jörg Wezork of CP&P Germany and Lightpower.



Laser Systems' Geoff Jones (centre) is host for the evening.



PLASA's Jan Shepherd with Rob Peck of Vestax and Ruth Rossington of L+SI.



Optikinetic's Neil Rice (standing) had three tables of guests to take care of plus appropriate national flags.



Pam Revington (PLASA) with husband John, Alain Bardouil and Yves Ruellan of Hardware for Xenon and Alison Hunt of L+SI.



Ernst Taubinger, Roy Millington (Cloud Electronics), Michael Schneider and Iain Price-Smith (Multiform Lighting).



Michael Hall (Rosco), Valerie Hall, Hermann Sorger, Sheila Bartholomew (PLASA).



David and Mrs Press (left) and Paul Raymond (right) of Par Opti with Jim St. Pier.



Angelo Cavenati (Clay Paky), Paul Mardon (Pulsar), Pasquale Quadri and Pio Nahum (Clay Paky).



A more than mixed group on the Harman UK table.



Dial Sound & Lighting's Andy Blackwell, with Monica Saunders of Adda and Ian Sharpe of Ramsa.



Graham Barron of Lite Structures with Sue Gottelier.



Tony Gottelier with Andy Graves of Pulsar.



PLASA's treasurer Matthew Griffiths (second from left) with Jan Talmage, and Bela Nadasdy and Peter Brandes, both of dlc from Nürnberg, Germany.



John Frazer (Sony UK), Paul MacCallum (Wembley Loudspeakers), Vivian Boyle, John Barnett, (Stardream Audio Visual), Jeremy Gilbert (DI) and Jean Gilbert.



Clare O'Brien and Nicola Hynes of O'Brien Associates with representatives from Le Magazine de la Discothèque.



Strand goes international: Ivan Myles (sales manager UK trading) and Ian Haddon (general manager UK trading) standing; Peter Rogers (sales and marketing Strand Canada), Steve Norman (marketing manager North America), Edward Pagett (business development manager), Alison Haddon, Bill Groener (general manager USA trading) seated.



Rene van der Luit and Bridgette van Essen (left) with NJD's Keith Greenwood and Ian Benton.



Strand UK: Sinead NíDhonnabháin, Phil Lehmann, David Cusworth, Ivan Myles, Brian Myers and David Bertenshaw (standing); Terry Abbs, Richard Harris, Alan Luxford and Jennifer Bertenshaw (seated).



NJD's Kevin and Heather Hopcroft (centre) with guests Bernd and Ulli Steinigke (left) from Germany, and Evelyn Markovic from Luxembourg.



More Strand: Ian Haddon, Mike Cawte (product manager), David Brooks (marketing director) with Hazel Cawte and Michelle Brooks.



PLASA committee man Paul Adams (standing right) of PA Installations hosts a busy table of well-known faces including guests from his own company and Gibson-Morten partnership. Well known faces squeezing in are Rob Peck, and Marion and Graham Smith (left).

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FOUR INTO TWO DOES GO

John Offord looks at two new entertainment complexes where the doors opened for the first time in September

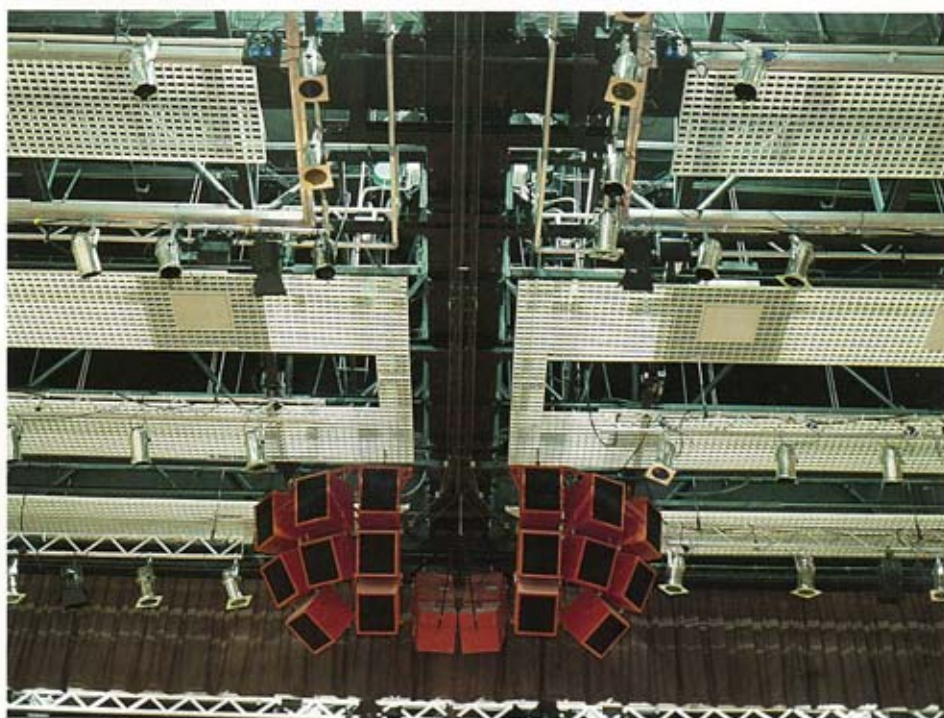
A total of no less than four new pavilions opened in September, three of them in Plymouth, one in Rhyl, North Wales. **Plymouth Pavilions** is in fact three inter-linked rotundas and the biggest multi-purpose venue in the South West, and the Rhyl version is the 1030-seat **New Pavilion Theatre**, part of a growing leisure and entertainment complex for the resort area of Rhyl and Prestatyn. Both received part of their capital funding from the EC.

Plymouth Pavilions has two major focal points: the Arena, for concerts, sporting events, conferences and exhibitions, and the leisure pool (Atlantis Pool) and ice rink (Swiss Lake) area. The two are linked by a central mall which houses a cafe with sunken seating area, a shop, and the fully computerised box office. There are numerous further facilities such as meeting rooms and a health suite.

The complex is Plymouth City Council's biggest building project and is situated on the six and a half acre site of the old Millbay railway station. It was designed by The Company of Designers of Cardiff and construction (Sir Robert McAlpine and Sons) commenced in late 1988.

Until now, the chance of seeing a major concert or large scale entertainment event in the South West was restricted to what could be promoted at the Cornwall Coliseum at the Cornish Leisure World near St. Austell where between 2,300 and 2,400 could be seated in concert style. Now, for a major pop concert in full modern comfort, the Plymouth Pavilions' Arena will cope with up to 3,000. The management is billing the venue as an all-in-one home for everything from orchestral concerts to hot metal or televised sport.

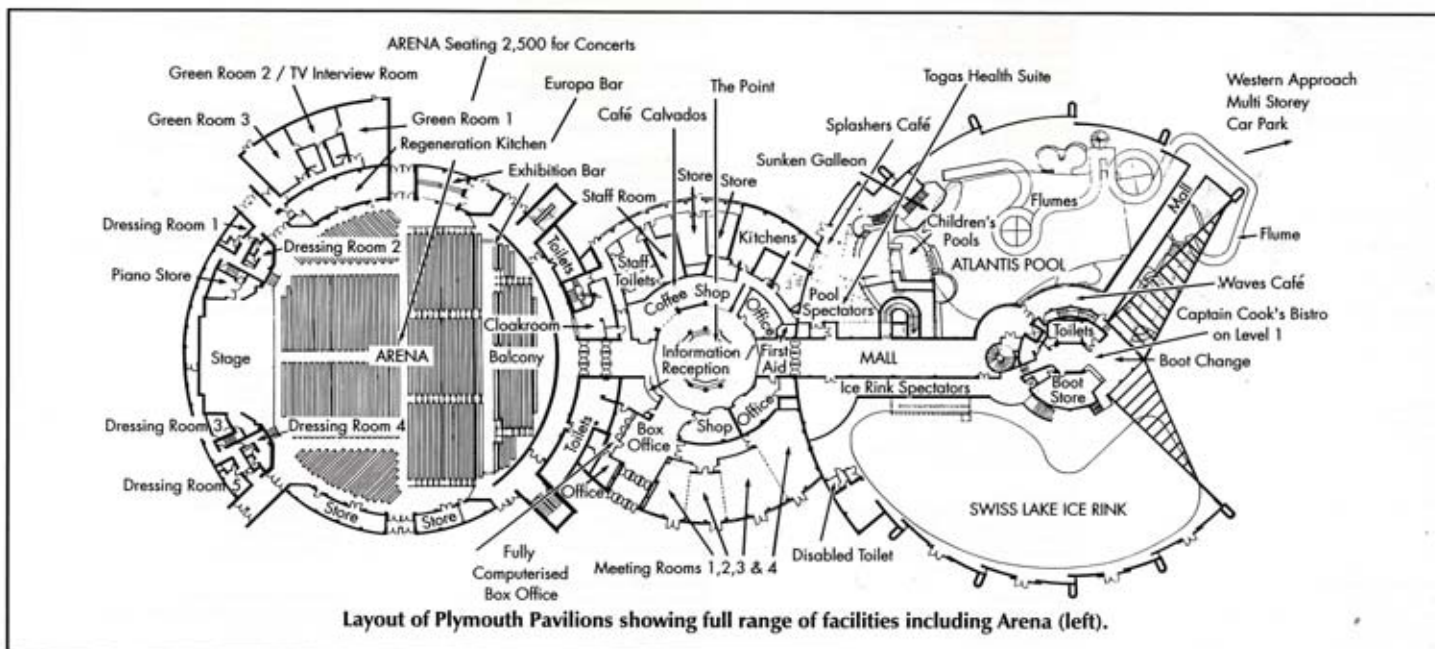
The complete rigging, lighting, video, communications, technical power distribution and background and foreground audio systems for the Arena were supplied and installed by The Professional Audio Group Ltd of Newquay in Cornwall and the intention is to be able to service any type of requirement within the basic circular area. The comprehensive motorised rigging system enables the flying of any necessary audio,



Overhead at the Arena, Plymouth Pavilions with Turbosound cluster.



The Professional Audio Group installed equipment racks at Plymouth Pavilions.





The Arena, Plymouth Pavilions.

Plymouth photos:: REV Photography.



New Pavilion Theatre, Rhyl.

video or lighting equipment over a large area of the venue.

The lighting control desk is a Celco 60 Major with Soft Option package and Arri Connexion package and DMX 512 protocol. The dimmers are Arri 5kW rack mounted and lighting control points are located in the control room, on the balcony front, on stage and in centre stalls. Lanterns are Strand Cadenzas, Cantatas and Punchlites with two Solo CSI follow spots. There are eight Arri 2.5kW Soft-lights and 12 Arri 5kW pole operated fresnels.

Sound control is by means of a DDA Q-Mute 32-8-2 mixer with full foldback and auxiliary inputs/outputs plus an 8-way matrix and available at the same locations as listed above for lighting control. Amplifiers are Crest Audio and the loudspeakers all Turbosound with the central cluster consisting of TSE 111, 115 and 118 enclosures. In addition there are two stacks, one either side of the proscenium and two delay clusters above the balcony, plus two TSW sub-bass enclosures sub-stage, and six monitor wedges for stage. Signal processing equipment is all Klark Teknik and BSS.

There is more equipment located in the Swiss Lake ice rink area. A portable flooring system allows the area to be converted for catering functions, exhibition and smaller concerts. Control equipment includes a rack-mounted Arri Image with Smartwatch real-time clock option and for special effects a Celco 'Baby' 30 is available at the rink or pool-side. The lantern stock throughout the complex is extensive, and it's interesting to note that the venue's 'pool' of special effects equipment includes no less than four JEM Heavy Fog 750 units. Throughout the venue there are no less than 240 discreetly hidden B.E.S.T. loudspeaker units for background music and public address announcements.

Technical manager at Plymouth Pavilions

is Nick Craney and the complex opened on 19th September with a performance by the Moscow Festival Ballet. The venue will be the subject of a full technical feature in a later issue of L+SI.

Rhyl's **New Pavilion Theatre** opened its doors on September 25 and it forms the latest addition to an ever-growing leisure complex of which the highly popular Sun Centre was the first instalment. The former Pavilion Theatre was constructed in 1908 and occupied a site on West Promenade where its large dome was a prominent landmark until the venue was demolished in 1974. Now, after a gap of nearly 20 years, full-blown entertainment is back in town.

The theatre cost £3.5m, can seat an audience of over 1,000, and boasts the facilities of orchestra pit, full fly tower facilities, a scene dock and a comprehensive range of dressing room accommodation to cater for all kinds of production.

A. S. Green & Company of Haydock supplied and installed the flying rig which includes 44 500k counterweight sets, three hemp sets, the electrically operated house tab track flown on a C/W set and the stage internally wired barrels suspended from C/W sets.

The same company also supplied and installed the complete stage lighting system, and control and lanterns are all Strand. Dimmers are Permus, 132 x 10 Amp and 18 x 25 Amp plus 6 x 25 Amp for house lights. The control desk is a Gemini 2 Plus located in the control room or via remote designer's control from the circle. It has been supplied complete with colour monitor, manual back-up and effects panel. Luminaires are various Cantatas and Punchlites with four Iris-4 cyc units. Project director for A. S. Green was David Collier. The safety curtain was installed by Tele Stage Associates Ltd and intercom equipment

from Eurolight Ltd.

The sound system was also supplied and installed by Eurolight and includes a 24-4-2 Soundtracs Delta desk with 16 microphone lines from stage and eight returns to stage. Amplifiers are Macro-Tech and speakers ElectroVoice 200s with Peavey monitors. Microphones are ElectroVoice and the theatre holds two Samson radio mics. Other equipment includes an SPX900 effects unit, a Denon CD player, a Denon cassette deck and a Revox B77 tape.

Technical manager at the New Pavilion Theatre is 22 years old Giles Letheren; sound engineer is Mark Phillips, and chief electrician is Andrew Hughes who was formerly at The Little Theatre in Rhyl.

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ON TOUR

Catrina Forcer

Multi-platinum rockers Guns'n'Roses hit the road earlier this year for a projected 18 month world tour promoting their new double album 'Use Your Illusion'. Along with opening act Skid Row, the six piece band played a combination of indoor and outdoor venues in the USA, through to the end of July, before touring Scandinavia and performing one-off gigs in Germany and England. The group is planning a New Year's Eve concert in Japan and will continue to play for stadium crowds throughout 1992. The lighting designer for the tour is Phil Ealy who has a solid grounding working for a variety of bands including Motley Crue and David Lee Roth.

The current Simple Minds 'Real Live' tour also kicked off earlier this summer, and is predicted to stretch well into next year. As usual, the lighting designer is Steve Pollard who produces a very apt and down to earth show.

Simple Minds Wembley Stadium L.D: Steve Pollard

Since the finish of the last Simple Minds tour, Steve Pollard has moved to his home country of Canada where he's been busy designing TV, film and large stadium projects. "I'm comfortable in Canada because that's where my friends and family live," he explained. "My move there has nothing to do with the business. In fact, that has little to do with anything I do these days. I really don't like the business very much. I like doing what I do, but under my own terms. I was let down by a few people last year, asked to do things that never came together and so I got rather frustrated.

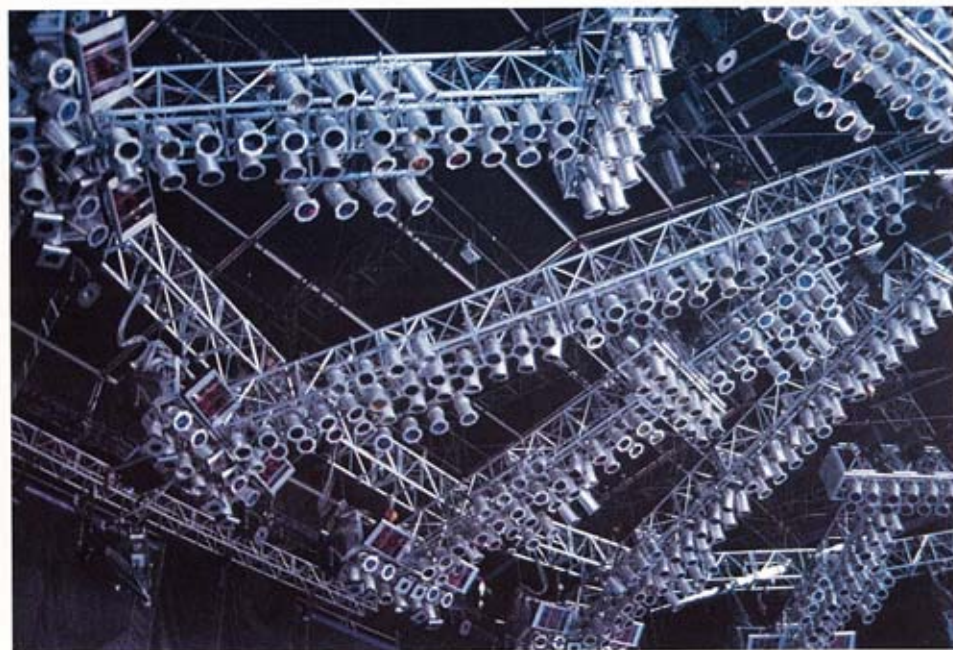
"When I first heard Simple Mind's new album I was struck by the fact that it was not political or 'arty-farty'. It was a really straight-forward sound, so I thought a really straight-forward approach to the lighting would be best. I also got thinking about where lead singer Jim Kerr lives, in Queensferry, right alongside the amazing Firth of Forth railway bridge. I looked at the way it was constructed and I found it very hard and imposing, but at



Steve Pollard.



Simple Minds in action (above) and a view of the Guns 'n' Roses rig (below).



the same time beautiful. That's where the inspiration for keeping the trussing exposed came from. I then saw the escalators at the Lloyds building in London which had truss work beneath them as well as fluorescents. I combined the two and when Jim saw it, he knew exactly what I was up to. The truss features 4ft fluorescent hi-tech lighting fixtures mirrored with gun metal baffles. At the end of each truss there are colour changers which illuminate them and it looks good. I said that I wouldn't use colour changers on this tour but it came down to truck space and I'm not really using them as before.

"Unlike the last tour, on this one there hasn't been a lot of time to prepare. Before we had three weeks which was too long: this time we only had three days. We worked hard and long and, because we've been playing a lot of outdoor concerts, we haven't had much time to work on the show during

the tour. I have to give full credit to the Vari*Lite side of things and I've worked very closely with my operator Mark Payne. In many of the songs the Vari*Lites don't do much - they just become a lighting fixture, as I don't want to detract from the band. But they do the big moves where necessary. I believe you should use them as your work-horse rather than as an effect. We have less of everything this time. The budget for this show has ended up being less than two thirds of the last one, and we're down from nine trucks to six.

"I've got an excellent crew and I'm open to ideas from anyone. For the song 'Jungleland' Billy Lawford suggested that I make the trusses into a St. Andrew's cross as the song is about Glasgow. On the control front I tried a Celco desk first but I dropped it after about two shows because I couldn't get organised on it the way that I can on an Avo.

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"My policy has always been not to upstage the band. You should light the band first and whatever happens after that should support the band and make them look more powerful. To me, any other approach is ridiculous, but I know people who do it all the time. This band doesn't need a whole lot but when they do daylight shows people comment that they miss the atmosphere created by the lighting. Lights should create an atmosphere, not a side-show. I've had nothing but compliments, the kids love it and that's what counts. I've another thing coming up which will be a development on the last show - more arty-crafty."

The tour started in May in Boston, USA, where the band did a theatre-size tour of America. It continues through Europe until the end of October before returning for more USA dates up until Christmas. In the New Year it is planned to return to Europe and then travel to Australia and Japan. "I think we'll be frugal when we go there," said Steve. "I really like my small show - it's straightforward but looks cool."

"It's getting back to what we all started with when there wasn't all this technology. You have to use your brains a bit but, if you have an interesting focus and a few tricks up your sleeve, there's no reason why a small show with Par cans can't work a treat."

"We used that sort of idea in the 'Stand By Love' video. There's also a BBC special, to be shown later in the year, which was shot at Barrowlands after the SECC gig. There are no Vari*Lites and only a couple of colour changers but I think it's still very effective. Technology shouldn't be what you base your ideas on. You should use the technology to create what you have in your mind."

"I'm in a better mood about everything this time because I have better people with me who have their hearts in the show. It's nice to be able to relax without the politics

winding you up and people letting you down. I enjoy touring with Simple Minds and I'd be hard pressed to find a better band to work with."

Guns'n'Roses Wembley Stadium L.D: Philip Ealy

Philip Ealy started his career in 1976 operating lights for LA-based bands that were working the local scene, and some of the bands he found himself working for included Ratt, Van Halen and Motley Crue. Van Halen was the first band to become popular, but at the time Philip was also working for another band. Faced with a choice he opted for what, at the time, seemed the more promising band. Unfortunately, the band split up, and for Van Halen the rest is history.

Finally, Motley Crue were signed up and Philip had his first major world tour to design - the 'Too Fast For Love' tour. That was followed by the 'Shout At The Devil' tour, and then he moved on to work with Ratt for which he designed three consecutive world tours. After a year's break Philip met up again with Van Halen's David Lee Roth and consequently was hired for the 'Skyscraper' tour. Guns'n'Roses was the first act that Philip pursued and by 1989 he was hired by them.

"We supported The Rolling Stones 'Steel Wheels' tour in Los Angeles but there were no rehearsals, other than a few warm-up dates," he explained. "The whole show was completely pre-programmed. Everything was a colour changer or a Vari*Lite for the most part. I had a Celco Gold and a Colormag desk in my workshop in Los Angeles and so Doug Brant (Colormag operator on both tours) and myself could programme the show there. We walked in the night before, did some editing and did the shows."

"The band and management were pleased with the shows and we waited nearly a year to start this tour. Some of the shows for the current tour were two years in the making."

When it comes to the overall look of the show, the band has two visionaries - Axle and Slash, but because of their different schedules Philip had to meet them individually and try to please them both. They agreed that they wanted an upstage perimeter ramp because they intended to sell seating all the way round. Axle wanted the stage set to be a crashed plane and so Philip came up with some sketches and Ian Knight built the models as well as contributing to the set design. Everything was confirmed and then the Iraqi war broke out and Axle thought it was not such a good idea after all.

Philip went back to the drawing board and designed a series of drum risers, ramps and steps. The whole model process was reworked and the band were pleased with the results. Philip always designs the sets as well as the lights because he believes that you achieve better continuity. Once the set is done he usually overlays the lighting system onto it.

The lighting rig for the Guns'n'Roses 1991/1992 'Use Your Illusion' world tour encompasses over 1000 fixtures and the total production currently fills 11 full-sized 18-wheel semis. The lighting equipment for the tour is being supplied by Light & Sound Design Inc. of Newbury Park, California. With the exception of the PA cabinets and the trussing, everything was flown over from the States for the European shows.

The rig includes 700 Par 64s, 144 ACLs, 34 eight-lamp Molefays, six 1200 watt HMI Stark lights, four 1200 watt HMI Cinepars with remote faders and colour changers, four Terra Mag units, 100 Colourmag colour changers, four Mini Mole Mags, 30 Mole Mag colour changers and 40 Vari*Lite VL2b fixtures.

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LABAT PROCTOR & ASSOCIATES	
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GUNS N' ROSES	
DESIGNER	
PHILIP EALY	
TITLE	
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KEY	
PAR 64 500w COLOUR CHANGER MOUNTED ON PAR 64 AND STARK LIGHT PAR 64 28w 250w AIR CHG* COLOUR INFO TO FOLLOW VARI-LITE 28 SPOT LUMINAIRE 8 LAMP HOIST w/ COLOUR CHANGER MOLE MAG LAMP UNDER HUNG LUMINAIRE 1200w HMI MOLE MAG LAMP STARFLASH LUMINAIRE	
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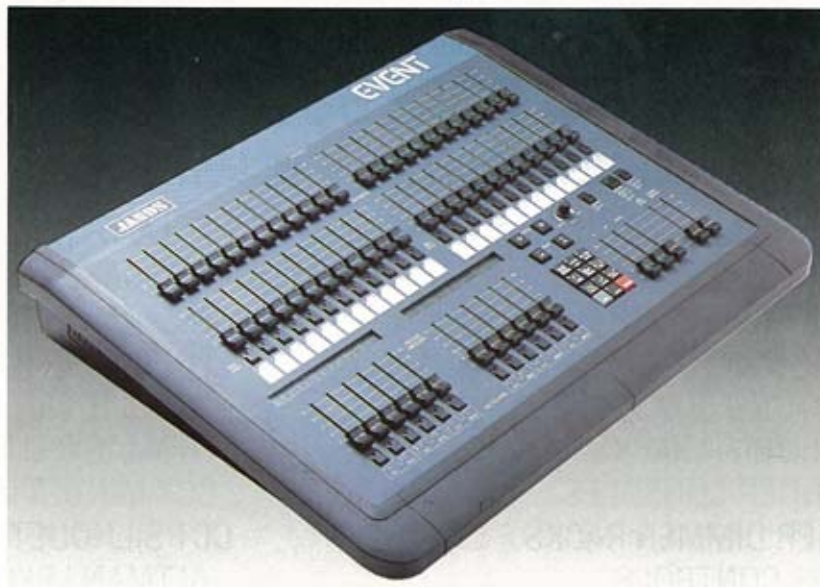
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Guns'n'Roses.

Photo: Lewis Lee

Philip is planning to add additional Vari*Lites and Telescans for the stadium leg of the tour, which is scheduled for next summer. Dimming and control consists of six Avolites 72 x 20 amp dimmers and a 180 channel Avolites QM console. The hoist control is computerised and uses the LSA Motor Management System with 45 chain hoists and 56 sections of type 'D' trussing.

Philip has also selected 153 Lightwave Research Dataflash units for the tour. 125 of these strobes are mounted in the rear wall of the stage on 6 1/2 feet x 6 1/2 feet pods with the remainder placed internally in the trussing. Slash, the lead guitarist, wanted a rear logo that displayed Guns'n'Roses, so Philip used the pods of Dataflash to alpha-numerically display the group's name.

At the moment Guns'n'Roses are one of the most controversial bands and they seem to attract a lot of bad press. That has its pros and cons as everyone wants to see the band because they don't know if it'll be the last time they play together.

The shows are highly unpredictable. At one of the recent American shows there was a riot by the audience and a lot of custom pieces made by LSD were either wrecked or stolen. The band never follow a set list, in fact Axle doesn't even want to hear the words. He picks the tunes as he feels right and Philip never knows what he's going to start the show with. "It's challenging to me especially with a show of this magnitude being completely programmed," said Philip. "You never know what Axle is going to do next. One minute he can be having a good time and the next he doesn't want to play anymore so he'll disappear for a while!"

"That happens almost every night. One show only lasted an hour, whereas another went on for three hours and 36 minutes. Axle

was hoping to beat the record on one of the recent shows but Brent Council imposed a 10.30pm curfew. That sort of tactic is like waving a red flag at a bull!"

To keep the band nice and relaxed, the schedule for the tour has been an easy one with no more than two shows in a row.

Philip is happiest when he is working for one band at a time, especially as he also owns a company in LA called West Coast Concert Lighting. He admits that he would like to work for other kinds of acts, rather than just heavy metal or rock.

"The parameters you have to work with are so much different to those if you designed a band like Depeche Mode," said Philip. "With such a group you could be a lot more 'arty' or creative, gaining interaction between

the artiste and the lighting itself. Maybe that's what I'll pursue next, but I tend to take things as they come. At the end of every tour I say 'that's enough!' but then I get the bug and I have to go!"

Crew List

Philip Ealy - Light and Set Design
 Warwick Price - Crew Chief
 Doug Brant - Color Mag operator
 Rusty Lowry - Vari*Lite operator
 Rodney Thompson - Vari*Lite technician
 Kevin Bye - Vari*Lite technician
 Pat Ryan - rigger
 Mike Tierney - ground rigger
 Tim Gallup - technician
 Rob Edgington - technician
 Scott Read - technician
 Dave Grayson - technician
 Mike Lamb - technician



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Graham Norman (left) and Mick Hannaford (right) of Light Processor get down to business. Mick is also thinking about a new product hidden behind the scenes . . .



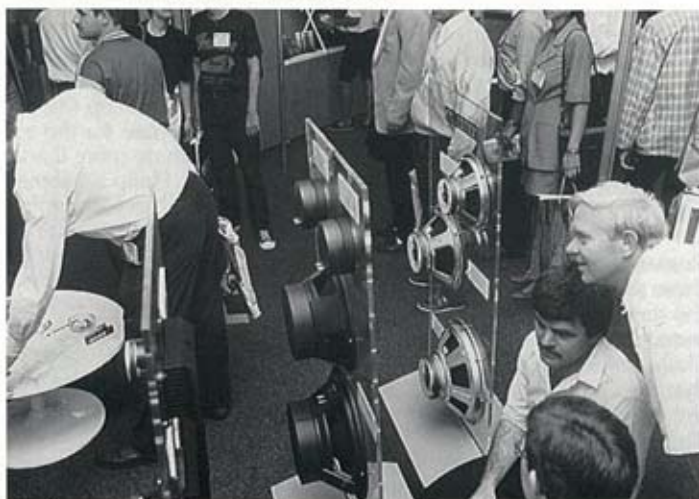
The Arri GB stand: the demonstrating never stopped.



The usual morning rush at the turnstiles.



Ludwig Pani had a wide range of equipment on demonstration.



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The Lasers in Entertainment seminar in progress.

THE GOOD NEWS

Tony Gottelier, Phil Roper, Ruth Rossington and Alison Hunt combed through the stands at Olympia and found plenty to write home about. Tony introduces their collected thoughts. John Offord, Phil Roper and Apollo took the pictures, so if your is out of focus you know who to blame

Phil Roper and I agreed that we both arrived at Olympia on Sunday expecting a desert, from all the rumours which were flying around beforehand, and got a very pleasant surprise instead. Sunday was a busy day with plenty of very business-like people striding round the hall. And they were doing business.

Indeed, this was the story of the whole week. It seems that the world had decided to come to the London Show this year and they were determined to leave some money behind to prove it. If visitor numbers were virtually the same as last year, that is around 7,000, the quality of the visitors, in a commercial sense, was definitely higher with the overseas contingent much in evidence. Proof of the new climate was evidenced by the number of visitors from Eastern Europe and, in particular, a Russian delegation jocularly referring to large numbers of empty armaments factories to fill.

In the grim years prior to recent extraordinary events, the need for entertainment has been repressed or forced underground, except for the privileged few and now, it seems, it's bursting out all over. Courtesy of Neil Rice, I spoke at length to a Polish Jack (Jacek) Kowalski of Light Jack who has been selling Optikinetic's product from premises in Lodz for 11 years. To operate in the entertainment business behind the iron curtain cannot have been easy and Jack confirmed that, previously, even to find out about the Show would have involved the greasing of palms. (Old habits obviously die hard, for only yesterday I received in the post a bottle of Polish vodka, with the message 'After all, I believe you deserve a drink! Cheerio!' Naturally, I have sent it straight back!!). Jack tells me that following liberation, discotheques are springing up 'like

mushrooms after the rain' and that the Sopot exhibition, in which he has participated for the last three years and which accompanies the Sopot Music Festival, is the place to be. Anyone interested in getting into the market over there can call me for Jack's address.

Every exhibitor we talked to told us the same story. Stephen Court claimed he paid for his stand with orders taken on the first day, Avolites sold six of their new Diamond boards straight off the stand (at £21,000 that's no mean feat), and Celco took orders for at least 100 of their Navigators, as featured in L+SI last month (perhaps we helped?!).

Maybe this year's Show will be remembered as the turning point which finally marked the end of the recession, and not a minute too soon for most exhibitors.

On the sound side, one wag cynically suggested to Phil Roper that his tour around the new audio products for this magazine would probably only take a couple of hours. Not the year you would have thought for spending money on new product development. In fact, he found over 100 new items as he struggled back to L+SI's stand, footsore and weary, some four days later. In view of these numbers, Phil's report can be found in its own write (sic), to save sound buffs having to plough through pages of lighting info, before getting to the chewy bits.

On the social side, the usual events met with a mixed bag of comments most of which could be summed up as 'could do better if tried harder'. And the belated appearance of a much maligned rope-light at the PLASA dinner, prompted the question from one of my table guests: "Do you think it's DMX512 compatible?" Aside from the splendid dinner hosted by John Offord for L+SI advertisers

at the Savile Club (you see there is something to be said for advertising in L+SI), amongst other events pronounced successful by all present was the party at Camden Palace sponsored by a certain laser company who had better remain nameless or I shall be in trouble with all the other laser companies around the world.

Unfortunately, there was bad news also. Harrison Electronic Ltd went down and stayed down this time, one week prior to the Show, and there was a large gap in the shell scheme in the basement to prove it. Julianas tripped and picked themselves up again before anybody noticed, but, on the other hand, recent casualty Lumo saw a white knight (or is it a white Viking?), in the shape of Christian Salvesen on the horizon.

With all the new products mentioned above and 40 new exhibitors, it has been the magazine's policy this year to cover only new products in the Show review so, even though the length may seem daunting, read on if you want to be up to date. Even if you are one of the annual Jeremiahs whose excuse for retiring to the bar, after a quick walk round, is "nothing new again this year", this is your chance to catch up from your armchair.

Tony Gottelier

LIGHTING AND SFX - on stage

On the first floor A C Lighting, well-known for warehousing a range of specialist products, were showcasing a range of designer labels from across all disciplines. On the lighting side, new products included the Coloram colour changer from Wybron. This is a lightweight unit weighing in at 3lbs,



Zero 88: first stand in the Show and plenty of new product on view.



Structures and shapes from Penn Fabrication.



Crowd puller: Laser Systems drew big audiences with their regular shows.



Bob Gordon of Wybron and scroller-speak on the A C Lighting stand.



A C Lighting's Marie Cooper with Jack Schmidt of Strong and the Roadie.



Nic Tolkien and Debbie Potter of AC with Jands' Paul Mulholland (right) and Event consoles.



ADB's Raph Jansen (back to camera) expands on the S28 control system.



Jean-Luc Michaud of Alien Products with his STX searchlight complete with integrated colour scroller (see cover story this issue).



Arri's Tim Burnham (right) gives away the Mirage to Mylan Lester of Imperial College Drama Society. Checking procedures was client contact for Arri, Dee Reed.



High Roller. Avolites' Steve Warren with hands on the Diamond QM.



CCT Lighting's David Manners produces a surprise with the Regal II+4.



Celco's Colin Whittaker (second from right) takes a turn at the Navigator presentation table.

with a direct drive motor and no gears giving quiet gel transport. You only had to pause and listen to Bob Gordon of Wybron Inc. for a moment to learn that its most significant feature is its ability to travel through 32 frames of colour in under two secs. As the eye is incapable of assimilating such information, and without the aid of an on-site lab, we shall have to take his word for it. As users of scrollers will know, it's not making something go fast that's the challenge, so much as making it stop where it's supposed to, and, by virtue of optical sensors, this unit does just that.

It was the first time at a trade show in the UK for Strong's Gladiator III, a 3,000W xenon follow-spot that will possibly become available for hire in the UK, plus their new Roadie all-purpose follow-spot. Further along the stand Jands were premiering the Event Plus 120 channel console, an update on the 60 channel version. From Italy, the new Vision range of computer-designed theatre luminaires, featured the Micro Flood and Micro Elipse light-weight spotlights which produce narrow to wide beam spreads up to 15 feet. The luminaire utilises MR-16 dichroic reflector lamps.

Just across the aisle Belgian company **ADB** relied on their recently-launched UK operation to fly the flag. To the familiar product line-up, more names were added. New-ish is the 48 channel Cantor memory control system. Not seen before, however, is the range of high density digital dimmers and the new Gelbus colour changer which is, as near as damn it, totally silent. It's also bigger, and because the gel is cut at angles in preference to straight lines, the change from one colour to the next appears seamless.

Fresh from its outstanding success at the Salisbury Spire appeal concert (see feature this month), **Alien Products** were proudly showing off their STX Sky Light. Though this servo-controlled 4kW Xenon searchlight comes from the same generic root as TP's Sky Art, the difference is that this version has been re-engineered specifically to take a gel scroller; and control of the pan (360°), tilt (180°), focus, radial shutter and 16 colours is integrated in a single

programmable control board which can handle up to 20 STX units. Super product.

After many months in R&D, **Arri** launched a completely updated range of lighting control consoles and accessories which boasted not only software enhancements on previous models, but a revamped console design. The new-look Mirage 75/125 console had its first London showing, and the Imperial College Drama Society walked away with one after they came up trumps in the special prize draw. Colchester's Mercury Theatre must be kicking themselves. They were first out of the hat, but as no representative was available, the hand went in again.

Also on stand was the new range of motorised studio luminaires and related control, and among the new accessories was an enhanced PC show edit program. However, this all played second fiddle to the main attraction - the new Reflexion back-up system. The unit can be married to any lightboard with DMX or Strand D54 outputs, and in essence can take a 'snapshot' of the through-connected DMX line, allowing 60 back-up memories to be copied for playback on 12 submaster faders. A warning signal is sounded if the main system fails, allowing the operator to transfer control to the Reflexion whilst the main system is attended to. It should be a winner, especially as the price is an attractive part of the deal. It would come as no surprise to see these consoles popping up all over the place as more responsibility is placed on ever more powerful memory desks.

Picking themselves up after recent events, the aforementioned **Avolites** launched their Diamond QM lighting desk. Indeed, you got the feeling that you were worshipping at a shrine, or present at the latest car launch with the new console placed in such an elevated position! Test drives must have been quite a problem in this regard for MD Rick Salzedo, in a grey suit yet, though not for the taller Steve Warren. Although claimed to be their first digital desk, the Diamond QM has more hands-on than a faith healer and is positively bursting with features.

Obviously, this is an attempt to provide the 'best-of-both-worlds' option by providing up to 180 (or 90 two-scene) manual presets into 512 channels with up to 600 cues while, on another level the full potential of digital memory is exploited, as whole show cue lists, complete with individual fade-up/down times, can be stored, reshuffled or edited a la the QM500TD and, of course, whole shows may be stored on diskette. There are 20 playbacks with dot matrix labeling and an Electro Luminescent Video Screen which normally displays the channel output, although memories, chases, pages, dimmer output and the patch may be previewed also. 90 over-ride faders are provided to enable manual adjustment of individual channel output in real-time.

An eight-scene back-up mini desk is sensibly included in the glove pocket and provision is made for two DMX512 transmission lines, so a catastrophic failure should be avoidable. The dash is every bit as chunky as the famed Avolites desks of yore with polished wood frame, and we swear at 90 channels per minute we could still hear the whispering clock!

Nor could you afford to be small minded when it comes to price, but that goes without saying for such a splendid 'Rolls Royce' product. This hard rock desk will be the best friend of any LD who wants his controls laid out in front of him and the power of processing behind him - and which LDs don't. Diamond will be one hard act to follow.

Having said that, by dint of the alphabet the next one up is **Celco** who would certainly want to argue the benefits of their Gold console in this context and might even want to make a case for Navigator. The new 96 channel digital board, detailed extensively in the last issue, was a hot number at the Show and although they would contend that it is aimed at an entirely different market, one or two Navigators, dependent on the required configuration, would cover many of those facilities at a Ford (able) price. Emphasising their new relationship, the Electrosonic Procube rear projection videowall was 'attention getting' on the Celco stand.



Three from Cerebrum: the MA Lighting Technology's LCD 120 console (left), the Controlite from Amptown (centre) and the award-winning Enigma Micro in the capable hands of Mark Tonks.



Bill Smillie of DeSisti UK (left) with Mario DeSisti.

A section of the PowerDrive range on the Cerebrum Lighting stand.



JEM corner, one of the busiest areas of the Show.



Checking out the range on G E Thorn.



Glantre in conference: Mathew Tonks and Derek Gilbert (at back) with Tom Young of Hoffend & Sons and Steve Terry of Production Arts Lighting.



M & M's Mike Goldberg demos the Smoke Factory's Scottie to Howard Eaton.



A Modelbox print-out gets the once-over.



Kupo followspots on the Lighting Technology stand.



Eurolight's Andy Stone keeps his concentration . . .



Graham Walne on video - the techniques of stage lighting.



Pani's Hermann Sorger with the new BP12 Platin or 'Platinum' projector.



Hardware for Xenon's Yves Ruellan joins the battle of the big projectors complete with automatic slide changers.



Sylvania personalities Carla Maris, Rocyn Williams and Guy Birchall.



Lee Filter's Paul Toppliss (right) shows L+SI's Tony Gottelier the 'Master' edition.



A general view of part of the Strand Lighting stand.



Strand Lighting's Brian Myers and David Brooks present the new LX.



Mark Schuermans (left) of Av-Enger with Live Wire's Nic Bourne - an audio visual experience from 500 miles away.



Teatro: a new colour change unit and the Tipso range in background.



Adrian Brooks (left) and Graham Barron present an architectural theme for Lite Structures for the company's first PLASA Show exhibit.

As you would expect there were some interesting new ideas to be seen at **Cerebrum Lighting**. Total Fabrications were showing their folding 2.4m long triangular truss, which looks like a winner. What is it about the air in Pershore which generates all these companies making trussing and Par Cans? Talking of which from not so far away, and the same historical root, John Lethbridge and his team were also showing the LSD 2k Pan and Tilt Xenon searchlight which boasts variable beam angle and radial diaphragm dowsers. It has a dedicated controller and was shown with Colormag fitted. It seems that everybody's got to have one of these this year!

Also causing something of a stir was Amptown's step-up from the Posispot, to be called the Controlite. This Vari*Lite look-alike offers 360° of pan and 270° of tilt from its rugged motorised yoke and seems to be built to travel. Nine gobos are possible and the same number of colours plus white, iris, mechanical dimming and blackout/strobing shutter. Using the Philips 700W MSR lamp, control is provided by a PC via DMX512, or any other desk for analog control. The software package for the PC control seemed highly logical, the only potential drawback was that 256 step resolution possibly would not be good enough, and the designers have failed to come up with the solution, used on the Summa for example, of a Fine control via a second DMX channel to facilitate ultimate positioning (Steve Terry's famous kludge!).

Throughout 1991 **CCT** has been busy streamlining its operation, and has now fully integrated the Furse operation. Aside from its well-established range of luminaires (which incidentally included a new reflector and lamp-adjusting facility on the Minuette, and promise of a new lens for the Starlette pebble convex, or PC), and related accessories, the main talking point was a product so new that the technical spec wasn't available at the Show. The Regal II + 4 (in a previous life a Furse product) is a 12, 18 or 24-way two preset DMX control desk with dipless crossfade and three mode flash buttons. A combination of two desks doubles either the channel or presetting facilities, and mastering can be retained by either desk or both. Yet another contender in the small-stage end of the game, which is obviously seen as a highly lucrative market.

DeSisti used the Show to push their expanded Rembrandt 'Piccolo' luminaires now ranging from 575W up to 4kW, and the improved Tiziano 200W. Both ranges now feature an MSR source for better colour rendering and new ballasts for flicker-free operation. Perhaps most interesting, since the company only recently acquired the product, were the compact Dedolights, first reviewed by L+SI at Showlight 89 in Holland.

After its first showing at the ABTT earlier this year, **DHA's** Digital Light Curtain was ready for an encore, and this self-contained two metre unit with built-in 26 colour scroller has already proved a big hit on Broadway.

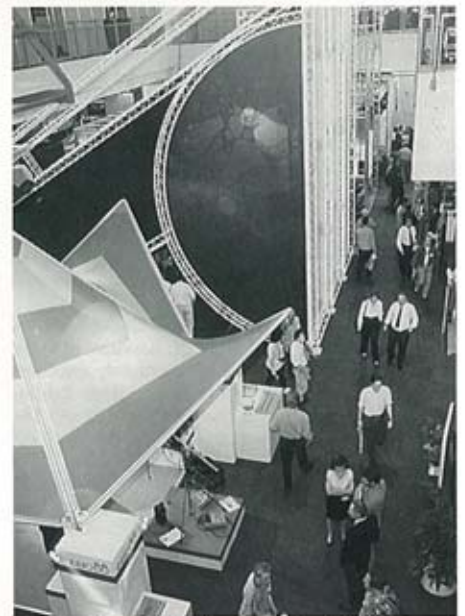
Electronic Lighting & Music were showcasing their new MPX32i, a 32 pattern, four channel, budget light chaser which is suitable for resistive or inductive loads. The unit features a three position Full-Dim-Off switch, a two position Run-Hold switch, and rotary speed and sound sensitivity controls.

The **Eurolight Group** displayed several new products including the Arena manual/memory lighting console which, they say, offers the facilities of larger consoles at a fraction of their cost. Also being shown were the new 3U and 5U high range of Micropack dimmer packs, the latest circuit breaker and residual current circuit breaker protected Wallrack cabinet dimmers, the range of Whisper colour scrollers and revised Ovation and Applause lighting consoles.

Glantre Engineering, who have become a major force in the serious contracting end of the business, were demonstrating the Hoffend Micro-Commander rigging control system for the first time in the UK. Hoffend, a leading American manufacturer of stage equipment, developed the system which offers programmable motor control of up to 200 cues to 120 motors, while providing direct operator access to individual motors. The motors may be of fixed, or variable speed control, electric, or hydraulic, and the system can be as simple or as complex, including revolves and stage wagons, as is required. As with multiplexed lighting systems dimmer-per-channel control, in this case motor-per-line, of a large number of point hoists becomes



The Avitec presentation.



Part of the ground floor at Olympia 2 with one of the Zero 88 pagodas and the Optikinetics-designed Trilite structure for Avitec behind.



A scene from the Pulsar/Clay Paky presentation.



Inside the Batmink emporium.

a practical possibility. Accuracy is maintained to within 3mm using incremental optical encoders enabling real-time tracking of each motor on a high resolution colour monitor. Library storage is provided by 3.5" diskette.

The already considerable pedigree of projects in which the Hoffend MicroCommander has performed successfully is about to be extended by a joint project with Glantre for three theatre installations in a certain theme park in Marne La Vallee near Paris. (L+SI will not be giving a bottle of champagne for the first reader to give us the name, but suppliers are under contract not to use it in their PR, ain't that Mickey Mouse?).

It was good to see old friend Graham Walne speaking to us via a TV monitor, courtesy of video tape, which strikes me as an absolutely excellent way to put across the techniques of stage lighting and a damn sight easier than writing a book. The first two VTs in the Theatre Skills Video Library are available now from **Greenlight** in Brighton.

Among the products displayed on the **GTE Sylvania** stand were tungsten halogen Par 64 500W studio sealed-beam lamps for high performance at lower wattage ratings. The range complements the existing 1000W range, and is available in three beam patterns in both 220 and 240V versions. Keeping company with these were a range of theatre-class lamps which have a more compact coil for higher efficiency, and additions to the well-known BriteArc and BriteBeam HID lamps for studio, TV and theatre applications, which are coincidentally now being manufactured at the company's facilities in Europe. We understand that plans are advance for the manufacture of a new range of single-ended discharge lamps. For GTE the Show was also the launch pad of the new sub-miniature fluorescent lamp (SMFL) which should find application where small but powerful sources of light are needed, and the key to its versatility lies in its lens diameter, a mere 7mm.

It was good to see so many lamp manufacturers supporting this year's Show in their own right, such as **Osram** promoting their Halomet HTI short arc light sources, Japanese MSR specialists, **Koto Luminous** represented by Lite Smiffs, and **G E Thorn** with lamp hardware in abundance. Others were represented by the likes of **Lighting Technology**.

Another big hit at Salisbury were the **Hardware For Xenon** 5k Xenon projectors which are now available with automatic slide changers if required. Indeed, The Wall concert last year in Berlin seems to have sparked off quite a battle on this front, with **Ludwig Pani** also introducing their AMD-15 model which is compatible with all their 18cm projectors. The Hardware unit provides selection from a 40 slide tray of 18cm square slides by processor control via RS232.

Pani chose the Light and Sound Show for the launch of their Platin, which we shall call Platinum, which they claim to be the world's most powerful slide projector. This huge projector based on a 12kW Xenon lamp, uses the 24cm square slide format and is reckoned to yield images twice as bright as the BP6 Gold which could give a 50m wide picture with no trouble at all - dread to think what this newcomer might be capable of.

Pani also launched the AMD-15 automatic slide changer for their 18cm square format models, and this is the unit Steve Terry of Production Arts in New York had a hand in developing, originally for The Wall. Holding 15 slides, double glass or otherwise, this unit will accept local control, remote switch, plus-10V dc, or DMX512 and offers two speeds of change.

There was nothing spectacularly new from **Howard Eaton** but the small ripple-effect, the stroboscopic lightning effect and the rows of birdies, which he calls Howie battens, never failed to demand attention in a good location opposite the end of a gangway. Not so obvious behind the scenes were the Bytecraft devices, which the company first revealed at the ABTT. Not mentioned by us at the time, is the Dimmaster suite of software modules for use with IBM compatible PC which cover such facilities as Fault Detection of dimmers and demultiplexers, Soft Patch, Device Control which covers programming and editing of presets and monitor simulation of the result, and Event Master which allows the creation of complex cues and multi-tasking to diverse devices. All these soft modules may be acquired individually, or collectively and are fully compatible. The data is dumped to disk for transmission through compatible desks or directly to the Bytesize dimmer rack, each of which is capable of storing 100 memories. The Ultrplex

48 channel Mux/Demux and the Phantom riggers control complete the Bytecraft family.

JEM, in uncharacteristic low profile at this year's Show, apart from the Jemlins of course, were still banging on about their entry into the pyro market, and also concealing a light from another source under their bushel. Sapphire Concert Systems, a company which has been trying very hard to find a viable product to get into the market for some years (and here there is to be perceived the benevolent hand of recent arrival to the stable, Mike Wood), were piggy-backing their new development on JEM's stand. Described as a rapid-rig Par Can, the product is apparently made from high-impact thermoplastic and is collapsible for transport and adaptable to standard, floor or short-nose configuration. If any of this is wrong don't hold us to it, because when we went to see the product, the guys from Sapphire had already left with indecent haste prior to the end of the Show. However, if they care to send L+SI a sample we will happily give it the once over in a successive issue.

Lee Filters no longer believe that small is beautiful, and at long last a gel manufacturer has produced a man-sized swatch book called the Master Edition. Pages are 135 x 250mm and the folio covers their complete range including 40 HT Polycarbonates. Mind you this could sell a lot of gel, for Lee, because unlike the conventional colour books, it will sell for the princely sum of £85.00.

Lite Structures, the born-again Astralite company, were showing off their silver powder coated trussing and sharing space with the ever-smiling Uli Petzold, through whose LMP Lichttechnik, LSC lighting boards and accessories from Australia, previously part of Avolites' catalogue, are now distributed in Europe. Also generating interest, however, was the Highlight CAD lighting design system from Dutch company Stage which enables you to draw scenery in three dimensions in full graphics mode and add and edit lighting positions, angles and colours at will. Once these lanterns are specified, the system will then give you a snapshot in 3-D of the light and shadow thus created and enable a full colour laser printed rendering to be taken together with lighting plots, set and cost reports. The only problem is that such a graphics dependent system is memory greedy and requires



Christian Léonard, Dirk Van Nieuwenhuysen, Raph Janssens, Russell Dunsire and Michel Musso pause for an ADB team photograph.



The two Bri(y)ans: Bryan Raven of White Light (left) and Brian Croft of Vari-Lite Europe.



Colin Whittaker (Celco) and David Morgan (Lighting Technology) with Mervyn Thomas and John Walters (James Thomas Engineering).



Strand's big men: Ian Haddon (left), general manager UK trading with managing director Chris Waldron.

extensive hardware to function, well beyond the budget of most lighting designers, though perhaps not TV companies. Perhaps bureau facilities could be considered, as we believe is the case with **White Light's** Modelbox, who also showed their already well-known AutoCad-based 2-D lighting design package AutoLIGHT 2.5 and previewed their 'soon-to-be-available' Laplight. Laplight is similar in concept to the Rosco Lightwright, but its strength is the combination of the database power of its big brother and the mouse-driven edit, design and report functions. How long will it be before lighting designers pick up on the concept promulgated by Tim Burnham and use digitizing tablets to double-up as both CAD-interfaces and control boards?

Another company attracting a great deal of attention were **Live Wire Systems**, whose 'Now' show control system has fully delivered its early promise and is being used in AV situations as diverse as the Prince European tour, TV game shows, heritage museums and theme parks.

One company who obviously still believe in miniaturisation are **M & M Lighting** who were showing off the Scottie, a tiny (21 x 19 x 11cm) battery-powered, portable, non-aerosol, fog-machine from the Smoke Factory, and last seen dowsing Howard Eaton in smoke. M & M, who now represent Smoke Factory's other products in the UK, have also gained the agency for Selecon, a NZ manufacturer of luminaires. Among their range the SF1200 stands out, by combining a 175mm lens with a lantern the size of which would normally be associated with a smaller lens. Selecon have succeeded in producing a compact fresnel which combines high light output, good beam quality and reduced side spill. This luminaire offers both 1000 and 1200W lamps and variable beam angles from seven to 56°.

Memotech launched the Image Manipulator which enables the simulation of many videowall effects via an LCD projector. And at a fraction of the cost, as they say. They also introduced the Video Column, a means of controlling vertical columns of monitors and an attempt to escape from the straight jacket of the conventional wall format.

The Dicro range of colour filters, aimed primarily at the intelligent lighting market, and launched at the Show by **Ocli Optical Coatings** generated considerable interest. Apparently this company has been quietly working away for 40 years in Scotland on optical coatings, and more recently thin film technology, without too many of us knowing about it. Anyway, competition for Balzers cannot be a bad thing, at least not for the rest of us. The company offer 10 standard dichroic colours for OEM use plus front surface mirrors, hot mirrors, 45° cold mirrors and high efficiency anti-reflection coatings.

Through **Lighting Technology**, Oscar Lighting introduced the Lightpaint in its physical form for the first time in the UK, up until then it had only appeared as a picture in ads in L+SI. And very impressive and well thought out it seems too. One of the few new products to adopt SMX (as well as DMX512, Avab-240 and analog, its on-board processor auto senses between protocols and stores back-up states), it will transport up to 11 colours in under two seconds and with the secret of Ssshhh,

and what appeared to be pinpoint accuracy from colour to colour, or mixed colours if desired. The distribution box feeds up to eight units with buffered DMX and 24V supply, enabling secure daisy-chaining. With this latter unit, the D4DMX Buffer is a product in its own right and can be usefully employed in any DMX controlled rig adding safety and protection against transmission line failure. Indeed, this inventive company have other products providing unusual but very useful features; the D4 2tol enables you to bring two disparate digital signals, say from two desks, together and merge them for a combined result; the 12-way x 10A Oscar dimmer 1290, with IR riggers control, also acts as a distribution box for up to five Lightpaints and the 24 channel x 16A digital dimmer rack, which also provides 24 back-up states.

Suffering with chronic sound overload from a nearby stand, **Rosco** were doing their level best to promote a new range of scroller colour changers specifically orientated towards TV and theatrical markets. The units are designed to use from three to 24 colour frames, and feature a wide range of data protocols in common use. Allied to this is the recent addition of three new colours to the Supergel range. The company has also expanded its high performance range of fog machines with the launch of the robust, low cost Rosco 1000.

When you're visiting the **Strand** stand these days you have to allow a good few hours just to take it all in. The stand was absolutely chokka blokka with the complete works, or so it seemed. Guide for the tour was Strand's David Brooks. First off was control with the Galaxy, Light Palette and MX ranges all queuing up for demo-time. Main feature though was the handbag-size (well nearly!) LX new entry level manual control desk which replaces the ACT and Tempus ranges. The LX is a two-preset desk with wire-per-dimmer connections to either +/-10v dimmers. In its positive voltage version, LX offers 12 or 24 ways, whilst the negative is available in 12, 18 and 24 ways. Both presets are controlled by separate master faders, which are moved together to give dipless crossfade. LX retains the timed fader which sets the preset master faders to work either manually or to a time sequence, but unlike Tempus, which first introduced timed and dipless crossfades on an entry-level product, there are two internal timer circuits connected to the time master, enabling the operator to delay either preset in a timed crossfade. Other newbies, too numerous to dwell on in detail, included additions to the Sirio fresnel range, extensions to the filter collection, improvements to the Prelude and Cantata ranges, new Minifloods and minispots, ENG kits, and the return of the Minim back by popular demand.

A slight departure for Strand, but nevertheless in keeping with the educational emphasis of their operation, is 'Step into the Limelight' - a teaching aid designed for those who have an interest in the technology of theatre lighting. Prompted by recent changes to the national curriculum, the pack includes 15 posters, detailed teacher's notes, stencil, design sheet masters and 10 colour filters. Well thought out, well laid out, and well priced, it's a gift to those who enjoy a bit of light bedtime reading.

Times were busy for Mike Lowe on the **Teatro**

stand, with strong interest in the company's new Tipo range of 1000W compact lanterns. (This year's Show revealed a growing trend towards such reduced scale units as noted earlier in this piece). Based on a common housing, with external heat-sinking in the form of stylish fins and with insulated handles, a range of 150mm bolt-on lens snoots and different reflectors offer the manufacturer a cost-effective route to the various models, 15/28 and 22/40 profiles, PC or fresnel. The benefits are passed on to the customer since the Tipo, Italian for 'type' (why not? says Mike Lowe), costs only £11.00 per 100W, or £110.00 to you, chief. The 150mm lens maximises light output from within a housing typically used for smaller optics. What we all admire about Lowe's operation is that, while other companies pursue the icon of high-technology, he has taken Teatro along a practical path which has the customer leading the engineering solutions, and the results are in the products for all to see.

Another product from this Italian stable was the production version of their colour change system, which enables up to six colours, plus open white, to be mixed or cross-faded. The pop-up toaster (semaphore) style of gel switching, unique in such units as far as we know, gives fast access to colours, and can be either DMX or analog controlled. Coemar first showed this unit at Rimini for use in boogie-woogie warehouses, as first reported in L+SI. Now with quieter operation, it's ready for the theatrical environment.

Xylo weighed-in with another mega display of free-form TV power with the added impact of the new Syn-drum input which kept the watchers amused, especially when MD Tim Davis exercised his musical talents. Hidden away in the control rack, it was also pleasing to see their new colour generator, which has been on Tony Gottelier's personal wish list forever, and which enables the selection of any of a palette of 256 colours and provides another input enabling the conversion of the monitors into a virtually infinite colour light sources.

One of the major 'reveals' of the Show came on the stand of **Zero 88** who have taken the decision to fill the missing link of their operation by launching a range of lanterns. The Focus 650 range is a comprehensive and economical line-up which will accept 300, 500 or 650W lamps. Although nobody was acknowledging it, the units are clearly the handiwork of CCT, even if the black extruded aluminium casting and red badging do lend them a more than passing resemblance to Teatro stock. Prior to the end of the Show Zero 88 had promised to rectify this identity crisis. The range includes a PC, fresnel, three profiles and two asymmetric floods which should find application in the smaller scale venues.

The luminaires were just one of four new products launched by Zero 88. The grey liveried Lightmaster XL 12 channel, two preset control board offers 108 cues plus 250 sequence memories. The fully programmable effects are simple to use, yet highly comprehensive. There are nine sequencers and a four band sound-to-light. For the musician the comprehensive MIDI controls allow the desk to be controlled direct from a key-



L+SI's Catriona Forcer assists Zero 88's David Caterall with one of their prize draws (see story in News, front end).



An apprehensive Tim Davies gets into rhythm on the Xylo stand.

board without the aid of a sequencer. Third up is the Rackmaster 260, a high density dimmer pack designed to use the minimum of space. Zero 88 have engineered this full 60 amp dimmer into a 2U high fan-cooled case. Diagnostic indicators offer fault detection, and it may be wired single or three phase using either Star or Delta supply, and will control resistive and most inductive loads. Last, but by no means least, is the Alpha Pack three channel portable dimmer pack capable of driving up to 6.3amps of lighting control per channel. A unique feature is an overload protection circuit which effectively minimises potential safety problems.

Two companies showing lighting associated products were **Doughty Engineering Ltd**, whose expanded product development has culminated in the introduction of over 130 new products this year. New products on display at the Show included the Club and Studio ranges of lighting and equipment stands and Phobus, a light-weight, all-purpose clamp for location luminaires. Unveiled at the Show were their new range of nylon coated music stands, fully adjustable for height and declination and available with or without lamps and a selection of scenery fixings ranging from stage braces to stud plates. Sheffield-based **Tirak Limited** used the Alta Beeche modular truss frame platform system to provide the platform for their 'stage' effect with the movement of scenery and lighting being achieved by the use of the Tirak Hoist. Also on display were the Tirak Mobile Winch, the Minifor Portable Power Hoist and the Beltrac manual and electric hoists.

LIGHTING AND SFX - non stage

Abstract Design To Light were showing, for the first time, their Rave. It is fitted with an animated dichroic carousel that produces eight colours from two lamp sources in time to the music. Along with Rave was the Spectrascan, a four-head lighting system. Each head has four gobos and four colours, with in-built microphone. An additional 16 preset controller operates the pan and tilt function of the heads.



The new RoboZap from Martin Professional.



Anytronics attracted the usual high level of overseas interest.



NJD's Keith Greenwood and Ian Benton with the company's give-away product guide - full to bursting with equipment.

Still on the first floor but this time with **AC Lighting**. Space Cannon were giving their Black Devil its first UK showing. Used at this year's Reading festival the Black Devil is a 1600W, remote controlled, motorised searchlight. It moves on two independent axes giving a rotation of 360° and oscillation of 250°, allowing an almost infinite number of tracking movements. It can be used for both indoor and outdoor events and Space Cannon offer a number of optional extras such as coloured gels, strobe effect shutter and colour changer, they will even supply the Black Devil with a pre-determined sequence of moves already programmed in.

Two new products from **Anytronics** were on show. The eight channel strobe chaser is able to chase one through eight or flash all together by speed control or bass beat of the music via 1/4" jack sockets. While the SP12 is a 12 channel, low voltage, 1U, 19" switch panel giving outputs via din socket or screw terminals. It is also available as a three zone model.

One of the three stands dominating the scene close to the entrance, **Avitec** chose a futuristic design, all white trussing, courtesy of Optikinetics, and blue neon against a black background. From the outside visitors could see the pre-production version of the new Optikinetics HMI Solar 575 in constant demonstration, projecting a variety of '60s liquid wheel patterns now making a comeback on the Rave scene. This was Opti's long awaited 'bright' projector and it was good to see it showing its heritage with liquid projections. It was a mite disappointing, however, to see that the shell has been made from bent metal, a la Solar 250, and not manufactured from cast aluminium in the Italian style. If we should have learned anything from the Italians over the past few years, during which they have succeeded in usurping our previously predominant position in the production of lighting effects, it has to be something to do with their bold investment in styling.

Inside the stand the Optikinetics Club Strobe-flower, also a pre-production model, took turns dominating the floor with a variety of products from Avitec's Italian suppliers FAL and LED. Many of the



Abstract Design to Light with four new Rave units sited below fascia.



Squire Sound & Light - another busy stand in their usual popular corner.



Günther Olbricht of CP&P Germany with the Clay Paky MiniScan unit.

products being shown from these two companies had already been seen in Rimini earlier this year. The Light & Sound Show, however, was their first UK showing. From FAL the Twinstar, Algorhythm and Laser Simulator were on display. The LED products - Star, Concert and Wonderful were - all projecting, rotating and spraying in a wild assortment of colours.

Making their debut on the stand were Genius, who previously only manufactured for fellow Italian companies and are now selling product under their own name, and offering three new lighting effects - Skylab, Brillante and Allegro. Using an A1/239 lamp Skylab produces two separate, multi-coloured light 'fans' which will pass vertically through one another. The Brillante uses the same type of lamp to produce a single rotating 'fan'. Big brother of the family is the Allegro which uses two A1/239 lamps to project two concentric circles onto the dancefloor. Each circle can move independently to the music in both the x and y axes and a separate motor circuit allows high speed spinning of the pattern. All the Genius products have in-built microphones for automatic sound-activated movement.

The sprawling **Batmink** stand, which could have been re-named 'Little Italy', was filled to overflowing with Italian products in perpetual motion. In constant demonstration were a whole host of lighting effects new and established from Lampo and Griven. Both companies had also chosen to diversify into the theatrical side of the business and were busy expounding the virtues of their new ranges of theatre lanterns. The Lampo range includes nine different spots, three varieties of profile spot, four floods and seven followspots. Griven's line up includes new followspots for halogen and HMI 575 discharge lamps, and various spotlights.

On the lighting effects side the number of products on display were too numerous to mention. However, Lampo had a newly modified version of their laser simulator, Fantastico, which offers six different colours, plus blackout, a double beam, an electronic controller and holds four memorized patterns.



Varytec in action from B & K Lighting.



Beam me up! Paul Raymond, Natasha Ostaszewska and David Press on the Par Onti Projects stand.



The Italian connection: outside the Batmink pavilion.



Fabtronic: a comprehensive range of British-manufactured lighting effects units.

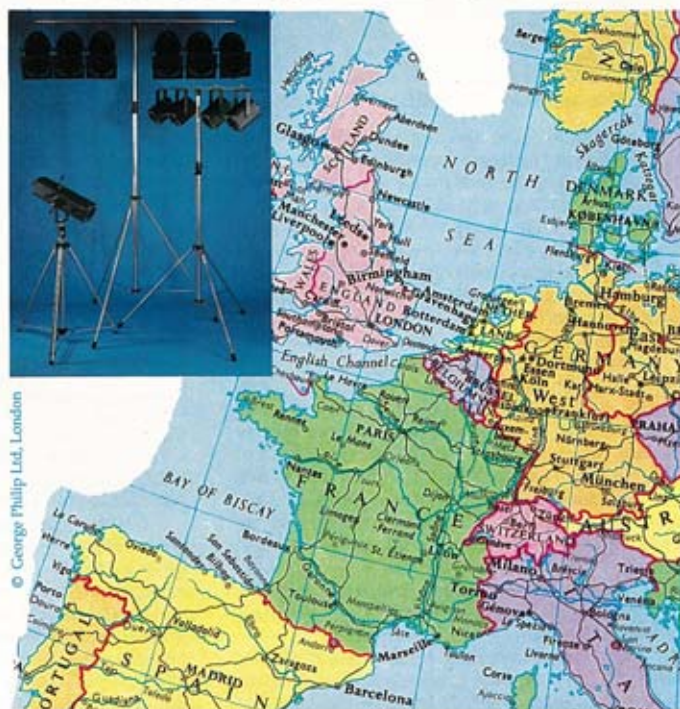


Multiform Lighting: Mini 6 and Aquarius 6 added to the range.



Sapro France: several new effect ranges on show.

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Louis Hsu and Naomi Lih of Lite Puter, Taiwan.

Also new were the Superconductor AS41, a double-headed robotic effect with two separate PC boards enabling the two mirror heads to be fully independent. It has eight dichroic filters, blackout, and its own high speed strobe effect. Sintesi is another robotic effect with more wagging mirrors than ever. Daisy and Frullo are new additions to the budget centrepiece range and Iride, a new flat beam projector.

From Given the offerings were equally profuse, starting with two new flat beam effects Penny and Tuppence. Both single lamp projectors - Penny creates a music controlled rotating and oscillating coloured light fan and Tuppence, a more diverse version, makes the same movements with two fans. The Tricorno is a combination of three sets of five coloured lenses which produce a sweep of light animated by the music. Shark, uses two very strong low-tension halogen or tungsten lamps and dichroic filters to produce a constantly changing fan of light. New versions of other effects such as Flashdance, Skywalker and Goblin all generated their fair share of public interest.

A brand new company, exhibiting at PLASA for the first time, Centonove, is the result of a Franco-Italian combination ably headed by Sandrine Baraige, ex-Sapro. Offering a range of products broad enough to live up to their catalogue slogan 'Let's Live the Nite!' - the Italian end of the operation selects the products and the supply is from France. Products available range from intelligent lighting effects, stroboscopes, and a variety of lanterns through some classic disco effects to stands, hoists and accessories. The idea is that potential customers be they managers of small clubs, large clubs, or any size of theatre should be able to choose from the range available or state their needs and be confident that Centonove will deliver quality product to fit the brief.

British manufacturer CLASS (Commercial Light and Sound Systems) have been beaver away to produce no less than 11 new products all launched at the show. It would take pages in this magazine to go into detail on every single product. If the number of customers continually popping onto the stand is anything to go by then over the past two years CLASS have carved an enviable niche for themselves in the disco audio and lighting arena.

Of the new products, Little Blue Box and the Soundflower had debu'd at SEDA. Stunflash, which certainly lives up to its name and is seen by the company as a competitor for Terrastrobe, Flashcan, for the middle market (somewhere between Taiwan and Mode!) and 'mobile-DJ's everywhere', Powerflower and Scanflower (guess the effect they produce) were all being seen for the first time at the Show.

Further along the ground floor in a corner, but by no means shy or retiring, Clay Paky could be found showing off their product on the Pulsar stand. Taking part in this year's excellent lighting displays, one of which served as the accompaniment to a fashion show guaranteed to attract attention, were two newcomers to the Clay Paky range - Miniscan and Polycolor.

Miniscan, as its name suggests, is a mini version of the Golden Scan. Implementing the same variety of colours, strobe effects and gobo patterns as its larger counterpart, it's been designed with the aes-

thetics of the smaller club in mind. Since the Golden Scan received its third award at this year's Disco International awards evening, many small club managers out there must be rubbing their hands with glee, now they can provide their punters with the kind of high-tech effects which could only previously be employed in large venues.

The other new product Polycolor, which was launched alongside the Miniscan in Rimini this year, prompted an excited speech and impromptu demonstration of its abilities from Clay Paky's sales and marketing director Pio Nahum. It is a 'unique product', an electronic colour changer-cum-colour mixing system designed for the larger installation. Using dichroic filters it offers a vast range of colours obtained by mixing together the three primaries, plus blackout shutter/strobe and dimming wedge.

No less than nine Masterpieces were used to drive this year's lightshow which must have been quite a task for the operators to prepare. These incorporated the new 1.6 version software which provides enhanced programming facilities, and enables complete dynamic lighting environments to be replayed without SMPTE to a claimed resolution of 0.2 seconds, or by individual time steps for long duration environments.

Fabtronic's new Lunar dancing flower was rotating spikes of light through the fog backwards and forwards to the music picked up from its internal microphone. The latest model of the Zippy (Bungle, Geoffrey and George) was also spinning eight flat beams that tumble and turn through three planes.

Over in a corner on the first floor all that could be seen of the Innovative stand, from the outside, was a black curtain and smoke filled doorway. Inside, president Martin Watts was busy launching three new products. The first product was definitely causing a stir. Innovative's new compact, re-cleanable, twin jet smoke machine apparently causes too much smoke! - for an exhibition anyway. Strobe-flower, is a new laser ray strobe with a sound-activated flashrate and Laserteck, a 30mW, twin axes, deflection mirror laser with four pre-programmed patterns which change in time with the music, courtesy of a built-in microphone.

Also announced at the show were the opening dates of two new offices, Innovative Europe, in Munich, which opened mid-September and Philadelphia-based Innovative USA due to open at the beginning of this month.

Lightfactor Sales presented the full range of High End Systems' products - Intellabeam 700HX, Dataflash, Laser Chorus, Color Pro and the F100 fog generator. New products included Emulator with its graphics and alpha numeric character generation and the MultiFlash and MultiRay.

Meanwhile over at Light Processor the new Q24 and latest Q Packs were on display. The Q24 is a 24 channel desk with 240 level scenes and 24 level chases of memory. It incorporates all the features of the smaller Q12. The packs have six channels of 10 amps each and are available in many socket formats. Once rack-mounted the front un-hinges and folds down allowing for wiring and maintenance. (No more dragging racks out to change triacs!).

Concurrently in a back room away from prying eyes, and only for the privileged few, something



CLASS: no less than 11 new products launched.

even more interesting was brewing. Mick Hannaford was trying out the pre-production model of his digital multiplex control panel to be called 'Integrator' seeking opinions prior to getting finally committed to production quantities for the planned January launch. Though we were not allowed to take pictures, L+S can reveal that it consists of a compact panel with intelligently and logically laid out controls which are very easy to understand, a major consideration in Hannaford's book. It offers 256 channels of DMX512, 256 presets, chases and scenes (called 'looks'), digital mapping and MIDI. Most of these names have been changed to distance the product from Oska-speak, which some may find a little confusing since these were generic theatrical labels long before. "The problem is that we will be competing with the Pulsar Masterpiece whose control surface, we feel, is wholly incomprehensible to most people, and we want to be seen to be different," Hannaford commented.

Integrator incorporates a large LED screen which monitors the action for the channels either in use, or those being selected for programming or editing and which can also be used to identify groups of lights. The idea is that this window shows exactly what is going on in the machine with channels in use and their levels visible. There is also a Help prompt, a joystick to simplify moving light programming and memory cards will be available for dumping entire shows. The target price is circa £2,000 at which level Integrator should do well.

At the Show for the first time were Lite Puter from Taiwan with their range of lighting controllers, stand dimming consoles and powerpacks.

Up on the first floor Multiform have added two units to their existing range of small stage equipment. The Mini 6 is a budget six channel control desk, while the Aquarius 6 is a two preset, six channel desk with timed dipless crossfade.

An interesting item on first show was the Multipatch, a computer-based soft patching unit with 60 inputs and outputs. It provides eight separately programmable pages of level-memory-patching, utilizing a menu operation with on-screen display. A useful adjunct for analogue or manual control desks.

Martin Professional seem to release new product on an hourly basis. Launched at the show was the Robozap MSR 1200, a lighting effect with 18 gobos, 18 colours and operated on 0-10 volt enable, it joins the existing 2 x 250 watt Robozap. New in the Roboscan range is the 1020. Available with MSR700 or 1200 lamps it has 18 gobos and colours with adjustable iris, prism, focus, colour mixing and dimming.

Another novel idea is the Roboscan 1408 aimed at live band applications. It has four Roboscans in one box and is controllable or sound-activated. Also on the stand was the new Robocolour Projector. It is fitted with a 250 watt ENH lamp and has four dichroic colours plus white and blackout. Meant to operate in multiples of four there is a dedicated controller per four that can be sound activated, pre-programmed or operated via the Roboscan 2208 or 2032 controllers.

Along at N.J.D. Kevin Hopcroft demonstrated their latest lighting products. The DP 10,000x and SP 10,000x are four channel, 10 amp packs dimming and switching respectively. New to the Euro

range are the 4E, four channel computer chaser and the 6S, six channel switch pack. N.J.D. also have a new range of scanner banks with one, two or four heads available as standard.

Around to **Par Opti**, where the ever-optimistic Paul Raymond was showing the ParStar - a new fibre optic that lights along its length at regular intervals in bright pinpoint stars, not unlike plastic tubelighting (thank God for something different in this direction). It has the advantage of colour changing and controlled brightness. Being totally maintenance free in itself, it is suitable for exterior and underwater use. Connected directly to light source boxes it is heat-formable to any shape.

Up on the first floor, taking advantage of the free sauna-like conditions, **Primarc** and associate company Light Support Ltd were proudly displaying, for the first time in the UK, the Optical Radiation Corporation's new baby - ORCompact Lamp. A 300 watt miniature xenon lamp with anticipated value in the laser simulator field.

Ryger Electronics offered four new touch panels including gold-plated models. A new 12 channel lighting desk with expansion possibilities to 30 channels was also on display as well as an interesting gadget the M2L. This is a MIDI to light controller, equipped with eight channel outputs. It responds to note, velocity and MIDI information, allowing pre-programmed chases, lighting scenes and crossfades.

Over at **Sapro** (France), distributed by Le Maitre (Sales), came the first showing in the UK of Moving - a spotlight with multi-laser effects, Squad - a multi-mirrored lighting effect and finally Funky (who thinks of these names?) - a multi-beam projector which moves on two axes to the music beat.

Squire Light And Sound also had a new lighting effect to add to their range. The Squire Gobospot is a pattern projector with a 75 watt lamp, adjustable focus and goboholder. A clip-on attachment - the Squire Gobospot Mirror - is also available which gives pattern movement through 360° with built-in sound animation. One of the many stands bringing the heat of the first floor, **United Kingdom Distribution's** were proudly showing no less than 10 new effects - a result of their fruitful collaboration with ProgramSistem - and offering their customers the opportunity to win an all-expenses-paid trip to next year's Rimini trade show provided they are enterprising enough to order £8,000 worth of ProgramSistem effects, (£5,000 if the first order was placed at the show), between now and January 1st, 1992.

Totally new effects included the Symphony which projects four coloured light beams and moves them in time with the music, and Charleston which produces coloured blades of light, as opposed to beams, also moving in time with music; Corkscrew and Psycho two new Twister/Ministar types of effect; Yuppie which shoots its beams through a rotating half moon; Javelin - shooting beams through a static circle; Tracer - a dotted circle cone effect; Reflex - a mini Viking; Cosmic - producing 10 x 10 blocks of colour which sweep across each other and Spirit - any combination of four dotted circles, in pairs, one inside the other, spinning or solid.

On the laser front two big companies drew in

the crowds. **Laser Systems** had the Magnum 9 II laser control system, Cyclone multicolour (R.G.B.) scanning system and PC 320 CAG computer graphics unit. Also on stand were the FX400 high power laser system and Zoomlight, their intelligent light fitting. **TARM**, the German majors, had a very busy show running, with their usual brilliant graphics. **American Laser** and **Euro Research** displayed the new Turbo-Light laser, the result of their combined efforts to produce a new generation of 'white light' lasers giving powers from 300mW to 12W. Euro Research were also displaying their new laser animation products, the Saturn and Satellite, both of which provide up to 64 beam positions simultaneously. Three laser systems were being shown on the **UL Universal Lasers** stand. Joining the Galaxy 150mW system were the new Mirage and Moonlight.

The APIAD decision not to provide support for members wishing to attend this year's Light & Sound show had a marked effect on the way the Italian manufacturing companies decided to approach the marketing of their products. Almost all were content to let their UK distributors take the strain for them; only FBT Elettronica chose to take a stand in their own right. Although the UK distributors did an excellent job it was a pity not to see the faces behind the names this year, hopefully they will not be deterred in future years even if APIAD do not resurrect their joint venture schemes in time for Light & Sound '92.

SOUND

Court Acoustics had three new speaker systems on display for the first time. The LA600 is a column speaker comprising two cabinets per side handling 1000 watts at 40 - 18000Hz incorporating passive or active internal crossovers. A smaller brother on show was the system 250. Stephen Court, well-known for his high-powered, large sound reproduction systems, has now entered the small speaker market. The new Miniflex (at 12" x 6" x 8") must be the tiniest cabinet ever to leave the Court Acoustics factory. On show for the first time the 70 watt compact loudspeaker utilises a seven inch long-throw bass unit in a double-tuned enclosure, with a concentric, soft dome, high frequency, fluid-cooled and protected tweeter. Also new on the stand were the updated versions of the GN30 and GN60 equalisers (after being around for 24 years, about time too!) along with the updated CN230 and CN250 stereo crossovers.

The new epoxy-coated, CAD designed, 200, 250 and 400 watt, Gladiator speaker series from **CLASS** were also being demo'd for the first time. Alongside these were the Prodeck, Powerspot and finally the XO2 active crossover. As one might expect, this is a two-way stereo active crossover housed in a 1U, 19" rack-mounted case. The surprise is on the front: there is no knob, and no dials - no anything that can be twiddled. Once set, no fiddling Tom Dick or Harriet can come along and alter the original settings.

Onwards to **Cloud Electronics** to see the new CXF mixer and CX zoner. The mixer has eight music channels allowing up to 16 stereo inputs and is equipped with an isolated stereo lighting controller

audio output. The CX zoner is designed to complement the CXM and new CXF mixer. Separate music and microphone inputs can be connected to the zones allowing mic and music levels to be set for different areas.

Meanwhile, at **Anytronics** came the first UK showing of the Series 192 range of amplifiers. Available in three models, the A12, A16 and the A20 (terrible road that one), driving 200, 350 and 500 watts respectively into four ohms stereo.

New sound-wise on the **Avitec** stand was the Tannoy CPA 5. This compact system is suitable for use in a range of applications from background music to theatre in-fill and AV presentations. The big secret behind the system is the development of a new point source drive unit using Induction Coupled Technology. According to the information on the promotional leaflet (which were fast running low on the stand) ICT is a new technology. It offers high power handling without distortion, wide frequency range, no need for cross-over, and true point source.

The 5" Inductively Coupled Transducer used in the CPA 5, has a frequency response of 80Hz - 22kHz but uses no tweeter voice coil which consequently eliminates the need for a cross-over. The transducer is magnetically shielded making it possible to place the speaker next to video monitors or TVs without the normal interaction caused when using conventional loudspeaker systems. The enclosure has a variety of mounting adaptors moulded in, allowing wall or ceiling installation using most industry standard brackets.

Right away from the moving, waggling, flashing and strobing, and in the relative peace of the lower ground floor, **FBT Elettronica** were the only Italian company taking a stand of their own. Being launched was a complete new line-up of the 'Personal' series sound reinforcement mixers. The range comprises 15 different models from the compact 6 into 2 mixer to the sophisticated 24 into 4 into 2 mixing desk. The series is split into two sections the Personal Basic Line which includes the PX-6, PX-8 and PX-12 mixers, the FX-12 rack mixer and PE-140 (70+70W rms built-in power amplifier) and PE-240 (120+120W rms built-in power amplifier) powered mixers. The Personal Top Line comprises the ME12.4, ME16.4 and ME24.4 mixers, the ME-300 (150+150W rms) and ME-500 (250+250W rms) powered mixers.

The ME12.4, ME16.4 and ME24.4 are all equipped with two stereo channels, XLR balanced inputs, peak, 48v phantom power supply on 8/12 channels, three monitor lines, three effects lines, PFL pre-listening on each channel, one mono output, remote masters control and the new 128 program Digital Stereo Multi-effect Echo-Chorus-Reverb Processor.

The Basic line PX-6 has six stereo channels, each channel featuring gain, high and low tone, one monitor line, one effect line, panorama and channel volume controls. The PX-8 and PX-12 have XLR balanced inputs, peak, gain, high, medium and low tone, one monitor line and two effects lines, panorama and channel volume. The PE-140 and PE-240 feature the new 40 program Digital Stereo Multi-effect Echo-Reverb Processor.

New products from **N.J.D** included the 'Gold



Cloud Electronic's Roy Millington (right) and Michael Schneider of Lichtronic (Germany) with the new CXF mixer.



NJD's new flight-cased Gold Series SX201 and SX301 loudspeakers.



Small, but perfectly formed: Citronic's new modular mixers with Mike Gerrish and Larry Dane.



Award winner? Watch out for Formula Sound's new PM90 at next year's awards.



Stack 'em high: the JBL display on the Harman UK stand.



A storm warning from Wharfedale.



Rob Peck with an ever-increasing range from Vestax.



Steven Dunn shows Jamo's background music system.



Rick Clarke of The Sound Department with the new RS660 from Community.



Simon Johnston of D & B Audio with Werner Kuchling of Micro Analog.

Series' of loudspeakers, a full range of flight-cased cabinets in four models from the compact SX 100 to the 300 watt, 3 way SX 301. All feature LED ladder power indicators displaying incoming amplifier power. To complement this range is the new MA400 power amplifier rated at 220W into four ohms.

At the top of the stairs were **Formula Sound**, who have sold over 2000 models of the award-winning PM80 mixer all over the world in the last 12 years. (Phil Roper can vouch for Egypt and Bulgaria, because he put them there). The time had arrived for a change: Tony and Sandra Cockell were launching the PM90, a modular mixer of the same size but with enhanced facilities within each module. Three mixer modules are currently available - a stereo input module for line or phono, a mono module for balanced line or microphone and (DJs look out) a level control module. This attenuates the output gradually in three dB stages without compressing or limiting against a preset level. The output module features crossfade and music dim. Watch next year's awards ceremony closely.

Onto **Citronic's** two new compact mixers. The SM150 is a five input mixer with crossfade and the SM250 is a six input expandable mixer designed with the capability of adding the MC250 module, allowing two extra line inputs with a microphone, and the GR250 giving output balance, seven band equalisation and sub-bass out.

A temporary break from mixers to investigate the new Sound Power 'M' series speakers from JBL on the **Harman Audio** stand. The three full-range systems are intended to be mobile: the M360, three-way cabinet with 15" bass, 8" midrange and horn-loaded tweeter; the M350, two way cabinet with 15" bass and 1" compression driver and the smallest in the range the M330, two way cabinet with 12" driver and 1" compression driver. All are fitted with passive crossovers.

Also new on the Harman Stand were four crossovers from Audio-Logic, the C-Audio RA500 mosfet amplifier and ART MDC2001 total signal system controller.

At **D&B Audiotechnik** the new baby was Dymatrix. Manufactured by MicroAnalog of Austria,

the Dymatrix is a computer-controlled mixing matrix available in three versions depending on VCA and/or switching crosspoint requirements. All information is displayed on screen with back-up memory (just in case!). We will see more of the Dymatrix.

Along to **RCF Electronics** where the new 'Process Control' speaker was on display. Two mid/top cabinets with a separate sub-bass all with their own processors are available. The CP512 and CP515, at 250 and 400 watts respectively, are supplemented by the Sub 2030 handling 800-1200 watts. Besides the speaker system RCF were displaying the new AS 6001 power amplifier rated at 650 watts per channel into four ohms as well as the FBT Elettronica latest line up of mixers and cabinets.

From **Vestax**, being shown for the first time was the PMC-40 mixing centre offering 14 inputs, the MR44 multi (four!) track recorder complete with built-in four channel mixer, five band graphic, 'dbx', two speeds and the CD-DJ2 twin compact disc player with variable pitch. Finally, two digital delay/samplers with eight second sample facility and up to one second delay.

New from **Celestion** were the SR8 Paraflo bass reinforcement loudspeaker handling 500 watts at 40-250Hz. The SRI one and two, handling 60 and 90 watts respectively, available with optional sub-bass and SRC2 equaliser/crossover controller.

Storming across the aisle, **Wharfedale** were displaying the Force 9 full range, compact 250 watt trapezoidal cabinet. Along with the Force 9 SB (guess what) sub-bass box. To complement the Force 9 range is the electronic bass extender, enhancing full-range and sub-bass levels. A slightly smaller cabinet, the Force 5 at 125 watts, and a larger Force 12 SB at 1200 watts, were also present. The new SMI modular mixing system, the SA500, 1000 and 1500 power amplifiers were also on the stand. Lastly, making its first appearance, was the SV3 AVC system. With a remarkably similar specification to Bass Leisure's Quatro AP100 it ensures that music is played at an appropriate level in a venue at all times irrespective of occupancy, complete with emergency button and fire alarm interface.

Some smaller speakers were shown by **Jamo**

UK. The Atmosphere is a two-way, wall-mounted unit integrating sound and light. This circular unit houses a 5 1/4" bass driver with a 1" tweeter and a 20W halogen lamp allowing indirect or spot lighting. A new range of ceiling speakers are also available, either low impedance or 100 volt line. Also UK-premiered on this stand was the DS 50 Background Music System, comprising a six pack CD, mw/cm tuner, mic input and 50W stereo amplifier all in the same unit. It has been designed for commercial use with longevity in mind.

On the **Ohm Industries** stand new sales and marketing director Bob Cummings was offering champagne (L+SI had coffee!) while the guys demonstrated their latest speakers - the BR12 and BR15. These two mid/high cabinets could be heard with the dedicated sub-bass BR218 mark II rated at 360, 400 and 600 watts respectively. Also in the sound room was the MR installation range. The MR160i is a compact cabinet handling 50 watts. If extra response is required the MR380 floor-mounted bass unit can be added and will operate through the built-in crossover up to eight MR160is.

Meanwhile, at **The Sound Department**, Rick Clarke and Steve Smith displayed three new cabinets from Community, USA. The RS660 speaker and dedicated controller fills the gap between the RS220 and RS880 (we await the RS440) and is a three-way, four driver system handling 300 watts. New to the CSX range was the CSX57 full range, three way bass reflex cabinet. On its first UK outing was the LFC215, 2 x 15" bass bin. Also new at Sound Department were the Ashley Audio range of signal processors and amplifiers as well as the contractor range of Australian 'Monitor' amplifiers.

On the ground floor, **London Acoustical Developments** launched their latest turntable, the MEL90. Belt driven, it features 0.3 second start, and LAD claim it has almost zero acoustic feedback.

Squire Light and Sound have added three new audio products to their range. On show was the Squire Bi-amp 450 giving 225 watts per channel, selectable on the front panel for bass/mid top, or full range configuration. Designed to work with the Bi-amp is the Squire MegaBass cabinet equipped with 15" driver. Finally, the new S150B speakers are



Ian Sharpe (second left) of Panasonic Business Systems shows the latest RAMSA products. More on their theatre line-up in a future issue of L+SI.



Volt's David Lyth with his unique 15" R3803 driver.



HW International: Carver, Hafler, Koss, Shure, 3G and Pro Acoustics.



LMC launched eight new products from majors including Crest, EAW and Beyma, plus desks from Soundcraft.

loaded with 15" bass driver, mid range horn and bullet piezo. They handle 175 watts.

Alongside Squire were **Yamaha-Kemble Music (UK)** with interesting new goodies, including the first public showing of the YPDR601 professional CD recording system. WORM (Write Once Read Many) technology allows you to record your own CDs (at a price!). Using optical discs the system can record between 63 and 74 minutes of audio data. The recorded disc is fully compatible with all CD players. The RC601 remote unit controls all of the disc's functions including track and indexing facilities allowing the t.o.c. (table of contents) to be added before or after recording. When the Japanese eventually get their sums right on such products, the future of D.A.T. seems short-lived. Also on display were the new Club Series Mk II speakers consisting of four models. Alongside these were the new Yamaha S1520S speaker systems complete with Y20 Active Servo Processor and C20 system controller. The S1520S is a compact 2-way system designed for bi-amped operation in a trapezoidal enclosure. The processor allows high efficiency down to 45Hz while the controller provides programmable crossover, equalisation, compression and delay capabilities. Finally the new EM 1620 powered six channel mono mixer completed Yamaha's latest line-up.

The AKG Group stand featured **Turbosound** product from the TSE, TXD and TMS ranges along with three new products the TXD 60, 80 and 100 - a series of compact speakers offering large cabinet sound, designed to meet the needs of a wide variety of venues. Also on the stand were the **AKG** range of microphones including the VH170 radio microphone, compressor/limiters from DBX and Orban and a range of product for other equipment manufacturers from Precision Devices, Turbosound's exclusive supplier of loudspeakers. **BSS** were also on the stand showing a range of product including the DPR901 dynamic equaliser and two new products the FCS960 dual mode graphic equaliser, and the EPC760 high efficiency amplifier.

HW International were displaying several new products. Carver have added the PSC 50 and 60

control tuner pre-amps to their range. The PSD 36 remote control 10 disc CD changer and two amplifiers. The PT 2400 and PT 1800 offering 1200 and 900 watts per channel respectively. Three new mixers from Pro-Acoustics were on show, the HQ7U, HQ8U and X-11 and a redesigned console from 3G - the G8-2 aimed at small studios. Finally, new from Shure was the UP64 omni-directional microphone.

On to **Martin Audio** where the F1 and PM3 Series were being launched. The F1 is a two-box system comprising bass and mid/high flyable cabinets. The PM3 is a three-way bi-amplified trapezoid cabinet allowing it to be flown, or for use in stage monitoring applications.

On the first floor the **Panasonic** stand wouldn't have looked out of place at the motor show. Ramsa had taken this opportunity for the European launch of three live mixing consoles and two amplifiers. Akira Matsuo, area sales manager for audio systems at Ramsa, informed me that the products had only arrived from Japan the previous Thursday. The new WR-S44 series of mixers are 12, 16 and 24 channel input. Amplifiers being shown for the first time were the WP-1000 series at 2 x 400 watt and 2 x 800 watt. It was pleasing to see such a large organisation as Panasonic launching new products for Europe at the Light & Sound Show 1991. (Their stand wouldn't have fitted into the Bloomsbury!).

Volt Loudspeakers were launching their new radial speakers in the UK. The 15" driver features a new chassis design that works to keep the unit cool. Able to handle 500 watts, its unique appearance, like a giant spider climbing out of a cone (you read it here first), is available in red, white, blue or black.

Meanwhile, **Protek Sound Systems** from Northern Ireland, exhibiting at the Show for the third time, were displaying their new range of BR loudspeakers, and elsewhere the ubiquitous Keith Hardy was busily promoting his improved Dare speaker systems.

Matrix Audio, who distribute the Acoustech range of speaker cabinets, have come up with an interesting export idea - a trapezoidal flat-pack cabinet. Instead of exporting English air, all the parts

for the unit are packed flat and travel as a sensible item (sort of MFI audio furniture, but easier to assemble).

Up in the heights **Optex**, manufacturers of film and video equipment and accessories were showcasing some of the products in their audio and lighting range. On show for the first time in the UK, the Digitel AVBlocks family offers the professional sound or television operator conventional audio and video equipment in miniature. The audio switcher, balancing amplifier and mixer along with the video processing amplifier, mixer, distribution amplifier and switcher are all internally powered by a rechargeable battery pack and provide broadcast quality. They also provide the operator with the flexibility to build up a complete miniature production suite or add on to existing systems.

Busy with new products from the States were **Peavey Electronics**. Showing for the first time in the UK were the DTH 1 top/mid cabinet equipped with Scorpion driver and high frequency 22-T, DTH sub bass unit equipped with Black Widow driver. Intended to be bi-amped per pair at 300 watts continuous. Two new mixers from Peavey were the CD 7032 and CD 9072. A 1U, 350 watt per channel amplifier was also attracting attention. One product that caught my eye was the PC4-XL, a programmable digital four-way cross-over with a 4 tap delay line, allowing delay between drivers and/or locations. Up to 50 complete set-ups may be stored.

The latest from Numark, via **Lamba**, included the award-winning CD 5020 twin CD player and the first showing of the DM 1075, DM 1175 and DM 1475 mixers. Stanton's latest additions to the Club series were also on the stand.

LMC Audio Systems displayed eight new products: from Eastern Acoustic Works (EAW), the KF 600i and KF 300i enclosures with the MX 300i signal processing unit; Crest's new range of LA Series power amplifiers offering 225 to 450 watts per channel; and the Radio Station's 'Monitoring' system. The stereo monitor mix is fed into the performer's ears using moulded earpieces and has selectable UHF transmission frequencies, eliminating interference problems (no more cabs!). Finally,



The cubes have it for Wembley Loudspeakers.



Shuttlesound prize winner. Three lucky winners received a rane MP24 mixer, EV S40 speakers and a Samson wireless system.



Sara Kendrick and David Bearman presented the case for Martin Audio.



Leading sound installation and supply company Marquee Audio had a mouth-watering spread of equipment.



Yamaha's Alan Martin with their new YPDR601 CD recording system.

the new 15XM loudspeaker from Beyma made an appearance.

The sound on the **Martin Professional** stand was supplied by Wembley Loudspeakers using their existing range of Deuce cabinets and 2080 bass enclosures. However, a new gadget was hooked up to the system. The **Sound BASE** (Binural Audio Spatial Environment) enhances the stereophonic in-phase responses through psycho-acoustic processing. Basically, BASE separates the sum and difference between left and right and treats the out-of-phase content with a 0.431 millisecond delay. A number of artistes and studios are using it including Dire Straits, Judy Tzuke and Nomis. We will hear more from BASE, especially in the discotheque environment.

Dutch company **A & A Trading**, who were at the Show for the first time, have been established for 15 years. Supplied by Japanese factories, to their specifications, products are aimed at the middle market with quality and good design features to improve ambience. With the ability for management programming, the new **Multi Formula Media System CD Player** was on display. It operates sound, vision and data. The built-in cartridge allows five CD-Is with eight hours of music each. It can trigger lights and displays etc and comes with separate amplifiers and speakers. It is controlled by a CMOS 8k bytes SRAM music management card.

Exhibiting for the first time at the Light & Sound Show were **VSI** (Votalight Soundspin International) Ltd. Along with JBN from Sweden they demonstrated the special acoustic ceiling. This is a full range power sound system, which allows only 10% of the sound produced to leak outside the ceiling. A reduction of up to 13dB can be expected allowing those outside the dancefloor to talk normally.

Specialist karaoke company **Music Cue Ltd** were demonstrating their British-made Music Q system and launching the Music Q twin player option. This is a versatile system controller, designed to be capable of cueing pop videos for the disco and pub markets. Alongside their Earthshaker and Clubman range of speakers and the Formula range of amplifiers **Abracadabra** Disco & Karaoke Sales & Hire were also showing three karaoke systems from Sony, Pioneer and BMB Nikkodo.

Last (mainly because it was directly opposite the PLASAL+SI stand) but not least, are **Shuttlesound**. At ten to five on Wednesday we finally got round to asking Tony Oates what was new. From Rane was the FPL 44 quad program limiter with threshold control and the revamped AC 22/23 crossovers; from ElectroVoice the S40 personal-sized monitor handling 160 watts and the RE 27 and 38 microphones; and the Samson VLP (ATM 71) wireless headset was making its debut. On display for the first time in the UK was the Amcron Macro Reference amplifier giving a mega 2800 watts in bridged mono, along with the Geodyne 1 and 2 which replace the discontinued PowerBase range. Grey-stone have added new cabinets. The Motivator 5 full-range cabinet is available in four models and the GBH (like it) 15 scoop horn for low frequency applications, while Soundtracs have released three versions of their new Megas consoles - the Mix, Stage and Monitor all available with various inputs.



Laser seminar team: Mark Schuermans, Steve Day, Tim Fothergill, Wolfgang Hemmer-Girod and chairman Tony Gottelier.



Pulsar's Paul Mardon (right) demos Masterpiece to Ray Scott of Sound Electronics.



Jeremy Stappard (right) of Sony Pro Audio Sales in charge of the Stardream Audio Visual stand.



Barry Hampson (left) at work on the Playlight/P&G stand.



Hi-tech on Peavey Electronics.



Andrew Leonard of Lighting Dimensions (WL) Dublin with John Simpson of White Light London.



Paul Butler (centre) pulls his team together for a picture on the Mushroom Lighting stand.

Moving to environmental lighting control, both Mode Electronics and Oxtron launched new products on adjoining stands. Mode also introduced their DMX SceneStore unit whilst Oxtron also showed the latest additions to the Databeat CD player system. Andrew Morris and Dick Steward of Mode are pictured left and Oxtron's Geoff Kington (below, right) watches the action on his stand.



More Stands. . . More People. . . More Product



Talking tracking: Jim Douglas, John Sinden, Brian Croft (chairman), Chas Herington, and Ian Clarke (see next issue for the background).



Earls Court 2 launch: Nick Mobsby (Eurolight) and Wyatt Enever of DHA Lighting with PLASA treasurer Matthew Griffiths (centre) of TSL.



Main avenue, first floor with Wharfedale stand nearest the camera.



Pioneering Laserpoint. The first European showing for the Pioneer RM-V2000 projection cubes with upgraded Pixelite electronics from Laserpoint.



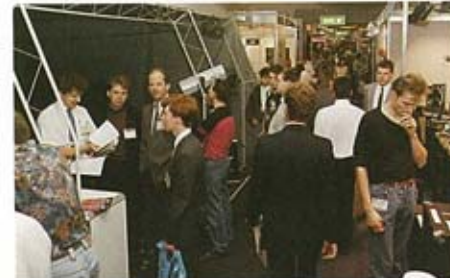
Studying the permutations from Steeldeck Staging.



Some film and video trickery from OpTex.



Light source enquiries for Primarc.



Front of house for Lightfactor Sales who showed the complete High End Systems range from the USA. Success story was the Emulator.



More new control from the Eurolight Group.



The equipment green room of Northern Lights, Lancaster.



Sonja Betts (left) of Metro Audio shows their Cuelight system.



Pure white from Osram.



Aldenworth showed their Concept and Constructa ranges.



Signs for our times from Electro Signs Ltd.



First time at the show: Winstonlead Cables.



A mass of new equipment was scattered around the Doughty stand.



Leisuretec's Mike Henden (left) with Dave Winfield of Le Maitre Sales.



Hello! PLASA. Nicolas de Courten of Powerlight Switzerland with Pam Revington and Sheila Bartholomew.

THE LONELINESS OF A LONG DISTANCE LASER PRODUCER



Knebworth Park: Mark Brickman at the control tower with Tarm lasers on the Pink Floyd set.

Photo: Plus One Event Services/Tarm Laser

Eve Ritscher, who was billed as the controversial star turn at the 'Lasers in Entertainment' seminar held during the Light & Sound Show was unable to deliver her piece due to pressure of other work. Tony Gottelier persuaded Eve to write up her hard-hitting and highly personalised notes, which carry no apology for her enthusiasm for German company Tarm Showlaser.

Standing at the central control tower in the middle of Knebworth Park last year, right after the Pink Floyd set, Brian Croft of Vari-Lite UK turned to me and said: "Well Eve, you finally did it, you finally achieved a perfect laser show, just like you said you would all those years ago."

I flashed back to 1974. The same people standing in the same situation, the same band, but light years away in terms of achievement. The perfect effects control I had dreamed of finally became a reality, the great creative team, the perfectly tuned lasers.

Even Mark Brickman, one of the most demanding LDs, turned and beamed.

It was the first time we had worked together. How hard a time he had given me and the Tarm Showlaser team, and how worried he was that he couldn't train us in time to give him exactly what he wanted. In fact, he not only got what he wanted, he got it when he wanted it, plus things he'd never seen before. Actually he had, he was just never aware of them - probably because they were poorly angled and badly focused. He was also suffering from the typical 'laserphobia' which has plagued the laser industry for its entire existence - too many companies promising the world and delivering peanuts, often to the cost and aggravation of the entire show.

He wasn't aware of the degree to which a company such as Tarm Showlaser prepares its shows: the preset of the entire show installation in their studios in Germany, the constant rehearsals and refinements so that every note of the music becomes second nature allowing for maximum real creativity, every piece of equipment cleaned, checked and double-checked to ensure peak performance and minimum aggravation on-site, and all the lasers no more than two years old in a constantly renewed running stock. It was hard for him to understand the

hours of focusing which Tarm insists on in order for every element to be perfectly focused - from the accurate placing of the tables and mirrors, to the meticulous optical focus. Never mind a totally unique laser installation - three mainframe lasers to each of the two tables on either side of the stage, two Spectra Physics 8W Krypton lasers matched on one side to a 171 Spectra Physics 25W Argon, and on the other side twinned to a Coherent 200-25 Innova Argon - perfectly balanced and perfectly matched. And for all that staggering amount of power, not one burnt fibre optic, not one damaged mirror. Even the rain didn't mess it up.

And there lies perhaps the greatest and simplest secret of good laser shows - immaculate focus, well maintained equipment and experienced design, and good integration with the other show departments. How hard that seems to achieve, and yet the rules of lasers are no different to other visual tools.

As a designer and producer, in many media over many years, I have found the same rules apply, whether in scenic creation and construction, costume, lighting or special effects. Rigorous discipline as regards the technology allows



Eve Ritscher.

for maximum effective creative input and on-site performance. Too many designers have been let down by poor preparation, last minute botch jobs, and malfunctioning equipment with insufficient back up. The result is that all the effort is being put into simply getting the lasers or programmes working, never mind the quality of the show - if indeed they can get the lasers to work at all!

Over nearly 20 years I have come back to the same criteria, again and again. I finally found it in the form of Tarm Showlaser GmbH. From the moment we first worked together some four years ago, it has been pure pleasure. Their entire approach coincided with mine - a small, highly skilled and specialised team, each member capable of all aspects, but each one specifically allocated to their specialist skill.

Ralf Lottig, owner and senior technician, always insists on the most meticulous focusing of optics I have ever seen. Programmer extraordinaire Lutz Kleine-Hertzbruch's split timing is as excellent on live cues as on programming sequences. Olaf Kasperzyk, trouble shooter par excellence, is a master rigger, unafraid of any height, and has perfection in mirror placing. Then there are the various back-up technicians who one day will be trained to run shows on their own.

I am always interested in the training process. Tarm selects their programmers first and foremost on their musical rhythm capability: all programmers first have to have been light jockeys in the Tarm Centre's discotheque. The programming language and technology is a secondary criteria, which Ralf reckons anyone can learn, but timing is a gift. This approach demonstrates a key reason for Tarm's superior creativity - many companies run from exactly the same equipment, both in lasers and in programming. Only some have understood the true nature of superlative shows.

Together we have devised a sound working system. I handle the brief and provide the interface with all other departments in the show, inputting the lasers on all plans sections and elevations to ensure as trouble free an installation as possible, making sure enough time is allowed for installation, focus and any on-site programming and rehearsal, so that proper inte-

gration with the rest of the show, particularly lighting, is successful. Good scheduling is vital, so that each department gets their needed time to perform at peak level, and so that we don't have to have the situation where everyone is, yet again, waiting for the laser department to get its act together.

Design is then a matter of response to the client brief. I prepare the initial layouts which are then examined collaboratively with both Ralf and Lutz to ensure the best technical layout and programming solutions, and of course, for their own creative input on the overall look. Depending on the nature of the job, I will then go over to Germany for the performing and rehearsals. Clients are then free to come and preview the finished show in advance.

Not all shows are handled this way. Tarm handles most of their national shows on their own. We come together either when the show is of a scale that requires producing, or when a show comes in through Plus 1 Event Services, my own company, which represents Tarm Showlaser in the UK. Our relationship is based on mutual respect and the enjoyment of working together. But we both remain free agents, and just as Tarm has no obligation to work with me, so I am free to work with other laser companies. It hardly ever happens - there are simply not many laser companies that I care to work with, or indeed can work with and achieve the same quality.

If you think I'm being over the top, you're absolutely right. It has taken me nearly 20 years to find this team and I can safely say from those far away beginnings in San Francisco, where I was taught by Lloyd Cross himself (he who built the world's first commercial laser), that I have worked with the best and the worst of them.

So why is good laser so hard to come by? To start with one has to understand the early days of laser shows. The very earliest were part of art works, by such talent as Rockne Krebs. The first time I clapped eyes on lasers was when I saw his work in 1968 at the Los Angeles County Art museum. In those days I was a sculptor looking for the ultimate light source, and when I saw it, I unashamedly fell in love. I found Lloyd and he spoilt me by teaching me on a full colour Krypton. In those days they were worth a small fortune, and I didn't realise until some time later, when I tried to go it alone in the UK, just how rare one of those animals was.

After knocking on many, many doors in many, many research institutions, I was finally allowed to go and play at the London Imperial College of Technology, and I used to do that unofficially. "You want to do WHAT with a laser . . . make sculptures . . . use them in a stage show . . . you're crazy lady." Well, onto Spectra Physics, and a great bunch of guys, who may well have thought I was crazy, but who somehow believed me. On to my first show for a young choreography student from the Ballet Rambert - the show a choreographic competition, judged by Bejart himself. The prize? A performance of the piece at the Avignon Festival. There I met Vangelis, the first musician to use lasers in Europe. In 1973 we did a show at the Olympia theatre in Paris. Water up to our ears, all effects

created manually with some minimal motor control, lots of glue and sticky tape, lots of prayers. Pure hell. Oddly enough, it remains one of my finest shows (probably my warped memory!). The audience, who had never seen anything like it, went wild.

Back in London, the phone rang - Arthur Max from the Floyd "Heard about the Paris show. Thought it would look good with the band." Perfect music. Perfect opportunity. Perfect nightmare. The then GLC banned several key effects and I had a fit. My crew, who were some of the senior personnel from Imperial, were aghast at some of the ill-informed GLC decisions, and I went to war with the authorities. Winning consisted of six months with the Optical division of the British Standards Institute and the Institute of Aviation Medicine. When I was finally given a clean bill of health, I went back to the GLC, reports proudly in hand. This was to become the beginning of our present rules and regulations. At the end of the day it is we, the laser designers, who have the responsibility to work with the authorities to get the effects passed within the norms of safety. If America has the stringent and sometimes (we think) impossible codes of practice, I believe it is because no one has really decided to prove the effects safe.

It was an important episode, because it is what led to the two main, and very different, orientations of laser control technology. America with its highly developed scanning controls for graphics, and Europe for its precision optics for spatial effects. But America has other special reasons for its strict controls. By 1975, every band wanted lasers, and by and large got them. The proliferation of laser cowboys, technicians barely out of first year MSC courses if that, was out of control and then, in 1976, a member of the Blue Oyster Cult crew was blinded. It was hardly surprising. The US authorities clamped down, and the special Authorised Laser User system was introduced.

By then I was working continuously with the rock'n'roll industry. Who else was nuts enough to finance some of the most expensive R & D in the world of show equipment? With Jon Anderson of the Yes support, I teamed up with my first great laser team - Lasergraphics France. (No, nothing to do with the present day UK company). Bernard Szajner, like Ralf Lottig, a brilliant creative engineer and artist, worked with me and produced the first truly automated show-laser control machine. The team was a composition of artistic and technical genius, and it was their machines which were eventually copied by The Who.

Industrial shows provided the inevitable split between Bernard and myself - at the time I simply could not relate to this wonderful tool being put to the services of, what I saw as, such crass commercialism. I was still very green - today, industrials account for most of our business. After several years of improving the original machine, Bernard became bored, and is now one of the world's foremost creators of animatronics. His company, A.R.T. in Paris, is as exceptional in its field today, as Lasergraphics was

in its day in lasers.

There followed some sad times - laser folk ripping each other off, crucifying the industry in the relentless search to be one up on the other. There were openings and closings and price wars, and I left the industry in disgust, only working very occasionally, to return happily only after I had found Tarm. Finally, in a quest to try and clean up the name of lasers ILDA was formed, and we now have our own controlling body, dedicated to improving the quality and viability of laser shows, and maintaining a general professional code of ethics within the laser companies. Some great companies have earned the title of Best (in my book at least). Lasermedia on the West Coast of the States, Image Engineering on the East Coast, Stratovision in France and Tarm Showlaser in Germany. In my personal view, these are the finest. And there are many individuals, be they programmers, designers or technicians whose personal integrity makes them a real asset in any show.

How many of you out there still yearn for the perfect laser company, the one that provides the most superb creative show, with the smoothest technical efficiency, and at the price you want to pay? . . . Forget it! You get what you pay for, and you have to remember what has gone into the making of the best creativity and the most reliable technology, not forgetting, of course, the nicest people to work with!

It is also the client's responsibility to seek the best quality. All too often, clients accept mediocrity, either through ignorance, through unrealistic budgets, or through the worst sin of all, wanting to use technology for technology's sake. Many times I have advised against the use of lasers when they were inappropriate for the show, or when budgets or schedules did not allow for quality.

When people complain about costs, I can only assume that they don't understand that, if you are going to use lasers, use them to the full, designing all show elements accordingly. Clients may then find that they get real value for money.

And then again, most people have no idea how long and how hard so many people have worked to achieve the laser industry that exists, for better or worse, today. How many have literally shed blood, sweat and tears? Some who have made it, and many haven't.

And whatever you may think, it is astounding what's been achieved. I can remember, way back in 1969, Bob Carless, the then head of Spectra Physics UK, when I borrowed my first 20mW Helium Neon telling me I was crazy if I ever believed that lasers had a future in the world of entertainment. Today they account for some 5% of global laser sales, 15% in Europe. Not bad for a manufacturing industry worth some \$1 billion annually.

Eve Ritscher has been involved in the creative use of holography and lasers for many years, having attended the San Francisco School of Holography. Apart from her extensive work with rock groups and AV promotions she has mounted several seminar exhibitions on the subject. She is the founder of Plus 1 Event Services.

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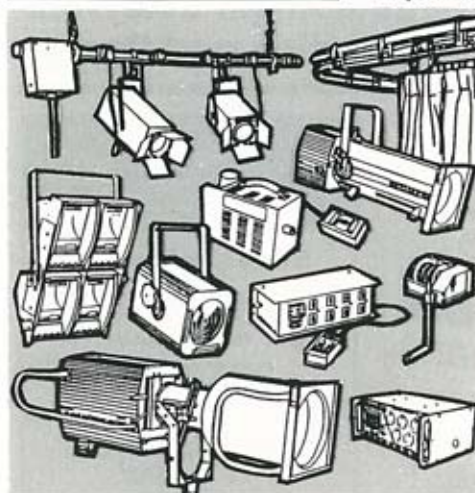
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VIEWPOINT

Peter Brooks on The Great MIDI Mystery or Open(?) Standard

MIDI is one of those subjects that causes blank looks in the eyes of most of the people in the lighting industry, especially those who are only just coming to grips with DMX! We all know that like castor oil, it's got to be good for us, and everyone, especially in the USA, asks if your lighting board has it, BUT very few people understand its application in lighting, or even whether or not standard protocol (as applied in DMX512) exists.

The PLASA organisation exists to assist all its members, and a great deal of effort has been applied to standards - we all know that we have a standards officer - but somehow the subject of MIDI seems to have slipped by. The burning question is - has PLASA officially appointed one of its members to represent it on the MIDI committee, and therefore report back fully to all members, or not?

The reason for asking such a question is that during the Light & Sound Show MIDI debate, some degree of scepticism was voiced by the audience when Matt Deakin of Celco announced that the proposed standard for the use of MIDI with lighting equipment would NOT be available. Worse, it appeared that manufacturers with representatives on the MMA MIDI lighting committee were already announcing equipment which was likely to conform to the new standard.

It was thought there was a person representing PLASA on this committee; as such he would have reported back to members on progress and consulted them on their opinions. There are probably only 10 to 15 people in the lighting control business who need consulting at all on such an esoteric subject. They will not only have opinions, but they will almost certainly differ!

Clearly we need an agreed method of dealing with standards within the PLASA framework, so let's briefly look at how other organisations cope with the problems of standards definition.

The USITT (United States Institute of Theatre Technology) has a plethora of standards covering most aspects of the theatre. They set up sub-committees for each standard or proposed standard as required; they are disbanded as each standard is finalised. Each sub-committee has meetings once or twice a year, usually at exhibitions, where interested parties on or off the sub-committee may comment or debate any aspect as they think fit.

This sometimes has the effect of slowing down and/or watering down a standard, but does ensure that the consensus view is properly reflected. This is how the USITT agreed the DMX512 digital multiplex standard and its 1990 update.

The MMA (MIDI Manufacturers Association)

has been specially set up to independently administer MIDI (Musical Instruments Digital Interface). MIDI has long been used by the electronic music industry as a means of communication between instruments. The MMA oversee standards changes and allot manufacturers with their own exclusive codes so that any 'dialects' of the standard may be recognised. New uses of the standard are discussed on an electronic bulletin board which may be accessed by a computer and a modem. Access is available to any member of the MMA who may add comments or suggestions. The standard is thus run by manufacturers rather than users and the work financed by charging a moderate fee for allocating the exclusive codes. The next standard which will need to be agreed in our industry will undoubtedly be derivative of Rank Strand's new digital protocol, SMX. If the control of SMX was put into the public domain and administered by an independent body, SMX could become another digital standard adopted by the professional lighting industry.

PLASA could administer SMX on a European or even world-wide basis in co-operation with USITT on similar principles to MMA's adminis-

tration of the MIDI specification and usage.


More meetings or briefings like the DMX gathering at this year's PLASA Light & Sound Show should be encouraged. All those who use such standards and represent member companies should be invited to participate. To properly co-ordinate international standards, it is essential that PLASA have some form of overseas membership.

In summary, PLASA has a vital part to play in the sponsoring and administration of standards. Even the assembly of a central database of 'who does what' with DMX, SMX and MIDI is essential as equipment grows in complexity. However, this will only be achieved with the openness shown at the DMX meeting rather than the woolly approach of 'asking John to keep an eye on MIDI.'

There can be no suspicion of insider dealing; progress and deliberations MUST be widely circulated. Standards MUST be open to be used.

Peter Brooks is the managing director of Zero 88 Lighting Ltd of St. Albans and a past chairman of the Professional Lighting and Sound Association.

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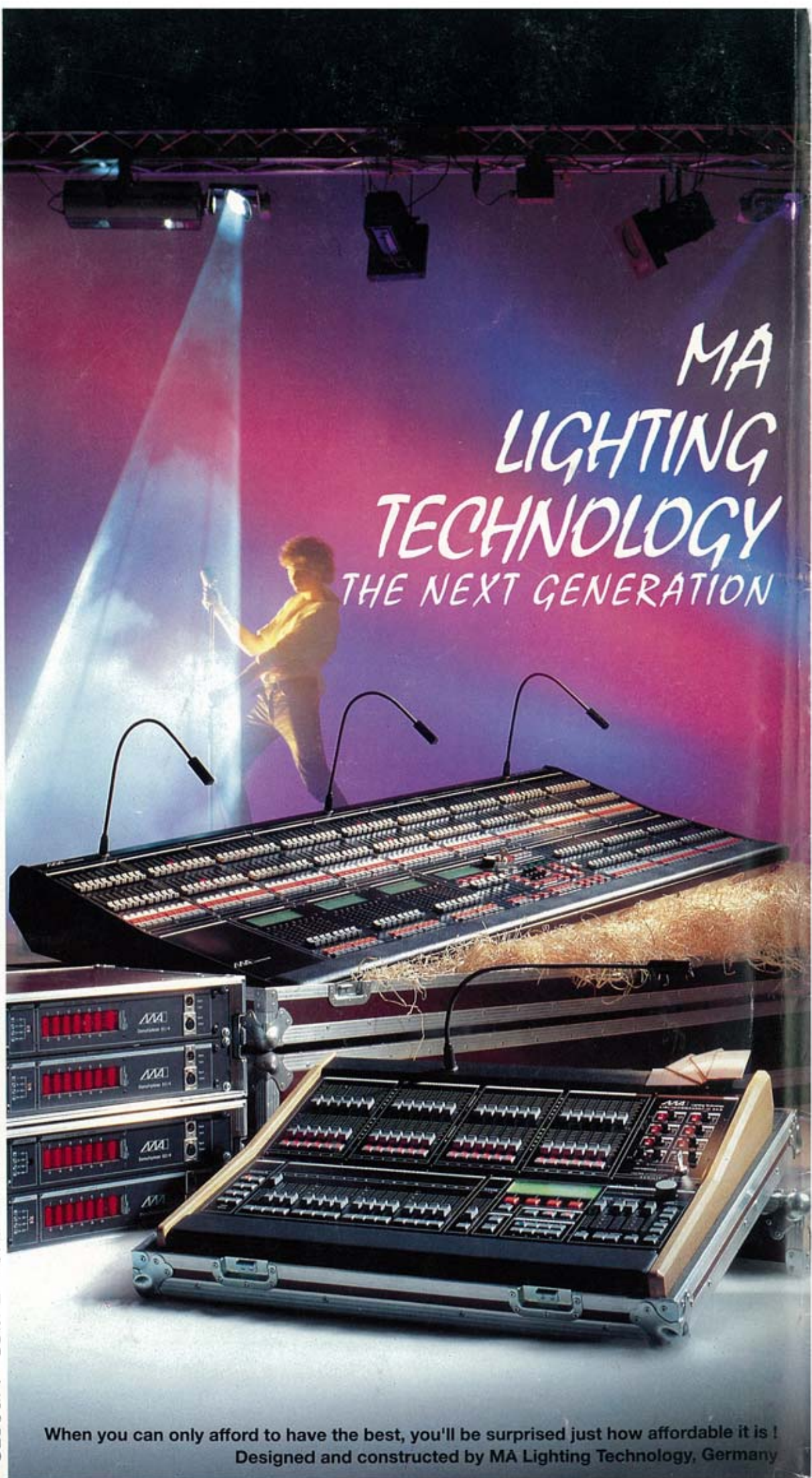
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