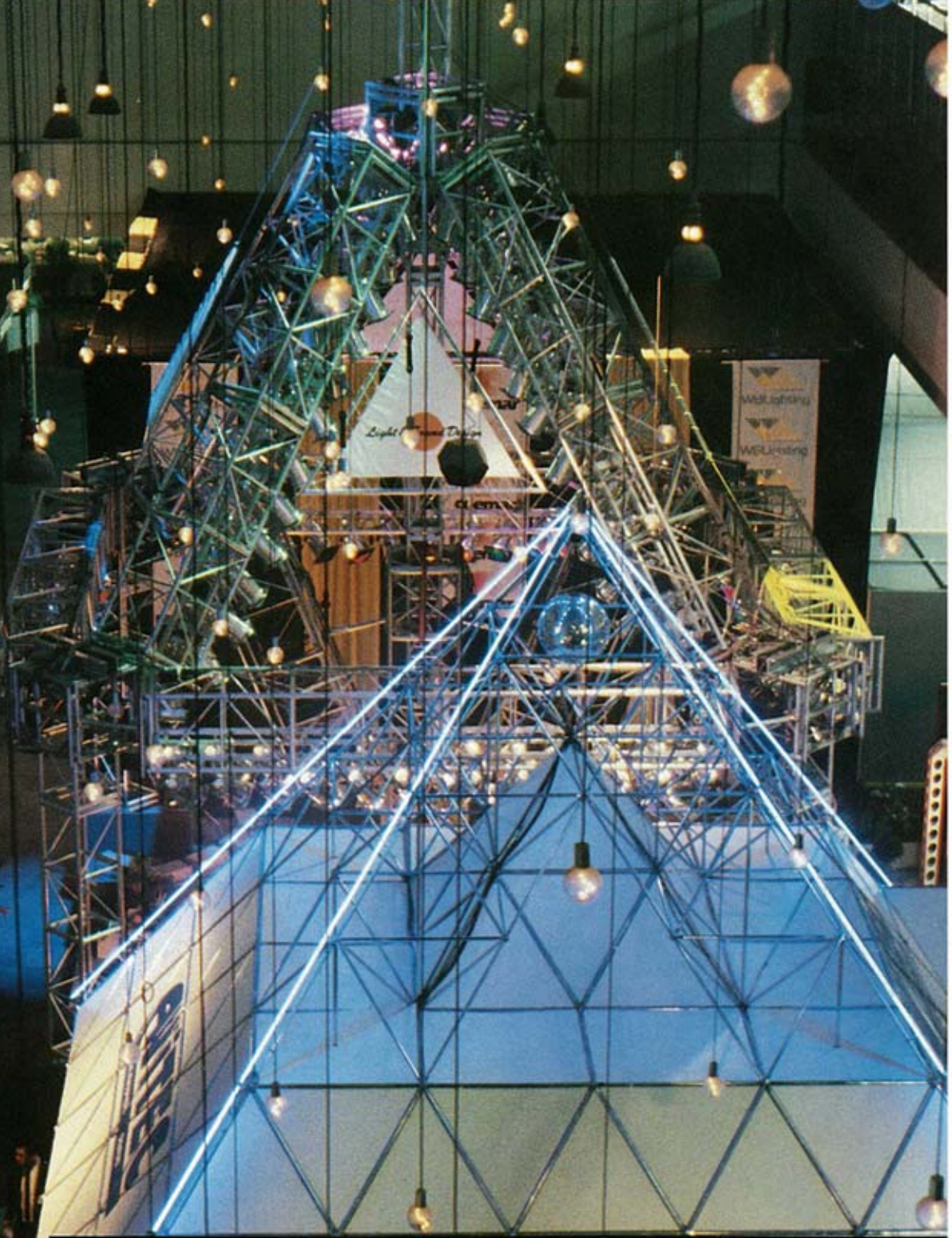
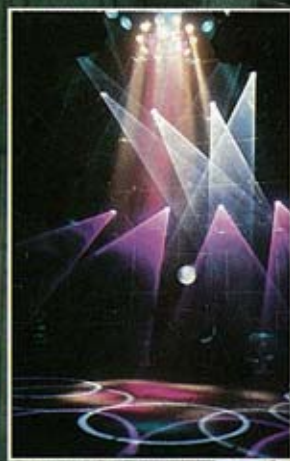
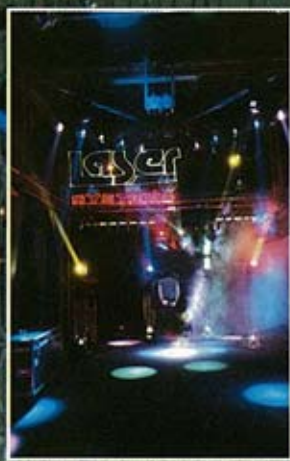


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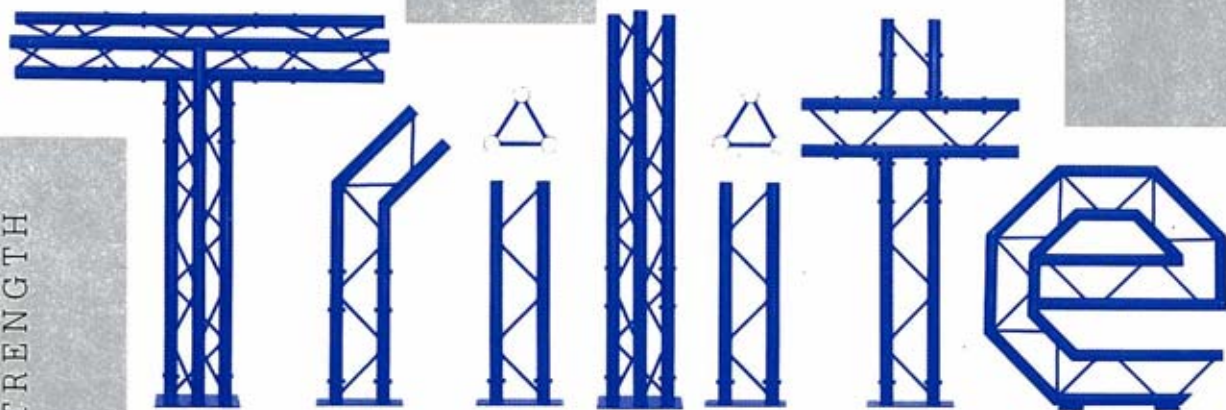
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OCTOBER 1989



**LIVE FROM THE 1989 LIGHT & SOUND SHOW - PAGES 31-60
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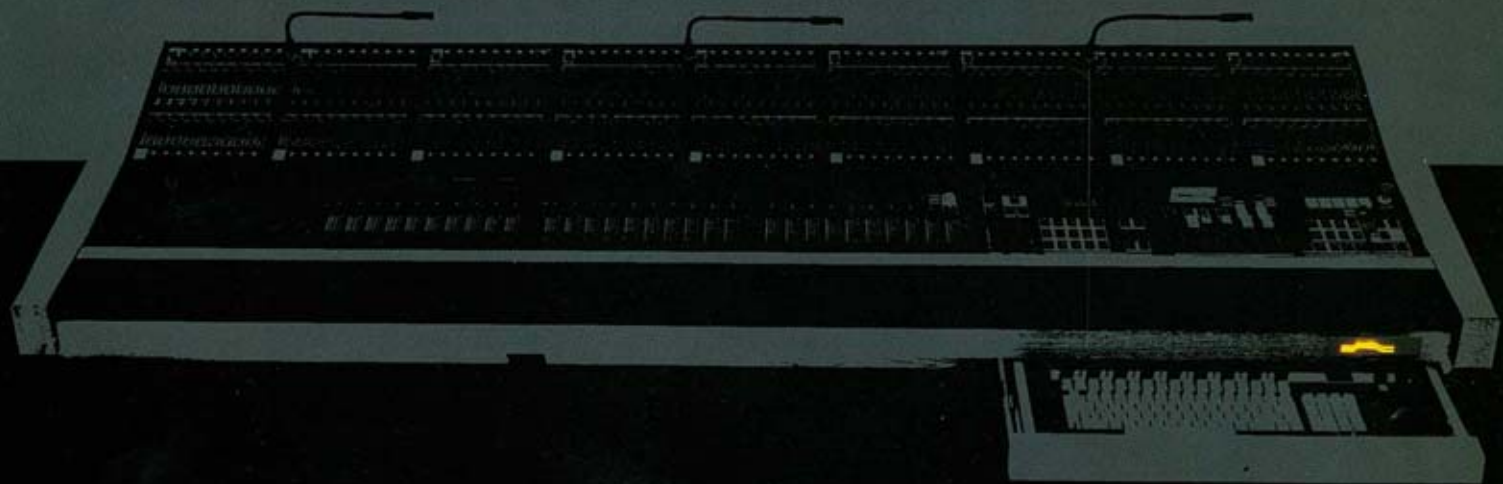
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LIGHTING+SOUND International

OCTOBER 1989

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Front Cover (inset pictures, left to right): WB Lighting/Coemar, Laser Systems, and Avitec light and laser performances in action at the PLASA Show, Olympia 2.



A tracked Vari*Lite VL2B (left) on the set of Miss Saigon, which opened at the Theatre Royal Drury Lane on September 20.

Engineering for an American Dream: the Tracking Vari* Lite

"It gives us the chance of always getting the light in the right place. You can get round the scenery!" said Miss Saigon's lighting designer David Hersey, talking to Julian Williams for the special feature in this issue commencing on page 13.

The complexity of the design for Miss Saigon has also necessitated use of a 'live colour dissolve'. With the imminent launch here of the new 'economy' Vari*Lite VL4 colour dissolve unit, with its 'theatre orientated' colour choice, there will be a revolution in the way lighting designers can approach a rig in a theatre situation.

Following on from Andrew Bridge's highly acclaimed lighting design for 'Time' - see L+SI April 1986 - where he included the Vari*Lite system on a counter-weight track on the vertical side of the proscenium, we now have a major move forward at a time when the moving light is coming in as a standard item for all kinds of uses in the industry. It is being used in Miss Saigon as a remote controlled spotlight, with vertical and lateral movement, on motorised tracks mounted onto the front of the proscenium of the Theatre Royal Drury Lane.

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PLASA
PROFESSIONAL LIGHTING
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LIGHTING+SOUND *International News*



Opening day crowds for the 1989 PLASA Light & Sound Show, Olympia 2, London.

1989 Light & Sound Show: Best Business Ever Peter Stringfellow: "I'd like to be a part of you next year".

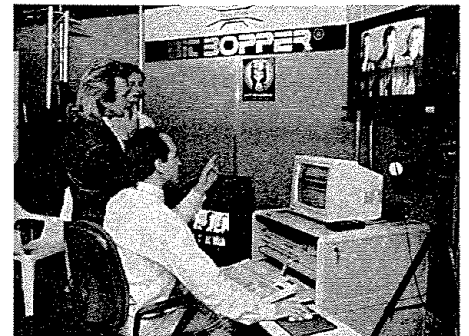
PLASA's 1989 Light & Sound Show, the second to be held at Olympia 2 in London, has been hailed as the "best ever" by all sectors of the industry. "It has now come of age professionally without any doubt," PLASA chairman Peter Brooks told L+SI.

"Overseas visitors almost doubled the 1988 total with 700 foreign trade buyers attending the show, and this was one of the major benefits of the event," organiser David Street told us. Visitor registrations numbered 5510, a figure that doesn't

include exhibitors and their staff, press, special guests and complimentary. By our estimate a total of well over 6000 people attended.

The show was officially opened by Peter Stringfellow, and in his opening address he praised the industry for its progress and innovation, noting that just three months after opening his latest club in Miami, how far advanced British industry is over its US counterpart. He also took the opportunity to hint that his third American club would possibly be opened in Chicago, adding that it would be fitted with much of the equipment he saw at the Light & Sound Show.

In an exclusive interview with L+SI, Peter Stringfellow told L+SI's editor John Offord: "I'd like to get involved with this show next year. I've got to keep it under wraps as to who I'll ask to participate with, but I've got a few ideas which will be major attractions. And I won't be doing it for fun - it will be a commercial venture. It will take the rest of this year to formulate, but I'd like to be a part of you next year."



Peter Stringfellow studies Tecnation's Bit Bopper. No sooner had it been launched than it was used to provide the titling and effects for the DI Awards at Le Palais.

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Bruno Wayte (right) of JBL/Harman accepts an order for 24 speakers from Robin Stillings of Roadstar PA Systems.

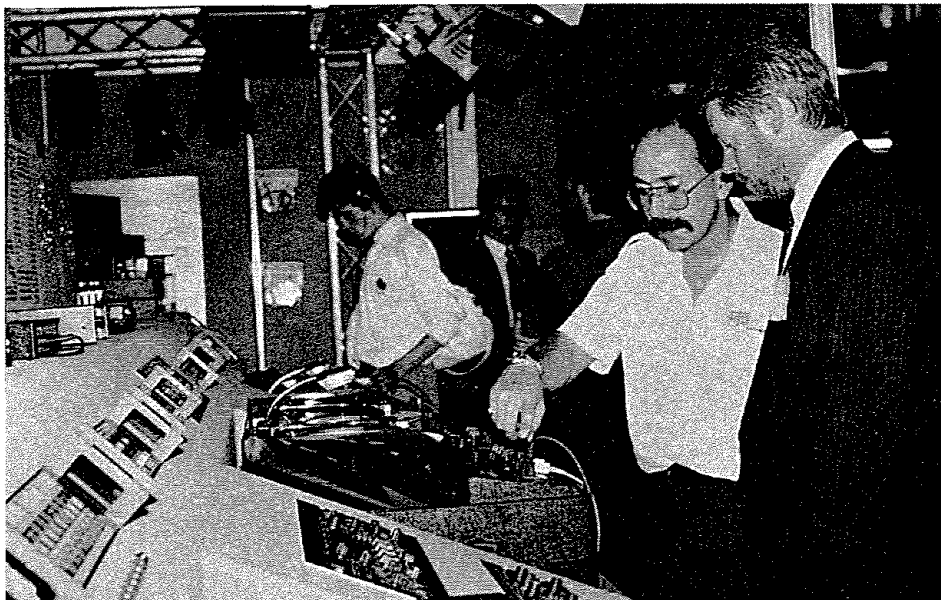
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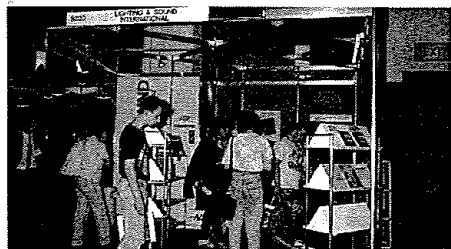
Kevin Hopcroft of NJD Electronics explains one of the company's 12 new products launched at the Show.



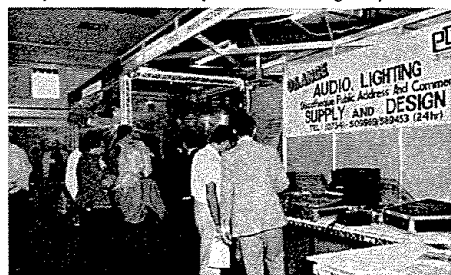
PLASA general secretary Tony Andrew (right) hands a cheque to Theo Loyla for organising the disco at the Association's Annual Dinner. Theo donated the whole fee to the Dance Aid Trust.



Dual roles: seminar organiser Tim Chapman (left) of First Audio on stand with Richard Frankson of Turbosound.



PLASA's Book Bazaar on the L+S-I stand kept selling out, and publishers had to replenish stocks regularly.



The busy stand of Orange Disco Centre.

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PLASA SHOW

For total coverage
 see pages
 6, 7, 9, 10 and 31-60



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PLASA Show people (more on page 10)



Clay Paky line-up: Luciano Salvati, Pasquale Quadri, Julio Savoldi and new production manager Angelo Cavenati.



Cerebrum's Mike Fisher (left) with the company's newest member, Peter Church.



Avitec's Tony Kingsley (second left) plays host to (l-r) Miguel Barba and Inaki Apiazu of Kremesa, Roger Pearce-Harvey of Tasco, and Juan Antonio Pla, also of Kremesa.



Gill Potter, Paul Raymond, Natasha Ostaszewska and David Press of Par Opti Projects.

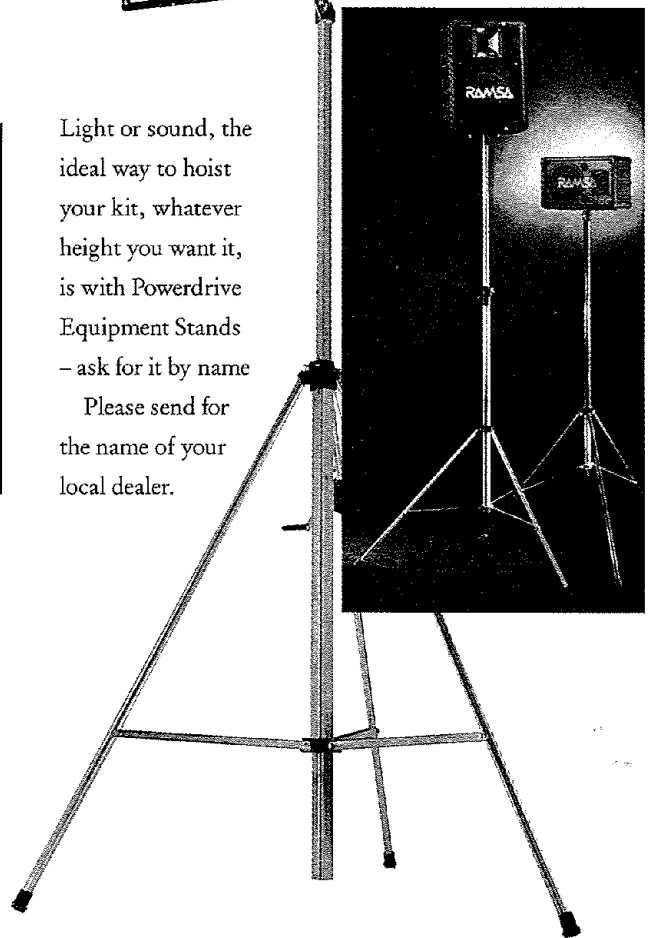


Paul Trew (left) and Andy Briggs (right) of Smart Acoustics with Karl Brunvoll, European sales manager of Renkus-Heinz.



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PLASA Show featuring Peter Stringfellow



Peter Stringfellow with Tony Oates on the Shuttlesound stand.



Stringfellow and show organiser David Street go walk-about.



PLASA treasurer Kevin Hopcroft (right) and chairman Peter Brooks present Peter Stringfellow with a £200 cheque for donation to a charity of his choice . . .



. . . and it promptly gets donated to Eddie Fitzgerald for the Dance Aid Trust.



Front of house at the 1989 Light & Sound Show.



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Peter Stringfellow with Mick McManus of Le Maitre.

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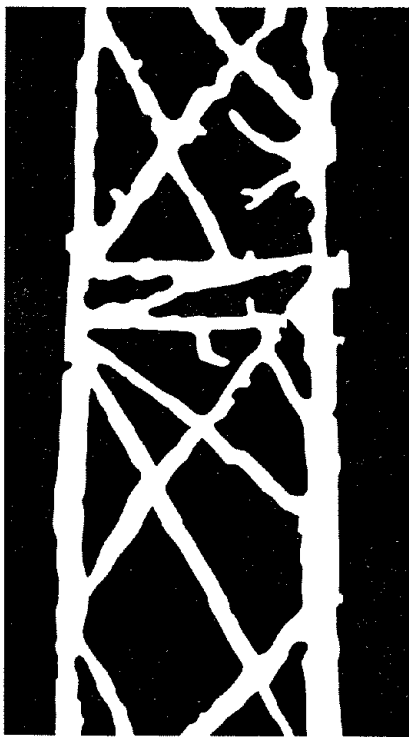
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Business in Brief

Richard Broadhurst, formerly with White Light, has set up **RB Lighting Ltd.** The new company will operate within the field of theatre lighting and design products, and is already a main stockist of CCT, Rosco and DHA equipment. In addition, theatre and display lamps from all the major manufacturers are stocked in depth, and a new design of lighting stencils is available exclusively from RB. The company can be contacted on 01-977 9665.

Following the success of the Book Bazaar at the PLASA Light and Sound Show, and numerous requests for book supply, L+S1 has set up a **PLASA Postal Book Service** with Butterworths Scientific Press (see page 68).

Promotions, marketing and management techniques will highlight the **Nightclub, Bar & Restaurant Expo**, to be held at O'Hare Expo Center in Chicago from 5-7th of February. Sponsored by Nightclub & Bar magazine, this is the first time the Expo has been held in the Mid West. The show brings together managers, owners and other professionals from throughout the hospitality industry who represent clubs, restaurants, hotels, and suppliers.

PLASA members **Cyberdescence** have recently moved to new premises in Hertfordshire. The company has taken on a 7,000 sq.ft unit in New Barnet and they can now be contacted at 63 Lancaster Road, New Barnet, Hertfordshire EN4 8AS. Telephone 01-447 0419.

Eliot Bros, the Oxford-based systems engineers and installers, have won a contract for the design, supply and installation of the complete central technical area of the BBC's Queen Street Edinburgh complex.

Norway's largest specialist cable manufacturer **EB Norsk Kabel** is now promoting its complete range of Data and Telecommunications cables in the UK. EB Communications (GB) Ltd of Croydon, who will spearhead the operation, are making a considerable investment in the United Kingdom with the launch of their operating division EB Cables.

Lighting control manufacturers **Celco** have secured an order worth in excess of £100,000 from ALT Co of Tallin, Estonia. The Soviet company has been the first to react to the increasing popularity of the country as a world tour stopping point for many major bands. A Celco Gold, 30 Major, a number of Series 2 Dimming and Connexion Systems as well as an array of other equipment have all been despatched and were followed by Mike Rothon, Celco's service manager who gave a three day training course to ALT staff.

Following recent contracts to install **The Box**, KFA Associates has announced another order for its modular acoustic booth. Raper & Wayman, suppliers of professional and audio equipment, are to use The Box for demonstration purposes at their premises in Wood Green. The unit will be installed during October and will enable them to offer improved demonstration facilities.

PLASA has been appointed sole UK representative for the **SIEL** exhibition in Paris from the 17-20 February, 1990. Under the agreement, UK companies exhibiting at the show will be offered full shell scheme facilities for the normal cost of space only sites. In addition, UK exhibitors will be located in a prime site within the exhibition hall. Potential exhibitors can contact Tony Andrew at the PLASA office in Eastbourne (full address on page 5).

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MISS SAIGON: LONDON'S LATEST DAZZLER

Julian Williams scoops the technical story
from lighting designer David Hersey

September 25th saw the opening, at the Theatre Royal Drury Lane, of the much heralded new musical 'Miss Saigon' by Alain Boublil and Claude-Michel Schonberg, directed by Nicholas Hytner. The designer was John Napier, and lighting designer David Hersey.

The show's opening scene pictures Saigon in 1975 as the last of the Americans are preparing to leave, and in the Dreamland Night Club there is a 'Miss Saigon' competition in progress. A US Marine falls for the girl he has won in a raffle.

We stay with the proceedings until Saigon becomes Ho Chi Minh City, witnessing the pandemonium and panic of evacuation and all that followed.

I asked Tony award-winning lighting designer David Hersey how he commenced the enormous task of lighting this spectacular show, where he was again working with designer John Napier, a relationship that goes back some 20 years.

"The starting point of any big musical is always the same," he began. "There's all the scenery, and all the scenes, and you've got to negotiate room for one or two lights! This particular product had been around for

some time, going through a number of drafts, and was designed last year - in a completely different form from the one we are now doing.

"I began serious work on it in April this year to develop the rig," he continued. "The model was available, and there were certain known elements for a long time. The idea of using a helicopter was developed some time ago, as was the idea of using moving screens on each side.

"John Napier's ideas of the set were well advanced by the time I got involved, and he knew he wanted to hang a lot of gauzes and light boxes. We had to negotiate space for the lights, and so we brought in the bridges and side catwalks so they would accommodate both the scenic and lighting requirements.

"If you are going to do anything about Vietnam, the image of the helicopter is a pretty strong part of anything you see. We also found these steel pylons which are in lots of pictures of the landscape, and they've become a scenic device on the stage. The truth is that with these big sets today, lighting design as a starting point is to some extent by default. You find what space there is and you stake your claim and you try to fill it up

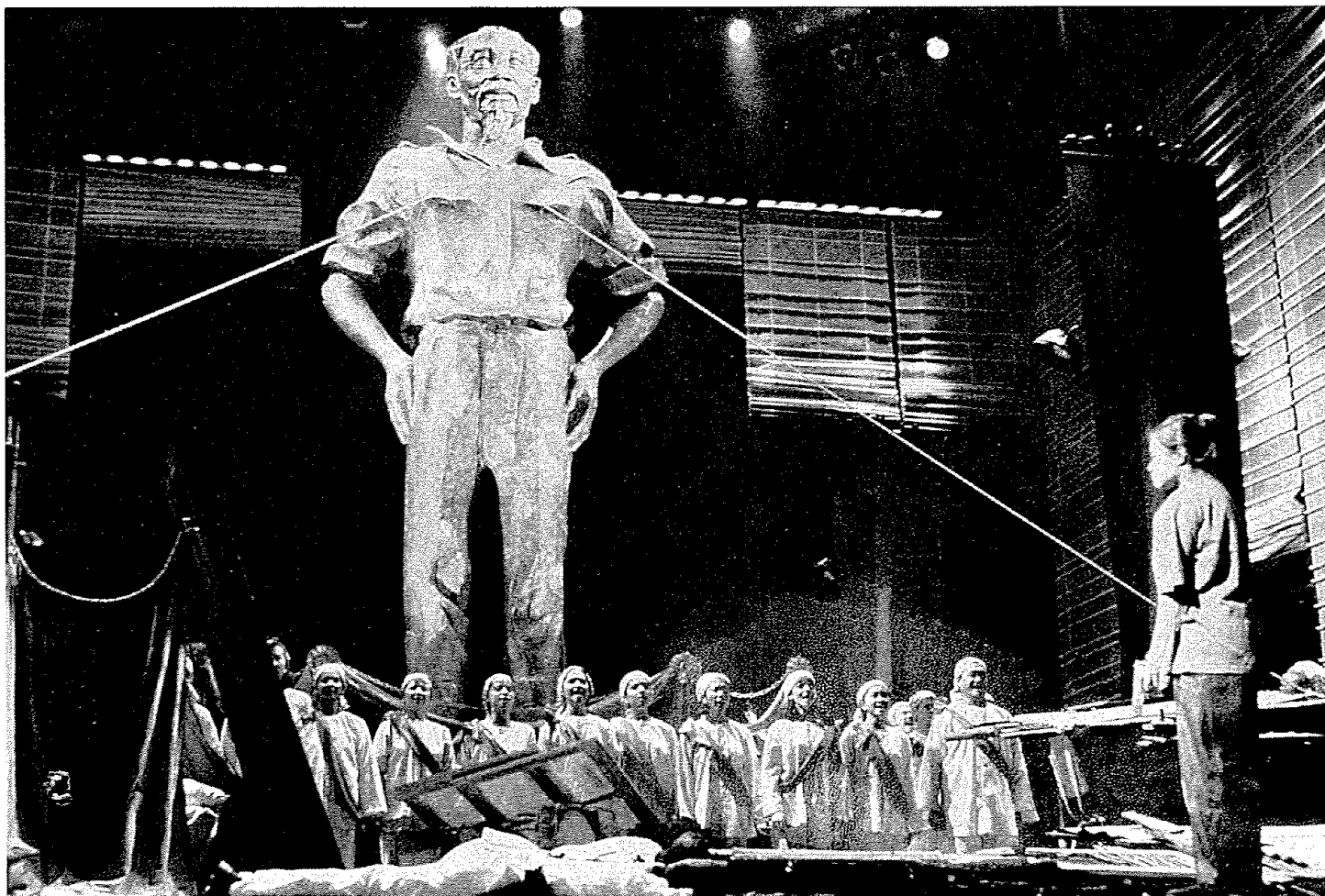
with stuff.

"Obviously, as anyone who has been around for a while will know, you do develop a kind of style of your own. There are certain kinds of ingredients you like to have around as part of your 'kit'. And those ingredients you tend to develop from show to show - so there are not always the same ingredients, but there is a kind of logical progression. The light curtain is a case in point."

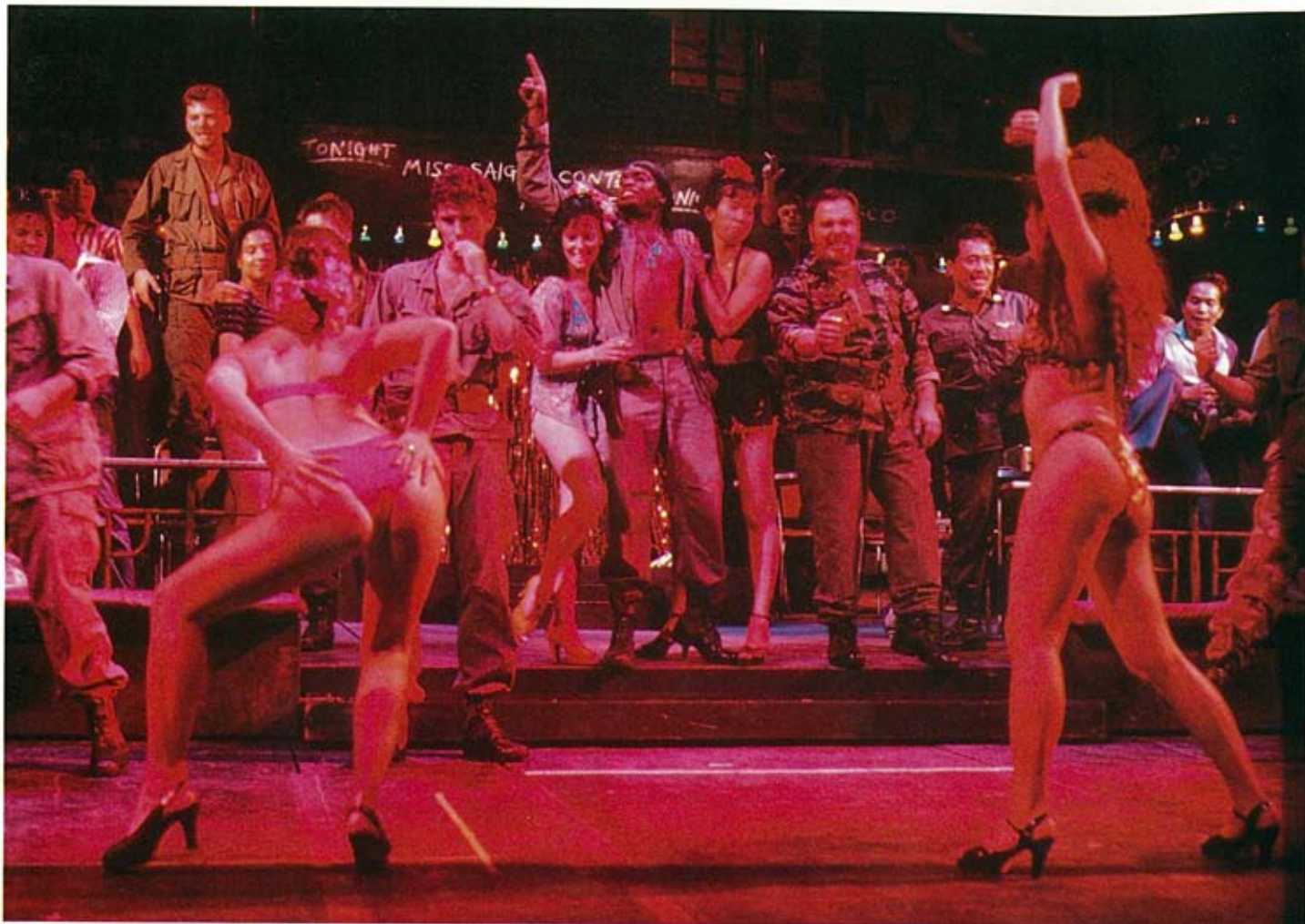
While talking about equipment, I asked David Hersey if there was anything in this show which might be the starting point of new effects, such as a product he may develop further.

"We've been motorising light curtains for a while now, but having them with a colour change makes them a very powerful weapon! We went to a couple of scroll people and said we wanted to do this. We had one generation done for the 'Carmen' production at Earls Court, which Tasco built, and at the same time the Swedish company Camelont (who are marketed in this country by M&M Lighting) were having a go as well. I requested that they send me a prototype."

I asked him if the light curtains in this show were the first to be 'scrollerised'? "Absolutely," he said. "They were the second lot!



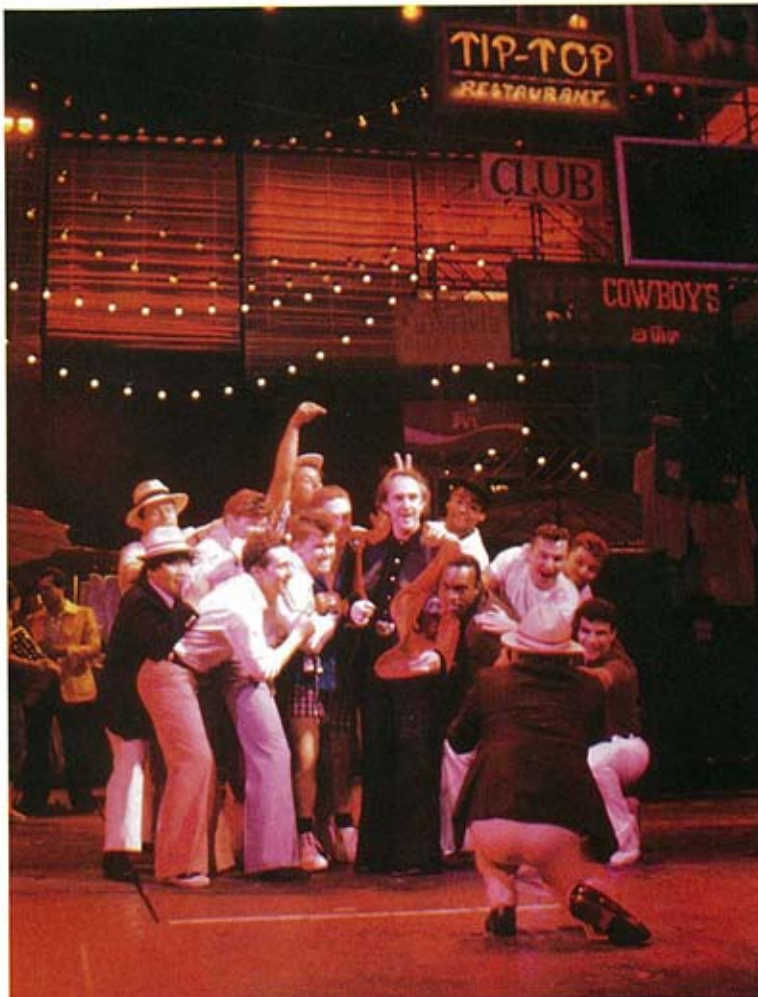
The 25 foot statue of Ho Chi Minh is mounted on a hydraulic lifting platform.



'Miss Saigon' contest at the Dreamland Bar: 'The Heat is on in Saigon'.



Morning of the Dragon - Ho Chi Minh City.



In a highly acclaimed performance engineer Jonathan Pryce entices the tourists of bustling Bangkok (left), in stark contrast to the bleak and war-worn Saigon (Ho Chi Minh City) from where Kim and her child flee as refugees (right).

We did it for Carmen which was a good way of solving a problem for that project, but I wanted to make sure that the technology existed before Miss Saigon, because there are some mechanical problems involved. It isn't something you can just go out to your lighting store for. You can't simply bring back an armful of light curtain scrollers!

"We had to alter our motorising hardware a bit because it changed all the balance points. It makes the light curtain a different thing, and it needed sorting out. There are 11 colours including open-white, and I have to admit it will be hard to go back to not having them in another situation.



A Rainbow followspot scroller in use on a R&V 1k low voltage spot.

"At the opening we also wanted to do a sunrise effect coming up over the horizon, and used a CCT 2.5kW 25° profile, projecting on gauze with the light going through in a deep coloured red. We had been fighting a losing battle, as you need as much 'poke' as you can get, and the CCT profile provided the answer as it is a very hot lamp, and CCT were able to send it to me right away. We put our standard DHA 'Yo-Yo' linear moving gobo (which again came out of a need to do something as a moon on another production) in upside down. It has a scroller on it so it can change from red to amber.

"There are 20 sections of light curtain (4 runs of 5). Originally we had 10 on each of the side catwalks, but they had to be cut to help afford the Vari*Lites - you have to keep very strictly within a budget for hire fees.

"The show is already sold out to March next year, which is a very privileged position to be in. There are 30 musicians in the pit and 41 artistes on stage - so why shouldn't I have a Vari*Lite rig as well? If you don't get a chance to use it in this situation, when do you ever?

"The trouble is, it allows you to do some things I will really regret having to give up in other more normal situations. It's very interesting how fluid it can become. We've got light curtains following trucks. Trucks come in with light curtains sweeping down on them!

"One always wants more Vari*Lites than one could have, and that led us to putting up these tracks in the front of the pros. Jim Douglas motorised the Triple E track so we can run the Vari*Lites up, down, and along the front of the pros. We then put in a second track with two on it, which gave us four units. This means we can have three

lights at the top, so we can have three units together. And it also gives us the light in the right place, and the opportunity to get 'round' the scenery!

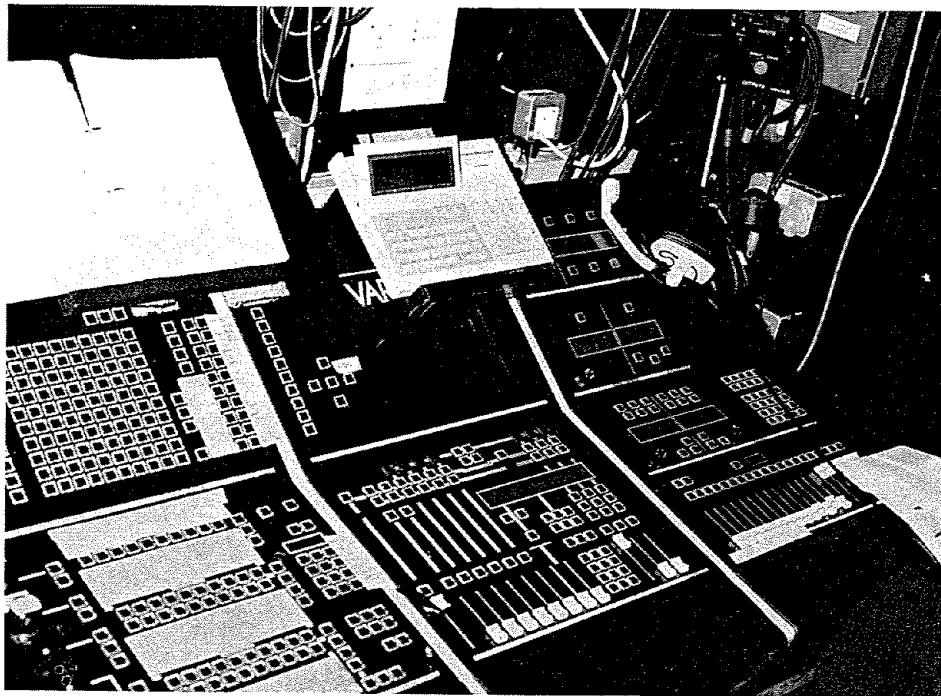
David Hersey explained his reasons: "If I could have put five or six lamps in the proscenium position, I probably wouldn't have done it - and these lamps are very expensive. It was a really good way of maximising the value of the lamps and making them earn their keep! They could always be used and they would always be in a usable position for a scene.

"I actually think that with a cleverly thought out rig with a few tracks, you could get down to a surprisingly small number of units to light a show. I've always been sceptical about that because usually when you've got a moving light rig you get a 'real' rig as well, just in case! What's interesting now is that even some of the specials in the real rig have been replaced with the Vari*Lites.

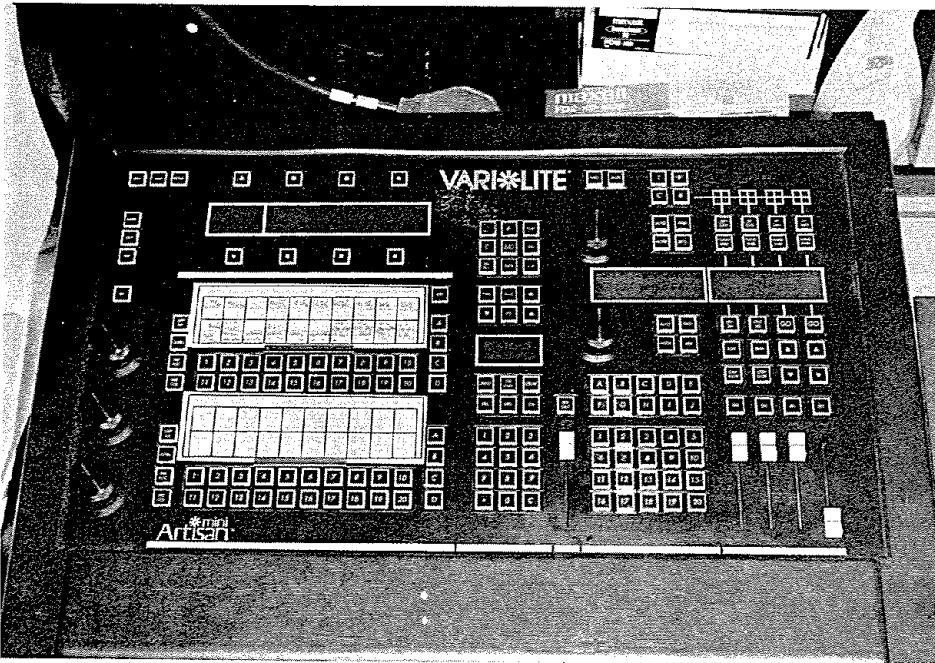
"I've still used a dozen beamlights around the place. I feel very secure when I have those. Also it's nice if you have a beamlight as a special; and if you've got a beamlight as a follow spot which can jump as an actor moves from one to the other.

"I have used some CCT Silhouette 15's that are doing some gobo work, and some Par cans doing some ordinary colour washes. For instance, there's the gauze panels which fly in and out which have to be lit from the bottom sometimes, so that you have a sense of horizon. In order to do that we've introduced a two colour coverage built into the floor on both the inside and outside.

"And then we have the two colours from behind at the top, but we don't have the equivalent coverage at the top from the front. But we do have the ability to streak it



The Vari*Lite Artisan control.



The new Mini-Artisan is used as back-up.

from the front with the Vari*Lite positions above! We have three Pani projectors: one on the bridge lining the backcloth, and one on each side, lining the sides."

I asked if there have been any major problems for him on the show. "Not really," he responded. "The problems have been getting to do it - for all the other departments to get their act together so we can get under way. It's just a question of scale with a show like this. I've had a great team, and I'm very well looked after."

I asked at what point he considered the use of the Vari*Lite system on this production, knowing he had used them on recent stage shows in theatres. What was his specification to Vari*Lite?

"The starting point is the cost: Vari*Lites are expensive. Starlites are at least as expensive, if not more expensive. You always need to get a couple of quotes on a show of this size. But the real issue very quickly became a matter of the units.

"Vari*Lite's new VL4 unit, which are colour

dissolve, don't have gobos and things, but they are half the price of a regular VL2B or a Starlite. That's a big consideration. The number of units I could have, seemed on the face of it to be greater with the Vari*Lites, although in the end I must say that Starlite did come up with an extremely good quote.

"It was really about the VL4's, and the fact that I could get these light colour dissolves, which are a major element in the show. I needed that kind of a light. In the event the actual choice of colours of the Vari*Lite are in my view far more theatre orientated perhaps than the Starlite. The Starlite has some very good rock and roll colours and is a very good rock and roll unit, but the current generation doesn't have the subtlety of the Vari*Lite.

"In the sense that you can get more coloured tints - though it could be arguable that some of the deep colours are deeper than on the Starlite - it seems to be much more 'actor friendly'. The quality of the light, also the fade rates and the ability to fade them in and out gently and unobtrusively, seems at this moment in time to be far superior with the Vari*Lite.

"We are using them here like the theatre lights we are fading up and down. And if something is wrong I can complain about it in the same way as if it were a stage light, which is really quite a remarkable achievement.

"It already comes within the house staff operation responsibilities, and this is a major policy departure over the past year, that Vari*Lite are prepared to allow this without having to have one of their own operators all the time. And you don't really need to have that situation once the show has settled down.

"It's hell to plot one of these shows, especially the way we are doing this one, because the Vari*Lite control desk has not only the Vari*Lites on it, but also the 20 light curtain scrollers, 40 Par lamp scrollers, follow spot scrollers, and all the light curtain motors. Everything is on the one desk. We could have bought another card and got another 384 channels on the Strand Galaxy lighting control board and done it on that, but it seemed a good idea to have all the equipment that moves under the control of somebody who is used to dealing with moving things.

"The Vari*Lite board has the capability of driving conventional dimmers, and they like the idea of putting the whole show onto the Vari*Lite board. But it's not really ready for that yet, coming up from the rock and roll end as opposed to the kind of control that we are used to in the theatre. It doesn't have the refinements that we are used to. Nor necessarily could it, because motion is a different problem than just dimming.

"We have been planning a big 'Starlight Express' tour which is going out in America this fall. It's going out rock and roll style with everything trussed and boxed, and we actually considered putting the whole thing on the Vari*Lite desk. But we decided against it because it's a quick set-up and it's far better for the Vari*Lite man to do his own thing with his own control desk, while the conventional work was dealt with with that operator's own control desk. That way one doesn't slow the other one down. So it's much better to keep them totally separate in a situation like that.

"Clearly, if you had a system with four or five luminaires on a track, and you had four or five of those tracks and you had a couple of vertical possibilities as well with 20 or 30

Kimpton Walker - Miss Saigon's Builders

Computer programming makes possible the orchestration of 14 principal trucked movements, lateral, diagonal and vertical. These include six multi-purpose pylons that are both scenic and practical since while powerful visually, they also tow together the interlocking sets as vital pieces of stage machinery.

Bridging all the movement below is the steel catwalk that envelops the entire 400 sq.m. stage area and contains within it in their 'flown' positions the full size working helicopter and gigantic golden statue of Ho Chi Minh. Kimpton Walker's metal department built the catwalk and supplied Ho Chi Minh with his hydraulic lifting gear. At the same time the art department formed the towering proportions of the leader.

Miss Saigon's sets, from downtown interior to brilliantly lit but sleazy night spot, are a faithful representation of the G.I.'s dream world and the tourists of Bangkok. The props with which Kimpton Walker created these backgrounds were made in KW workshops or unearthed from authentic sources. They contribute a visual realism that is one of the hallmarks of the show. Sleazy, jagged or split in pieces, they are nevertheless accurate to a millimetre when it comes to the mechanics of scene changing.

Alan Walker was responsible for designing and supervising the KW work which took three months on the drawing board and 18,000 hours in the Kimpton Walker workshops.

TAKE A CLOSER LOOK...

And see, up close, the advances that make Vari-Lite the leader in automated lighting system technology. Advances incorporated in the Series 200™ - a system that redefines automated lighting.

The Series 200 is an extension of Vari-Lite's fully integrated technology. A more powerful and sophisticated console has been created. And two new "intelligent" luminaires - the VL2 spot and the VL3 wash.

VL2™ SPOT LUMINAIRE

Take a closer look . . . at the VL2's Dichro-Wheel™ colour changing system. It can access any of over 120 different hues from soft pastels to deeply saturated pure colours in a fraction of a second.

The unique internal "pattern/gobo" system has 9 standard patterns and, with the exclusive Vacu-Dep™ process, you can create your own designs.

With exceptional control, the VL2's precision iris provides a continuously variable beam diameter and the beam can be focused to a soft or hard edge.

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Take a closer look . . . at the VL3's Dichro-Tune™ colour tuning system. Gradually dial through the spectrum to achieve the precise colour you desire - a virtually unlimited palette.

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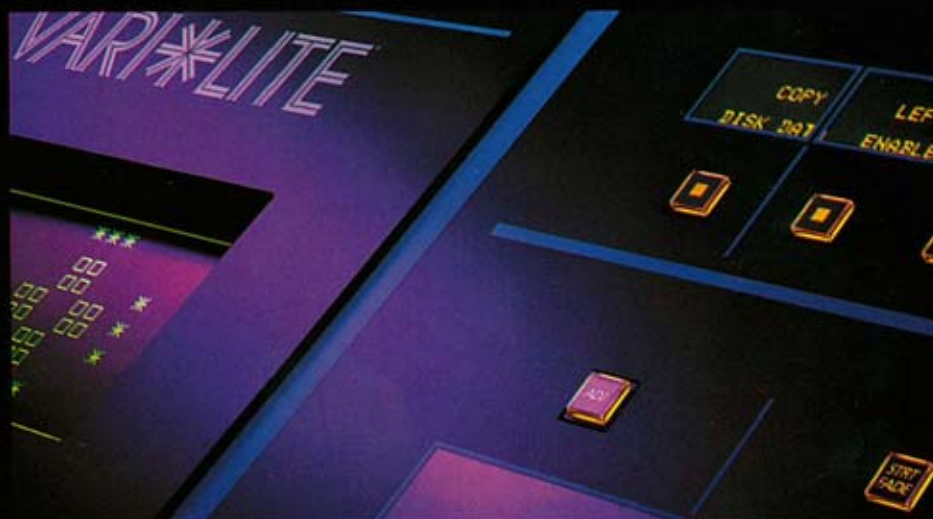
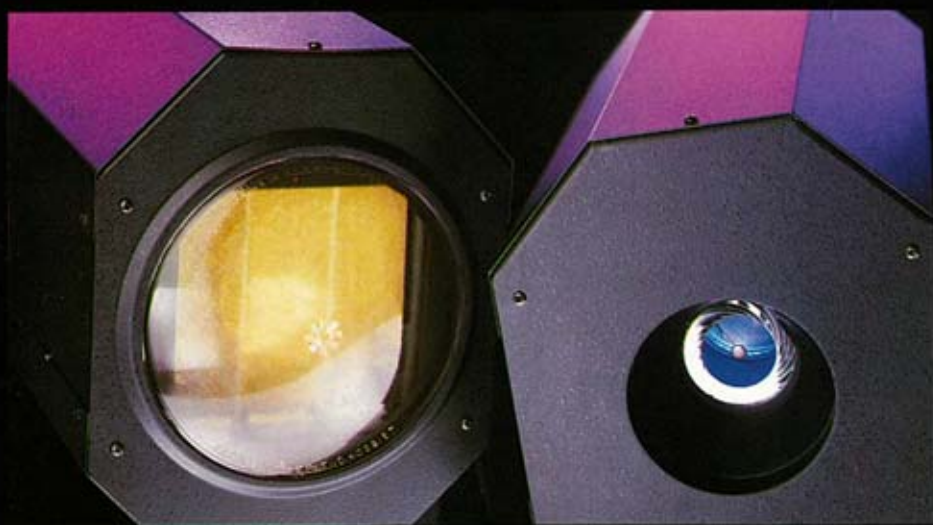
ARTISAN™ CONTROL CONSOLE

Take a closer look . . . the luminaires are linked to the Artisan control console with a bi-directional high-speed digital communication link that provides instantaneous response to manual operation or pre-programmed cues. The console can access 1000 individual instruments and 80 group presets.

And the location and operational status of each luminaire is displayed on the built-in touch-sensitive screen.

So take a closer look . . . at our brochure giving full details of the VARI-LITE Series 200™ system, available from the address below.

Alternatively, call Daryl Vaughan or David March and ask for a demonstration.



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The Automated Lighting Company

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London NW2 2DP.

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U.S. Pat. Nos. 4,709,311 4,701,833 4,688,161 4,602,321 4,392,187
4,095,139 Australian Pat. No. 546,433 Canadian Pat. No.
1,181,795 European Pat. No. 0 060 068 German Pat. No.
P 32 74 291 6-08 and Spanish Pat. No. 548,328.
Made under U.S. Patent Number 3,845,351.

Specifications are subject to change without notice.

KEY

	PAR 64 1K	64
	MSP 110V	5
	CADENZA 2K	12/22
	SILO 30 1K	28
	SILO 15 1K	62
	SILO 25 2.5K	1
	1K HARMONY 12	53
	VARI LITE VL 4	10
	VARI LITE VL 28	9
	PAINT B.P. 5	3
	AUTO SLIDE CHANGER	
	2K FX PROJECTOR	
	+STORM CLOUD	8
	-S 1/2 LENS	
	FOLLOW SPOT	
	1K BEAM LIGHT	6
	COLOUR SCROLLER	
	500M BEAM LIGHT	12
	2K FRESNEL	9
	CODA 500/4	58
	CODA 500/3	4
	CODA 500/1	70
	MOTORISED LIGHT CURTAIN	3
	5 WAY	1
	2 WAY	1
	SCROLL COLOUR CHANGE UNIT	47
	SEAPHORE COLOUR CHANGE	12
	16 mm FILM PROJECTOR	1

KEY

	DREAMLAND CHASER	284
	HO. CHIT MINK HELICOPTER BEDROOM KIM 2	291
	HELIPAD BEACON	292
	PAIR 36 HELICOPTER PAIR 36	315
	DREAMLAND KIM 4 TRUCK	316
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STREETLIGHTS BEACON

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DOWNLIGHTS RED FLASH

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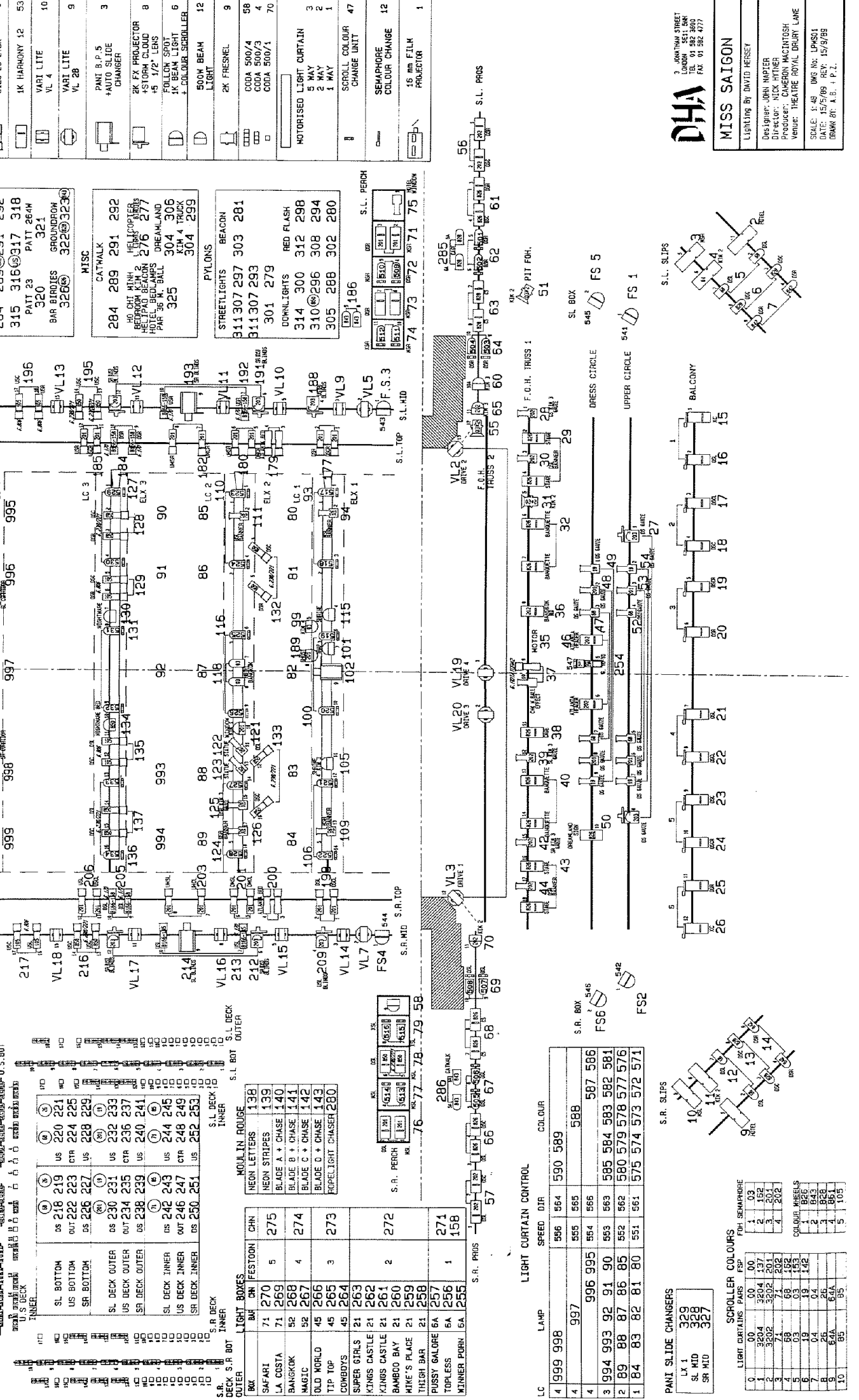
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DHA

3 JOINTAN STREET
LONDON SE11 5AK
TEL 01 882 3600
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MISS SAIGON

Lighting By DAVID HERSEY

Designer: JOHN MAPTER
Director: NICK HITCHES
Producer: CAMERON MACINTOSH
Venue: THEATRE ROYAL DRURY LANE

SCALE: 1:48 DMG No: LPM501
DATE: 15/5/89 REV: 15/9/89
DRAWN BY: A.B. + P.Z.

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MOULIN ROUSE

CHN	138
NEON STRIPES	139
BLADE A + CHASE	140
BLADE B + CHASE	141
BLADE C + CHASE	142
ROPELIGHT CHASER	280

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NEON STRIPES	139
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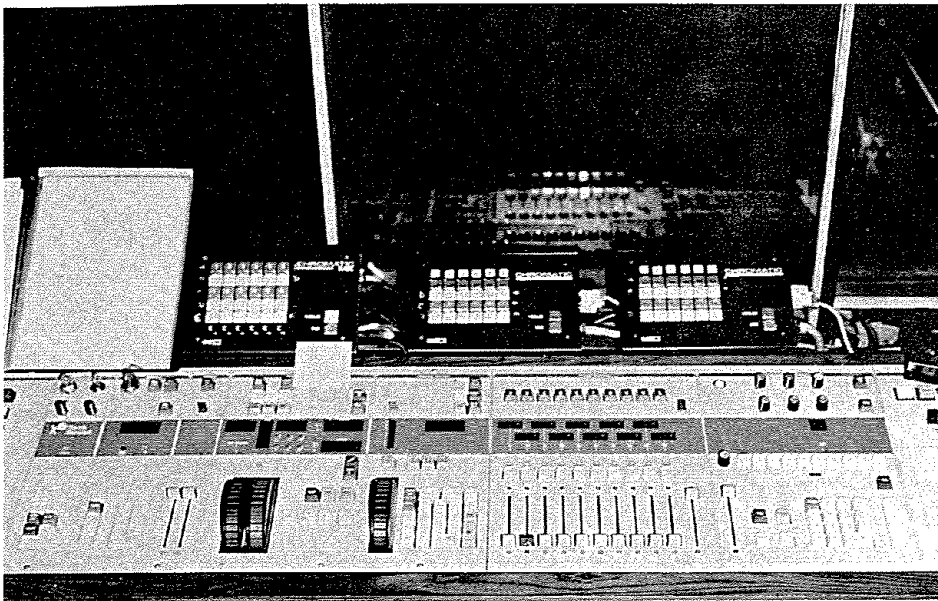
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MOULIN ROUSE



The Strand Galaxy 2 in the Theatre Royal Drury Lane control room.

lamps, you could do an awful lot of damage. You really could. It's amazing how much you could do!

"We are only using 19 units here (10 VL4's and 9 VL2B's), and I have actually been taking down lamps. I've actually cut into the conventional rig we put up for the show, and sent it back. Because of the flexibility with these units I haven't needed so many specials, except in some situations where the Vari*Lite's are too busy doing other things at that time."

I suggested that was the reason he was using conventional lights. "Yes, because I've got them committed to doing lots of other things which the conventional lights couldn't do, and there are a few beamlight specials. What I really want is what I'm calling a 'Vari-Beamlight'. I want to be able to have a beamlight I can move around and change colour and track a bit as well!"

"I think a system that is worked out of Strand's PALS idea, that had some not-so-expensive units, would be good to see. We went into the consideration of these units as part of what we might have to do for this show, but PALS were going to cost so much money you might as well have the real thing!" he said.

"We didn't want to end up with many different systems on one show, and when the cost of the 'all-singing all-dancing' lantern is so high you need to be able to augment it with other things. An ordinary show can't afford it. The National Theatre can't afford to use them either, but it would be wonderful if you could have a nucleus of these kind of things in difficult positions."

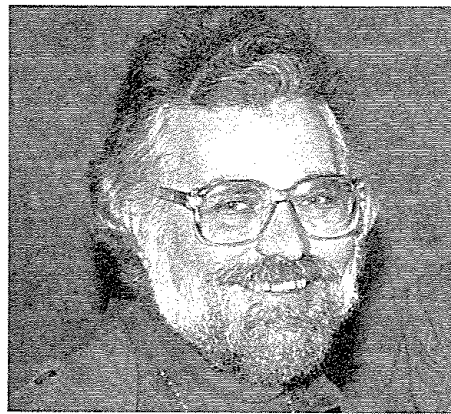
How did he feel about having a moving light as a performer or as a remote controlled unit for positioning the light?

"If you've got the right equipment, you've got both options. In Miss Saigon it does a couple of obvious cues and we use them for a moving effect a couple of times in the show, but basically they are not doing just that. They have the option to do it, and when the show requires it you can do it. The point is it gives you the colour wash when you want it and you can change it, and you can do a live colour dissolve on a colour wash when you want. What's really interesting is using them with the Par scrollers as background or with the light curtain with a colour change, while mixing with the Vari*Lite. It's a wonderful combination.

"We do one cue where the scrollers do a

live colour change over a minute and a half, going from an '04' into a '19' as part of the sunset where it is nice to be able to do a slow, live colour change.

"Because of the way the fourth bank of light curtain works I've had to split one run of light curtains up into three independently motorised sections. In the upstage run the centre section has its own motor and that often works in a different position than its mates either side, or it works with them. This is because the centre section has to be able to drop to the deck for the helicopter effect . . ."



David Hersey

Since moving from New York to London in 1968 David Hersey, has designed the lighting for some 200 productions for most of England's major theatre, opera and ballet companies. His work has been seen in many cities around the world and has won several awards in America including three Tony awards.

His West End productions include: Miss Saigon, Les Miserables, Cats, Starlight Express, Chess, Metropolis, Song and Dance (sets and lights), Marilyn (sets and lights) and Evita. Other productions have included: The Little Shop of Horrors, Happgood, The King and I, The Sound of Music and Camelot. On Broadway he has lit Les Miserables, Cats, Starlight Express, Nicholas Nickleby, Merrily We Roll Along and Evita.

For ten years, from 1974 to 1984, he was lighting consultant to London's National Theatre, during which time he lit 26 plays, which included: Guys and Dolls, The Government Inspector and more recently Bartholomew Fair, and Ghetto. For the Royal Shakespeare Company, the plays he has lit include: Peter Pan, Mother Courage, As You Like It, Nicholas Nickleby and Too True To Be Good.

He has lit numerous operas and ballets for the Royal Opera, English National Opera, Ballet Rambert, London Contemporary Dance, and Scottish Ballet. His recent work at Glyndebourne includes, Idomeneo, Albert Herrington, Simon Boccanegra, Porgy and Bess, and La Traviata. Most recently he has lit Carmen at Earl's Court, in London.

He is the founder of DHA Lighting Ltd., whose head offices are in London, and which concentrates on the design and manufacture of specialist lighting equipment and effects.

From 1984 to 1986, he served as Chairman of The Association of Lighting Designers.

Awards:

Los Angeles Drama Critics Circle: Lighting 1979 Evita
Drama Logue Critics Award: Lighting Designer 1980 The Crucifer of Blood
Tony Award Best Lighting Design 1980: Evita
Maharam Foundation Design Award 1982: Nicholas Nickleby
Tony Award Best Lighting Design 1983: Cats
Drama Desk Award Outstanding Lighting Design 1983: Cats
Dora Mavor Moore Award for Outstanding Lighting Design 1984: Cats
Drama Logue Critics Award Lighting Design 1985: Old Times
Civic Trust Award 1985: Exterior Lighting of Old Vic Theatre, London
Tony Award Best Lighting Design 1987: Les Miserables
Los Angeles Drama Critics Circle: Lighting 1988 Les Miserables
Dora Mavor Moore Award for Outstanding Lighting Design 1989: Les Miserables

Miss Saigon, Theatre Royal Drury Lane Lighting Equipment (courtesy White Light, London)

Lanterns:

49 Sil 30 axial 1k
64 Sil 15 axial 1k
70 Par 64
6 Par 64 short nose
12 R&V beamlight
6 2k fresnels
4 AC1001 floods
6 500w floods
7 LF 1000w floods
42 Coda 4 battens
70 Coda 1 floods
4 Coda 3 battens
7 Minulette fresnels
12 Patt 123 fresnels
2 Patt 264
4 Patt 23
2 M16 Howie battens
13 M16 Birdies c/w transformers
8 Par 36 pinspots

Effects and Scenic Projection:

3 Pani BP5 projectors c/w auto slide changers
2 13.5cm lenses
1 11cm lens
8 2k effects projectors
8 storm cloud effects
8 5.5" lens

Effects:

6 CCT Mx colourwheels
1 12" half mirror ball
3 gobo rotators
1 indexing gobo Yo-Yo effect
20 Thomas motorised light curtains
20 3kva transformers
20 Rainbow light curtain colour scrollers
41 Rainbow colour scrollers
6 R&V 1k followspots c/w spill rings
6 manual dimmers
6 Rainbow followspot scrollers
4 Rosco 1500 smoke machines
1 Minimist smoke machine
1 JEM Heavy Fog
2 Howie dry ice machines

Cable, etc.:

6,400 ft Lectriflex
77 male spiders
42 female spiders
35 stage boxes
11,000' 15A TRS cable (over 500 lengths!)
140 2 way Lumex splitters
3000' 4mm TRS cable
1200' DMX control cable
2300' Rainbow control cable

Control, etc.:

1 Arri Connexion input module
1 Arri Connexion Plus
2 Arri Connexion remotes
1 mains conditioner
6 Rainbow power supplies and splitters
1 Act 6 dimmer
1 Mx colour wheel controller

Lighting Control: Strand Galaxy 2

Vari*Lite equipment:

(courtesy Vari-Lite Europe Ltd.)

9 x VL2B's, four on hoists
10 x VL4's with top hats
Vari-Lite VLD (dimmer interface) which controlled the 6 moving light curtains and their 20 scrollers, 40 Par scrollers, and 6 scrollers for the followspots.
Control: Vari-Lite Artisan control backed up by a Mini Artisan.

(Note: Miss Saigon saw the first UK use of the new Vari*Lite VL4 and Mini Artisan.)

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WORLD THEATRE AT THE HEART OF THE UK

Julian Williams goes behind the scenes at Leicester Haymarket during technical rehearsals for their world tour production of Hamlet

The enterprising regional Leicester Haymarket Theatre, famous for its past West End success transfers such as *West Side Story*, *High Society*, *Me And My Girl*, and the more recent current hit *M. Butterfly*, is now excelling itself in the classical arena.

After an initial run in Leicester, what is said to be "the biggest and longest international world tour ever undertaken by a UK theatre company" - their new production of *Hamlet* - will commence touring in Europe in mid-October and later move on to Japan, America, Australia and New Zealand. In addition, there will be a mid-tour season at London's Old Vic in December.

The production is special in many ways. The renowned Russian director Yuri Lyubimov brings with him a version which he directed in Moscow, and it is dedicated to the memory of their poet, singer and actor Vladimir Vysotsky. Lyubimov has been joined by designer David Borowsky and Polish lighting designer Krystof Kozlowski.

A central feature on the technical side of the production is its backcloth. It plays within an open stage space and consists of a huge, brown, embroidered hanging which is moved from side to side and backwards and forwards as the scenes change. It sweeps downstage to enclose its actors, who speak

from behind it or appear from beneath it. In no way can it be considered a usual backdrop: it's more like a 'mute' actor who performs with the company, and they move it around during their performance as an inherent part of the action.

This special backdrop hangs from a beam which traverses up and down above the stage along a track on both sides of the set, on a similar system to rock and roll trussing. A pivot point is available anywhere along this beam where it can spin round. An operator sits above the beam on each end: one operates the traversing, the other the turning of the backdrop.

Paul Sadler's company Delstar, who are specialist designers and manufacturers of hydraulic systems for the theatre, built the mechanics of the set (They designed systems for shows such as *Time*, *Aspects of Love*, *Starlight Express* and the current controversial production of *The Masked Ball*). For *Hamlet* they built the suspension frame, the cross traverse beam, the 200mm thick false floor, and the sheeted aluminium set with natural wood framework. An important point here was that the set had to be in position and ready for the actors to work with from day one of the rehearsals.

"Because of the length of the rehearsals, the production period has been unusual for

a repertory theatre production and hard work to mount, as everything had to be in position for three weeks for on-stage rehearsals with completed sound and lighting," explained production electrician Ray Dolby. This meant that the busy Haymarket Theatre had to be closed for performances during the period.

"There isn't much sound being used in this production, with only six speakers and radio mics. But there are a host of cues," continued Ray Dolby. "All the equipment has been purchased and will be toured, though they may hire local radio mics. They will be touring a complete and self-contained rig of both sound and lighting equipment, though when the tour visits Australia and Japan it will be using in-house equipment.

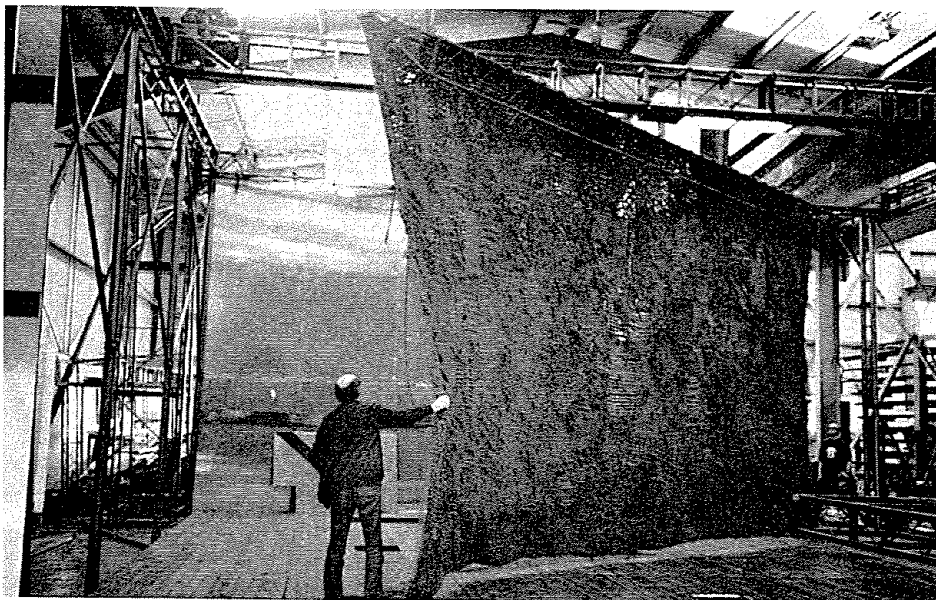
"They come back to London for two weeks prior to Christmas, then early in 1990 after their return from Germany they will have just a one day turn round before flying out to Australia. If the tour has to go to Russia or America they may have to travel direct from Japan."

The get-in is expected to take four hours and two full days are allowed between then and the first performance in a new venue. The technical team of nine includes acting ASM's with an extra person to take care of the stage backdrop.



Martin McKellan (Horatio) and Daniel Webb (Hamlet) in the Haymarket Leicester production of *Hamlet*.

photo: Nobby Clark



Designer David Borowsky with the specially designer backcloth, showing the suspension frame, cross traverse beam and pivot point.

Each meat-rack carrying the lighting equipment will be wheeled into its own area before the set is assembled, so that when it is about 4 feet off the deck the light bars will be hung from it in rock and roll fashion. All cables will be sited at the bottom of the rack, and the bars will fly out from it.

Tour production management is being handled by Alison Ritchie and Chris Harding-Roberts. "With this tour one person will stay with the production whilst another will work from an administrative office in London," said Ray Dolby. "This works very well in touring situations overseas, as we found from experience with the last production we took abroad to India for two months."

As the complete lighting rig consists of

ADB lighting and control equipment, I asked Dolby why they had decided to take this course. "It was actually specified by Krystof Kozlowski, who has used ADB equipment in the past. He knew how he wanted to light the production, what he wanted to use, and how he had to base it around the complexity of the tour, rather than just one venue.

"Kozlowski approached ADB direct, saying that it was a very large project and would be touring worldwide with a highly reputable artistic team. He asked if they would care to be involved. As part of a sponsorship arrangement they gave him a very good deal for the purchase of the equipment. It is a coincidence that ADB have just produced their 'Europe' range of stage lighting

luminaires!"

Kozlowski is using an unorthodox style of lighting which is primarily based on uplighting with 650 watt 120 volt Par 36 lamps. 89 of these in combinations of DWE and F80 types are mounted at various angles into nine boxes (with 6 Par 36 lamps) and fitted into the stage floor at equidistant positions beneath grille panels to provide the whole stage area with light.

There are also two sets of three troughs (with 6 Par 36 lamps) on each side of the apron in the float position. Upstage there are four sets of two troughs (with 6 Par 36 lamps) which are fitted into the stage floor.

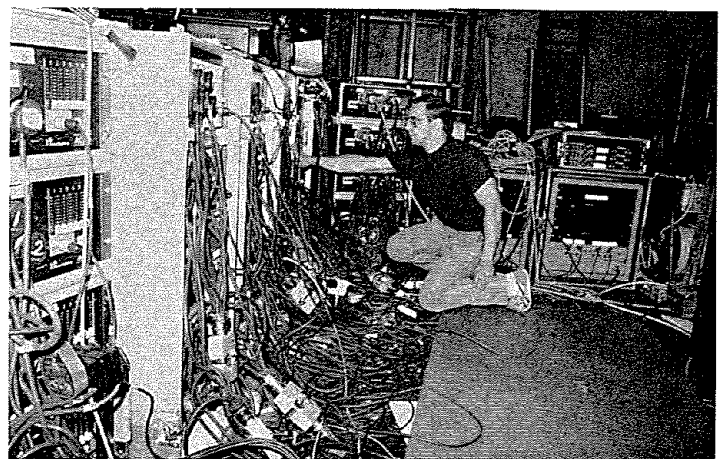
A visit to the London headquarters of Action Lighting allowed Kozlowski to see for himself the effect of different light sources and decide which would be the most appropriate for this particular application. Raylights were considered for uplighting and although they appealed in sheer performance were rejected in favour of the all-glass sealed beam which was easier to install in the restricted space and would better withstand the rigours of a long tour. Further to this meeting a sponsorship agreement was concluded involving Action Lighting, General Electric (USA) and Thorn EMI Lamps & Lighting

No flown lighting bars are being used except for one on the front bridge. Any other lighting is from low side lighting from the tormentor position behind the pros. and front of house lighting. This has necessitated all the cabling being made up specifically.

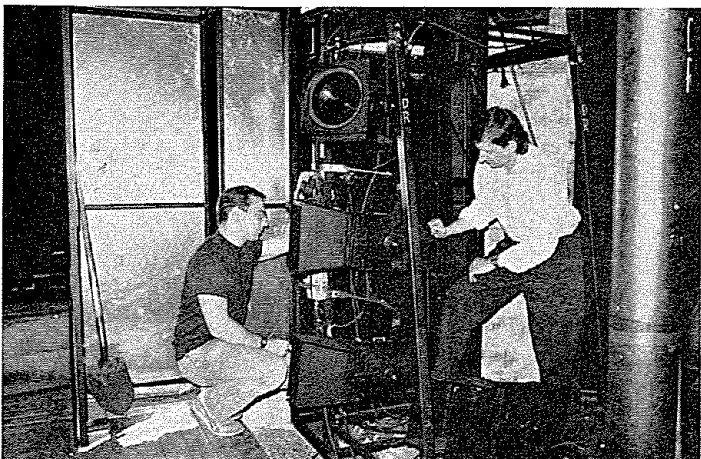
While sitting in on one of the technical rehearsals I noted how Kozlowski was setting up his own cues on the ADB S20 control desk with aid of a 'mouse'. This allowed him to use all the functions of the board without having to use hands-on, to plot the show while he was lighting it, and to produce



Lighting designer Krystof Kozlowski (left) with chief electrician Ray Dolby.



Ray Dolby with the cased touring dimmer racks.



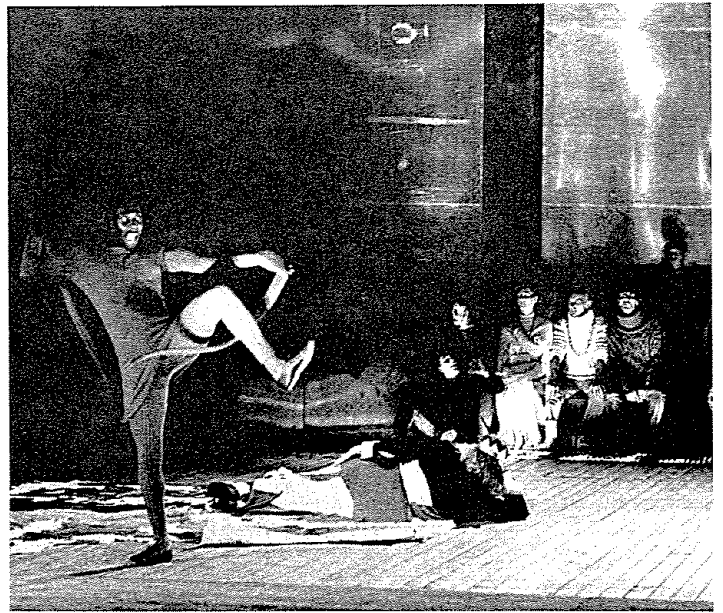
Kozlowski and Dolby check the 'low side lighting' equipment.



Krystof Kozlowski at work with his 'mouse' on the ADB S20 lighting control system.



Against the backcloth: Veronica Smart as Ophelia.



The Hamlet company; note sheeted aluminium set in background.

updated documentation immediately rehearsals had finished.

On tour they will be using two ADB S20 desks working in tandem, one acting as back-up. They will organise a dress run at every venue before the opening of each show, and the lighting and sound boards will be mounted in the auditorium. The production stays at each venue for a week or more with the exception of Japan where it runs for a full month.

Krystof Kozlowski said this was the first time he had worked in England, and I asked him if he found any difference in working here compared with Sweden where he worked for the Cullberg Ballet Company for

several years before becoming freelance. He told me that it was difficult to compare this production with a normal production because it has been designed for international touring to many countries.

He praised the "wonderful people" he was working with at the Haymarket. "They are very friendly people here, professional, understanding, experienced - and they have a very positive attitude to the whole project," he told me.

Kozlowski studied for six years on a technical course for theatre lighting at a special theatre school in Warsaw. Since leaving the Swedish National Theatre he has worked in various aspects of theatre, most

recently in drama. I asked him how he approached this particularly innovative design, bearing in mind his interest in lighting with much 'atmosphere'.

"To understand the psychology of colour is important in this profession: how we experience different colours, and what feelings they arouse. By the same token one must know anatomy, and how the eye works. The stage is a picture I paint with light," he told me.

Kozlowski felt he wanted to adapt the idea of the moving curtain backdrop and to have a style of light which required the light boxes being built into the stage floor of the stage set.



Understage lighting for (left) Daniel Webb (Hamlet) and Andrew Jarvis (Claudius), and (right) Richard Durden (Polonius) and Veronica Smart (Ophelia).

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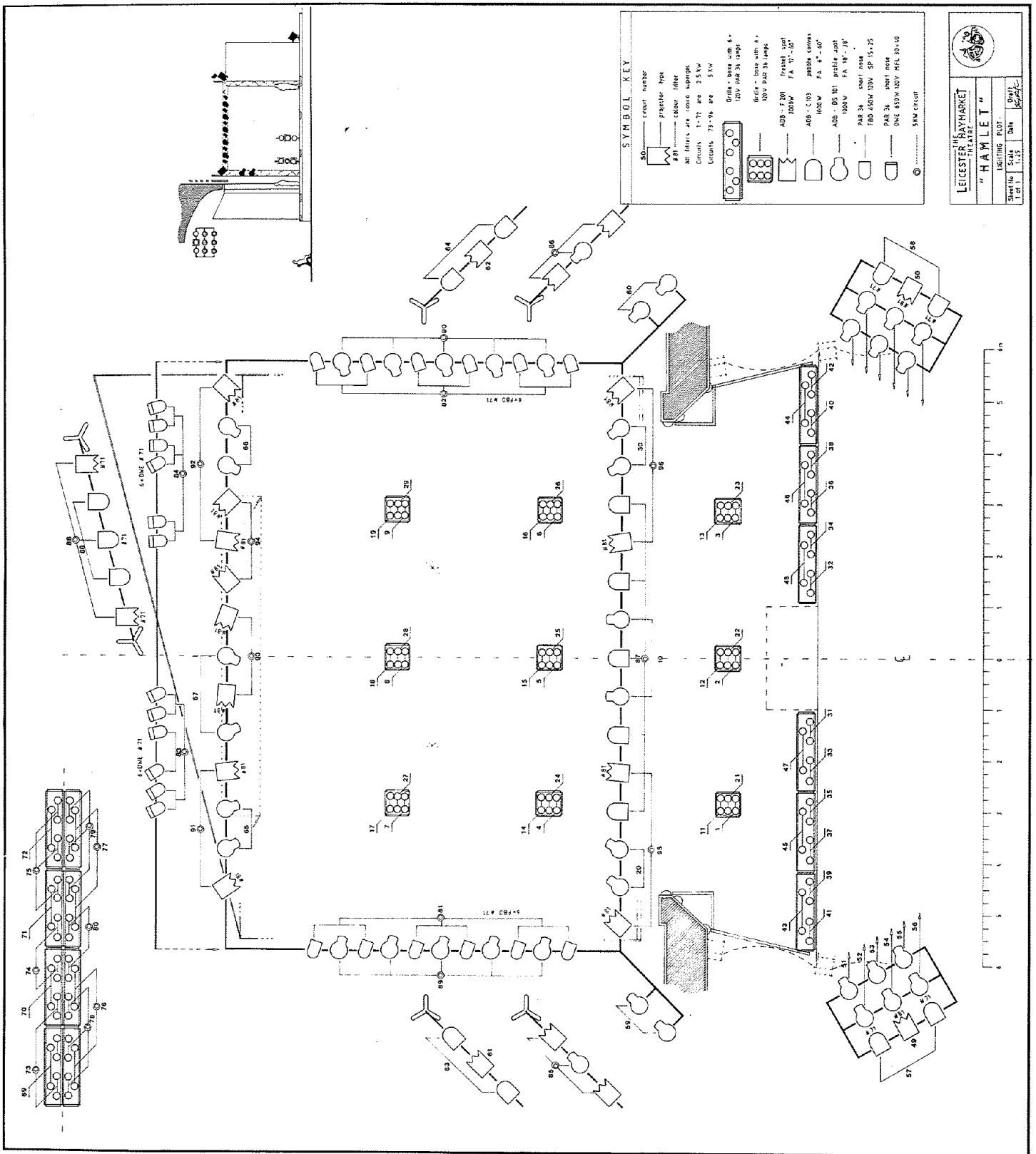
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"The grilles in the stage over these light boxes and troughs symbolise two different levels of light," he explained. "They also have a decorative function, along with the symbolic function, and create very strong lighting effects when they are added to conventional lights. They make the atmosphere much softer and very neutral."

"There is just one nuance of cold colour. All the lighting is in one colour with warmer tone variation on the fabrics of the actors in their woollen costumes and the woven backcloth."

Though Kozłowski never wants to reproduce the natural colour of light in the theatre, he takes inspiration from it. He doesn't like realism on stage, and plays on the sensitivity of the audience. The techni-

que of his lighting and his philosophy is to use natural lighting in a non-realistic way on a stage, and to bring out the atmosphere with the temperature change of colours by light level adjustments in the various cues. His lighting is based on symbolising the atmosphere of the set.

"My philosophy is to play theatre," he said.

Hamlet World Tour

Lighting Equipment

- 108 ways of 2.5kW dimmers (18 ACT 6 dimmers)
- 12 ways of 5kW dimmers (4 ACT 3 dimmers)
- 6 flight cases containing the above dimmers and ADB and Strand interface unit
- 1 flight case containing 6 way mains distribution rack camlock connectors to bare end cables
- 6 x 5m 63amp TPNE mains cables
- 12 16amp ceeform 3pin plug to 3 15amp sockets

- 18 15amp series splitters
- 24 15amp plug to lectriflex female inline roller shell spiders
- 14 15amp socket to lectriflex male inline clip shell spiders, various lengths
- 24 x 20m 6 way lectriflex multicores
- 6 x 10m 6 way lectriflex multicores
- 15 x 5m 6 way lectriflex multicores
- 36 x Par 36 paracons (12 with DWE lamps, 24 with FBO lamps)
- 45 x DS101 profiles 1kW lanterns
- 23 x F201 fresnels 2kW lanterns
- 18 x C103 prism-convex 1kW lanterns
- 84 x FBO 120volt par lamps fitted into the floor grilles
- 18 x DWE 120volt par lamps fitted into the floor grilles
- 2 x S20 lighting computers complete with their own flight cases
- 1 x colour monitor complete with flight case
- 2 x 50m 5pin din control cables
- 1 x printer
- 1 x cassette machine for storage

- 8 x Tec pro headsets
- 8 x Tec pro beltacks
- 1 x 19" rack mounted Tec pro master station
- 1 x 20m FXLR to MXLR headset cable
- 7 x 10m FXLR to MXLR headset cables
- 2 x 5m FXLR to MXLR headset cables
- 2 x 50m MXLR inline to FXLR panel headset cable on a drum
- 1 x 50m FXLR inline to MXLR panel headset cable on a drum
- 100 hook clamps
- 8 x standard boom arms
- 3 x floor stands

Sound Equipment

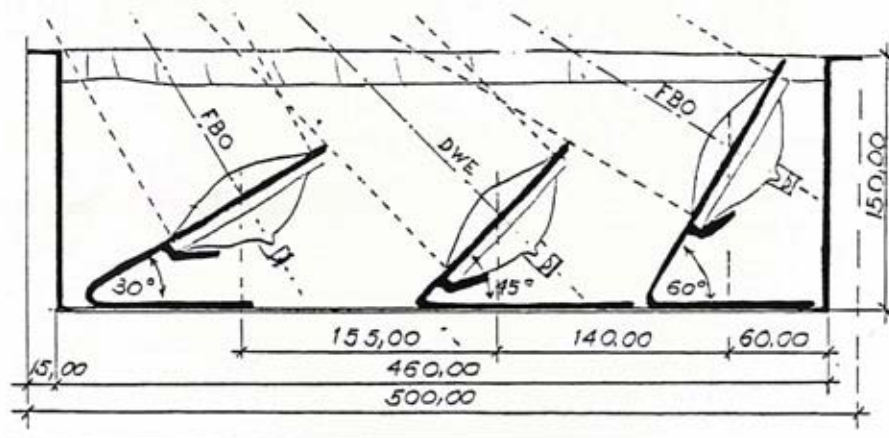
- 2 x Revox B77 h.s. inc NAB centres, metal reels
- 4 x Micron Lapel Radio Mics
- 3 x Anchor Audio AN1000 power monitors
- 3 x C Audio SR 606 Amplifiers
- 3 x Nexo PC Pro processors
- 4 x Nexo PC 115 line system speakers
- 2 x Nexo PC Subs speakers
- 2 x flying cradles for PC115
- 1 x SPX 1000 fx processor
- 1 x Denon DRM 34 cassette deck
- 2 x 50m 20/20 multicore (box/box) drums
- 1 x Extension box for above
- 2 x 8 way XLR looms
- 10 x 20m speaker XLR cables
- 6 x 10m speaker XLR cables
- 2 x 50m 13a drums
- 1 x 25m 13a drums
- 5 x 4way 13a sockets
- 6 x Male XLR Sex Reverses
- 6 x Female XLR Sex Reverses
- 6 x Earth lift XLR
- 6 x 3m Phono-Phono
- 6 x Jack-MXLR
- 6 x Jack-FXLR
- 8 x Phono-MXLR

Credits

Director: Yuri Lyubimov
 Designer: David Borowsky
 Lighting designer: Krystof Kozlowski
 Chief Electrician: Ray Dolby
 with assistance from ADB, Lighting Technology Group (Action Lighting), Delstar Engineering and others.



A close up of one of the stage floor lighting boxes, with section detail shown below.



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- 28th at 11am Problems with Props

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DESIGN vb. to plan and make something artistically.

DESIGN n. a coherent or purposeful pattern, as opposed to chaos.

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A RESTORATION PIECE

Ruth Rossington visits the Grand Opera House, York

The Grand Opera House, York re-opens this month with a performance of *Macbeth*, some 33 years after the last stage performance took place. The production marks the culmination of an extensive refurbishment undertaken by the India Pru Company who, without funding, have restored the venue to its former glory. The theatre is to be run by a subsidiary company as a commercial enterprise, making it almost unique amongst regional theatres.

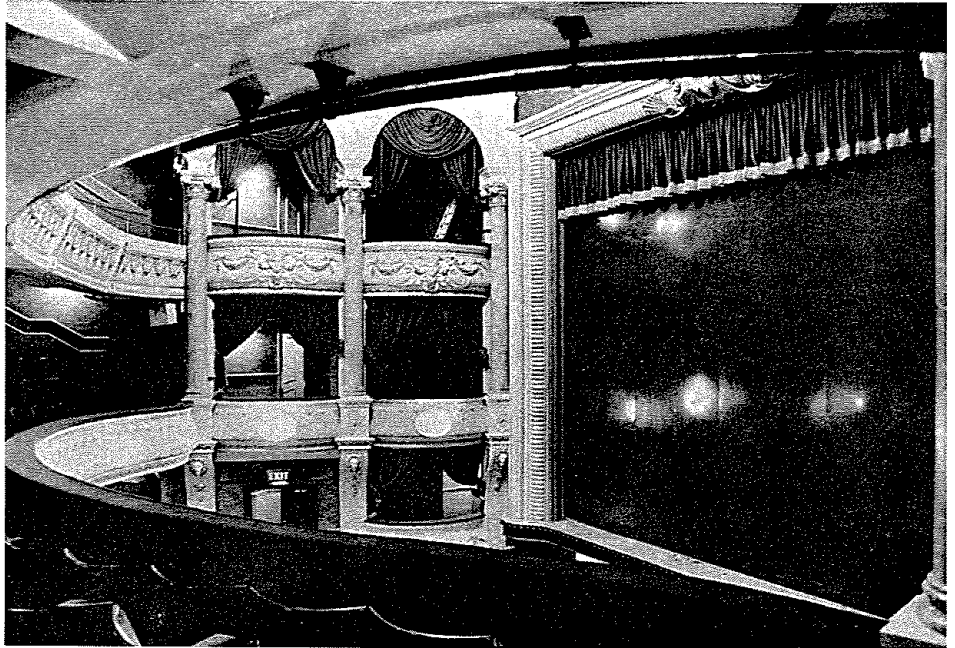
The site on which the Grand Opera House stands has had many uses over the years. Once a Roman quayside area, it became the site of a nunnery which later fell into disuse and degenerated into an area of stews and brothels before being cleared in the 1860s. It was on this site that the York Corn Exchange was erected in 1868, the major part of which provides the structure of the present theatre.

In 1901, the annual dividend of the Corn Exchange fell and the building was sold for £7,000. A consortium was formed to buy the exchange and build a Grand Opera House. The redevelopment was beset with problems, but eventually completed in 1902. The architect was John Priestley Briggs and his plans for the Opera House outlined the influences of the time: "The proscenium will be framed in red Devon Marble with the stage boxes in Pavonaise Marble; the ceiling is to be domed with open scrolls for decoration and four corner panels depicting the arts of Music, Singing, Dancing and Painting; the style is Louis XV; circle fronts will be of a simple character, figures in ivory white on a background of cerulean blue, touched with gold."

The most intriguing aspect of any theatre is always its history, and within that the people who, over the years, have appeared on stage. Florrie Forde opened the Grand Opera House in 1902, and was followed over the years by Harley Granville Barker, Mrs Patrick Campbell, Charlie Chaplin, Lillie Langtry (once mistress of Edward VIII), Marie Lloyd, Vesta Tilley, Pavlova, Laurel and Hardy, the Folies Bergere and The Beatles. Not everybody who appeared however was so well received. Nellie Wallace, appearing in 1905 was so suggestive that she was hissed off stage, and earlier Olga Nethersole, playing Mary Magdalene, was prosecuted for her portrayal (it doesn't say why) but subsequently acquitted in New York.

The history of the Grand Opera House as one might expect, walks hand in hand with that of the history of popular entertainment. Structurally unchanged, and forced to flow with the tide, the old theatre has been witness to a continually changing programme from music hall to variety, cinema to drama, burlesque to revue.

One year after the official opening the theatre was closed for redecorations, reopening as the Opera House and Empire in 1903. Subsequent redecoration took place in 1909, and by the advent of the First World War, the owners again found it necessary to undertake further alterations, this time involving the removal of the rear dress circle and reseating of the gallery. As talking pictures came into the cinemas in the early 1930s, theatre audiences began to fall away under the competition. At the same time it



A new future: the Grand Opera House, York.

was discovered that major structural repairs were needed to reinforce the framework of the building. It never rains but it pours goes the old adage.

Structural strengthening taken care of, the theatre sought then to strengthen its appeal to contemporary audiences by leaning towards acts which had become famous on the radio, and even the outbreak of the Second World War caused no discernible break in this programme. An increase in rates just after the war, meant that the Empire was put up for sale. It was sold to FJB Theatres who had been buying up the freeholds and leases to form a chain of outer London and regional variety theatres.

FJB steered the theatre further into the variety mould, and the programme tended to have a bias towards the 'naughty revue',

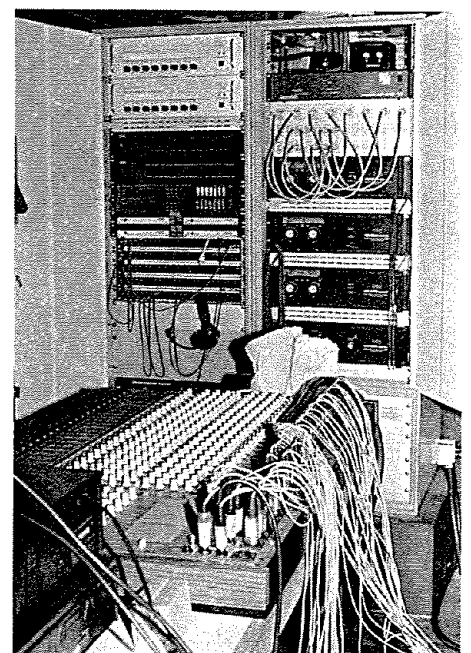
although it still presented a lively and quite varied repertoire. However, the audiences which now had television and increasingly sophisticated radio variety as alternative entertainment, continued to fall away.

The theatre was again offered for sale in 1955 and by early 1956 was operating only through the benevolence of its creditors. The final curtain fell on Saturday, 23rd June. After being withdrawn from auction for failing to achieve the right price, it was eventually bought in 1958 by Ernest Shepherd who determined to run the theatre as "one of the finest entertainment centres in the north of England."

His programme began with roller-skating and wrestling, for which he pulled out the stage and installed a maple floor in the stalls and stage areas. In an attempt to attract



David Haig, Grand Opera House technical manager.



Sound control with the Allen & Heath SRC mixer.

larger audiences, bingo became the staple fare, and continued until the mid eighties. The elegant interiors of the Opera House remained in the shadows, their majesty eroded by the passage of time. In 1985, the theatre was up for sale yet again. York City Council decided against the purchase because of the enormous cost of repairing and restoring the listed building and it fell to the India Pru Company to take on the £4 million restoration work. The company bought the theatre and adjoining lands in 1987 and commenced plans for a new development to include the total refurbishment of the theatre. The architect on the project was Gordon J Claridge of Henley on Thames with Theatre Developments acting as theatre and services consultants. The brief was to spare no effort in bringing back the theatre to its former glory under the original name "The Grand Opera House".

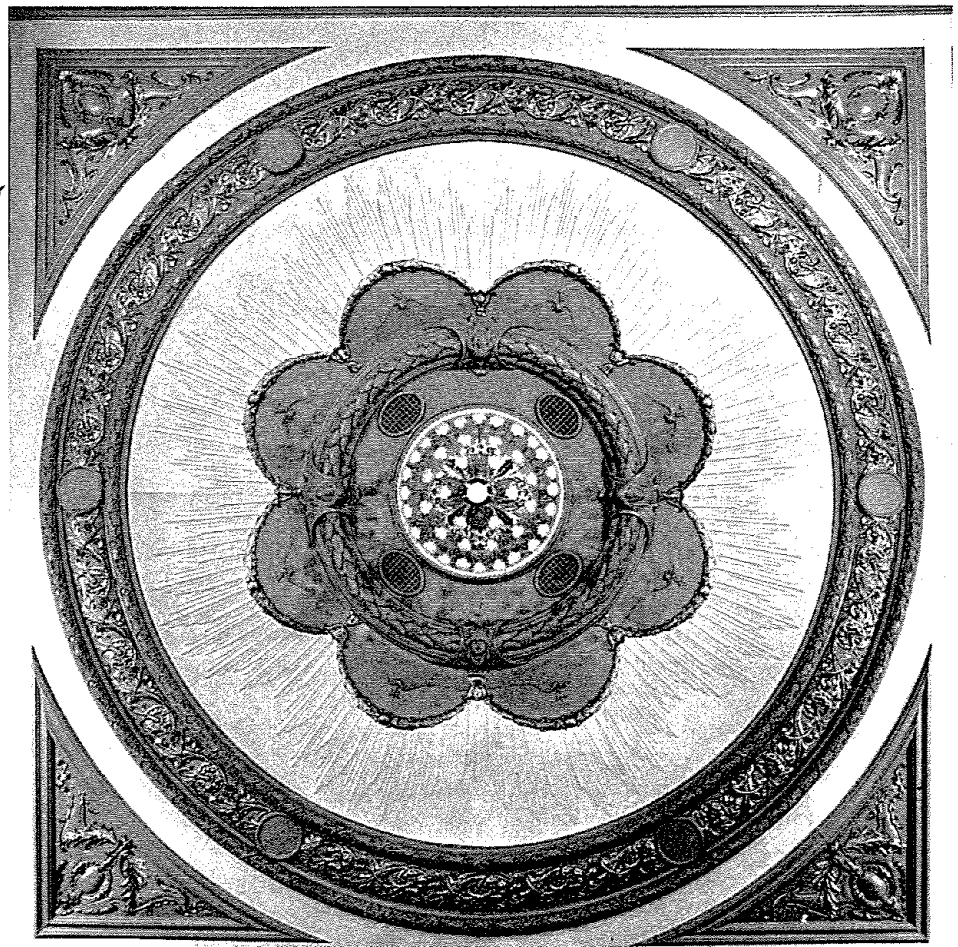
The stage has now been replaced, as have the boxes, and the stalls have been returned to their original purpose. The theatre's gallery has been re-raked and the whole theatre re-seated and redecorated. Specialist craftsmen have been called in to undertake the more delicate aspects of the refurbishment. For the first time the theatre is air-conditioned and, of course, completely re-equipped.

For the lighting, David Haig, the theatre's technical manager, specified Strand Cantata 1.2kW profiles and fresnels, and two Strand Solo 1kW follow spots are situated at the rear of the upper circle. There are 96 ways of Strand Permus dimmers, controlled by a 96 way Strand Lightboard M. Punchlites and Coda battens, together with other Strand lanterns complete the lighting. The specialist installation was carried out by Northern Light of Edinburgh.

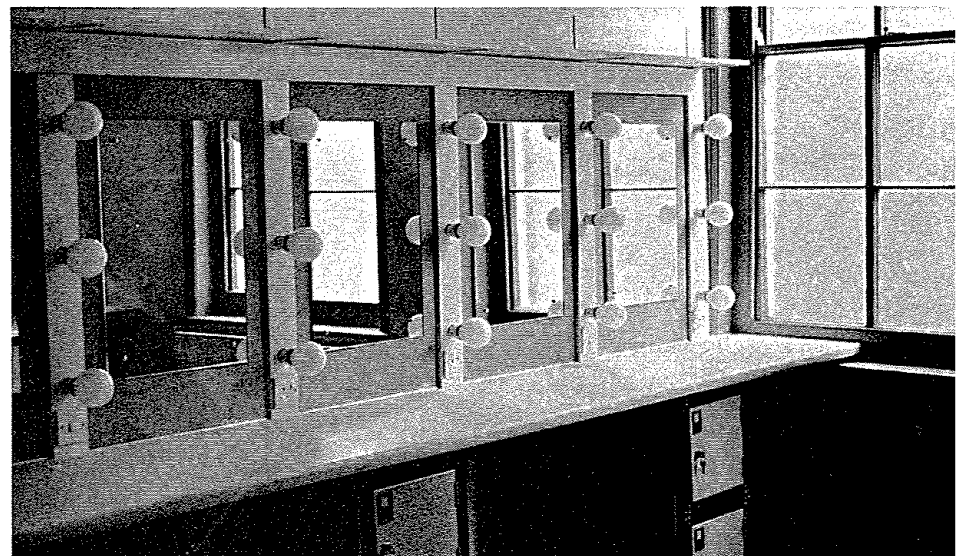
The in-house sound system is headed by an Allen & Heath SRC mixer positioned at the rear centre of the stalls, with H&H amplifiers. Toa speakers are positioned in the upper circle, the dress circle, the stalls and two 380 SDs are on stage together with SDM monitors. The specialist stage machinery was supplied and installed by Eurotracs of Norfolk.

The Prompt desk can be sited either SL or SR, and incorporates nine Q lites, two channel ring intercom (9 station), and calls to FOH and back stage.

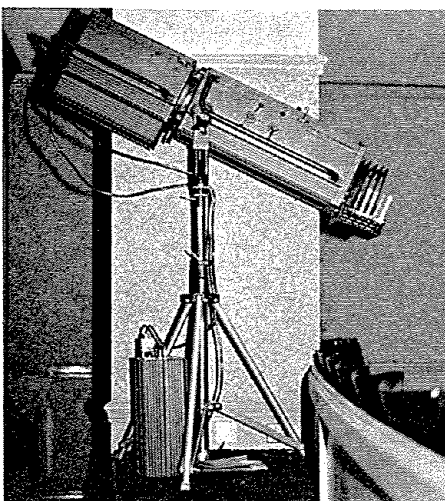
The changing nature of popular entertainment has taken its toll on the Grand Opera House over the years. Thankfully, the price exacted has not been too high. The theatre has come full circle and a fine example of British architecture has not been allowed to disappear.



The elaborately decorated ceiling has been carefully restored.



One of the six dressing rooms at the Grand Opera House.



One of two Strand Solo CSI followspots.



5 groups of 4 Strand Coda battens (500W) are located against the back wall (a further five groups act as the floor bar). Also in picture is a group of four Strand Punchlites.

It has to be Pulsar.

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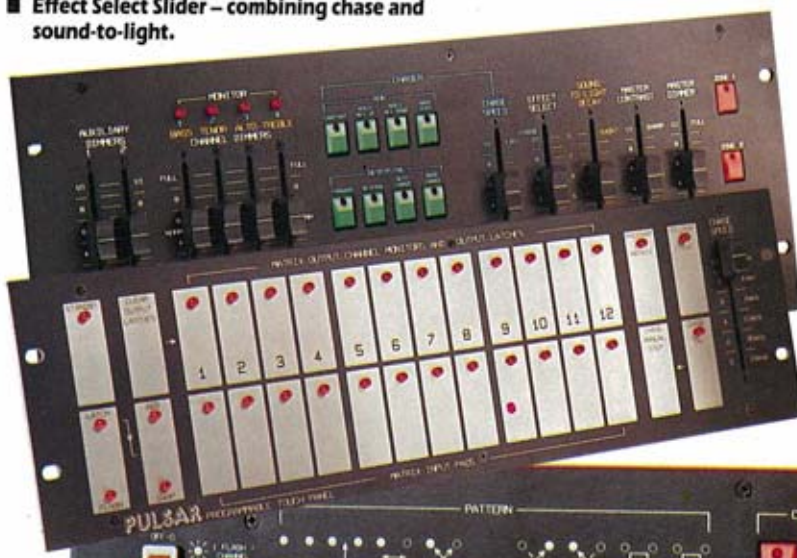
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LIGHT & SOUND SHOW 89

PLASA's Light & Sound Show has now come of age. Visitors and exhibitors alike left no doubts that they were impressed by the organisation and quality of the show, and the standard of visitor - most particularly from overseas - was a highlight lauded by all exhibitors we spoke to.

More expansion and improvements are planned for 1990. Olympia 2's basement area will be open, and it will give the Light & Sound Show a chance to expand further and at the same time service its exhibitors' requirements even better, with more choice of location and add-on facilities and attractions of all kinds.

But back to Light & Sound Show 89. L+SI set no less than six of its regular writers loose on the 150 or so stands, giving them a brief to cover specific areas of equipment and interest, but the freedom to wander and make comment as they so wished. So we make no apology for the occasional overlap in coverage.

SFX AND FUG AND ROCK-N-ROLL

Rumours that Tony Kingsley had finally fallen off his twig were swiftly confirmed when a substantial nursing sister was seen lurking with intent on the Avitec stand. A polite enquiry from this scribe as to whether this year's light show was so earth shattering as to require a medical presence, was met with a wince and a long distance look of the salt pillaring variety.

The poor chap was obviously in considerable pain following a fall from the lighting truss. "And the drugs don't help," bemoaned Tony, too young (?) to remember Woodstock, "I keep dozing off in mid-conversation with customers." It seems that even the excitement generated by Avitec's new Light Mover couldn't shake off such a terrible apathy. (We heard later that he'd broken a rib.)

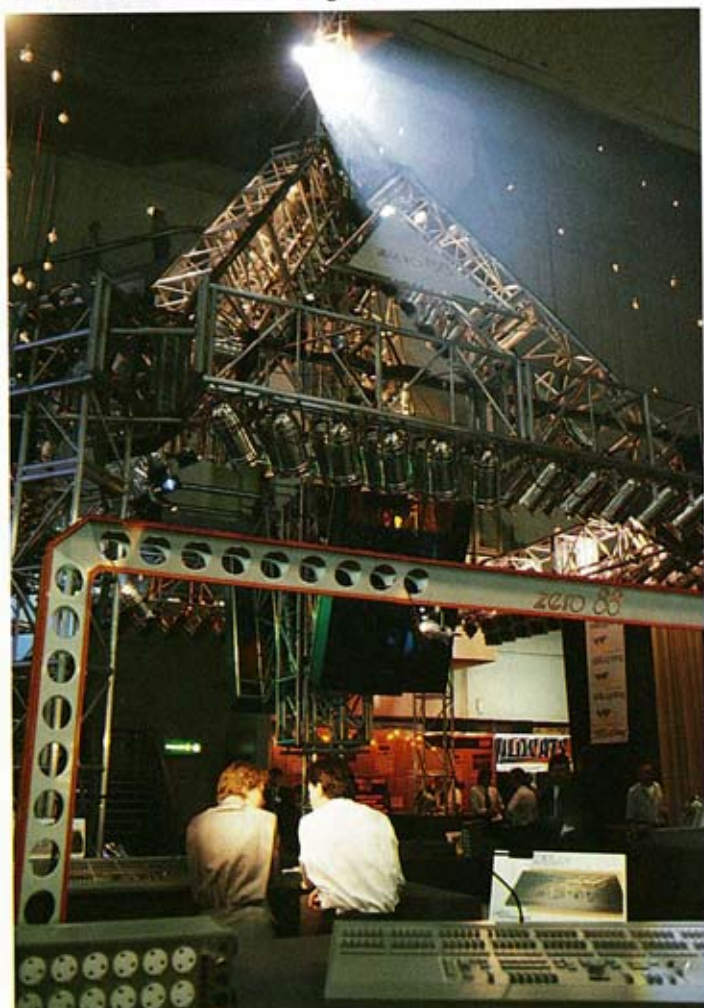
Zero 88 finally proved what it means to have a ground floor plot and used John Lethbridge's Presentation Consultants to design and build a high-tech beanstalk, from LSD truss, with the icing on top by Clay Paky Golden Scans fitted with gobos customised to Zero's product names Sirius, Orion etc. Freddy Lloyd played the part of Jack (the lad) with considerable aplomb, despite the absence of doublet and hose, and strutted about shaking orders from the branches. The new 48 channel Sirius desk certainly looks like sirius (sic) business and programmed for considerable success.

However, the reluctant stars of their parade were certainly the two giant gel scrollers which Light and Sound Design have apparently made especially for the Stones' tour.

Dodds and Lindsell did it again for Pulsar, with new material for their Golden spectacular from Oklahoma and the Blue Danube. (A plot for these shows is illustrated overleaf). Incidentally, these



Pulsar: "Dodds and Lindsell did it again."



Zero 88 with Betapak and Sirius 48 in the foreground and Pyrarig behind.



A scene from the Laserpoint/Optikinetics presentation.



Lighting Technology: typical of the broadening base of show exhibitors.

guys were much in demand, having also pre-programmed **Laser Systems'** display, a show which ran effectively without even requiring their 'hands-on' presence. Certainly its the best thing Laser Systems have ever done at a show and it showed off their new articulating lights to best effect in an integrated performance which included lasers, graphics and a scrim.

Next door, **Mode Electronics** were busily shifting their exposure from the volatilities of disco, to the safer haven of the hotel and architectural lighting markets. Shrewd move Mr Steward! Mode are introducing a range of remote manual dimmers and card operated security systems aimed at these areas. In addition, a well designed high spec compact power amp, known as the Otis Power Station, and directed at the professional studio market, was also unveiled.

Incidentally, the evening events were also dominated by the ubiquitous Golden Scans, which were strutting it over both the Hammy Pally Awards night, Camden Palace and Peter Stringfellow's farewell party at the Hippo. For the latter event Mick Martin of Axon Digital, the designers of Oska, had had some special music composed on a synthesiser MIDI keyboard especially for the occasion which, after a false start, supported a riveting lighting performance of those articulate articulating projectors.

Sitting with a touch sensitive TV monitor on your lap on the restaurant steps with waiters climbing over you with laden trays is hardly conducive to producing a great light show regardless of how drunk you are at the time! However, Stringfellow was impressed enough with the performance to come down from the Gods and play with it himself.

Congratulations to John McPhail's Enigma on winning this year's controller-of-the-year-award.

Talking about DJs-turned-lighting operators Mike Sax, from the Empire Leicester Square, was co-ordinating events on the **WB Lighting/Coemar** stand. And there was something most interesting here, quite apart from the brilliant Coemar Jupiter, for those who cared to look closely enough. An interactive lighting system by Live Wire Systems had been taken on board by Mike Wood to create a focal point of interest.

This development, which I have followed with keen interest for three years, at last looks to be cracked - and I congratulate Nick Bourne and his team at Dartington Hall for their tenacity and achievement. Principally aimed at the touring market, Live Wire uses dopplers and infra-red detectors to enable a performer to trigger a lighting sequence or event (or of course it can be a musical sequence), simply by his position on stage. For the first time the performer can become the variant in the lighting plot and thus in complete command of his own visuals. However,

what I found fascinating about this demo was the strength of its potential in disco where, through the additional use of MIDI via a synth or a lin drum, the light jockey can become a real performer for the first time. (Carl Dodds reckoned he could get into that after a few beers). So forget hands-on, and get-down to real sound-to-light as Fred Bentham, originator of the light organ in 1932 (he called it 'the light console'), always intended.

Elsewhere things are on the move in the video world. Potentially, the most impressive development is probably **Tecnation's Bit Bopper**. Based on a graphic simulation of a space age VCR player, whose controls actually work when driven by a mouse, the Bopper snatches up to 58 video frames in RAM and turns them into interactive effects from various generators. Centred on the Acorn Archimedes, which has fast graphic blippers on board and uses RISC technology, the Tecnation interactive video system certainly has future value once a production unit is refined and their commercial arrangements are formalised. In particular the projected price is perhaps a barrier to the current marketing of what, in practice, still a development system. However, it was good to see the product being exposed at PLASA at an early stage to allow input from the business.

Such exciting efforts deserve our enthusiastic support. Further, it performed well under the nervous command of inventor Alex Blok, in between the rock and the hard stuff at Hammy Pally on the Monday night. I am sure we were looking at a future award winner.

High flier Colin (Biggles) Mitchell was much in evidence with **Cameron Video** and keen to press the case for the Zero 88-made touch panel which now successfully interfaces with their own programmer to make instant access for the operator a reality. Although not exhibiting, David Kerr of Electrosonic, one of John Offord's guests on Sunday night at the well attended PLASA dinner, tells me that there are exciting things to come from them in the video wall department. So watch this space. And it had better be good, since Bob Simpson, the company's founder is writing THE definitive book on video wall for Focal Press, whose latest publication featured amongst the comprehensive range of titles offered by the Book Bazaar who turned their display on L&S's stand into an amazing commercial success.

Laserpoint, suppliers of the Pixelite video wall system, hid their light under **Optikinetics'** bushel, sharing both a showroom and a hospitality suite. Although lacking the normally expansive humour of the gregarious John Jeffcoat, labouring under an attack of salmonella poisoning. (too much foreign nosh John?), some of the best jokes of the show were heard there during a late night raid by Mick (blow smoke up my arse) McManus of Le



Ron Turpie and Sussi Christiansen present Laserpoint's new Aquarius, their 'ideal laser controller'.

Maitre (none of which is printable - Ed). It was noticeable that the Opti's Trilite CAD system was generating its own smoke working overtime on the stand churning out drawings on its A1 plotter.

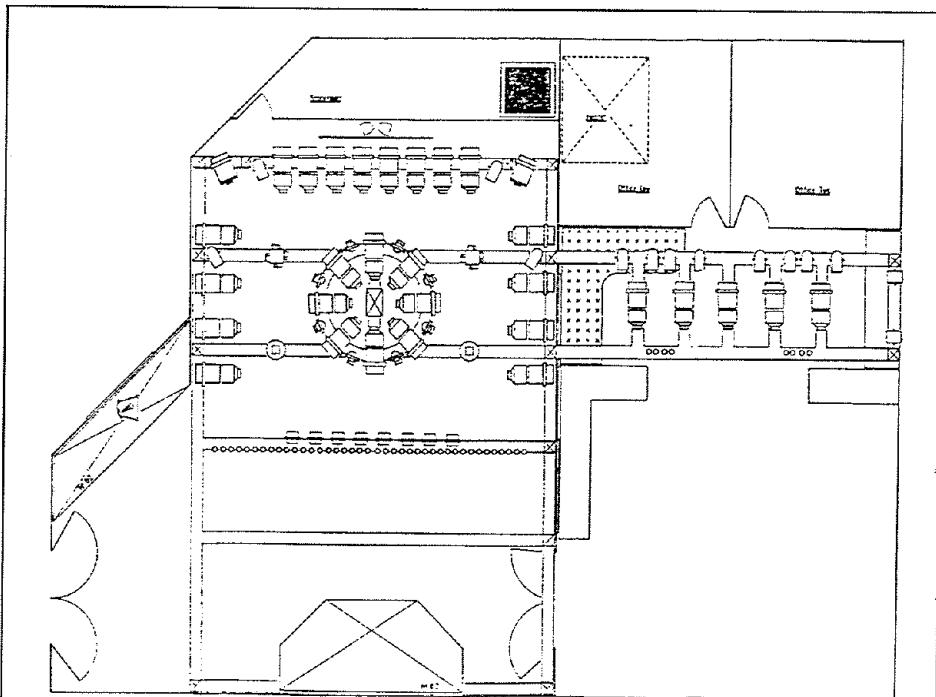
In a dark corner of the hospitality room Andy Holmes and Sussi Christiansen had squirmed away a demonstration of the new Laserpoint Aquarius. Billed as the dawn of a new age in laser control, Aquarius resulted from a poll of Laserpoint's customers as to what their aspirations were for the ideal laser controller. 18 months and £250,000 of development cash later, we have an illuminated tactile splash-proof membrane keyboard packed full of so many facilities that you really must wrap your eyes around the brochure to fully appreciate them.

I was particularly impressed to note that RS 232 and MIDI I/O interfaces come as standard, something which had proved impossible with the old Aries when Andy and I sat down to try and create the first integrated control system some six years ago for the Hippodrome. To describe this board as user-friendly would be an abuse of mid-Atlantic jargon, you've got to get your hands on it to find out for yourself. And the wonders of modern technology make it possible to market this machine at £3,000 less than the old model, for 30 times the fire power, fully discountable to provide traditional dealer discounts normally much smaller for laser products. I feel sure a video version is just around the corner.

As I had motorised light curtains on my shopping list, I was relieved to find **DHA** promoting a thoroughly robust model based on the Thomas slim line Par 56 light curtain, the nine lamp version of which accepts an M&M 11 colour scroller. Drive is provided by a servo, providing high torque and positive braking, and which will apparently happily drive up to six curtains in a line.

Another item which required close scrutiny was the Major graphics software package from Germany providing control for **Clay Paky Golden Scans** from an IBM AT compatible PC. Based on GEM Desktop, the package offers trackball or mouse control and a very logical and simple method of grouping instruments on-screen and combining focus information to a common target. Although very expensive at £3,000, bear in mind you still have to buy the PC and monitor, it does offer a middle priced alternative to Oska at the one end and the Pulsar BBC at the other, while suffering from the same speed problems of the latter since it used the same RS 232 transmission protocol. It also shows one possible way forward as a solution to the continuing problem of programming driven lighting.

Meanwhile, the world's most expensive smoke machine, or was it just hot air, in the shape of Nigel Morris's Ferrari, was parked right in the middle of **Jem's** stand. One solution to the parking problem during the show! What this was meant to prove, apart from raising queries about the prices of their products, I am not quite sure. Doesn't Nigel realise that we don't much like successful people in this country, unlike the US where suc-



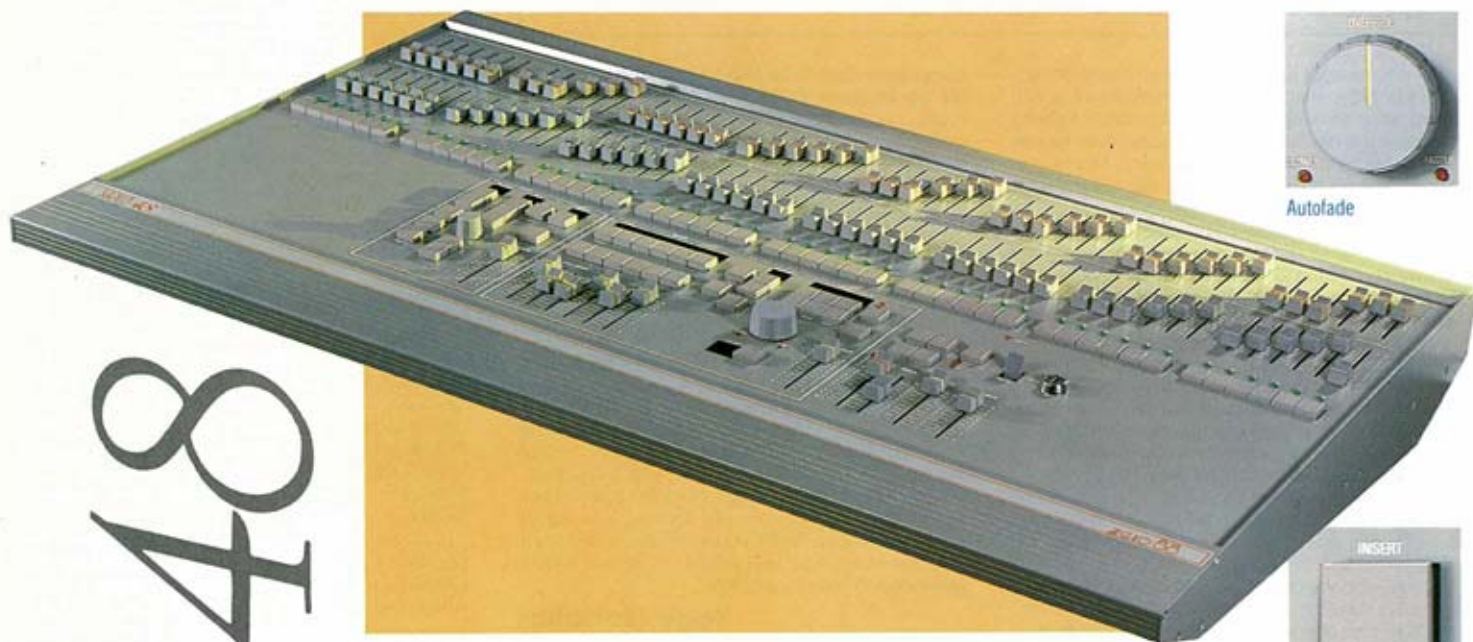
* Stand layout and lighting plot for Pulsar's stand featuring 24 Clay Paky Golden Scans.

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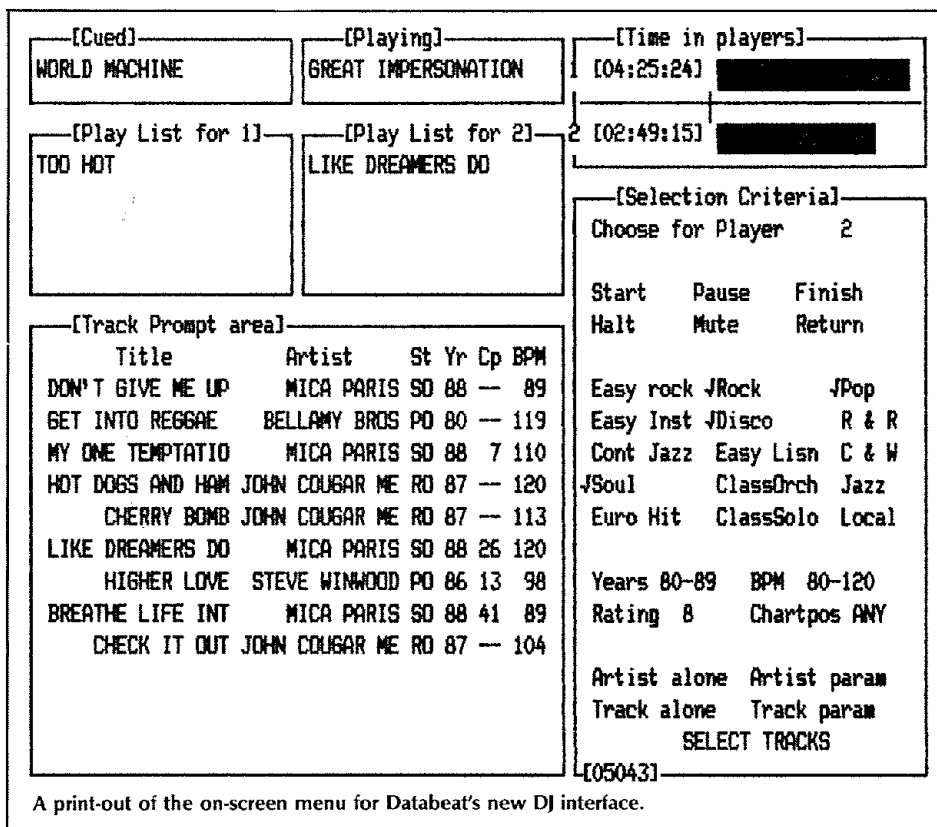
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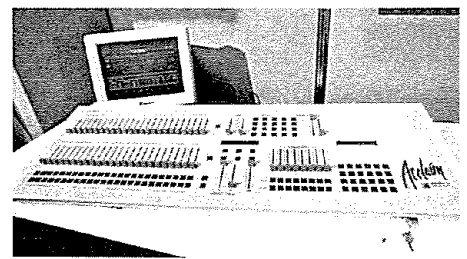
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A print-out of the on-screen menu for Databeat's new DJ interface.



'Acclaim' on the CCT/Furse stand.

to Geoff Kington about Oxtron's new Light Conductor. This is a small 'hands-on' 16 channel controller for the CL600 memory system and it converts at the touch of a button from a conventional theatre memory desk to an effects desk with chases to an architectural desk with zoning and balancing, and there is a useful LCD help menu at each step of the way. Oxtron write their own software so new programmes are easily incorporated and the system is well priced at £725. It looks ideal to me for a wide variety of small venues and especially those with a variety of function areas, such as restaurants with a small disco floor or cabaret space, fashion houses with regular collection launches or exhibition centres.

Another new system is the Concept from Artistic Licence; this was displayed by Mushroom Lighting, its first agents. Artistic's Wayne Howell explained that Concept is a 12 way 2 preset desk patchable to 100 dimmers and there are facilities for flash, solo, strobe and latch. Eight chases are available and the system will interface with MIDI, its own protocol being DMX512; the system from Mushroom will cost £1,135 (list). Furse on the CCT Theatre Lighting stand launched the Acclaim system, a 24 to 48 way concert desk with 16 pages of 48 memories and one of the first in the UK to offer compatible IBM disc storage.

Zero 88's Peter Brooks explained to me that whilst many products on display were not strictly new they were nevertheless "new to the market place" and clearly their 'relaunch' at the show was popular. In this category comes the Zero 88 Sirius 48, the Avolites 500TD (now with DMX512 for the first time), the Strand Lightboard M Junior and the Celco range, the first time this company has exhibited in its own right at Plasa.

Strand also introduced the Gemini 2 which has now been upgraded to 360 channels and hence can now access a second colour monitor. The desk will now talk to the PALS range (via an IBM PC). It will also set up non-dim circuits and, if Strand are notified in advance, the Gemini can also offer some of the Galaxy's fade profiling facilities.

Regulars to the Plasa show will know the popularity of the Pulsar lightshow featuring the GoldenScan and controlled by the unique Oska which also showed its paces during the run of the show at special demonstrations at the Camden Palace and the Hippodrome where it was operated by its designer Mick Martin. However, I suspect that Oska will no longer have the floor to itself, because the most interesting control of the Plasa show, the Enigma, looks like being a very strong rival. Enigma was shown on the Mode Electronics and WB Lighting stands. The system was created by Advanced Lighting Systems and their John Macphail explained: "This is the first desk to talk to everything including lasers, videos, strobes, neons, hoists and scanners; we provide 0-10, midi,



Lawrie Taylor-Duncan (left) and Nigel Morris of JEM: came up with a cracker.

cess is lionised? I just hope it runs on unleaded. Incidentally, that made me think what a rich seam of marketing talent for the disco lighting business the old Roger Squire organisation turned out to be. Witness: Adams, Kingsley, Morris and Morris and probably others who slip my mind for the moment.

I was personally delighted to discover that Lynx Lighting have at last conceded to reality and are slowly converting all their excellent devices over to 0-10v control so that they can be addressed by industry standard controls. Nick Searle has confirmed that his phone has been ringing non stop ever since. As I pointed out, if he had listened to me in the first place, he could have spent PLASA week flat on his back in the Bahamas. Never mind, I particularly liked the humorous touch of his twin motorised truss section, christened 'wobble bar' by this correspondent. This truss section has a separately controllable motor at each end enabling the bar to dance around like a marionette's handle. The effect with a few lanterns on board was particularly amusing.

I must also welcome the DJ interface extension to John Leefe's Databeat CD system, which enables the operator to make a choice from a

computer selection of the 10 next most compatible tracks. Some DJs will find this unfamiliar territory, but I can think of many situations where such a system would be a life saver. The first of these I have been able to spec comes on stream this winter and I shall be watching it with interest and reporting back to L+SI readers on its progress.

In conclusion, I think it is fair to say that the PLASA Light and Sound Show has not only come of age, but also achieved a maturity in a short time scale which means that it must be taken most seriously by all concerned. I was particularly interested to hear the idea floated that ABTT might join in and give up the overcrowded and impractical Riverside Studios. I feel sure that if they were given a separate floor to themselves, as indeed for the sake of our sanity so should the audio boys, they would be able to retain most of the original atmosphere of the old boys' club, while gaining many benefits from the association.

Just for once, I am actually looking forward to next year's show. And if you knew just how hard it is for me to say that, you would realise that it's the greatest accolade I can offer.

Tony Gotteller

CONTROL AND EFFECTS

Readers may be aware that I am currently compiling surveys for L+SI on memory lighting control and on fog and smoke machines, consequently these were the areas on which I concentrated my attention at the Plasa Show.

The lighting survey, which L+SI will feature in a few months' time, currently comprises an incredible 58 memory systems which are on sale in the UK, the Plasa show has now added another 10. It staggers me how they all think that they can make a living in such a competitive field, but newcomers Lightpower (no UK agent as yet) are not aware of the task ahead of them. Managing director Ralph-Jorg Wezorko told me: "We know that our systems must be good to compete here, we are very successful in the rest of Europe so the UK is a real challenge to us and we are offering very competitive prices". Lightpower's systems all offer manual presetting with memory control and varying degrees of chase (with up to 100 chase programmes on the largest systems). On display (all looking very well built) were the MA-Lightcommanders 24 and 48 and the impressive LCD which can control 60, 90 or 120 channels.

Over on the AC Lighting stand Bob Gordon introduced me to the Great American Market's new

Panache control system which, although conceived before the Access, came out after it, largely because the Access must hold the record for the fastest development on any control system - "six months from concept to hard fact". Panache was designed by the same hand that created the Kliegl Performer 4 and it could have been the Performer 5 had Great American not become involved and then added many more features such as macros, still a rarity on UK desks. Panache also boasts one of the clearest colour VDUs I have seen. Bob told me the system will be "more than competitively priced". Also on the AC stand Paul Mulholland introduced me to the production model of the Jands Instinct 48, "very competitive at around £4.5k", and the prototype/production model of the Jands Instinct 60/72. All these systems are manual/memory with preset or group masters and some chasing. Clearly 'competitive' was this year's buzz-word at Plasa!

I have written before in L+SI of the (unreasonable) demand from exhibition reviewers for exciting new products about which to write; unreasonable because with over 150 stands (and a multitude of similar shows in the same year) it is ludicrous to expect a new product on every stand, every time. Nevertheless, many companies did introduce new products and it was a delight to talk

rs232, DMX512 and we can create interfaces for specials like ColorRay". The system controls 512 dimmer channels plus 256 switching channels and additionally can control up to 64 intelligent spotlights plus a host of other effects devices. Key features are realtime joystick, realtime recording and 128 realtime fast response touch keys for any assigned channels, memories, sequences or effects. Enigma is also one of the very few controls with spillproof fascias. Perhaps that will catch on as will the variety of protocols which Enigma offers, unless that is, the industry heeds Strand's call to a superstandard such as SMX, and certainly this year's show focused more attention on protocol and each dimmer manufacturer offered alternatives.

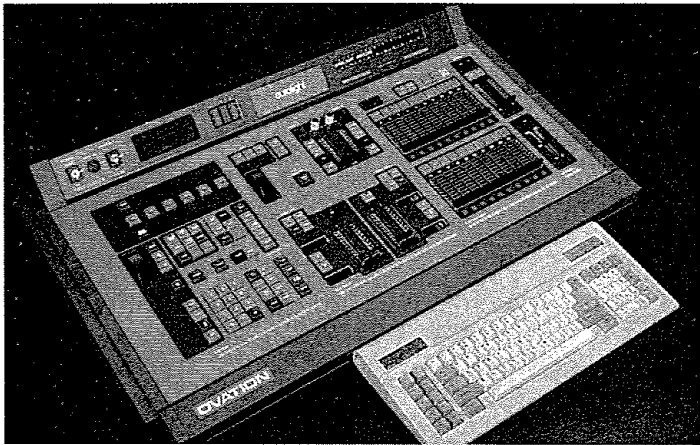
My wonderment at the range of control systems is only slightly lessened when I look at the dimmer market. The six channel pack, often fitted with dimmer faders is now a standard in the small venue and education market and aiming their products in these directions were Strand, **Lytemode**, **Eurolight**, **Artick**, **Lee**, **Light Technology**, **Zero 88** and **Multiform** - a good selection. Of particular interest is Lee's cord patch system which can be rackmounted with the dimmers for additional

safety. The Lee Powermaster series looks especially versatile because it offers a wide range of capacities and socket outlets, either linear or square law dimming, + or - control signals, DMX512, AMX192 or D54 protocol.

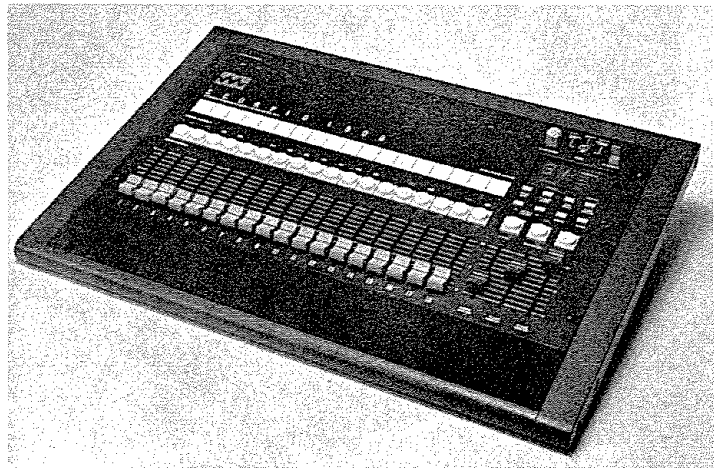
Artick is new to me, but their new range was attracting much interest. "Considerable interest" is also how Lytemode described the response to their new Gold and Green label members of the Green Ginger range. This sounds like an understatement to me considering that the first batch were sold out before they were even launched at the Show! I have not seen High Density dimming in the UK before and this was available on the CCT stand, courtesy of Furse - imagine 96 20A dimmers in a space 48" high, 34" wide and 24" deep! The Furse dimmer ranges offer DMX/SMX compatibility, plug-in rack mounting, and square law dimming. The high capacity and ease of digital control makes such systems ideal for installations where a high degree of soft-patching is likely. This format is still more popular in the US than in the UK, but the practice is growing here.

So to projection and the 'product of the show', or at least according to Francis Reid, and folks, it

doesn't flash or chase, and it doesn't need a plug. I am speaking of the Toshiba guide to the illumination data of Pani's projectors which consists of a cardboard chart with pivoting plastic reference line - simple, cheap and very easy to understand. Pani's new BP6 Gold was on display on the AC Lighting stand and provided all around with the coolest spot in the show thanks to its airconditioning. The Pani range you'll recall is the only range of projectors that you'll need to dim to balance the lighting, instead of the other way round, and the BP6 continues this excellence. Another new projector is the 2.5kW effects unit from CCT which is designed to use the industry standard effects wheels, slide carriers and lenses. (Thanks to White Light these are having a new lease of life). Effects specialists **DHA** have recently moved to Vauxhall and this has enabled an extensive overhaul of the whole range, excellently described in their brochure, and if you are at all involved with projected effects you cannot afford to be without a copy; recent developments from DHA are an extension of the gobo and effects range to include a variety of additional instruments such as the Lee Windsor range and Neithammer equipment, also **DHA** are now making Cibachrome



Ovation, one of Eurolight's wide range of computerised lighting control systems.



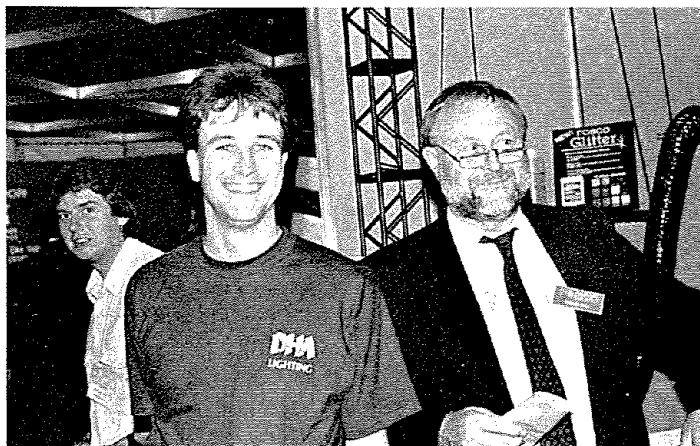
Multiform Lighting's Scorpio 18 channel programmable rock board.



AC Lighting's David Leggett (left) and L+S's John Oifford take in some fresh air courtesy a Ludwig Pani BP6 Gold's turbo cooling system.



Zero 88's Peter Brooks (left) during a hands-on Sirius demo.



Lighter side: DHA's Robert Menzies is amused, but Rosco's Michael Hall had nothing at all to do with it.



Joaquin Bracero of Turborent, Madrid, with Catriona Forcer on the Celco stand.



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The ROADIE has an enormous output 10 to 15 times greater than a conventional smoke machine. The ROADIE can fill an area of 450,000 cubic feet in under four minutes.

The ROADIE has a rear drive 15" 4,000rpm fan which throws the smoke great distances. It also has a specially-designed front grille to disperse the smoke, so there are no static thick clouds.

The ROADIE is tough, rugged and dependable and has a five year guarantee.

SPECIFICATION — ROADIE

- ▼ Five Year Guarantee
- ▼ 19" Rack Controller
- ▼ Variable Output
- ▼ 450,000 Cubic Feet Capacity
- ▼ 35 Litre Tank Capacity
- ▼ Air Dispersal Vents
- ▼ Fly Hooks
- ▼ All Electronic Control
- ▼ All Stainless Steel Interior
- ▼ 15" 4,000rpm Rear Driven Fan
- ▼ 60amp Single Phase or 3-Phase Supply
- ▼ Fully Flight Cased

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PYROTECHNIC & SPECIAL EFFECTS CO. LTD**

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ANOTHER CRACKER FROM JEM

The CRACKER cracked oil smoke machine produces a mist which is virtually invisible to the human eye until it is hit by a beam of light. The CRACKER lends itself perfectly to Laser Shows, Live Concerts, Film, Television applications.

The CRACKER does not need to heat like a conventional smoke machine, but instead produces minute particles of cracked oil, one-twentieth the size of a strand of human hair.

The CRACKER fluid has been specially formulated by JEM to leave virtually no residue. The CRACKER is tough, rugged and dependable, and has a five year guarantee

SPECIFICATION — CRACKER

- ▼ Five Year Guarantee
- ▼ Fully Flight Cased
- ▼ Up to Four-Head System Available
- ▼ Remote Control
- ▼ Fan Assisted
- ▼ 10-Litre Tank Capacity
- ▼ Fly Hooks

STOP PRESS

JEM HEAVY FOG MODEL 500 &
JEM PYRO PACK PYROTECHNIC SYSTEMS
AVAILABLE JANUARY 1990 FROM
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HEAVY FOG — MODEL 2500

- Features:
- Heavy Duty Low Temperature Freezing Plant as used in the successful Model 6500.
 - Hand Held Remote Control with Automatic Timer.
 - Facility for 2 x 5 litre containers of Heavy Fog Liquid.
 - Fan Assisted Output
 - Five Year Guarantee



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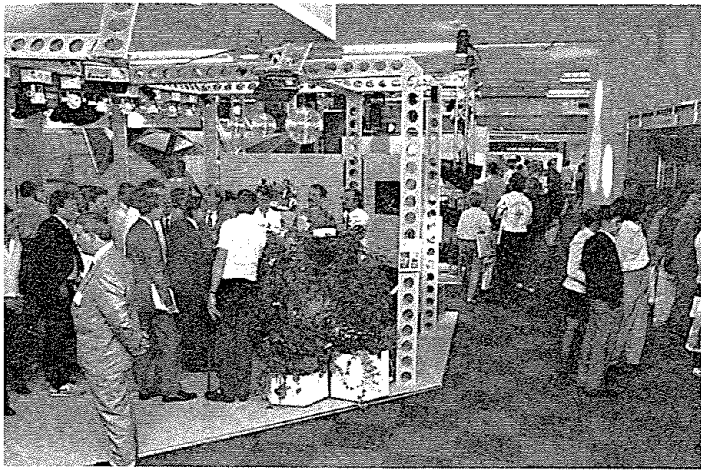
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Tel: (0790) 54050 Fax: (0790) 54051
Telex: 37207 JEMSMC G

HEAVY FOG — MODEL 1500

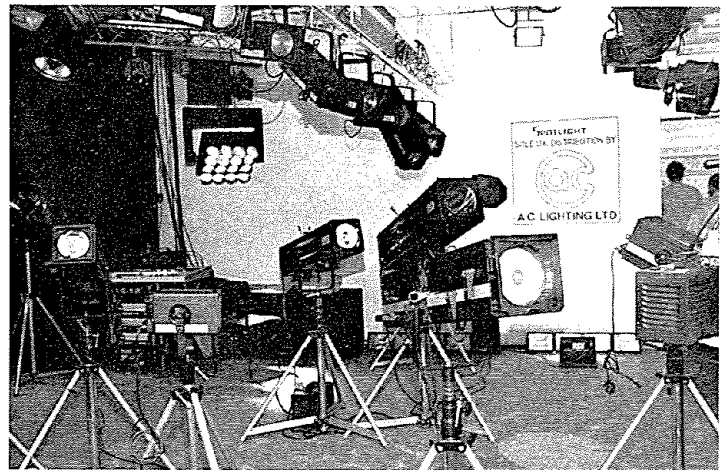
(To be used in conjunction with any JEM Smoke Machine)

- Features:
- Heavy Duty Low Temperature Freezing Plant.
 - Can be used with a JEM Smoke Machine which has a remote facility.
 - Hand Held Remote Control for overall control of Smoke Machine + Model 1500.
 - Fan Assisted Output
 - Five Year Guarantee

**JEM'S
NEXT
GENERATION**



Le Maitre: "too busy".



The Spotlight range, distributed in the UK by AC Lighting.

slides and loops for Pani projectors and for use in colour scrollers where it can be used for gradually changing washes. Interesting!

Filter specialists **Balzers** this year drew my attention not so much to their well known dichroic colour filter range, but to two specialist filters for removing heat or UV, useful in catering, museum and other architectural lighting situations. I suspect that theatre people spend so much time thinking of filters purely in terms of colour that we forget they can also be used for other purposes.

Smoke is a fairly new area to me and so I was grateful for the time Jon Petts of **Jem** took to take me through their range. New to Plasa were the **Jem Cracker**, believed to be the first time a 'smoke machine company' has taken this device up, and the **Roadie** - which is a very heavy duty touring machine completely flight-cased and wheeled and designed to simultaneously reproduce the output of several other machines. Also new are the **6500H** - a smoke machine flightcased for the hire market, the **2500** - which specialises in Heavy Fog; the **1500** - which provides Heavy Fog refrigeration; and the **500** which is a small portable self-contained unit. **Jem** are also launching the **Jem Theatrical Supply Company** which will offer hire

of the complete range of theatrical equipment including lighting, sound, drapes, costumes and makeup. Smoke isn't easy to sell, it doesn't flash or make noise and you can't use too much - so **Jem** attracted especial attention to their stand by means of a red Ferrari; but as Jon affirmed, what do they do next year!

Having received so much help from **Jem** I was sorry not to be able to talk to anyone on the **Le Maitre** stand, but despite six visits they were too busy (at least that is a good sign). **Le Maitre** this year were showing the **Power Mist Turbo** "probably the smallest high-powered smoke machine available", the **LSX** low smoke converter which, with the aid of a power mist or smoke processor, creates a low-laying cloud, and finally the **Pyroflash 1000c3D**, a multi-effect firing system. Smoke and 'heavy fog' were also offered by two of the Association of Italian Discotheque and Theatre Equipment Producers, namely **Program-System** and **Music and Light Production** and we will try to have more information on their products in our smoke survey. Another name new to the UK market in this connection is **Lightpower** who are well established in Germany, and an interesting feature of their products is a

temperature storage facility which enables the machines to maintain their output "for several hours". **Lamba** also made some interesting claims for their **Martin** range of machines. **Peter Johanssen** spoke of their "safest fluid" and "fastest startup time". "The Reel Thing" was how **Michael Goldberg** of **M&M** spoke of his company's new cracked oil machine; the **Junior Fog Machine** from **Reel EFX** in Hollywood, this is the original machine as used on the Academy Awards and the Neil Diamond Tour. Of course **Rosco** are synonymous with smoke, and the company have now launched a chiller module which acts as an accessory to the company's model 1300 or 1500 machines.

Overall impressions? Bigger, certainly noisier (but then I am getting older) and with much more to see, and offering a higher percentage of new product than at any other UK exhibition. But there seemed to be some debate in the bars about how close the theatre, disco and club markets were getting, and whether a true crossbreed of client, technician or venue existed. It seems to me that **Plasa** is one show that no serious manufacturer or technician can realistically ignore whatever label they put upon themselves.

Graham Walne

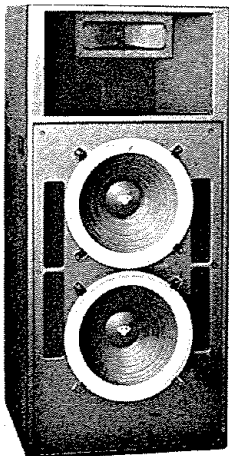
SOUND AROUND (1)

On **Avitec's** stand, the crowds were gathered to hear compere **Alan Reid**, ably assisted by **Tony Kingsley**, demoing new amplifiers from **Dynacord** and speakers from **Cerwin-Vega**. **Dynacord's** **PCA** series 'processor' amplifiers were on view for the first time in the UK. They look superficially similar to 'version 1', which was shown at Frankfurt in 1986. But the new edition contains **Dynamic Signal Processing**, an intriguing development which is intended to correct the time/phase distortion caused by speaker cabinets. Going by **Dynacord's** brochure, 'DSP technology analyses and dynamically accelerates the decisive sections of the sound spectrum. It eliminates the disturbing impurities and distortions in the transient response of speaker cabinets without producing irritating sound colourations'. Hmmm... the **PCA**

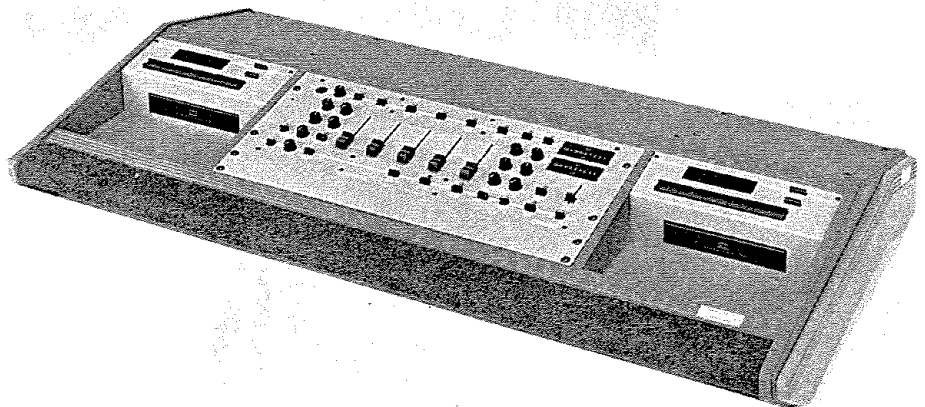
series also incorporate 'TBC', **Dynacord's** **Thermal Brain Circuit**, which is designed to emulate temperature rise in loudspeaker voice coils without needing external feedback lines, and controls the maximum output accordingly. The largest **PCA** amplifier has four outputs and contains flexible **Linkwitz-Riley** (-24dB/octave) crossovers. The 'Thermal Brain' means that maximum output can be selected to match to the speaker's power handling. The **PCA** amps are also amongst the first to be fitted with **Neutrik's** **Speakon** connectors, which replace **XLRs**, carry up to four 2.5mm² conductors, and provide greater safety. Moving on to **Cerwin Vega's** new **CVX** series, **Cerwin Vega's** brochure reminds us that 'Loudspeaker systems with exceptional performance are not the consequence of the discovery of new laws governing the physics of acoustics. Rather, they are the culmination of years of

painstaking research and development'. The new range are all 3-way enclosures, with 1" throat hf compression drivers with titanium diaphragms and 2" throat mid drivers with phenolic diaphragms. The principal differences are in the bass: The junior model, **CVX/153** has a direct-radiating 15" vented arrangement. The bass driver complement is doubled up for the **CVX/253**, while the **CVX/H183** is fully horn-loaded, with an 18" unit, coming in below 350Hz. All the cabinets have a 4 position midrange attenuator, and nominal 75° x 75° dispersion.

Audilec have consolidated the distribution of **RCF** loudspeakers. Over the past decade, a series of companies specialising in supplying **RCF** units to PA companies and for music installations have come and gone. Anyone remember **Covmain**? Until now, **Audilec's** own distribution of **RCF** has been low-key, and mainly focused on supplying



The Cerwin-Vega CVX/253 from Avitec.



Citronic's new Compact 2000 CD console.

commercial systems. But from now on, they're handling the whole range. New drivers from RCF include model L6L380, an 8" midrange unit with a carbon fibre cone, and N-482, a 1" compression driver with a titanium diaphragm. Audilec were also showing a range of budget power amplifiers and good-looking 'personal' mixers, from FBT, a less well known Italian maker. Audilec's John Spurling reports that FBT's larger, DX332 mixer is a big seller, perhaps because it contains a digital reverb with 127 presets. Alongside was a micro-sized DJ mixer from Audio Technica. Up the other end of Audilec's stand, RAMSA's commercial sound division was busy demonstrating PC-driven software intended to help installers optimise the placement of RAMSA's interior sound system speakers (see L+SI Feb '89).

Britannia Row's pro-division were displaying Klipsch PA speakers, a Ramsa S-840 series console, and Toa's Saori processor. Andy Simmons reports that the Ramsa consoles are selling 'like hotcakes'. At first, it had been expected that the stage monitoring versions would be the best sellers - because good monitoring consoles are so few and far between. But the front-of-house owners club is now gaining members, including Richard Lienard at Soundhire; the company already owns an S-840 monitor desk, but has just taken delivery of the matching front-of-house board. Further f.o.h. consoles are being evaluated by Derrick Zeiba at Theatre Projects and Tim Sunderland at Audio Lease. The Klipsch PA speakers are also out on demo, but they've yet to 'break' in the US, let alone the UK. It remains to be seen which hire company has the nerve to try it out on a major tour. Saori is Japanese for 'Beautiful Woman', but to you or me, it's a PA processor operating in the digital domain. Three weeks before the show, Pro-Brit Row's sister company, Britannia Row Productions put the unit through its paces with Bon Jovi and other acts at the Milton Keynes Bowl. The Saori's ability to provide delays in increments of microseconds was put to good use by Turbosound's John Newsham, being used to align Britannia Row's TMS-3 f.o.h. cabinets, as well as acting as the outfront crossover. Andy Simmons reports the unit is now available from Pro-Brit Row in limited quantities, with the full version (all modules fitted) costing about £5½k.

After launching a group of new power amps with integral limiters last year, **Cloud Electronics** have been inundated with orders. Having just moved into a larger factory and having taken on extra staff, the company expects that delivery times will soon return to being as quick and competitive as usual. Discomaster 700 is Cloud's new mixer, with a VAT inclusive retail price of just £250. Even at this price, there's a 5 band music EQ and a 3 band EQ for the mic. When I arrived, Dave Hoffman, mid-morning presenter at Bury St. Edmunds' Saxon Radio had been left in charge of the stand. He's an ex-Cloud employee (going back ten years) and an endorsee of Cloud's mixers - he's been DJ'ing with them ever since.

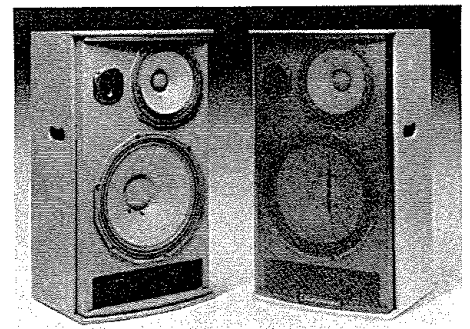
The ever resourceful **Citronic** had three new products. The Compact 2000 is a CD console for mobile DJs. Production begins in December. The twin onboard players are based on the Philips (European) system, with 4x oversampling, like the best Hi-Fi units. A specially modified mechanism stabilises the discs against vibration, as well as providing an instant start facility - unlike ordinary domestic players. The console comes fitted with one of Citronic's standard mixers, either SM350 or SM450. Their XF100 crossfader module is optional, and ordinary turntables can be plugged in if desired. For high quality fixed installations, Citronic can now offer the SM550, a stylish mixer with extensive facilities. Production begins in Jan '90, and their established XF-150 programmable cross-fader module can be retro-fitted to smooth complex multi-source mixes. SL100 is Citronic's response to impending legislation which aims to curtail sound pressure levels in public places, as well as protecting PA systems from abuse and costly damage. It's available as from now. The controller works like several others: when the preset SPL has been exceeded, and the timed warning light(s) have been ignored, the drive level is attenuated. The amount of attenuation is set by the installer, who can also define the warning period, before attenuation occurs. An 'Empty/Full' switch allows the management or responsible operators to switch between two thresholds, so the preset maximum can be set lower for, say, un-

crowded conditions in the early evening. There's also a priority mic facility for emergency announcements. In operation, the DJ is presented with four indicator LEDs, which show the sound level, viz Low, Normal, High and Excessive. Calibrated detector systems will be available once the UK and West European legislation on maximum SPLs is finalised.

Farrahs' Paul Farrah reports that the Apogee powered speaker system is taking off slowly but surely. Apogees have recently been fitted into Sunderland's Empire Theatre. Farrahs can also offer a range of miniature, low cost speakers with integral power amplifiers, made by Anchor in the USA. **First Audio** (on the Turbosound stand) had one of Crest's new FA series of installation amplifiers on their stand. Their cost is slightly lower than the standard 'touring grade' versions. In turn, the chassis is lighter and unsuitable for road use, while a thick film (hybrid) circuit board has tidied up the input circuitry, leaving the inside less cluttered. Also, the output protection has been simplified to the less stringent needs of installations, but the provision of an anti-clip limiter and the retention of the heavy duty mains transformer (familiar in Crest's touring models) should make these amplifiers less likely than most to succumb to DJ abuse.

Harrison Information Technology have hit upon some interesting refinements to their new range of GQ-Series graphic equalisers. The biggest model, GQ301, is like many other 2U, ½ octave graphics, except the normal hi- and low-pass filters are missing. Instead, there's a pair of tunable notch filters, covering 40 to 100Hz and 400Hz to 4kHz. At any of these frequencies, feedback grows, howls and squeals can be cancelled by up to -40dB. Even the notch width can be varied. The upshot is that the ½ octave graphic settings can be left to govern the general trends, the job they do best. Meanwhile, the notch needed to suppress howlround can be set to be much less than an octave wide, avoiding the familiar tonal aberrations when two or more ½ octave controls have been used. GQ152 is a dual ½ octave unit in a 2U enclosure. In this model, the notch filter's place is taken by tunable high and low pass filters. The high pass will prove handy to installers wanting to protect bass drivers from being zapped by DJs. Installers working in the more fashionable end of the industry will be attracted by the Star-trek approach: the GQ series come with red LEDs in the middle of every fader. Installers will appreciate a switchable gain structure (for -20 and +4dBu operating levels), as well as a 'peak' LED that comes on 3dB before clip. Sound quality throughout the range should be enhanced, and residual noise reduced, because the equaliser guts have been condensed into a series of thick-film hybrid ICs, greatly shortening track lengths between components. And where tight packaging is a must, the GQ range includes a 1U high, 2 band unit with sliders at half octave intervals.

Shuttlesound's stand hosted dozens of blue-chip products, with four notable introductions and forthcoming attractions. In January '90, they're expecting deliveries from Audio Digital of the world's first 18 bit digital delays. With a 108dB dynamic range, they'll be in demand for time-alignment of music and theatre speaker systems, as well as for effects. OWI are a range of compact,

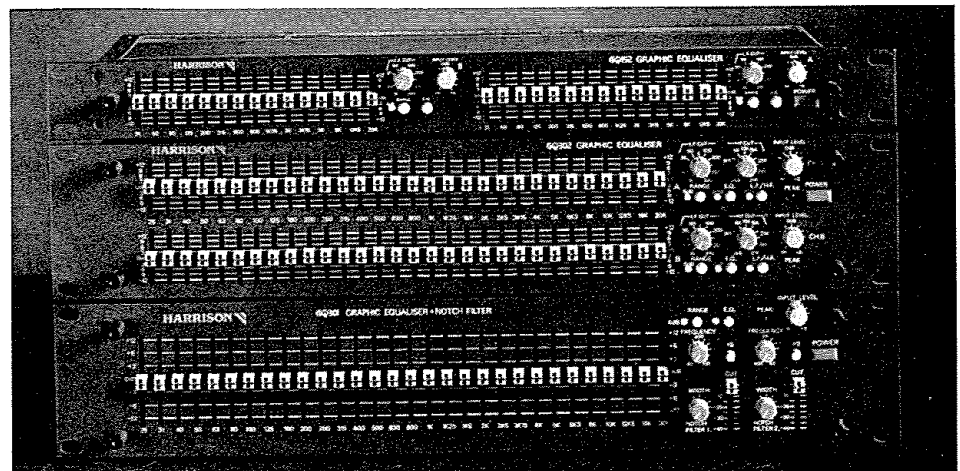


Turbosound's TXD-560.

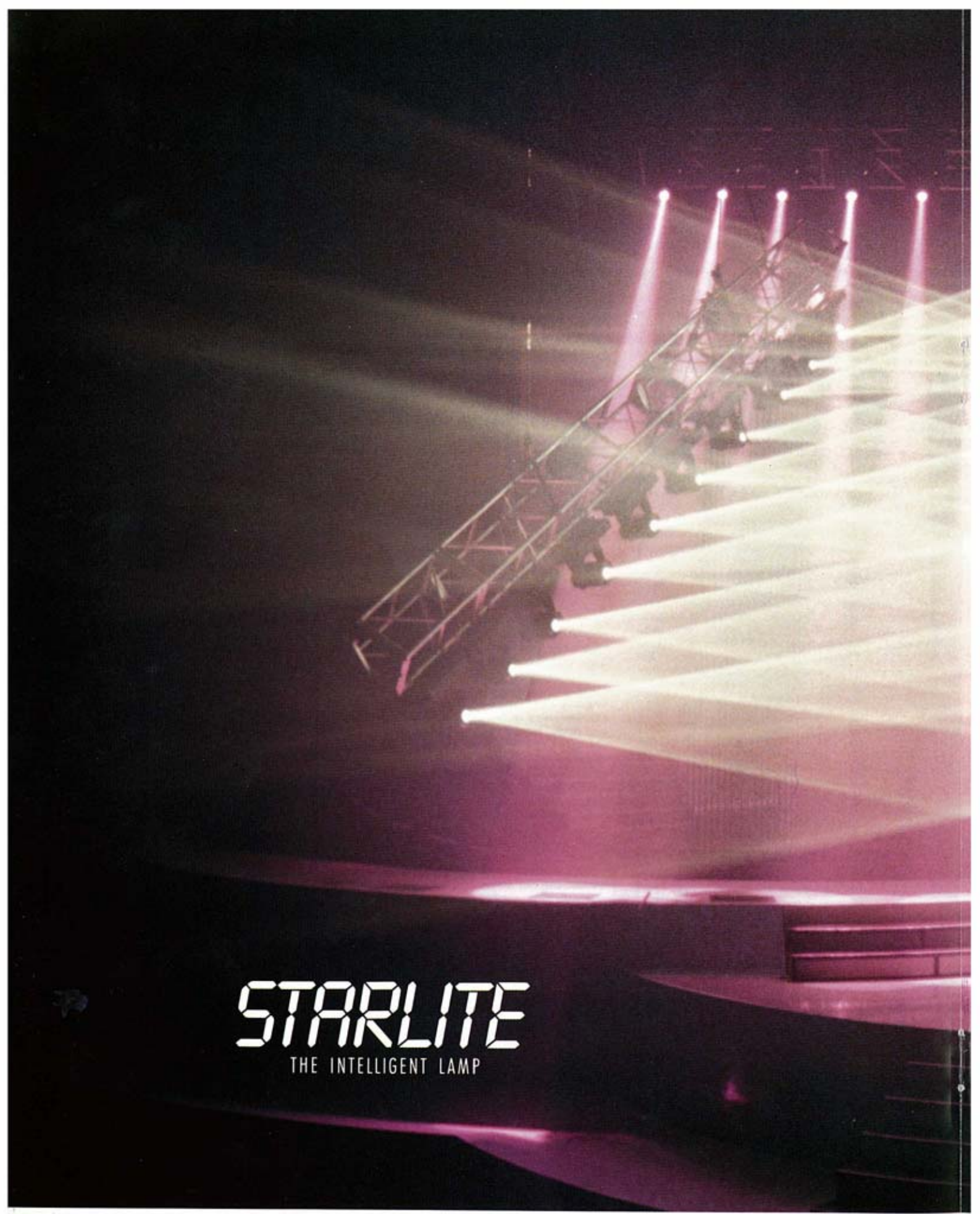
weatherproof speakers for patios and beer gardens, small dancefloors, paging and foreground/background systems. They're available with low impedance or 70/100v line connections in 2 or 3 way versions. The assortment includes a miniature sub-bass unit and various brackets. The two remaining introductions are from Greystone. The FLEXEQ ('flexicue') is a dedicated housekeeping device for optimising Electrovoice's SFR 200 speaker systems. The slim, 1U package combines driver EQ, a crossover point for LF extension and protective limiting. Greystone's Terminator is scheduled for release this autumn. It's taken three years to develop and looks set to be the state-of-the-art in sound pressure level control, having been designed to meet all kinds of SPL regulations in a transparent yet foolproof manner, so performers aren't upset, speakers don't get blown and owners and managers can be sure the law isn't being broken when their backs are turned.

The Sound Department were at the PLASA show for the first time giving demonstrations with Community's new RS-880. It's a 3-way horn-loaded PA cabinet, with a passive crossover. An optional passive equaliser module can be inserted at line level, so the tonal quality is optimised with increasing level. A large part of the stand was taken up by Community's monster sub-bass horn, The Boxer. Measuring 60" x 45" x 30" (1.5 x 1.2 x 0.8m) it produces concert SPLs down to 40Hz. And having a straight throat, it promises to work up to 500Hz. Sound Department's Steve Smith reports that they've just supplied one of Servodrive's proprietary piston-powered bass horns to Encore, a hire company presently touring with Dogs d'Amour. They've been so impressed, they're ordering another four. Another two have recently been installed in Heaven, a club in Charing Cross. Static displays included the entire range of Rauch power amplifiers (now distributed in the UK by The Sound Department), and a fully fitted-up IRP System 41 tamperproof signal processing frame, containing mixer modules, equalisers and matrixed outputs. On the theatrical front, The Sound Department are supplying systems for A Life in the Theatre, Paris Match and A Slice of Saturday Night.

Tek are a new, British company manufacturing low cost, 'value added' PA speakers in Cheshire. Unlike the majority of OEM speaker makers, Tek measure all their incoming drive units. Every finished cabinet is then measured, and listened to,



The GQ graphic equaliser series from Harrison Information Technology.



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Fax 805-987-3010



The TOA Saori processor.

by Tek's test engineer. In this way, the cabinets should have a consistent sonic quality. It bodes well for reliability too, especially as the cabinets come fitted with passive, auto-resetting protection. I took a listen. As a result of careful choice and evaluation at the design stage, and a knowledgeable tie-up between measurement and listening tests, sound quality is exceptional for the prices asked.

Toa had a new drive unit, and more news on the Saori processor. HLS46UL-8 is a heavy duty 18" driver, optimised for vented subwoofers and the like. It majors on low distortion, and a 720w programme capacity, high power handling. The news from Toa's new Digital Sound Processing (DSP) Group on Saori is that a PC-compatible connection is imminent. There are also plans for a more powerful, dedicated delay module, while the in/out analogue-to-digital-to-analogue processing is scheduled to be uprated to 18 bit. Overall, this should give 16 bit performance, as good as any recorded digital source; a topic that's the subject of a paper due to be presented by Toa at the forthcoming AES convention in the USA. In the long run, the Saori is destined to become more modular, so it can be tailored to sound companies' requirements. On a lighter note, Toa installer Chris Taylor recently fitted a new system in a seaside holiday camp. The existing PA was also Toa, and worked perfectly, but having been installed in 1951, the owner felt it was getting a bit rusty!

Turbosound have a new sub-woofer. The TSW-121 contains Precision Devices' new 21"

driver, and emphasises low bass, meaning it's tuned to 'hit you in the body'. In turn, it's ideal for clubs, and dance music in general. By contrast, the original TSW-124 (a slightly larger box employing Precision Devices' 24" driver) is better suited to recreating thunder, earthquakes and similar effects, for theatres and cinemas. TXD-560 is the latest in Turbosound's TXD series, launched last year. It has a similar driver complement to the TMS-2, but without horn-loading in the mid and bass, dispersion is wider. Also, the tweeter can be swung round to give the optimum dispersion independent of the mounting position. Turbosound's Richard Frankson comments: "By giving us total control over the driver design, Precision Devices have made it possible for us to design and manufacture direct radiating speakers that meet our standards of sound quality". He also had some comments on sound levels at the show: "Generally the 'noise' levels were far better than they were last year. One of our neighbours was very well behaved this time (nods approvingly towards Avitec's marquee); the other lot . . . they were loud, but as they were using Turbosound loudspeakers. We couldn't really complain . . ."

The Wembley Loudspeaker Co have moved up the road to Askew Crescent Workshops, next door to The Sound Department. New enclosures in the B-Line range include the 2824 'Top Box', a compact mid/high cabinet with some new horn profiles designed by Volt's David Lyth. The mid driver is a 10" cone type, and there's a choice of four 1" HF drivers, namely JBL, RCF, Renkus-Heinz or Beyma. The 2820 is a matching direct-radiating

(but vented) bass enclosure with a series of chambers tuned to provide 'tight, deep, exciting bass'. Alternatively, there's the 3024, a bass cabinet that's horn-loaded with an 18" driver. With high SPLs being maintained down to 40Hz, it should go down well amongst Reggae addicts. Having recently attended the SCIF-organised show in Hong Kong (Pro Audio Asia), Wembley's MD Paul McCallum reports significant speaker cabinet sales to Singapore, Hong Kong and Taiwan.

Wharfedale's commercial products division were showing a variety of small enclosures. Some are destined for pubs and bars, having been designed in consultation with Tobysound and the Music Hire Group. Wharfedale's Programme 2180 is an unusual cabinet, which aims to give stereo coverage from a single box. To achieve this, stereo programme is fed to a pair of tweeters. One is mounted on the side of the enclosure, so it radiates 90° off-axis. The resulting psychoacoustic trickery has a legitimate name, dating back fifty or so years - it's called 'The Baker effect'. Quite how the stereo source is connected to the single mid/bass driver isn't clear. A matching 'sub-woofer' was on display. It employs two 8" drivers in a microscopic box. The range continues with LT-10 and related models intended for what Wharfedale call the 'industrial' market. Large retail' would be a more accurate description, with the speakers being optimised for music with 100v line operation, for superstores, hypermarkets and the like.

Ben Duncan



Electro-Voice on the Shuttlesound stand.

SOUND AROUND (2)

The two major attractions at **Bose** were so new that PR person Ginny Goudy hadn't been able to write press releases in time for the show.

The 305 in-fill unit, "the next step up from the 301" according to Bose's Phil Coe, had its first UK showing. Its tech spec is similar to the 301 with an 8" bass driver and direct/reflecting tweeters, but it looks and sounds very different with a choice of colours and a flatter bass response through its slotted port. The sleek Freestyle is an enhanced version of the 101 speaker, which continues in production. Available in black or 'Ferrari Red' (the go faster version??) it features a side-mounted bass port and a new 4 1/2" driver with a flatwound aluminium HVC voice coil for improved transient response.

Previously aimed at the domestic market, the Acoustimass AM-5 system is now being targeted at pro installers. The ultra compact 100W (IEC) system includes an Acoustimass bass module, and a pair of pivotable dual HF 'cubes' - each standing roughly as high as a pint glass. Bose also had version 3 of their Mackintosh-based Acoustic Design software for dealers and architects. Enhancements include analysis of various parameters with SPL and RT readouts at different frequencies, 3D views and colour. The Modeller software family also includes a Sound Systems package, providing analysis of speaker placement and sightlines for Altec, JBL and EV systems as well as, of course, Bose.

Distributors **Executive Audio** had four of their

lines on show. **C-Audio** products included amplifiers - the new RA series and the earlier SR range - and the new EQ graphics. From US speaker builders EAW were the KF600 1000W trapezoidal full-range unit, and the brand new 300 3-way speaker which features 'Virtual Array Technology' and is aimed at the Meyer UPA-1 market. EAW's compact 3-way DS-123 and the much larger DS-253 are designed for a range of installations.

Hailing from Ohio, the C.A.D. line-up included microphones, a 16-into-8 rackmount mixer and a range of signal processors. Executive's inventory was completed by AMB's invaluable series of precision measurement tools for installers: phase and cable checkers and a line monitor.

New from **Formula Sound** is their own AMX6 6-channel (2 mic, 2 music) rackmount audio mixer. Designed for use in unskilled hands (e.g. bar staff), with a minimum of controls and switchable voice ducking, the AMX6 also provides installers with screwdriver presets for EQ and gain.

Lurking in a rack at the back of **Harrison Information Technology's** stand was one of the show's most exciting audio products for DJs. Their new SL80 digital sampler - a snip at £399 - provides instant access to eight independent 2-second samples with real-time pitch shift of +/- 1 octave via a handy fader. Each sample has its own button which re-triggers the sound loop from the start each time, in forward and reverse - endless possibilities for creative DJs. Samples can be created just as swiftly from a mixer's headphones output, via an automatic gate - and are re-



The Beyma range on LMC Audio Systems' stand.

tained in memory when the unit is switched off. Also on show: the GQ Series graphics, which employ thick-film hybrid technology for 'precise performance, stability and lower costs'.

Commercial sound has come a long way.



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You may have recognized that it is often difficult for busy sound architects to keep fully abreast of all the developments being made in our fast moving industry and, harder still, knowing where to find them.

It is also apparent that the dividing line between pro and commercial sound has blurred. This in itself is no bad thing since the cross fertilization of good products and good ideas from each sector can only be of benefit, but more suppliers have to be found and more time required to deal with them.

UK Sound has been started by Shuttlesound to sit across this borderline, pooling the best from both markets, ready to

address specific problems with the right specific products.

The range of products and associated services are aimed at the professional sound contractor who may deal with a stadium one day, office paging the next or a system requiring the full integration of both.

To talk here of individual product lines would be preclusive, a call from you however will bring the information and any technical specification required by return post.

That's useful, but UK Sound is much more than just the distributor of the right stock; new staff, with extensive knowledge of the commercial market, are backed by

Shuttlesound's considerable expertise in system design and installation. Our staff are on hand ready to talk to clients and discuss any problems or technical queries.

Above all else remember — UK Sound is for the commercial customer who wants to talk sound business.

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SOUND

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Osiers Road, London SW18 1EJ, England

Tel: 01-874 2050 Fax: 01-870 9300

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30 Systems

New from **Hill Audio** was a range of four LC Series stereo amplifiers, rated at 200, 400, 600 and 800W RMS into 4 ohms and available through Hill dealers and Bose UK distributors. The smartly-styled ML Series of mono power amps is another new addition, with 200W and 400W (4 ohms) models.

Familiar lines included the DX000 Series high-power amplifiers, the M6 PA speaker system (as used at Cliff Richard's summer Wembley Stadium show) and the popular Multimix console which has found favour, say Hill, with a variety of multi-purpose venues and clubs.

Harman International devoted their large stand to JBL's diversifying range of speakers, with two major new products on view for the first time. The Control SB1 is a compact sub-bass unit with four 8" drivers which augments the Control 1 to create a full range system (competing with the conceptually similar Bose Acoustimass system). The S3 and S4 wall/ceiling mount speakers are 2-way units with screw-on perforated metal grilles which can be spray-painted to match any colour scheme.

JBL also showcased three special presentations. Gary Bryant of 'Vast Installations' received a gold

Control 1 to commemorate the speaker's 10,000th UK sale; PA hire firm Roadstar presented an order for JBL Concert Series cabinets for the Eurythmics' World Tour, and the Control Series picked up Disco & Club Trade International's award for Loudspeaker of the Year.

Without proper wiring systems the most expensive audio and lighting gear is a dead duck. London's **Kelsey Acoustics** - specialists in cables and connectors (plus radio mike systems) - took the initiative and showed a sample of their huge range of prosaic, but essential, products.

New items included the Socapex SL419-compatible VSC 19-pin lighting connector, with self-aligning gold-plated pins and machined metal components; the US-made HME Wireless Intercom System (originally designed for roller skated servers at Macdonalds drive-in joints, available in either headset or earpiece-and-leveller form); and the Yellow Jacket cable protection system, a tough, modular ground-level cable carrier which allows trucks and punters to cross important cable runs without risk to life or hardware. Kelsey also provide a 'custom cabling' service to major recording studios and installation contractors.

Over the past year or so, west London-based

dealer/distributor **LMC Audio Systems** has built up a high profile on the pro-audio scene. The company's appearance at PLASA coincided with their appointment as exclusive UK distributors of the new Soundcraft Series 8000 Monitor desk and follows their UK launch of the Beyma range of chassis speakers through recently-formed sister company **Beyma UK**. The Beyma line-up, aimed at OEM speaker builders, includes a number of new products: 1" and 2" titanium-diaphragm compression drivers, plus constant directivity flares; a 400W RMS 18" driver; new slot and bullet tweeters; a 35W ceiling-mounted speaker; and complimentary passive crossovers.

LMC also showed C-Audio's latest RA Series amplifiers and the EQ series graphics (single and dual channel 31-bands and a dual 15-band). Their performance, says LMC's Chris Sullivan, is "excellent sonically very good and very quiet". And as well as the impressive Series 8000 Monitor console, LMC had some of their signal processing lines with Drawmer, BSS and Klark-Teknik on view.

Marquee Audio showed HH's TA Series, a compact, high power, arrayable integrated speaker system - the TA2 and TA3 full range enclosures,



Julia Burgess with the Harrison Information Technology line-up.



Steve Smith and The Sound Department - a first time at PLASA.



Tobysound: selling system design, installation and service.



Citronic: new product launches at every show.

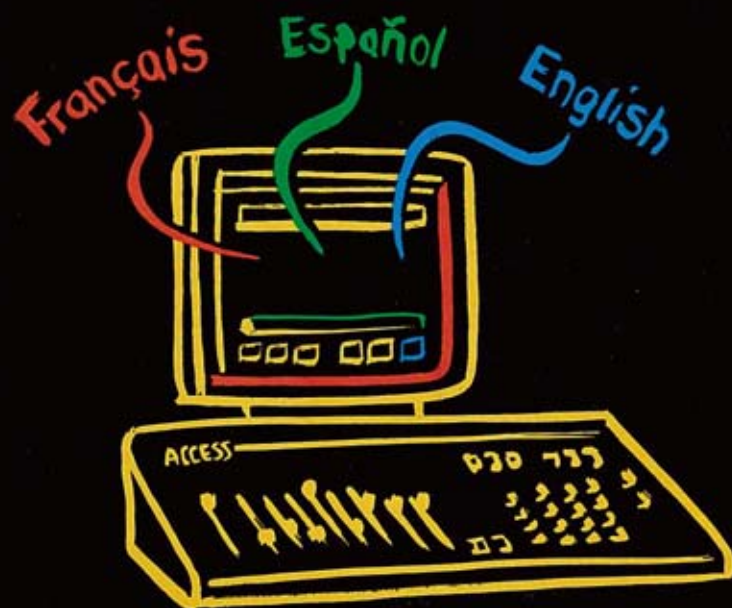


Cloud showed their new DM700 mixer plus two new consoles incorporating it.



Michael Wood (left) promotes Wharfedale.

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TAS1 sub-bass unit and C1 System Controller. Units are complimentary, usable in any combination for venues from small clubs to large PA systems. They also had the Databeat CD system on display. A new distribution line for Marquee is the complete DDA console range, neatly complementing its JBL dealership.

Ohm Industries chose the PLASA Light and Sound Show as the platform for no less than three new product launches. Their BR218 is a 600W RMS sub-bass unit with two 18" drivers, aimed at larger installations while the PS1000 is a tri-amped, two cabinet, full-range speaker system. The third addition to the menu is a new range of 2-U power amps rated at 300, 600 and 1000W respectively.

Ohm, who had all their export distributors at the show, also opted to hire the nearby Commonwealth Institute Theatre for full-scale demo sessions. A weary, but evidently happy, sales director Colin Hill concluded: "it's been very busy - a really worthwhile show!"

Burnley-based **Opus Amplification** showed its array of compact, full range Soundcontrol cabinets with Celestion drive units. Also on view were the company's PC70 an inexpensive and compact 2-way speaker, the PA 100 100W 4-channel PA amp and the S150 150W slave amplifier.

Smart Acoustics sole UK distributors of Renkus-Heinz speaker/processor systems, had three newsworthy items at the show. One prosaic, one esoteric and one slightly secret. The first was a new RH single channel processor, the X31 switchable for 2 or 3 way operation with plug-in cards for different drivers.

Second was the Ivie PC-40 computer, a heavily customised version of Epson's PX-4 laptop. This little battery-powered beast features specially written spectrum analysis tools for sound engineers and designers and a built-in printer. Its LCD screen provides a graphical, real-time, full range 1/3-octave spectrum display and a constant SPL readout. Full

notation and curve comparisons are available by transferring its data to a desktop PC. Smart were being modest about its commercial potential - presumably because it's now in general use by their own acoustic consultancy experts.

As for the secret, Smart revealed details of the new RH C-1 Concert point source system, due for unveiling at the October AES show. A three module system comprising co-axial mid/high, LF and sub bass units, it's claimed to offer unprecedented power, clarity and detail.

Celebrating their 20th year in the business, the lighting and sound group **Sound Electronics (Newcastle)** (embracing **Sunset Hire, Sunset Distribution** and nationwide sales contractors - **Sound Electronics**) had little product news - apart from their pre-printed single covers for DJs - but reported numerous new complete installation contracts, mostly using Bose systems.

Audio, video and lighting are all part of **Tobysound's** sales, design and installation operations, serviced from 16 UK-wide depots with a CAD facility at head office. The company also distributes Bose, Denon, Harrison and Wharfedale products. On the audio front they had their own TSR 150xi integrated pre/power amp (75W per channel) designed for installation use with DC protection, remote volume control. Bass, treble and mic level controls are tucked away on the rear panel, safe from prying fingers.

Tobysound were enthusiastic about the Databeat programmable background CD music system, for which they are one of four main distributors. Databeat runs a 24-hour selection of CD tracks, (controlled from a floppy disk, pre-programmed by the distributor). Clever features include the ability to specify beats per minute and even match the keys of adjacent tracks. Users can also determine the musical content of each day's programme by pre-setting the required timespan (e.g. 60s, 70s, late 80s and so on) - a feat made possible by a massive 'hits database' which, says Tobysound, is so large it takes a day to print out!

Digital automation continues with the Quatro Electronics AP100 real-time volume control and dBA limiter. Sound levels are pre-settable for two separate venue areas in 10-minute steps over a 24-hour, seven day cycle, or can adjust automatically to ambient levels. Bass content is subtly increased by the unit at lower volumes. And, anticipating upcoming noise level regulations, overall dBA limiting can be varied according to the time of day or simply set at a 'blanket' level. Once set, it's 'locked' to prevent misuse.

Major news at **Tunewell Transformers** was a range of electronic power supplies for neon tubes of various sizes. The externally controllable units (available at 24V or 240V ratings) allow dimming and flashing and incorporate numerous safety features. Also on show were two other new products. The A100 is a 100W Mosfet amplifier, aimed at installations with simple lockable controls, remote volume control, a mic input and automatic ducking. The S100 is a 100V line-driven, transformerless loudspeaker which, say Tunewell, allows ultra high quality sound to be delivered to very large areas.

Celestion showed off their new additions to the highly successful SR Series, the SR3 (up to 150W with the new SRC3 controller or 250W with the SRC1) and the SR compact, which features a single 100W 5" drive unit.

Michael Stevens and Partners Ltd major line was KEF's new CR160 Custom Series of 2-way 'Uni-K' wall or ceiling flash mount speakers, available with a choice of square or round bezels.

Musicraft reflected the growing importance of high tech recording style technology in the DJ world with a wide range of digital audio effects, MIDI systems, mixing consoles (including the popular Hill Remix) and Akai renowned S950 and S1000 samplers. The whole range is on show at the company's purpose built West End demo site.

Mike Lethby

STAGE LIGHTING PLUS

As you walked into this year's PLASA Light and Sound Show you were immediately confronted by an enormous light truss, towering 45 feet above the **Zero 88** stand, and built by LSD of Birmingham. Over to the right, taking the space of four large stands combined, were **Pulsar**. Though bringing nothing particularly new to the show this year other than their economical Crystal Scan, being offered in three light source versions, MD Ken Sewell told me: "This year we are underlining our capability of working on several projects at the same time."

As well as mounting one of the largest stands on the show, they commissioned a major scheme at Warrington's Mr Smith's club, and installed Oska and Golden Scans at Hammersmith Palais, the Hippodrome, and Camden Palace all in the space of a week! But it was their light show on the hour - from a selection of 'Jarre', 'Oaklahoma', 'Can-Can', 'Blue Danube' - that drew the attention of probably everybody who visited the show, providing, for a change, a non-narrative sell. It was a sound with light show which 'spoke' for itself with blue pirouetting Golden Scans, for example, to

the 'Blue Danube'. The major number of requests were to see a repeat performance of the now famous Can-Can light show, controlled by Oska's new 512 channel integrated system.

Dedicated stage lighting is a specialised area of its own these days. And there were some noticeable absentees this year - surprisingly for the second largest Sound and Light show in Europe, - but we are assured all will be present for next year's show.

There was a sprinkling of new products in this area. For example, **DHA** with their mini MR35 and 75 framing spot over on M&M's stand. Also featured was their new Light Curtain colour scroller. **James Thomas Engineering** had their new 'mini' half ton per tower triangular lightweight truss with a hand winch on display, and were also showing a new Philips 900 watt 'ray' lamp in one of their cans. From **Strand** there was a new 500 watt 12 volt crown silver lamped 'Beamlite' to complement their new range - which I believe can also be used on their PALS system.

There were some exhibitors who told me they were launching new products in the stage lighting area later in the year, which could mean there may be some surprises before the next PLASA

show. Was this intentional or simply a result of an overworked 1989 production schedule?

But it was the show where the new MSR Philips 700 watt and 1200 watt lamps saw the launch of a whole new range of follow spots with new features. **CCT's** has new front and rear 'quick grab' handles (they claim the front handle will particularly help those who have preference in 'hand over the shoulder' operation from the front end . . .). With this unit they were showing again their new Minuette 6 - 10 degree 650 watt Pursuit follow spot. Also, with their policy of producing in-house lens tubes, they are achieving greater light output and beam angles in their products, which is evident from their new 2.5kW profile range.

Coemar, who manufacture the Teatro luminaire stage lighting range, were offering their own narrow angle long throw 700 and 1200 versions to commence their new 'Testa' follow spot range, with a louvre type shutter 'dimming control' at the front end of the unit with stepped length colour frame levers. A notable feature is a rotatable gate with shutter control by one hand, with two fingers.

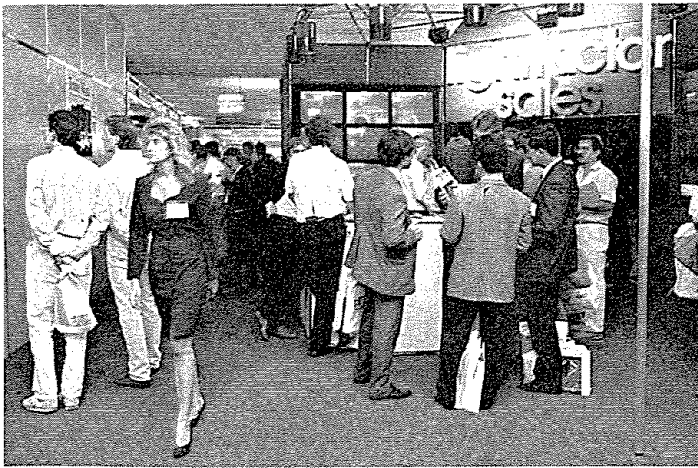
And the buck doesn't necessarily stop with the



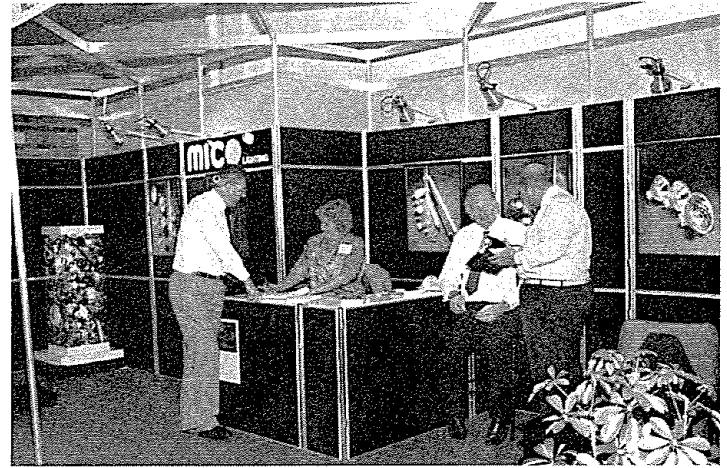
Ken Rickman of CCT with their new 1.2 MSR discharge follow spot. The unit also takes the Thorn 1000W hot restrike CSI/CID lamp.



M&M Lighting's Mike Goldberg with the Rainbow light curtain scroller.



Ever busy: the Lightfactor Sales stand.



PLASA regulars, Mico Lighting of Leeds.

distributor who now provides the frills to such manufacturers' equipment as was evident from **Mushroom Lighting** who, being Teatro agents, were offering their own follow spot version with the 116 MK2 fluid damped 'jitter-free' movement head for steady movement control with complete operator adjustment. Added to this, they also offer the Slick Systems follow spot chair, of which they currently have two units out on the Stones US tour. Adjustments have also been made to their 'largest rental stock' of Golden Scans equipment to allow for follow spot operation . . .

There were two Italian companies who attracted my attention. - one was **Spotlight**, who have made great strides in the manufacture of luminaires, and whose representative held on to my enquiring interest for more than a moment by making a considerable effort to explain his equipment, which also included a completely new range of follow spots (albeit amidst the din from the sound stand opposite). Mr. Andraghetti, at one point had to stop his sales 'spiel', language difficulties aside, cross over the gangway, put his hand up and attempt to ask the DMC stand opposite, in their own dialect, to turn the 'din' down a bit, while he returned to continue with his sell. The Spotlight range has been developed rapidly during the past year. I was shown how the lamptrays are quickly removable with their own micro switch cut-out, with only an earth wire to unplug. Some of the interesting features included a special colour filter ventilator on the front below the top colour frame lid, and flat flick-down locking handles on the side, without any protrusions. However, it was the single knob control on their Vedette range, on the differential sliding mechanism on the two lenses adjustment, which caught my eye here.

The other stand demonstrated the **Fly** range of equipment. They are creating a lot of interest in the UK now through their exclusive agent Nu Light

Systems. Debbie Clayton told me: "In our first year of operation there has been a phenomenal amount of interest in Fly control units. They make it easier to use so that people enjoy using their systems." She further explained that their interest was drawn to the company last year by the fact that they build their own electronics in-house, and claimed that they are keen to help and provide information. Their back-up service in providing spares bring them to her desk within three days! Fly controllers are for their intelligent lighting through to stage lighting dimming systems, and enable any customer regardless of experience to get the best possible out of the lighting. "It's simply down to user friendliness. They are logically laid out, faster to programme, and very popular," said Debbie.

"The Jupiter effects projector from **Coemar**, (on the WB Lighting stand) revolutionised by the much faster speed of the new generation of stepped motors and the new MSR lamp, offers a longer light output and more stable life," said Roman Walanta. It now has a zoom option as part of its modular design, and he told me they had just provided First Leisure with 144 of these units for 11 different venues.

To control the Jupiters, Advanced Lighting Systems have developed an exclusive new dedicated control system with a completely flexible panel. Also on stand was ALS's latest Enigma control, and the two systems ran the attractive Coemar light show, complete with 'performer'.

Lightfactor had Laser Media's ColorRay. Although a 'high-resolution effect', it may become the industry's alternative method of light output onto a stage. Using a fibre optic single source, it has a proven track record by its use on rock shows such as Michael Jackson, and it is currently in use on Paul McCartney's tour.

Last, but not least, **Pancan** promised me they

have a revised edition which did not make the show but will come later in the year. Also in the remote controlled stage lighting area, **Strand's** PALS have, so I am informed, additional features including improvements to the iris and focus facilities. Alongside which, the control system module on their Galaxy is now more sophisticated, and their Parscan II has been updated and is much quieter now with refined electronics.

Lee Colortran's innovative Joe Thornley claimed that they are now "coming on stream" with their new 10 unit, modular 'Windsor' range of dedicated theatre luminaires having been possibly prematurely introduced last year. Also their Club range has been finally completed.

Almost hidden away in a corner of the first floor, and nearly escaping my notice, on **Executive Audio's** stand was the Syncrolite intelligent system, first described in L+S in May following the SIEL show in Paris. It was brought to the show by Syncrolite Europe.

Part of Alan Chamberlain's operation of **ACT** group of technical services to the entertainment industry' companies, was the new ACT Publications stand with their stage lighting data manuals. They launched their Big Lighting Book at the ABTT trade show and they are about to launch their Big Control Book, showing much promise as an independent collator of dedicated referencing library data.

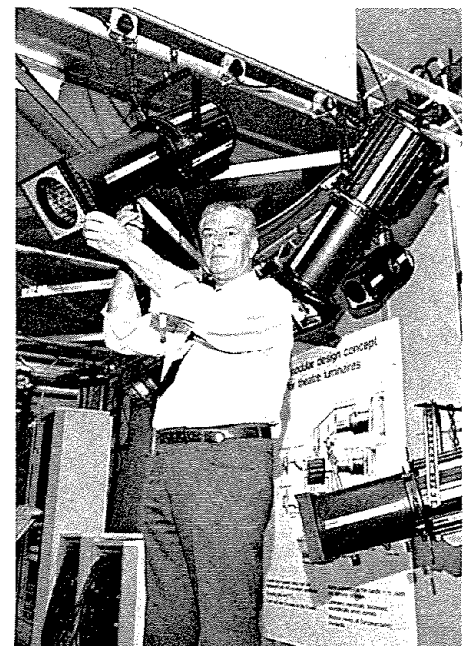
In the peripheral area of stage lighting, particularly for theatres, there is a lot happening. **Cerebrum** now offer a colour scroll unit for their economy Posi-Spot moving light. It's the complements to stage lighting units that are providing the source for many new products. **M&M Lighting** distributorship having completed a successful first year with the Rainbow scroller, which can be seen in the rigs of several major current West End



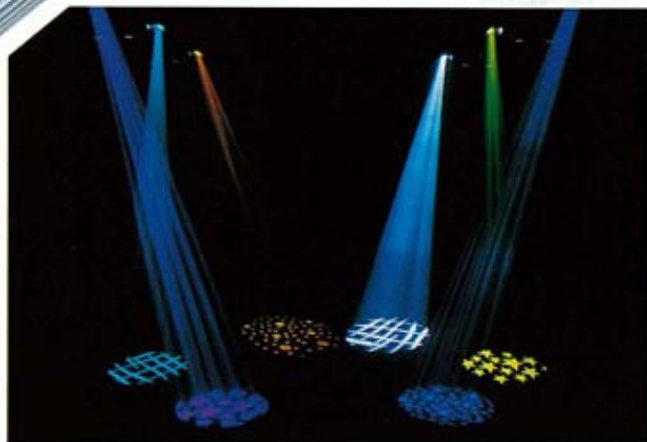
Strand's PALS system on the Cyberdescence stand.



The stand of Pro-TECT Flight Cases.



Joe Thornley with the Lee Windsor range.



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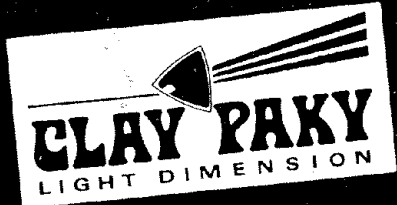
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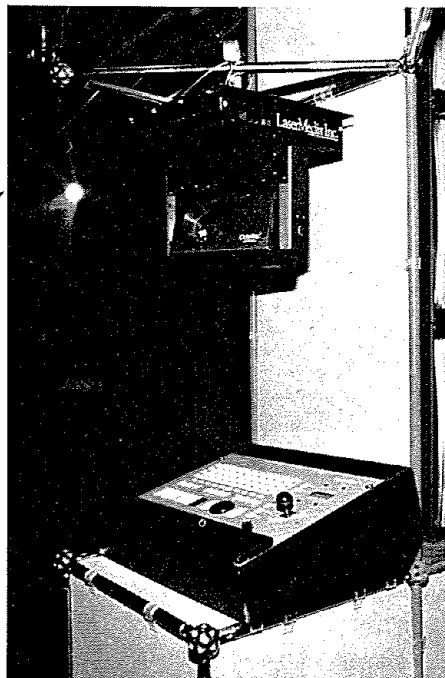
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Laser Media's ColorRay system on the Lightfactor stand.

musicals, introduced exclusively here the Masterlight Parcan add-on directional beam unit attachment into the filter frame. They provide their own lamp housing, with lens-system and projector lamp. The unit is manoeuvred by three channels from any analogue control desk, for colour, pan and tilt, and can project nine different colours.

M&M Lighting have also expanded the Rainbow scroller range. With only an eight week development time allowed to commissioning - the Light Curtain scroller and Beamlight scroller (the latter of which will fit the Pani, Arri, Ianario and R&V range), were specified by David Hersey for his lighting scheme of 'Miss Saigon'. They were demonstrating these new scrollers on the stand complete with the DHA Light Curtain and motor drive system.

Most of the stands I visited reported a lot of interest from overseas and particularly European visitors, with many orders being taken. They claimed it was also good to have a 'second go' at meeting some of the ABTT trade show visitors.

The PLASA Light and Sound Show, as it grows from year to year, should prove to be increasingly interesting, with many more manufacturers and distributors vying for position in the new interna-



Advanced Lighting Systems Enigma control on the Mode Electronics stand.

tional market. And will the ABTT have made up its mind by then, if not by next year, to be involved, either as an incorporated body or at least on a floor of its own, maybe for the smaller, and more theatre dedicated, services? In this very competitive and specialised industry, the PLASA Light and Sound Show now ranks amongst the few top international trade shows.

Julian Williams

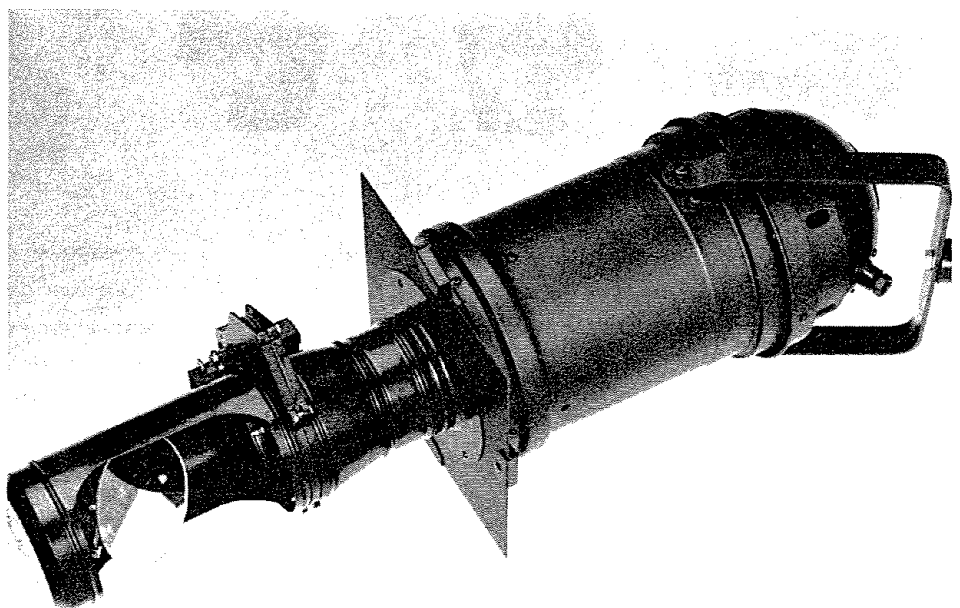
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The Masterlite: converts a Parcan into a disco lighting effect.



Fabtronic: bustling into the effects lighting business.



Batmink 'teamed up' with King's Sound of Italy.

LIGHTING EFFECTS

Alphonse Karr, the French writer put it best: "The more things change, the more they are the same".

My brief was to cover new discotheque lighting equipment, especially from overseas. Easy huh! Always remembering that a problem shared etc . . . I went on the hunt for an unsuspecting visitor who might just be persuaded to assist me in my quest. The short straw fell on Supervisor's technical director Phil Roper. (I'm still puzzled about his cryptic remark about haystacks and needles).

Satel from Spain, who are distributed in the UK by Nu-Light and Light Engineering, presented three new effects: the 'Argos' single lamp, dual directional, with colour change with 500w halogen lamp or SN500 discharge lamp; the 'Yoni', an animated multi flatbeam effect with a 500w lamp and four colour lenses; the Yoni II projector has 2 x 800w lamps, sound to light, 6 lenses giving 12 Flatbeams; and the 'Shai', a projector of flatbeams with a 500w halogen lamp.

Electrovision Ltd were showing a range of imported disco effects from the Far East, and a range of low voltage lights. Whilst Batmink teamed up with King Sound of Italy to show the new 'Team' robot with SN 250 or MSR 400 lamp options. It has six gobos, five colours and sound animation as an option.

Northampton-based Fabtronic Lighting displayed a range of home-produced lighting which included 4, 6 and 8 way helicopters a 20 lamp vertical harvester and an eye catching Scorpio - a high powered strobe effect.

Starlight Design, another company flying the flag for UK manufactured products, introduced the Starflower, a new beam effect. Flatbeam effects were also give prominence and those to be seen for the first time were the Starblitz, the Shooting Star and the Starship. Alongside these was the Rainbow Sound Animator which uses dichoric filters to produce multi-coloured light to sound.

Lynx Lighting have produced a high powered narrow beam 'Pin Spot' the Lynx 100 SX. Also on display was the Syncho II, an updated version of

the Syncho Pin first seen last year. The Syncho II has larger head lamps with a new reflector developed by the company which produces a powerful 5 degree beam from a 12v 100w replaceable lamp.

The Le Maître Holdings stand was home for Light & Sound Distribution (LSD), Jivelight and ICElectrics. Jivelight and Sapro (France) introduced a number of new lighting effects including the 'Laser Light' system, a sound activated beam projector. The Syncotoron 500 and XN 800 light projectors, featured dual rotation, five beam effect and built-in sound to light control. Magic Star is a six beamed motorised effects projector with sound animated lamp rotation. The TE2, TE3 and TE4 are new additions to the 'Magic' effects, a range of flatbeam effects available with different lenses and lamp configurations. The Coperluz Mini Moonflower is now available with white or colour beams.

Jivelight also unveiled several new British products, including a smoke machine called Loadsamist. (I know it's not lighting, but I liked the

CYBERDESCENCE



PALS -The Precision Automated Lighting System is now available from Cyberdescence. PALS consists of intelligent motorised units that enable the remote control of a wide range of standard film and theatre lanterns.

Control of the system and the recording of settings and sequences is via an easy to programme computer with a dedicated keyboard. PALS offers a high degree of accuracy and efficiency in the setting, focusing and colour changing of lanterns. All this is achieved using a much quieter drive system than previous motorised units.

The units take up the same space on a bar as a standard lantern, and with little increase in weight. The versatility of PALS means

you need fewer lanterns and dimmers.

Lighting designers will appreciate the range of live effects, lighting technicians will benefit from reduced rigging and focusing times, with many subsequent changes being done at the touch of a button.

Cyberdescence hire PALS units fully flight cased, with all cables, a standard colour scroll and trained technicians.

So whether you are involved in lighting for theatre, film and video, or business presentations it is well worth considering

PALS

PRECISION AUTOMATED LIGHTING SYSTEMS

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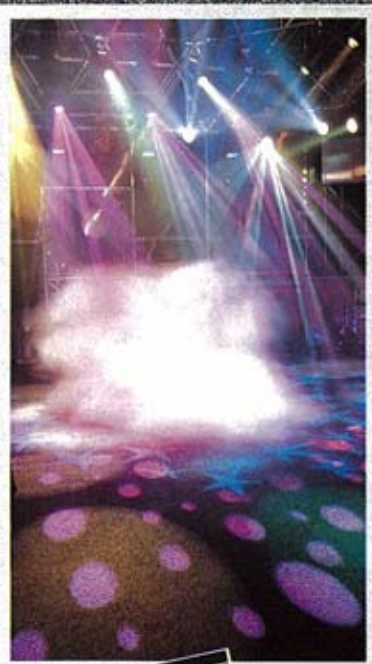
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The New Products 1989/90

The Design Solutions 84 page catalogue

(as issued Autumn 1988)

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name). On the lighting side the company displayed the CR8/16 Cylinder Rotator, suitable for installation and mobile applications. The upgraded version incorporates 'lamp blown' LED indicators.

The ICE range has undergone a complete facelift. At the show was a new 12-way switch panel and the ICEPAK a 4 x 5 amp channel triac pack. Finally, Ian Levine of LSD was on hand to demonstrate their new range of 'intelligent' pinspots.

Lightfactor sales majored on ColorRay and Laser Systems from Laser Media (USA). ColorRay uses a single light source, a system of fibre optics and a controller, and I might add, this much heralded lighting effect lived up to its pre-publicity.

Other new lighting products on show for the first time on the Lightfactor stand were ET Flatbeams which come in four models, the ET2, 4, 6 and 8; and the Kalima from Lampo is a single halogen lamp effect producing vivid spikes of light. 'Baby Moon' a budget Moonflower and the Baby Mirror an add-on accessory made their debut, as did Magic Fly and Fly Rays from Studio Due of Italy. A new strobe was on show from Collyns, the Superflash 2 - 1500w strobe.

Over on the **Light Processor** stand they were showing off the new power packs - the LP CMP 2D and LPCMP 1D. Features include fuse blown indicator and plug in triacs, and the units can be linked together, or 'batched' as they put it.

On the **Lamba** stand, pride of place in the lighting department was the Roboscan from Martin of Denmark. The Roboscan is an intelligent effects projector with 12 dichroic colour, 12 gobos, 450w lamp and a high quality stepper motor.

Light Technology of Belgium introduced three new lighting controllers. The LP4000 is a four channel masterlight processor, and the MZ60 a 6 way multi-function zoner, an extension to the master processor. The ED 2200 is an electric dimmer and the CD40P and CD4IN four channel control desks.

At **M&M Lighting** they announced that they have been appointed exclusive agents for the UK and Eire for the Masterlite directional beam system. The Masterlite system is an attachment designed for Par 64 stagelights. The light is adapted on a

concentrated beam, with nine interchanging colours.

Electronic Lighting and Music introduced a new 10 channel 'VU' lighting controller, the ELM 'LL-10', whilst **Anytronics'** presence at the show was marked by updated versions of their Light Systems One and Two lighting controllers.

Members of **APIAD** (the Association of Italian Discotheque and Theatre Equipment Manufacturers) were well represented, a considerable number of them supporting their UK dealers. However, many were surprised at the number of overseas visitors to the shows. **Lite Beam** of Napoli introduced the 'Bunny' as their star of the show, a very impressive effect (more of which later).

SGM introduced the Vision 2, a very powerful two lamp effect, with colour changes, which comes with a separate controller, the Vision 2 Control. Nearby **Artick** were showing their AD300 series of dimmer packs.

Tecnitron Electrica, now distributed in the UK by Anytronics, had on show two new lighting effects: The Fire Fly and The Double Fly. These provide colour fans of lighting with built-in microphone for sound lighting.

ProgramSystem is now in the hands of Warwickshire-based **United Kingdom Distributors (UKD)** and both companies were showing off lighting effects on their respective stands including double projector system, Vector, Skorpion and Samurai.

NJD launched a new 12 channel stage lighting desk, the Stage 12, in tandem with a new range of lighting controllers incorporating a microprocessor unique to NJD. These are now featured on all their 3 and 4 channel controllers. New models on show were the Logic 4000S, Logic 10 MKII 10 way switch panel, the PC4000S, 3 and 4 channel controllers and the CC 4000S 3 and 4 channel pattern chaser.

To conclude, I asked Phil Roper for his comments. "After spending four of the last five years in Cairo a lot has happened in our industry; amongst others the Light and Sound Show has grown into a huge exhibition and a large range of intelligent lighting effects have appeared," he said. "A number of these intelligent lights are variations on

a theme; differing mainly in lamp size, gobos, colours, stepper motors or servos and, not least, price.

"One new lighting effect, however, caught my attention. In amongst the APIAD posse, on display there was a half-moon shaped box with eight fingers of light swaying, waving, flopping and changing colour from servo operated mirrors. The Italian gentleman on the stand informed me that this was the 'Bunny'. Imagine what would happen if you left two together . . . I discovered that the 'Bunny' has 8 lenses and 8 mirrors with a 400w MSR lamp. The mirrors can be individually or collectively synchronised to create a stunning effect from one of two controllers; a basic model or the fully programmable trackball version. The 'Bunny' first seen at Rimini is manufactured by Litebeam of Italy. (Litebeam's UK distributor is Avitec).

So, there we have it - a brief look at some of the new lighting products on show. After a lot of thought, however, I can't help thinking the Frenchman had it about right.

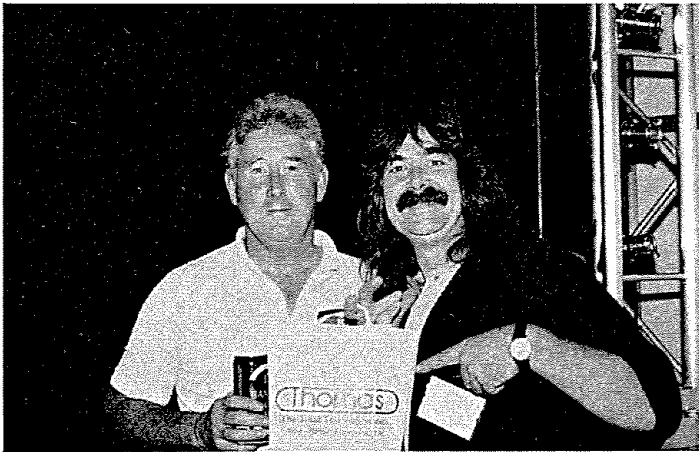
David Neale

DI AWARDS 1989

(Presented at Le Palais, September 11th)

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Mobile - Sound: **Electro-Voice** for the Stage 200
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Best of friends: John Walters of Thomas (left) and Terry Lee of Light & Sound Design.



John Lethbridge of Cerebrum with Mervyn Thomas of Thomas Engineering.



LSD's Dick Carrier (left) with Jivelight's David Winfield.



Martin Moore of Furse (left) with Great American Market's Bob Gordon.



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Strand Lighting gave away the Strandbook on the best lit stand at the show.



Malham: making a craft of centre pieces.



PLASA Dinner action at the Royal Garden Hotel: the Barron Knights.



Paul Adams (right) and staff on the PA Installations stand.



Avitec Light Movers in action.



Paul Butler and Rory Orr (left) of Mushroom with Samuelson's John Coppen.



Laserpoint's Andy Holmes and Optikinetics' Neil Rice: a joint operation.



Ian Brown of WB Lighting (left) with June and Nigel Morris and Lawrie Taylor-Duncan (right) of JEM.



Martin Christidis (left) of Philips Lighting with Eurolight's Nick Mobsby.



Carl Dodds (right) takes stock of the FLY control systems.



Bob and Rafael Hall break from business on the Anytronics stand.



Masters of 'deception': Infinity International.

SHOW SEMINARS

(further coverage in November)

Installation and Interior Design

The cobbler's children are always the worst shod, or so they say, but why is it that at the PLASA (which I would remind you stands for the PROFESSIONAL Light and Sound Association), seminars of all places, it was the equipment which let everybody down.

Not only was there a PA speaker hooked into the main exhibition system in the middle of the conference room creating continual interruptions to speakers, but even a simple slide presentation became a hassle as I was to discover for myself.

For most people, public speaking is pure torture and therefore anything which interrupts the flow is a disaster. To have to busk through a ten minute hiatus in mid performance, as in my case, is the stuff of nightmares. And then, at the end of it, to find that in my haste to get away to an overdue meeting, following the inevitable over-run of the whole session, that I had forgotten to collect my slides and that nobody had taken care of them really pxxxxd me off.

And that's another thing, after a maximum of ten minutes any speaker, no matter how brilliant or interesting the subject, becomes boring. The natives get restless and start shuffling their feet. A boring speaker freezes the audience into a total daze of ennui in less than the allotted span, but at least they all know relief is at hand before you lose them totally. However, speakers of both categories were allowed to carry on without the hint of a time limit and consequently became ambivalent with their slots. Anything which cannot be said in ten minutes ain't worth hearing anyway.

Please in future give the chairperson a red light system, standard equipment at all such events, and a predetermined time limit imposed by the organisers and made known to speakers and public alike.

Not to make matters worse by writing a long report of the session I attended, entitled Installation and Interior Design, I will keep the synopsis as brief and pertinent as possible.

My talk put forward some possibilities for expanded use of all the technology which is flying around these days and how it might enhance the role of the lighting designer. In particular I see programmable memories and CAD providing the designer with the opportunity for the first time of actually fulfilling his own aspirations for his schemes without having them totally redesigned by the way the operator uses them. In its own way, this provides the LJ with a far better armoury than ever before and his potentially expanding role as a real performer was discussed.

John Breley, specialist interior designer to the leisure industry, talked about the importance of getting the traffic flow right inside a discotheque

and gave some examples of solutions on the overhead. He also gave us the benefit of his experience on colour theming which basically, these days, seems to amount to anything, as long as it's not black.

Mike Snape, in charge of light and sound at Alton Towers, gave us the benefit of his experiences especially in dealing with hostile environments outdoors. In particular, he has found digital frame stores useful on their themed rides, although this all seemed a far cry from the high tech of Disneyland.

Ken Dibble of the Sound Practice, who are acoustic consultants, gave a most interesting outline of the problems associated with containment, quality and the restriction of noise levels in discotheque environments. He explained his frustration at the lack of enthusiasm shown by many of the major operators over the years, who seem not to appreciate that money spent on acoustics at the outset of a project can reap handsome dividends in the quality of the sound you hear at the end of the day. Bearing in mind that this is the major part of the package disco offers the public, it really is surprising that it isn't taken more seriously.

He also explained something that I have suspected for years and that is that DJs suffer from a known condition called 'hearing shift' which becomes progressively more pronounced as an evening wears on. Thus the jock certainly isn't hearing what the public are, nor is he physically in the right place to do so, and this explains the overkill often employed by DJs.

Anyway, help is at hand for Ken and others of his ilk for, as from January 1990, disco operators will be under threat of prosecution under the Health and Safety at Work Act if sound levels in bars and lounges exceed 85dB. Under certain circumstances bar staff may even be required to wear ear protectors. And I really cannot see that catching on as a fashion item!

Poor **Duncan Scott**, an independent interior designer and one of the many to have split away from Mick Gibson over the years, was suffering from having lost his entire presentation to the rigours of British Rail Red Star who had managed to send the lot to Brighton. However, he managed to give us the wisdom of his experience on dealing with licensing applications and local authorities before the chairman, **James Foster**, wound the session up at two o'clock in the afternoon, at least an hour over time.

Tony Gottelier

Visual Presentation Techniques

This was the subject of the third of the six seminars presented and it was chaired by L+S's John Offord who introduced the first speaker, **Herman Sorger** of Pani, as the company's 'human face'.

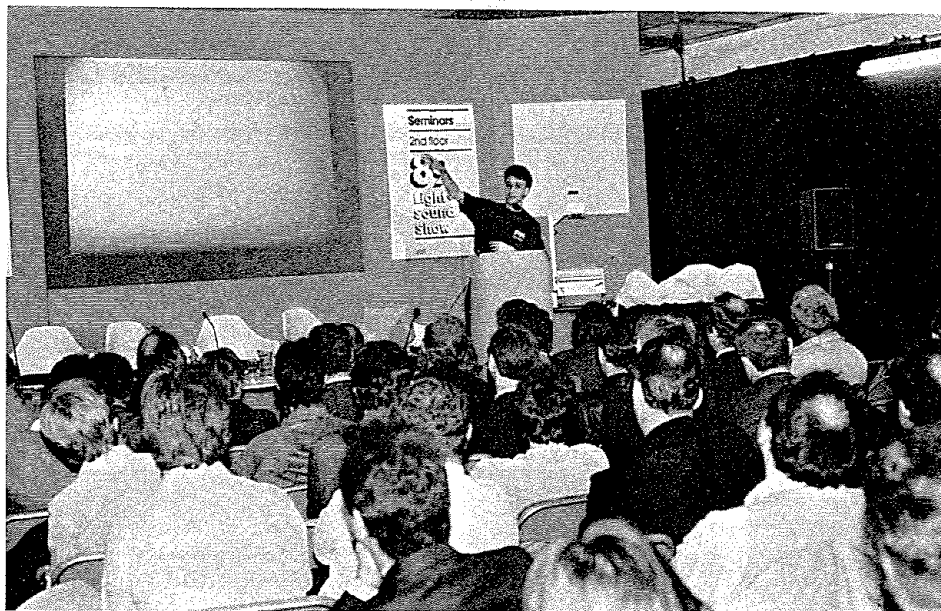
Mr. Sorger treated us to a slide show of Pani's successes around the world reminding us just why

this company's products have become such an industry standard over the years. The company is now 60 years old, but the real progress began in 1972 with the advent of the 4K Osram HMI lamp, and Sorger led us through other developments such as the new 80 degree lens, the dimming shutter and the new BP6 Gold, the most powerful projector in the world; a machine which can now be fitted with 60 slides remote controlled. Most of us are aware of Pani's work in the recent Docklands Concert and Sorger showed us examples of other outdoor (drier) successes where buildings had been completely disguised by projections. Indeed this was a world tour taking in New York, Toronto, London, Paris, Zurich, Brussels, Monaco, Tokyo and Brisbane. In another hair-raising event, the projectors were flown in a balloon and projected down onto the Alps below! This is an interesting new use of an established technology and quite different to the technique of the laser which was described by the next speaker **Simon Molseed** of Laserpoint.

Talking with some delegates afterwards I was disappointed to hear that some felt Mr. Molseed was a little too pedantic, but since I know nothing about lasers I found it extremely interesting. Perhaps wisely Mr. Molseed chose not to illustrate his talk, explaining that a momentary 2 dimensioned slide could not do justice to a fast 3 dimensioned laser beam. After explaining the two basic types of laser (the argon which is blue/green/turquoise and brighter than the krypton which is red) Mr. Molseed went on to explain about the different powers needed for different events, ranging from a 2/5watt for a small auditorium to a 30watt for large outdoor events, the latter needing considerable power and water cooling. 'Downrange' describes the effects then involved, scanners, mirrors and smoke, a vital ingredient for any laser show. Not surprisingly, safety featured strongly and we were reminded of the Health and Safety Executive's PM19 document which Laserpoint helped to write. The H&SE have powers to prohibit the use of lasers if they are installed or operated incorrectly. A key factor is the height of the room, because the primary beam must be 2m above the heads of the audience, hence many small venues are considered unsuitable; other factors must also be taken into account, whether there is a clean water supply, and whether the (ample) mains would be affected by other uses.

Less drama surrounds the installation of videowalls, but speaker **David Kerr** of Electrosonic managed to communicate that this medium is yet to have its full potential realised. Wisely passing over the more complicated aspects of videowall control system design he showed us slides of Electrosonic's biggest wall, a 12 x 12 installation (the world's biggest has over 300 monitors) and took us through a wide variety of installations covering the medium's use in training and education, advertising and point of sale, entertainment and disco, and of course exhibitions; and he made the point that not all walls need to be rectangular. Some people object to the 'join' between monitors and so we were shown some interesting slides of projected television walls where although the join was still apparent it was far less obtrusive, and here he mentioned that dramatic price reductions were on the way thanks to new technology. Despite Electrosonic's obvious expertise in programming the walls, Mr. Kerr left us with the appropriate message that "image quality is the single most important factor in image retention".

All of the above speakers showed proven products and understandably gave little away for the future. John Offord's last speaker, by complete contrast, showed only prototype products - but then **Charlie Paton** has a proven track record of such things working out (he created the system on which PALS was based). His demonstration of a standard Carousel competing (and failing) with a special Carousel fitted with an MSR lamp is rather conclusive. The modified machine has twice the output with improved blue spectrum, but it needs a mechanical fader. There is also sharper definition because the MSR's filament is smaller. Paton also showed us a prototype LCD projector using a 6 x 6 colour LCD in the television gate. The image resolution he said was not as good as ordinary television at the moment, but clearly as he said, the potential for colour change and gobo work is fantastic.



A seminar in progress during the Light and Sound Show.

continued on page 60

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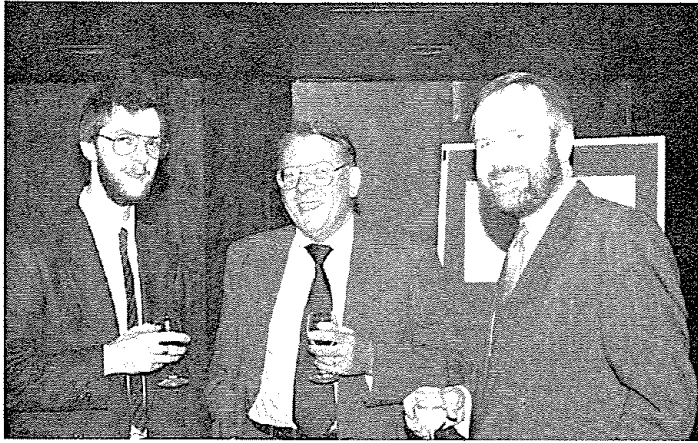
SEQ	Bank 1	ZONE	Bank 2	NEON	Bank 4	LASER	Bank 4
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1: SMPTE SEQ 5	PL	5: COMET/TWO'S	PL	1: G/NEON HOOP	PL	1: DIFFRACTION 4	PL
1: LIGHTSHOW 2	PL	6: SATURNO/FLAS	PL	2: BUILD/DECAY	PL	1: 360 SCAN SLO	PL
1: LIGHTSHOW 3	PL	7: ROTOMAX	PL	1: RIG 1 RED	PL	1: 360 SCAN FST	PL
1: LIGHTSHOW 4	PL	8: COLIBRI CHAS	PL	1: RIGS 2&3 GRE	PL	1: SINE WAVE	PL
1: STROBES ONLY	PL	3: SYNCRO SCAN	PL	2: NEON FLASH	PL	1: CLUB LOGO 1	PL
1: ALL ON	PL	2: 8 SPINNERS	PL	1: DIM TO 50%	PL	1: CLUB LOGO 2	PL
1: MASTER SEQ 8	PL	4: STROBES FAST	PL	2: X-FADE FAST	PL	1: CLUB LOGO 3	PL
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1: HOISTS 1&2	PL	1: JUPITERS RED	PL	1: 4 CH CHASE	PL	1: scroll text	PL
1: HOISTS 3&4	PL	1: STARS STAGE	PL	1: 12 ch MATRIX	PL	1: static text	PL
1: RIG 1-4 DOWN	PL	1: SPOTS STAGE	PL	1: CANS FLASH	PL	1: CIRCLE	PL
1: RIGS 5-8 UP	PL	1: MOVE CENTRE	PL	2: FORTE 8CH CH	PL	1: circle ramp	PL
2: MOTORS STOP	PL	1: UP AND DOWN	PL	2: 20 ch CHASE	PL	1: square spin	PL
2: MOTORS START	PL	1: LEFT-RIGHT	PL	1: ENIGMA DEMO	PL	1: flat scan	PL
3: PYROTENS 5	PL	1: 64 STEP FAST	PL	1: STAGE RED 80	PL	1: triangle	PL
4: SMOKE 1&2	PL	1: ZOOM IN/OUT	PL	1: RED/blue Xfd	PL	1: beams	PL
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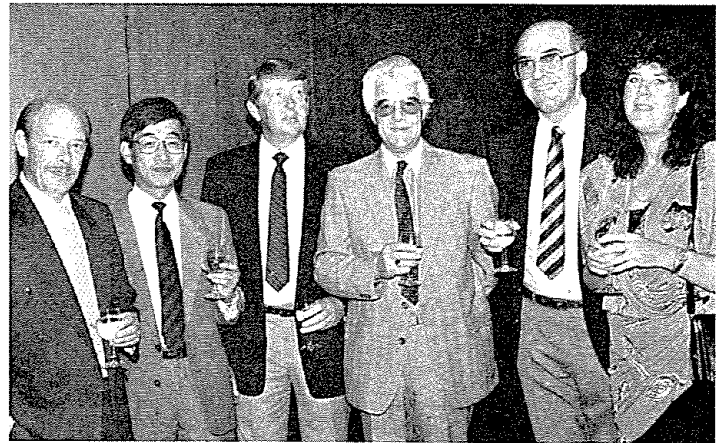
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PLASA Chairman Peter Brooks (right) with Mark Tonks of Cerebrum (left) and Claude Lanos from Pulsar France.



Ian Sharpe and Andy Matsuo of Ramsa Panasonic with Brian Dunn, Paul Maher and Phil Price of Audilec, and Sandy Smith of Music Business magazine.



The Pulsar Dynasty: Ken Sewell, Carol Reeve, Paul Mardon, Brian Baker, Andrew Graves, Monica and Derrick Saunders.



Ben Weijters and Louis Lormann of Jac Van Ham (Netherlands) with Laserpoint's Ron Turpie, Sarah Bradford and Andy Holmes.



John Jeffcoat of Optikinetics with Patricia Kho of Engineering Impact, their distributors in Hong Kong.



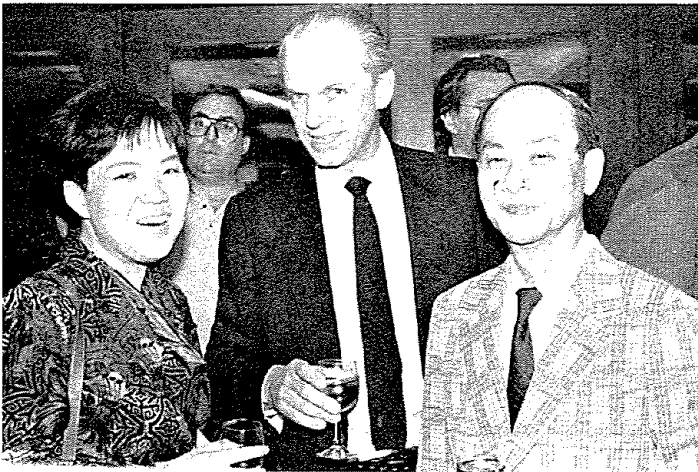
Tony (left) and Sue Gottelier (right) with Jurgen and Renate Kutzker of Pulsar Germany.



Bill Woods (centre) and Dave Fisher (far right) of Shuttlesound link up with Harman UK's Bruno Wayte, Phil Waters and Guy Hawley.



PLASA general secretary Tony Andrew (left) with PLASA solicitor Alex Carter-Silk and Mrs Jacqueline Carter-Silk.



Ng Swee Chin (left) and Teo Kim Puah, sales executives with Hawko Trading, Singapore, with Mike Lowe of Teatro, Italy.



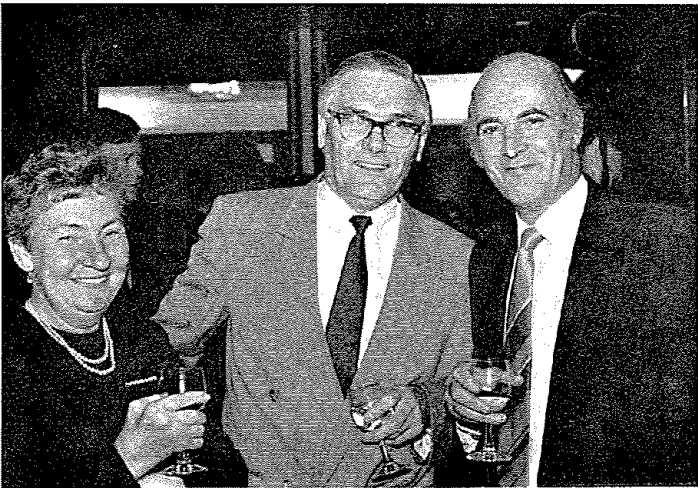
Merlin Milner and Charlie Paton of Light Works with Del Trew and Sue Hawker of Cyberdescence, and Paul Butler from Mushroom Lighting.



Jim Porter of RMS Co. Toronto with Mark Tonks (Cerebrum) and Fons de Vreede of Flashlight Utrecht.



Clare O'Brien and Harriet Mellor of O'Brien Associates with Derrick Saunders and Sue Offord.



Ken Walker of SCIF (centre) with Tony Akers of Citronic and Mrs Valerie Akers.



Matthew Griffiths and Zounie Fallil (third and fourth from left) with TSL staff and guests.



Derrick Saunders (again) with Pat Mackay of Lighting Dimensions, Tim Burnham of Arri GB and Mooi Burnham.



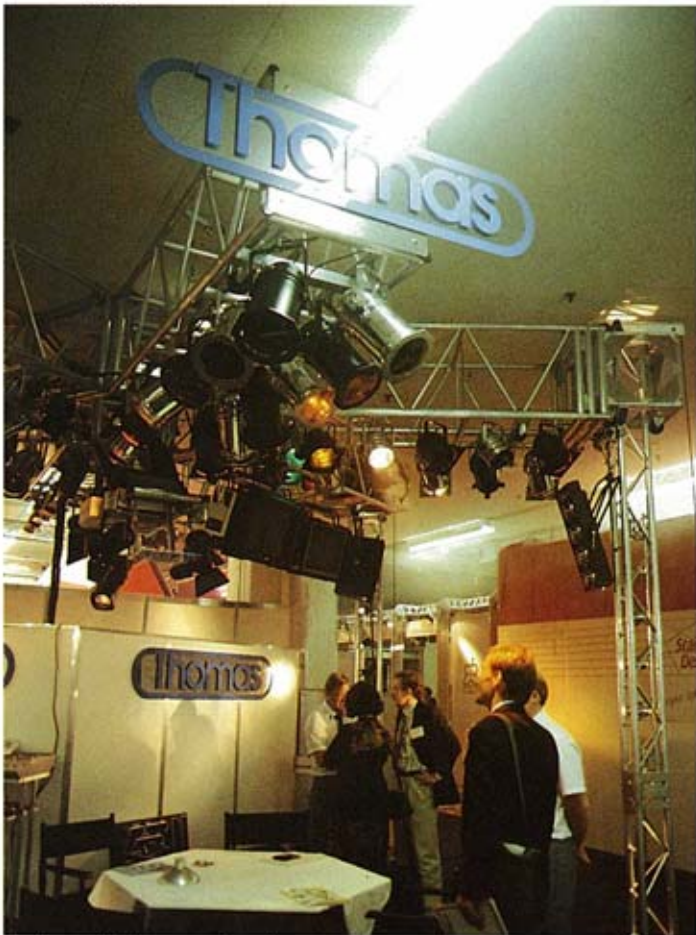
From Zero 88: Monica Lloyd, Karl Schaich (Neu-Phone, Germany), Anne Thornton-Brown, Linda Moss and Pat Brooks.



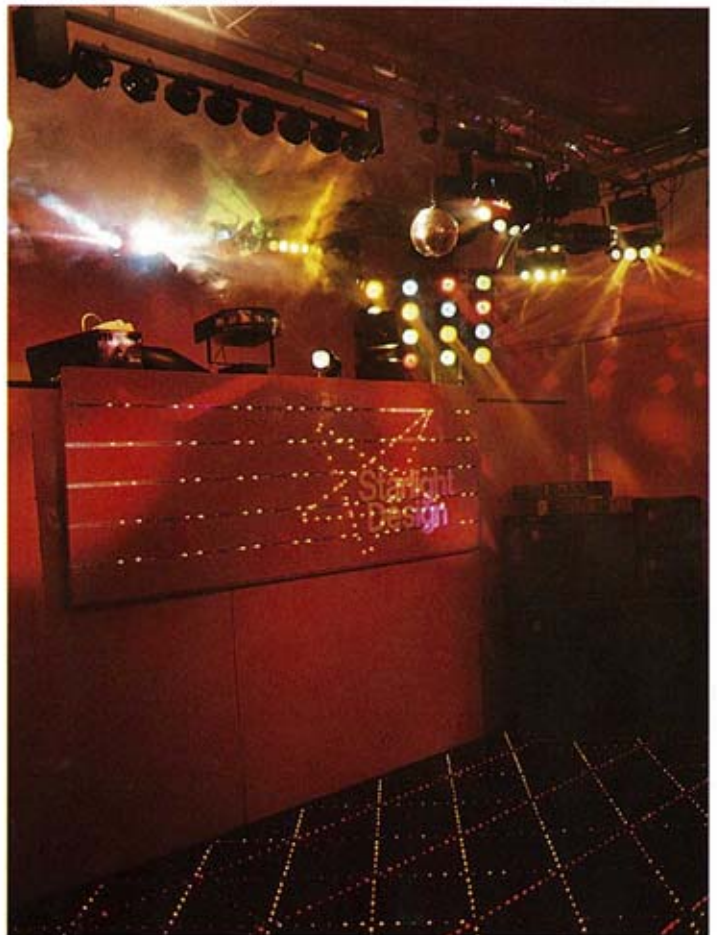
Colour highlights on the ADDA stand.



Dichroic colour from Balzers.



A galaxy of Thomas engineering.



Bright lights from Cambridge: Starlight Design.

continued from page 56

It was interesting to compare the results of the old established and exceptional Pani system with the promise offered by the newer television and laser systems. Clearly it will be some time yet before television or laser projection cause Mr. Sorger any headaches.

Graham Walne

Moving and Intelligent Light

Our ageless lighting man for all times, **Francis Reid**, chaired a seminar at the PLASA Light and Sound Show, introducing four speakers who covered the lighting spectrum from theatre and studios to architectural and concert use.

He commenced proceedings with a brief resumé on where the moving light had started in the theatre. He claimed that in 1961, at a theatre in Salzburg, Pani had made a breakthrough with their polarised relays, following a little later with a pan, tilt, focus and colour change system.

He suggested: "It is more a question of 'moving and obedient lights', than of intelligent ones, and we have now reached the stage where we have total repeatability."

He introduced **Robert Menzies** from DHA

Lighting who spoke on 'gobos and moving gobos in front of light sources', explaining the advances in this area and possibilities at the cheaper end of the moving lights market.

Susan Dandridge of Strand, who followed, gave us an insight into this field from a manufacturer's point of view, and said that in 1960 Strand Century offered a remote Leko. She went on to say that they believed the time had come for this lighting to be used, and considered this was the way to the future of theatrical and television production lighting, rather than for effect. They believe there is now potential for a wider range of budgets to take advantage of remote controlled lighting.

Fifteen years from now, hopefully even sooner, she predicted it will be as common as memory systems are today. "The reason we see this potential now is that entertainment lighting is a parasitic industry. We have now reached the stage where automated lighting can take advantage of the research that is now going on in the larger industries, such as in the robotic research area. Just as has happened with memory control systems we can see some of the advances being made to motorised lighting. There are motors that are now smaller, cheaper and quieter than 15 years ago," she said.

She went on to report on the success of Strand's

PALS system installations around the world, using colour slides to illustrate the various productions where the system has been used.

"The theatre industry is entirely dependent on the rock industry to provide the finance for future development, which used to be provided by the television industry for innovation and research," interjected Francis Reid, suggesting where this development will emulate from.

Inventor and lighting product designer, **Peter Wynne Willson**, designer of the Pancan automated system, and whose background has been in theatre lighting, started by describing how he reached the decision that architects needed a product more streamlined and cheaper than a conventional moving light. He explained, at length, how he approached one client to see if they could take advantage of mass production units for bringing driven lighting into the architectural field. Amusingly, he told of his experiences in his attempt to get the light 'moving', showing some of the prototypes produced along the way.

He described how he saw control requirements for these systems developing over the next few years. He feels the hardware to be self-explanatory. "We can see any number of stands with all kinds of hardware direction," he said, "but the control systems are less than perfect. Vari-

continued on page 72

Jupiter
in a famous painting
by Andrea Appiani.



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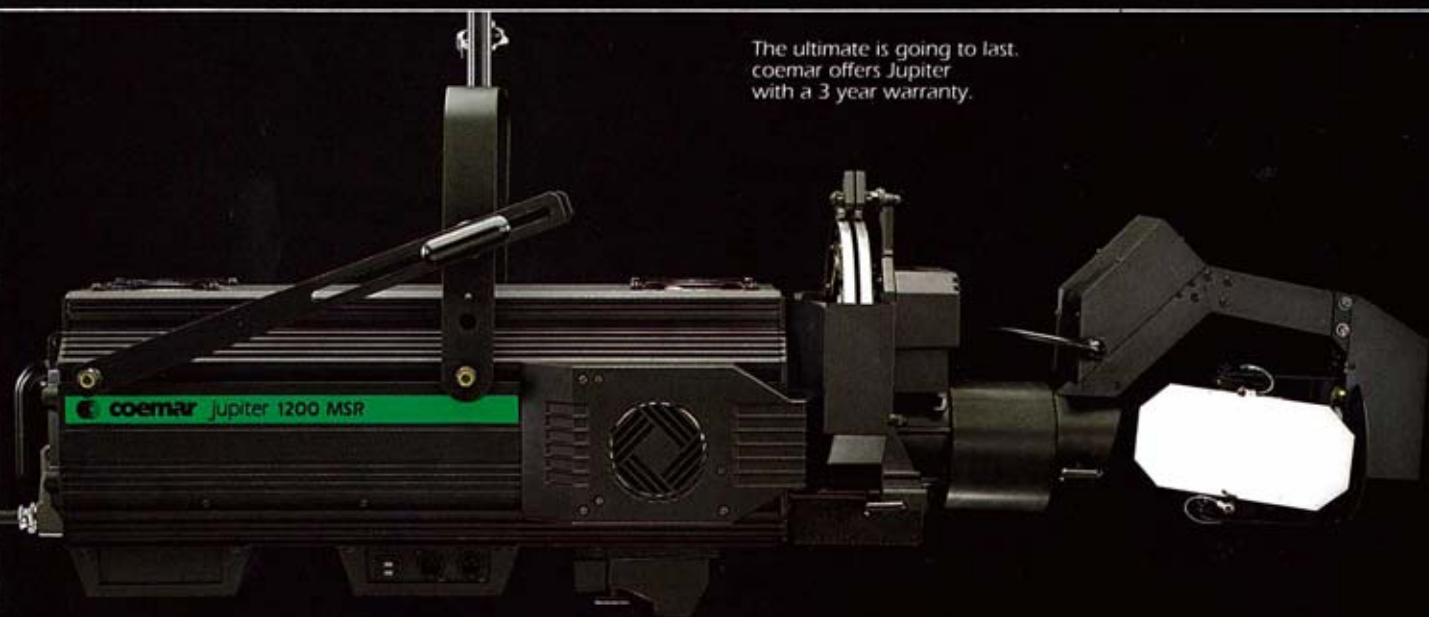


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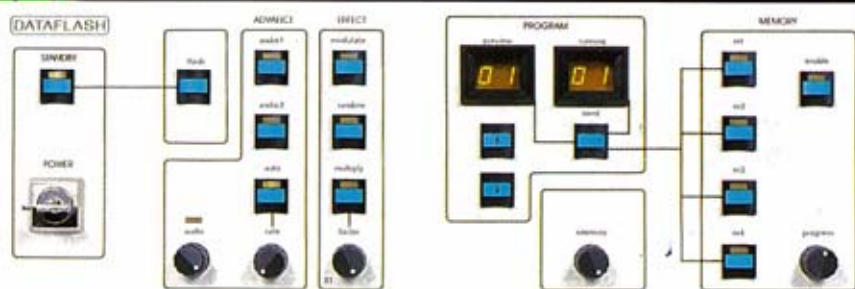
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DISCO+CLUB SCENE

David Neale

Starlight at The Park

Starlight Design recently designed and supplied the lighting system at Cumbria Leisure's new nightclub, **The Park** at Whitehaven on the Cumbrian coastline.

The Park, an old swimming baths, has been converted into three sections - the main nightclub, a function room and a public house.

Starlight Design were responsible for the lighting design in the main nightclub as well as the smaller function room. The main nightclub incorporates an unusual chrome Isoframe highlighted with 180 neons and a spectacular effect has been created. 400 pinspots have been used in four different zones which are controlled by Zero 88 Mercury controllers.

The main effects include a Clay Paky Astros spider, 16 x Starfans, 4 x Starflowers, 2 x Starbeams, 4 x Starlight Harvester Ones and 23 lengths of Arcline. All Par 36 lamps (6v and 12v) are 2000hr long life.

Equipment:

- 2 x chrome Isoframe rig
- 472 x pinspots
- 180 x neons
- 16 x Starfans
- 16 x Ribalta floods
- 4 x Megastar strobes
- 1 x Astros spider
- 4 x Starlight Harvester One
- 10 x Starlight 4 lamp wavers
- 6 x 4 lamps helicopters
- 4 x Starflowers
- 2 x Starbeams
- 5 x Dice cubes
- 16 x 360° spinners
- 31 x Arcline
- 2 x ZR20 smoke machines
- 3 x Zero 88 Mercury
- 1 x Touchlight 12
- 1 x programmable touch panel
- 2 x Arc Line controller AL100
- 15 x Anytronics power packs
- 4 x Starlight scanner banks
- 4 x Super Slave strobes
- 4 x sound scanners
- 2 x mirror balls
- 1 x Hedgehog

TOA at Bianco's

Bianco's nightclub in Bath has recently undergone a complete refurbishment. A new sound system has been installed including four Toa SF-30 speakers and two Toa SDB sub woofers.

The previous sound system was capable of operating up to 108dBs, but with distortion in the upper and lower ranges. The new system has increased the capacity to 115dBs with no distortion apparent in either range. Northern Light of Edinburgh carried out the installation.

The club also boasts a new laser light show which was supplied and installed by Laserpoint of Cambridge, who carried out the work in the London Docklands with Jean Michel Jarre. An interesting fact is that the club is owned by Hibernian PLC, a company which was set up to safeguard the future of the Edinburgh football club. It is one of 18 properties owned by the PLC in the Avon area.

Blue Orchid

Entertainment giant First Leisure is launching a major nightclub complex in a £4.5 million scheme.

The **Blue Orchid** development is set to open in Croydon in November, creating in the region of 80 jobs. The stunning two-storey complex is being sited in Park Lane in a revamped building, which used to be the Greyhound pub. The multi-million pound development is divided into the spectacular Blue Orchid nightclub with the Cafe Moonshine below.

It will be the latest addition to First Leisure's thriving dance division. The company, headed by

kord Delfont, already owns a chain of more than 30 discos throughout the country.

The Blue Orchid on the first floor will feature two discos, seven bars and an a la carte restaurant. The main disco will have a balcony running around it, where the DJ and a bar will be situated. The dancefloor will be split-level.

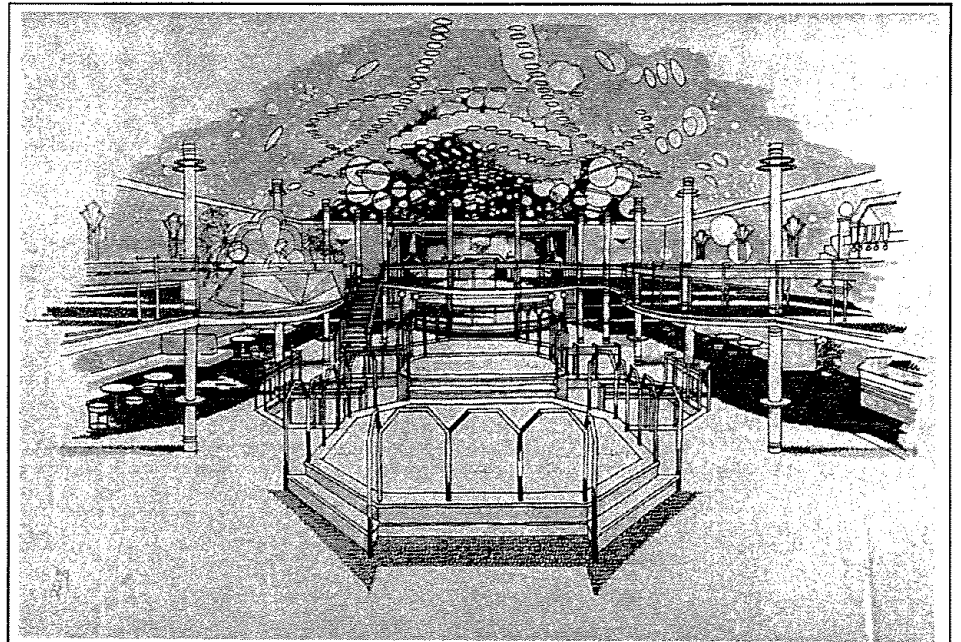
A former function room with a stage is being transformed into a Stage Bar, which will be the nucleus of the disco. A second dance area will be independent from the main disco. This will be smaller and designed more in a lounge-style. The giant disco will be able to hold up to 1,500 people.

The Chinese restaurant, which seats 50 people, is also on the first floor. It will be divided from the discos by special glazing screens allowing diners to watch the dancing while they eat. An impressive portico entrance, in midnight blue, is on

the ground floor with a feature staircase leading up to the nightclub. The main entrance foyer will have a ground floor bar where people can meet up. The stairs to the nightclub are stylishly decorated with mirrors - a theme which is continued throughout the disco.

Design specialist, Ian Frost, whose company WFC of Newton Abbott is carrying out the Blue Orchid project, said: "This is a major development for Croydon's entertainment scene. First Leisure asked us to design and build an impressive nightclub complex, which the Blue Orchid will certainly be."

The ground floor Cafe Moonshine, which opens this month, is a continental-style brasserie. The outside of the Cafe Moonshine has been totally revamped. It will feature a Brazilian mahogany exterior.

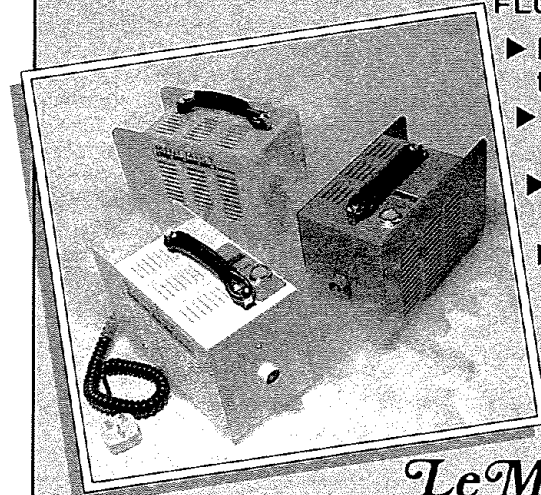


An artist's impression of the main dancefloor at The Blue Orchid.

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EXCALIBUR, GILLINGHAM



The interior of Excalibur with the dancefloor elevated to reveal the pool.



A view of the console with racks of Light Processor equipment.

Fifty years ago the threat of World War II loomed heavily over Europe. Young men and women danced to the strains of the Ambrose orchestra and the sounds of Glenn Miller, and servicemen and women were also filling the dance halls of the day. One such hall was the Naafi Ballroom in Gillingham, Kent, and fifty years on the building has been transformed into a modern hotel/nightclub complex.

Eight years ago Tony Degiorgio bought the site and since then has worked on a re-building programme which today would amaze those wartime service-people.

The first part of the development consisted of rebuilding the service quarters into a modern hotel. Then came a club which catered for the over-eighteens and now, after two years in the making, comes Excalibur.

Tony Degiorgio explained that all the work carried out was done by his own staff. Alongside Tony, his son Steve has also worked tirelessly on the project.

To give you some idea of the scale of the operation, one only has to enter the club. At first glance you can see the main dancefloor, several bars and other dance areas at different levels. On closer inspection, you find that the main dancefloor can be raised to

reveal a swimming pool beneath it, complete with its own lighting, flowers and smoke machine.

It was necessary to dig the swimming pool manually, due to a JCB being too large to enter the building. That's the story - if something needs doing then get down and do it! Steve Degiorgio - who also helped with the excavation - said that there was many a time when he wondered what the xxx he was doing up to his elbows in muck!

When it came to the lighting of the club, Degiorgio turned to LSD, who had supplied lighting to him in the past. LSD's Dick Carrier is quick to point out that they supplied the lighting required, but the client handled the design and installation. Laser Systems installed the laser, and Tony Russell of ASS supplied the sound.

Excalibur would cause a stir in any part of the country as a first rate nightspot, but when you look around the Medway towns, you feel it could cause not just a stir, but more of a revolution. Whether more will follow, only time will tell. Fifty years has passed since the outbreak of war, and we're now in the age of Glasnost. And it's pleasing to know that they're still dancing down at the Naafi, even though it's to a very different tune.

Discotheque Royale

A £3.5 million development in the heart of Manchester is helping to safeguard one of the city's finest historic buildings. The transformation of the former Theatre Royal, Peter Street, into a discotheque is giving a new lease of life to some of the building's grander features. The designers of First Leisure Corporation's dance venue the **Discotheque Royale** have striven to incorporate the more elegant Victorian aspects of the old theatre into a unique new night-time setting.

Ornate plaster and woodwork carvings on the inside and delicate masonry work on the outside are all being restored to complement an elegant overall theme. The theatre's magnificent proscenium arch and huge fluted pillars are being carefully refurbished to blend with new features like rich heavy drapes and 27 magnificent chandeliers. Even the computer controlled special effects lighting rig above the dance floor has been designed to give a 'chandelier' effect.

Discotheque Royale is due to open in mid-November providing an exciting and altogether different social rendezvous for up to 1,600 nightclubbers at a time. Designer Terry Wheeler, of Leeds-based Group Northern Contracts, has recently collected two international awards for other discotheques in the First Leisure family. "I have tried to blend the more outstanding features of the former theatre with the style and sophistication of a top quality modern discotheque," he said.

And as well as plentiful bar and dining areas, Group Northern have also featured aerial walkways, linking all three levels from ground floor to upper circle.

The refurbishment has given a new lease of life to the venue. The last stage production at Theatre Royal ended in 1921. Since then it has been a cinema and bingo club and the building itself had fallen into disrepair.

Excalibur Nightclub, Gillingham.

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- 1 x Toa 8 track tape deck
- 1 x Formula Sound PM 80 mixer
- 2 x Citronic CS 220 Mic mixers
- 1 x Alesis Midiverb 2
- 1 x Akai S900 sampler
- 1 x Casio 540 keyboard
- 1 x Atari 1040 ST computer with Steinberg Pro 24 III software
- 1 x RCF Spectrum analyser
- 4 x 800w Harrison digital amps
- 4 x 500w Harrison digital amps
- 4 x 300w Harrison digital amps
- 16 x 150w ASS bass bins
- 12 x 100w ASS low speakers
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- 16 x 100w Par 56 Spinners
- 26 x Strobes Ice Starflash strobes
- 1 x 64 head Helicopters
- 8 x 4 lamp Windmills
- 4 x Synchro flowers
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ON TOUR

Carltona Forcer

First of all apologies to Chameleon Lighting! The photographs of the Bros rig and concert that were published in last month's article were credited as being taken at The Marquee which was incorrect. The photograph of the rig was taken during rehearsals at Bray Studios and the live shot was from Wembley Stadium. Apparently Chameleon have had several phone calls from people enquiring as to how they managed to get over 550 lights in The Marquee!

More from Chameleon later with the ever inventive Lawrence Park who, once again, has designed a small but creatively successful show for a major act. First though, the Moscow Peace Festival.

Moscow Peace Festival

a special report

The Make a Difference (MAD) foundation was established to attempt to resolve some of the problems of contemporary society caused by the abuse of both drugs and

alcohol. The foundation invites rock stars to promote clean living as an antidote to the traditional, if not somewhat jaded, image of rock 'n' roll. Many of the top UK and US rock acts donated their time and energy to create an anti drugs and alcohol spectacular that could be sold to cable TV and network television. The result was the Moscow Peace Festival which took place in August this year.

Doc McGee, who produced the whole event, realised that staging the festival in Moscow would generate considerable interest media-wise, by being something a little bit different. It was no coincidence either that the event fitted in politically with Glasnost and Perestroika.

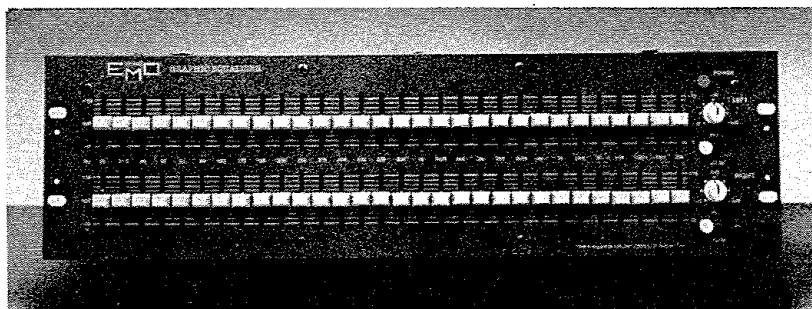
The costs of staging the event were tremendous - all the equipment and specialist production staff had to be taken to Moscow, as the city was unable to provide the quality and standard of both equipment and manpower required, even the security had to be flown in although the Russian state-controlled armed forces were much in evidence at the show.

What's fascinating about the whole event, apart from its location, are the statistics involved: the performance area was over 300 feet long; the entire crew totalled 1,500; over 300 tonnes of steel were used; 50 trucks delivered the equipment, including five generators and 10 film crews from various countries recorded the event for posterity.

With 140,000 attending the live concert, and presumably a great many more watching, the Russians decided to 'guarantee' the weather. Though nobody has been bold enough to come right out and say it, there's a heavily substantiated rumour passing round the industry that the Russian air forces were mobilised to inject silver nitrate crystals into the clouds, which, seemingly, have the properties to prevent cloud formation. Sure enough, there wasn't a cloud in the sky on Saturday, August 11th.

Clearly, the Russians aren't as technologically disadvantaged as it would appear. Apparently, it hasn't rained on a May Day Parade in over 30 years!

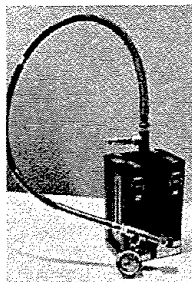
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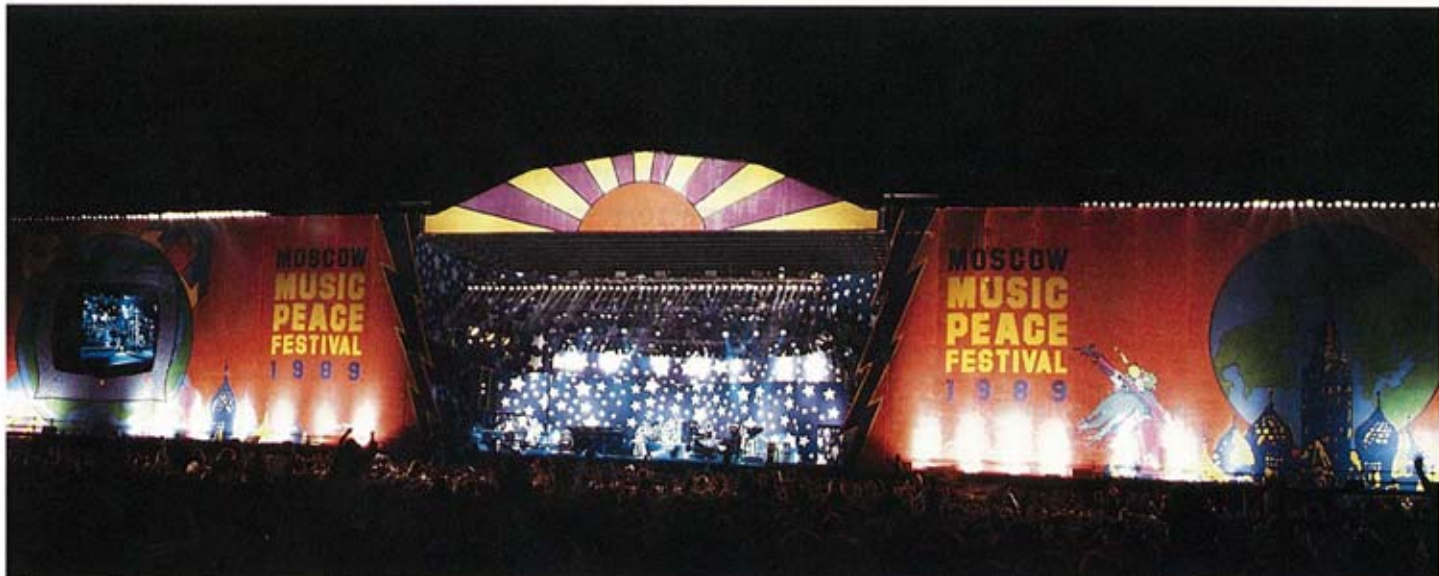
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The Moscow Peace Festival concert in action.

Photos: Stuart Cooper



Set building and fit-up in progress at the Lenin Stadium, Moscow.



A close up of the lighting rig.



Above and below: more action from the Moscow Peace Festival.



The Eurhythmics in action (see report p72).

photos: Steve Woodcock.

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Though the Peace Festival lasted 12 hours, only three hours of the spectacular were broadcast, with pre-recorded footage being cleverly timed to coincide with a transfer to Bon Jovi performing live.

Make a Difference - Moscow

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 1 x 16 channel motor control desk
 60 x ColorMag colour changers
 20 x MoleMag control desk
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 2 x cracked oil smoke machines
 Stage Design: Jeremy Thom
 Stage Construction: Upfront
 Lighting Design: Dave Davidian, Manfred 'Ollie' Olma
 Lighting: Light & Sound Design
 PA: Rock Sound (Germany)
 Scrim: Peter Max
 Stage Revolve: Scena
 Production Manager: Steve Lemon

The Eurythmics Wembley Arena LD: LAWRENCE PARKS

After the Sade tour finished in November 1988, Lawrence Park decided to take a break from lighting design in order to spend more time with his wife and new baby. He returned to the business this summer when his main act, The Eurythmics, decided to embark on a world tour.

The tour began in August with three showcases to promote the new album 'We Too Are One'. The first was in Cannes, France and it was supposed to be a small event, but things snowballed and only the amount of lighting equipment used remained the same! Then it was on to Los Angeles to do a show in the foyer of The Pantages Theatre followed by a small show in New York.

Production rehearsals were held at The Point, Dublin for eight days and Lawrence was extremely impressed by the standard of the venue. The tour lasts until Christmas Eve and by then, will have visited the UK, Europe, U.S.A, Australia and Japan. "The band like a lot of white light", explained Lawrence. "Annie likes it really stark and bare, whereas Dave likes it really bright. So I have to strike a balance between the two to keep them both happy. The set includes many songs from previous tours which I usually light the same as before because I believe that continuity is a good thing. If something works there is no point in changing it. There are a couple of new effects including a few hand held sun guns with battery packs which wander about the stage. There is also a projection thing using some silver slash behind a screen and reflecting lights off it back onto the screen which gives a nice mottled effect".

Lawrence has a reputation for using rather small lighting rigs which doesn't exactly endear him to the lighting rental companies! On this tour he uses a box truss 40"x28", the front truss holds six Lekos and five banks of Molefays and the side trussing has only twelve lamps a side. The back truss has

about 60 lamps. The original plot had more lights but at rehearsals Lawrence found that many were not actually being used, so he got rid of them. During the song 'King and Queen of America' the crew start to ensemble several film lights around the band to make the stage look like a film set. No attempt is made to conceal the crew's activity on stage, in fact, Lawrence had a lot of trouble persuading them to act naturally in front of audiences of 6000. "I believe in doing as little as necessary", said Lawrence. "To complicate things just distracts from the band. Annie's personality is so strong on stage, she doesn't need fancy lighting".

Hopefully there should be a major tour coming up in January for Lawrence, but he admits to banking on nothing.



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continued from page 60

Lites have a very sophisticated system, but you have to have a training course before you can operate them. Anyone coming in from the street cannot, and nobody is going to have a QM500 in their sitting room."

So what Wynne Willson is looking for is control that will allow lighting to orientate itself as he believes that the first driven lighting systems in this field will find their application in large buildings, and suggested that we may see intelligence coming into this kind of lighting by 'time of day' and the 'weather'.

I wouldn't like those who missed out on a seat for this 'debate' to miss out on the much anticipated 'tales of Reid' which we hear from Francis in between the lines at these events, and which are becoming too much of a rarity these days.

He told the assembly about one of those incidents of which the debate had reminded him, and which had occurred during a pantomime in Coventry. "We gave every child who came through the door a paper bag. In each bag was a packet of sweets, streamers, comics, and things and - a torch! . . . We reached the end of the first scene and there was a 'Snap Blackout' for the scene change. And at that moment 2000 torches came on, pointed at the stage, brighter than anything we had been able to achieve!

"I suddenly got this image during the debate and thought, gosh - 2000 people sitting there with infra-red controls creating havoc for the lighting designer! . . ."

The final speaker boldly shook the proceedings up a little, and endeavoured to crack the current dilemma with his 'Less Talk - More Thought' paper.

Roger Pearce-Harvey, who is a consultant to Tasco, was, in 1985, responsible for the design and development of the new Starlite moving light system. He described what he thinks sets this equipment apart from the many other participants in the moving light industry.

"It is a simple concept and we have a totally integrated system from the tips of the lighting

designer's fingers to the end of the projected light beam. That is what is unique," he said.

He described the 3D graphics display simulating to scale a stage through a microsoft window process. The principle that the control system should be computer-based and not processor-based had forced them to develop the programme, and he went on to say that the software power and graphics presentation of off-the-shelf computer hardware was the only possible direction that could cater for the demands of the future intelligent light systems.

He warned that the more he hears from lighting designers of the apparent complication of new control boards, the more he is convinced that the industry must follow such a package. "The application of computers must make life easier for our clients otherwise confidence will be lost and there will be confusion," he said.

He spoke of the facility to include future projection designs without having to redesign the control board, synchronising the speeds of the functions within the projector, and from projector to projector within the lighting rig.

"I have never seen this vital feature of our particular market given the priority that it is due," Pearce-Harvey continued, "In its simplest form, we'll observe that the objective light beams will arrive at the new point of focus at exactly the same time. How do we achieve the high level of control of all these features combining the essential factors of ease of operation and new product development, and then leave room to cater for the unknown quantity?" he asked. And reminded us of the question Francis Reid had put to a similar seminar at the Showlight conference in Amsterdam: "When do you think we will see the lateral movement of the whole projector within the light rig?"

Pearce-Harvey commented that he suspected that when Francis Reid had played with such a rig, he would probably then ask if the light beam could be continued to be focused on the subject whilst the projector was in lateral movement, holding frame, with a result that shadow moves to

dramatic effect, then the control of the speed of movement sideways must be variable, absolutely smooth, and synchronised with pan, tilt and focus functions!

He went on to say: "Here are some examples of what they were doing. All functions need a minimum of 12 bit resolution to give the necessary precision of control, and you'll see then that the problem of sending 8 bit data to a possible 1000 dimmer channels is a relative non-event. DMX 512 protocol cannot possibly handle this level of control with the sophistication that is required even today, let alone what Francis may dream up in the future!

"It frankly doesn't affect us anyway, and a system standard should be sought for the more basic user and a list of these instruments should be defined, together with the resultant standard." He stated that he was happy to produce a product, and the necessary hardware interface, to control "what you like, where you like, and when you like!"

He promised: "We can interface any PC compatible hardware, and recently we have just completed the interface for the most exciting of all these developments - voice activation, which works very well. These are not dreams or future possibilities. They are at Tasco's studios today"

Francis Reid stated that his 'user requirement' was that he wanted the movement of the light to be exactly the same as the intensity. Pan, tilt and focus are different things. He wanted it all to be totally integrated and whatever engineering protocol is required, then that is what's needed, and what is wanted. He recommended to PLASA that they really need to convene a 'Protocol Worriers Weekend' on this subject.

He wound up the debate by asking the speakers if they thought it would be worthwhile having another version of the same seminar at the Light and Sound Show next year. Did they think any progress would have been made?

"At a PLASA seminar we give you 'Wishfulness', he said encouragingly.

Julian Williams

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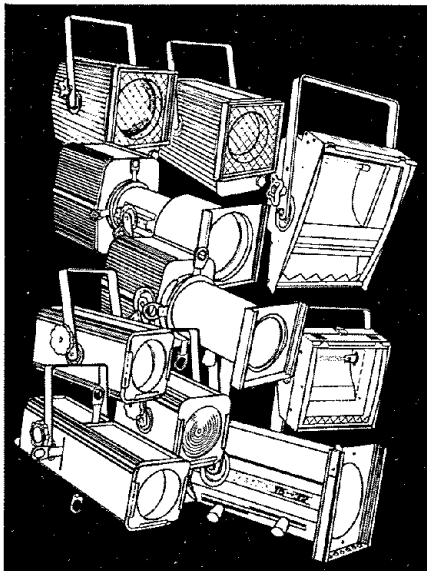
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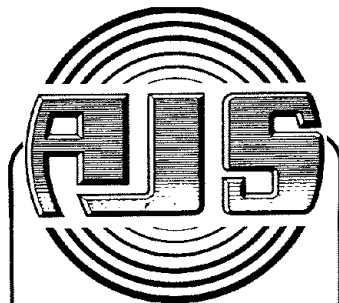
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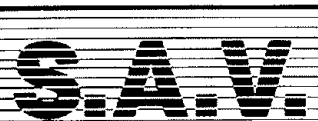


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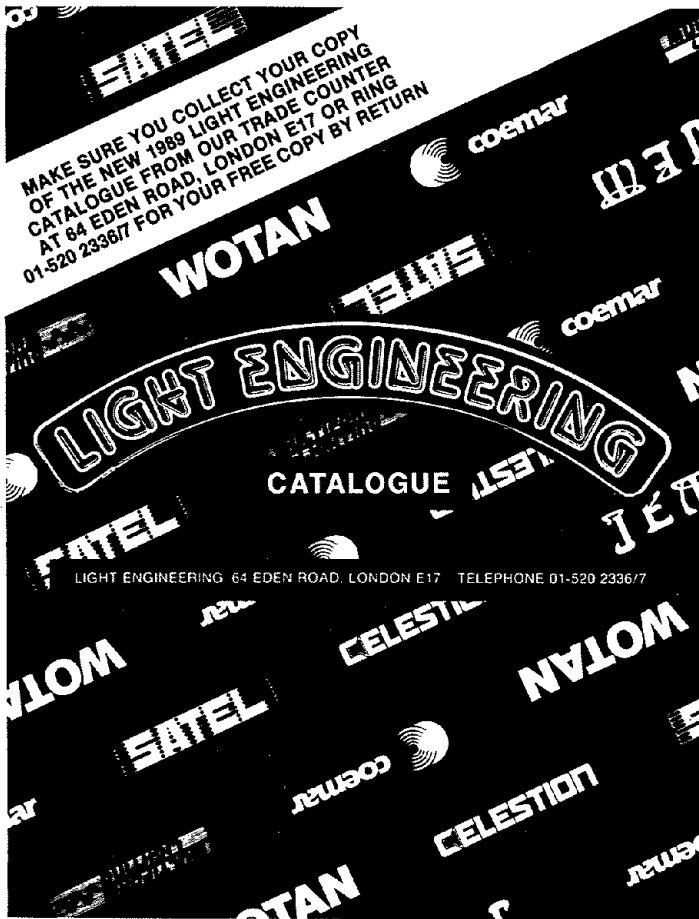
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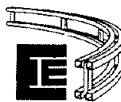
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VIEWPOINT

Marion Smith on

Selling Great British Effects

Having been involved in importing lighting effects from Europe for several years, what made you decide to start manufacturing? This is a question I am often asked, and sometimes ask myself.

The attitudes of the discotheque industry have changed dramatically in the last seven or eight years. 1982's Superdisco at the BADEM show was a terrifically exciting time, and everybody who saw a light show for the first time utilising brand new effects which tumbled and gyrated as had never been seen before, felt they **must** have these effects in their club.

Installation companies sprang up all over the country and began busily specifying these European imports into their schemes. Such was the excitement of the manufacturing companies, they couldn't get their new ideas into production fast enough! The main headache at the time was in servicing the new equipment which was in many instances being road tested in the clubs of Europe rather than in the production departments of the manufacturers. Still, the club owners didn't worry about this, as long as they had the latest technology hanging in their ceiling the problems could be sorted out later.

Gradually, over the next two or three years, installation companies and club owners alike demanded a better quality product. The installers realised the cost of constantly returning to site to replace motors and other defective parts which were still under guarantee, and club owners naturally wanted their light shows to work - preferably every night. In general, most manufacturers did sort their problems out quickly and standards have improved greatly over the years.

Our biggest headache in competing with our European counterparts is cost. Not only are the Spanish and Italian wage bills lower than in Britain, grants are also sometimes made available to their companies by the government to help increase exports. The cost of labour is also reflected in the individual component costs, and I would imagine, as there is a fairly broad base of lighting manufacturers in countries like Spain and Italy, their suppliers are more readily geared towards supplying them components. One of the major costs in developing new products is the tooling costs involved in having parts specially made for us.



Marion Smith, a committee member of PLASA, is a director of Starlight Design, a manufacturer, designer, installer and distributor of lighting equipment based at Bourn in Cambridgeshire. She began working in the industry in 1980 when she joined Avitec who were establishing operations in Hertfordshire. In 1984, she left to form Starlight Design with her husband Graham. The following years have seen a rapid growth in the company and in addition to their present site they have recently acquired a 4,000 sq.ft manufacturing unit. It is now one of Britain's leading manufacturers in the field.

An eye-opener has been the delivery times imposed on us by our suppliers. Say what you like about the discotheque industry, but one thing we collectively do really well is react quickly to the demands of our customers. Club owners want their invest-

ment to be returned quickly, and the club to be closed for an upgrade for as short a time as possible. We understand these problems and pull out all the stops for supply and installation in the shortest time.

Try telling that to a motor manufacturer! - Delivery has to be at least 12 weeks from order, and we also have to order for the coming year's production. And then, add to that, delivery problems from each of our suppliers across the now vast array of components necessary to manufacture a large range. (At least we are thankful for a good production manager who alleviates many of the headaches.)

Unlike the British controller or smoke machine manufacturers who have led their respective fields worldwide in innovation and design, a few British lighting effects manufacturers are now competing strongly in a world market that was originally a purely European domain. British manufacturers do manage to compete on price, and at the same time (I believe) sell a better quality product with back up and service. The market as a whole is now accepting that effects lighting can be manufactured in the UK, and certainly our export sales are beginning to bear this out.

VIEWPOINT

If you have a view to offer on any aspect of the lighting and sound industry, why not air it in this column?

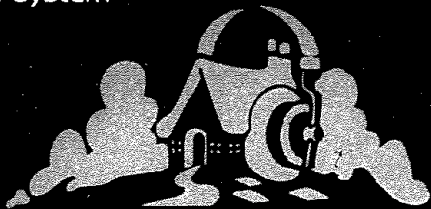
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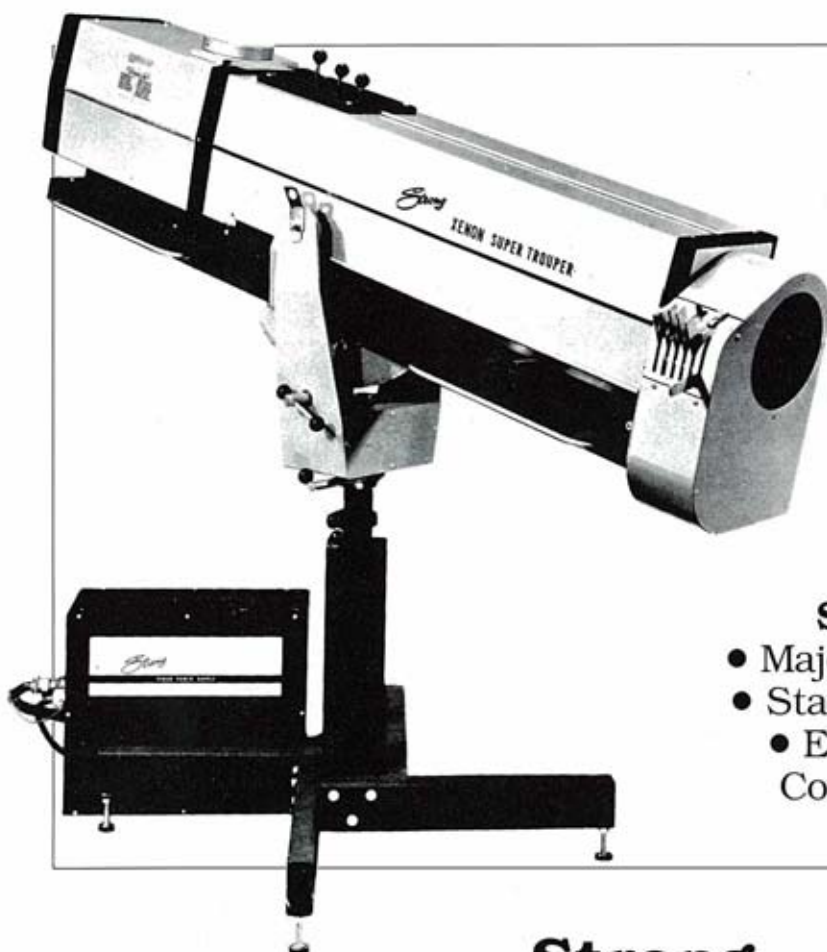
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