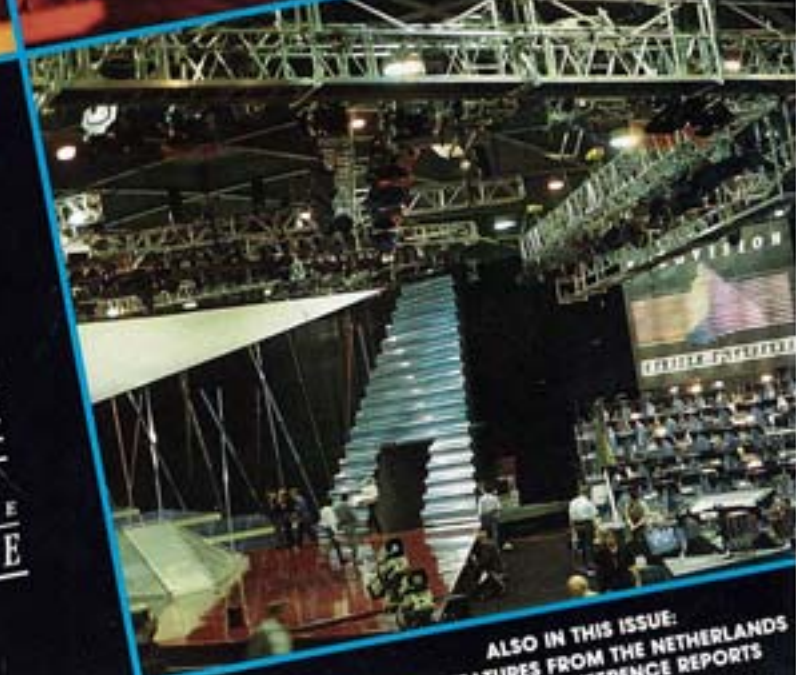
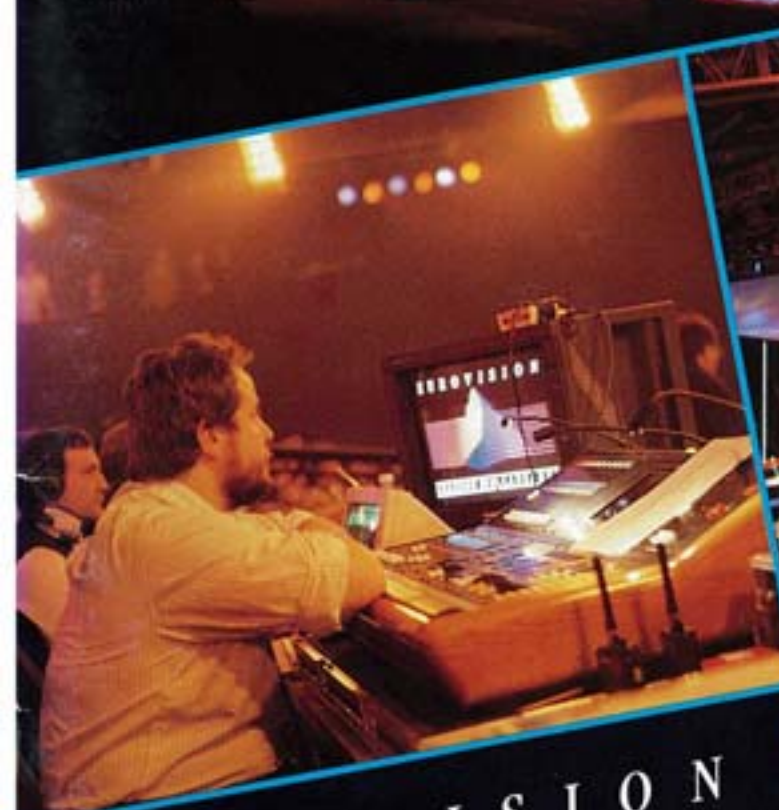


LIGHTING+SOUND

JUNE 1989

International



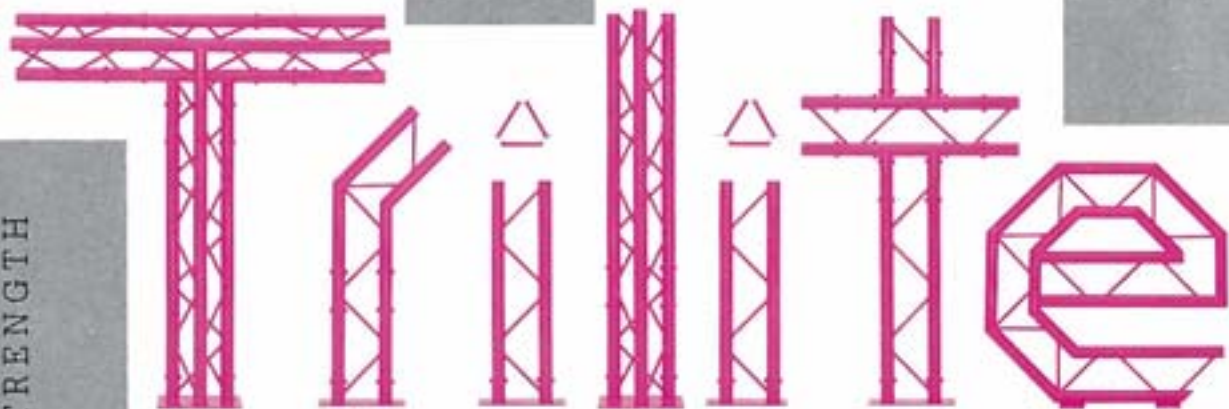
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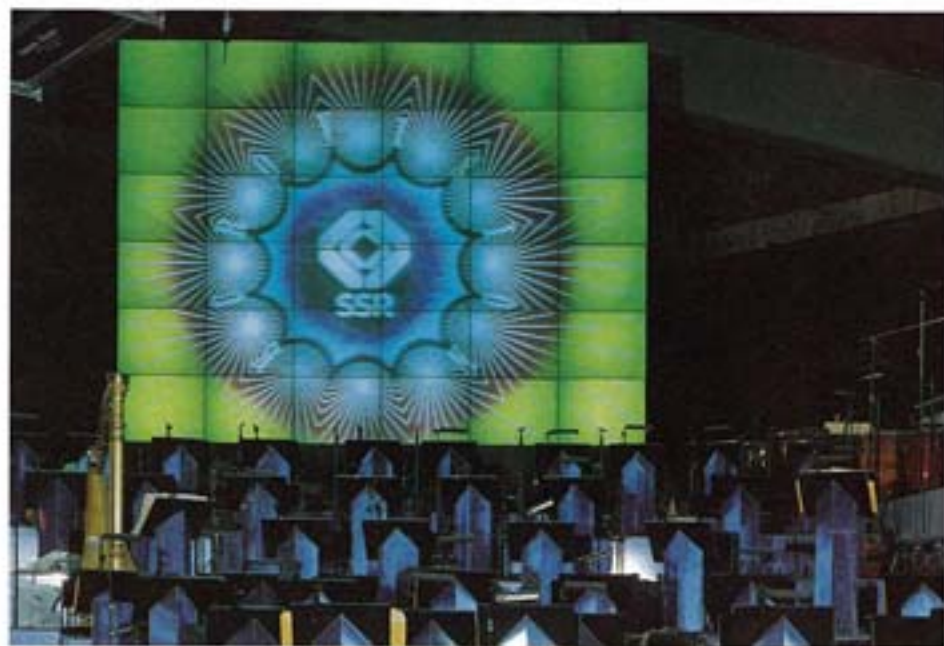
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LIGHTING+SOUND International

JUNE 1989

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Big Screen Attraction

Pictured above is VidiWall, the latest in video wall technology from Philips. One of two on-set 'screens' it was pictured at the 1989 Eurovision Song Contest in Lausanne. Installed by Syrna Vision of Kirchberg it shows the logo of Swiss Television.

The system is described in detail in Tony Gottelier's article on the new Metropool discotheque near Amsterdam which also features this new system (see 'Holland by Metro', pages 53-56).

LIGHTING+SOUND International

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Editor: John Offord

Assistant: Ruth Rossington

Telephone: (0323) 642639 Fax (0323) 646905

Editorial Advisers: Tony Aker, David Bearman, Andrew Bridge, Peter Brooks, Jenny Cane, Tim Chapman, Mike Gerrish, Kevin Hopcroft, Tony Kingsley, John Lethbridge, Rob Peck, Iain Price-Smith, Neil Rice, Hazel Simpson.

PLASA Office:
7 Highlight House, St. Leonards Road,
Eastbourne, Sussex BN21 3UH.
Telephone: (0323) 410335

PLASA
PROFESSIONAL LIGHTING
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Citronic Pioneers The Introduction of European Safety Standards Directive

PLASA member Citronic, leading professional audio equipment manufacturers, is pioneering the introduction of a safety standard specification to which all manufacturers of professional audio equipment in the EEC will conform by 1992.

The help of Dr Caroline Jackson, Member of the European Parliament for Wiltshire, Newbury and Wantage, was reinforced at a recent official visit to Citronic's factory at Melksham, Wiltshire when she promised to write to the European Commission on the company's behalf. Dr Jackson has already approached the European Commission over an on-going safety standards problem Citronic is experiencing with Spain.

Tony Akers, managing director of Citronic, is also chairman of the standards sub-committee of the Professional Lighting and Sound Association (PLASA). He explained to L+S the dilemma facing the industry: "The EEC Low Voltage Directive issued in 1973 states that any equipment operating at over 50 volts must be safe. However, as manufacturers of professional equipment we do not fall into a category for which a European safety standard has been set.

"BS415 is the nearest Safety Standard directive to our industry, but it is restricted to domestic equipment," he continued. "Our goods would in fact conform to BS415 if tested, so one way of resolv-

ing the situation could be to alter its Terms of Reference to cover commercial and industrial professional audio equipment capable of being powered from a domestic power supply."

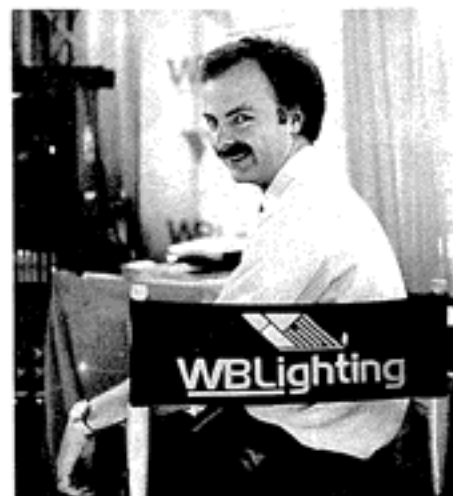
The EEC accounts for a large proportion of Citronic's total export sales portfolio and the company's future plans include further expansion in this market. The problem facing the industry is a serious one, and Tony Akers has decided to take action at this point in time because of increasing difficulties Citronic has been experiencing in getting its goods through Spanish customs.

Because Spain has no facilities for testing safety standards of 'brown' goods, it has to accept the word of the manufacturer as to its safety. Therefore, Spain, and possibly other countries too, might soon demand a certificate of safety to accompany all imported professional audio equipment. At present this would be impossible for a UK manufacturer to produce.

In addition to Caroline Jackson's help with the European Commission, Tony Akers will be writing to Lord Young at the DTI to try and enlist his help to resolve this catch 22 situation. Mike Gerrish, Citronic's sales and marketing director, will also be visiting the British Embassy in Madrid within the next few weeks and will make representations on the same subject.



Picture above is Dr Caroline Jackson, MEP, testing an amplifier at Citronic's headquarters. With her is Citronic managing director Tony Akers (right) and Carlo Richer, in charge of this particular test.



Mike Wood of WB Lighting directs operations at the ABTT Trade Show. Full report pages 61 - 67.

Profiles in Sound

With the Fane Court Series, Fane Acoustics have acquired the marketing rights to a range of sound system design which is equipped with a special series of customised drive units, fine tuned by the Fane research team to optimise every aspect of audio excellence from a unique series of enclosure designs. The range is available as standard in medium density fibre board construction, along with designs suitable for road use. Hanging-mounting fittings are supplied and fitted to customer specifications to ensure that every type of venue and system location can be accommodated.

Nexo Successes

French speaker system manufacturers Nexo, having already established a firm hold on the European market, are doing rather well in the UK. Major hire company Wigwam Acoustics use Nexo systems extensively, and their new S12000 system is currently touring Europe with up and coming US band the Pixies. Wigwam are also using Nexo equipment for overflow systems on the forthcoming Billy Graham tour.

Delta Sound Inc, the London-based equipment rental company, are major Nexo users. Recent contracts for their systems have included West End shows such as The Vortex at the Garrick theatre and Walk in The Woods, starring Alec Guinness at the Comedy. In Ireland, CCT in Dublin use their systems extensively around Eire.

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CLAIMS ON EXPO SPACE

At the end of a claustrophobic season of major trade shows, there has been much rumbling among the ranks of the senior exhibitor fraternity. Yes, there have been the very necessary moans and groans about certain weeks in the calendar when major events clashed directly or overlapped very awkwardly. The SIB (Rimini) and SIEL (Paris) clash was an obvious one, but the timing of Showlight (Amsterdam) event, ABTT (London) and Expo Musica (Madrid) left even the practised travellers bewildered.

But the main focus of comment concerns two of our major shows in the UK covering the performance lighting and sound industry. PLASA's own Light and Sound Show, due to take place at Olympia 2 September 10-13 has come in for criticism from a few exhibitors who are very unhappy about the current rules affecting booking and allocation of space.

On a second front, the ABTT (Association of British Theatre Technicians) Trade Show has also been the subject of strong exhibitor criticism, due in large part to the cramped and unexpandable facilities at the Riverside Studios. There is an underlying feeling amongst many major exhibitors that the event should ally itself to the PLASA Show in some way, to the overall benefit of the industry and everyone concerned. Cost and time savings and the better promotion of Great Britain Limited are two of the advantages of such a liaison. Co-ordinated exhibitor pressure may well force the issue on this question in the near future if specific comment made to L+S's office immediately after the 1989 ABTT Trade Show had closed its doors is anything to go by.

The question of stand allocation at the PLASA show has been raised by Colin Whittaker, sales director of Celco Ltd, who sent a circular to 124 of PLASA's members. He considers the current methods of stand allocation unfair, and is calling for a major change of approach. His main contention is that: "Every year, prime location space is offered first to those companies that occupied it the year before. In this way, how will other members, like ourselves, ever get the opportunity of booking a decent sized space in the right location?" he

asks. He feels a ballot system would be fairer and much more democratic.

Having been in the exhibition organiser's seat myself, admittedly on a commercial basis, it is a generally accepted practice that space is offered, in the first instance, to the exhibitor who held a given site the previous year - an historical preference system that supports the exhibitors who supported the event in the first place. (All this, providing, of course, the exhibitor in question has paid his deposit within the qualifying period).

I put this point to Colin Whittaker, but his view is that PLASA isn't a commercial operation of the same kind, and therefore should be working to produce a show for all its members. In other words, the interest of members should be first; the commercial aspect secondary to this. Fair comment.

At this point I decided to check out how other Associations allocate space for their particular shows.

I spoke firstly to Philip Vaughan, chief executive of the APRS, which is about to hold its own show at Olympia 2 this month. Their system is founded on an historical and member preference basis, very similar to PLASA's current method.

Where exhibitors have mailed in the necessary paperwork and deposit, any clash for a particular site will be decided on by scoring the number of previous exhibitions a company has supported and their status as members or not, as the case may be. If an equal number of 'points' are scored, it comes down to a personal negotiation process. If an exhibitor wants to get himself a particular slot on the floor plan, he has to be patient and work towards his goal.

Ethel Langstreth of the ABTT explained that the Association adopted a first come, first served system. "It's far from ideal," she said. "If there's a clash it comes down to telephone calls to sort things out."

At this stage it would be correct to defend the organisers of our trade shows, most particularly where they have to deal with difficult venues like Olympia 2 (where a venue-built shell scheme comes with the package, seriously restricting flex-

ibility) and the Riverside Studios at Hammersmith, which are simply too small (but where on earth do you go in London, that would be the next rung up the ladder?)

And PLASA Show organiser David Street has even more problems on his hands. Building work at Olympia 2 meant that the floor plans for the 1989 show were changed at short notice during the selling period, and they will be changed yet again when the basement opens in 1990.

My own feeling is that the problem raised by Colin Whittaker could be answered in two ways. Firstly, PLASA needs to assess carefully the 'ideal' requirements of all exhibitors (possibly by survey) so that the correct balance of space only and shell scheme requirements can be determined. Then PLASA may have to make the difficult decision to remove some shell scheme to make way for space only areas if need be - even though it would mean paying Olympia to take it down and rebuild it after the show, with a resulting increase in charges to all exhibitors.

In many ways, this would answer Colin Whittaker's frustrations, because, with careful planning, even if the 'historical preference' system was still maintained, sites very near to, or good alternatives, could be offered much more easily.

As for a ballot system, I have personal reservations as to how it would work, and I feel that such a system would inevitably give rise to other problems for exhibitors. There is considerable merit in having a stand in the same or similar position for at least a short run. Visitors identify certain areas and exhibitors, and there are also cost advantages where a display system may need to last over a period of time. And shouldn't you still back the people who have backed the show over a number of years?

I've yet to identify a 'perfect' system for trade show space allocation, but any method can be brought as near as possible to perfection provided exhibitors needs are carefully logged and the organiser concerned then works to the rules laid down by committee.

As far as the PLASA Light & Sound Show is concerned, if you want to change the rules, there are committee members to be lobbied, and an AGM to attend in the near future . . .

John Offord

Keeping Busy

Reading Borough Council have recently converted the old dole office into an Arts Centre and Public House. The Arts Centre has had a mobile PA system provided by Marquee Audio comprising a Denon DRM12HR cassette deck, a new Yamaha EMX2200 8 channel power mixer and JBL Control 12 SR speaker system and stands. The pub, called MacDevitts, uses a Denon DCD 610 compact disc player, a Sony twin cassette deck, H&H PX1 pre-amplifier and VX series amplification and four JBL Control 5 monitor systems.

The installation is typical of many Marquee Audio have carried out in the last few months. The company has designed and installed a complete sound system for cabaret and disco use at

the Sussex Beach Holiday Village in Wittering and have also announced their first installation of the new H&H TA Series speaker system in the Palace Theatre in Redditch.

Hill Audio Sales

Hill Audio has sold two Concept Series consoles to different companies within Australia. The first of these is a large, custom-modified Concept 400 series console to be supplied to Special Broadcasting Services (SBS) for installation in its radio broadcasting station. The second console is being supplied, along with a large number of Hill Audio '000' series power amplifiers to a large outdoor venue which is opening in the near future with a concert by John Denver.

Into Africa

Lee Lighting Ltd has announced the opening of a new rental operation in Kenya. Established in Nairobi, the new operation is based on equipment shipped to the East African state for use during the filming of 'Out of Africa'. When the shoot ended, Lee Lighting decided to keep the equipment in Kenya, to form the foundation of a new business.

The Lee Kenya team, headed by Felicity Fairhurst, is already training local people to operate their full production facilities which include fully equipped studio, set-building and production areas. To complete the range of services, the company can also provide an art director and director.



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Soundtracs into Japan

Soundtracs have announced that sales of their mixing consoles to Japan are up almost 400% on the first six months of the year.

"The Japanese Audio Industry has obviously awoken to the exceptional quality that Soundtracs has to offer," said a Soundtracs spokesman. "Their demand for quality at a reasonable cost is met throughout the broad range of audio mixers manufactured by Soundtracs at their Stribon based facility, now at the point where 15% of the company's production is shipped to Japan."

Regular containers are despatched via ocean freight to Soundtracs' exclusive Tokyo-based importer, MTC Japan Ltd, the most recent of which is pictured above being loaded with part of a £200,000 order for a range of products destined for Japan's recording studios, video post production facilities and sound rental companies.

... and Celco

Celco, leading designers and manufacturers of lighting control equipment for concert, television, video and theatre productions has reached a milestone in sales of its Gold lighting control console. On May 18, Technical Supply Japan ordered the 100th Gold which will be shipped out in June.

The Gold first went into production in 1986 and is ideal for big venue productions. Users have included David Bowie, Prince, Eric Clapton, Wet Wet Wet and Joe Jackson. The Gold is just one of the six boards that Celco currently manufactures, the others being The 60 Major, 60 plus, 30 Major, 30 Plus and the Baby.

Another milestone will be reached this summer as the company prepares to ship its 1000th memory control board.

Anything Goes for M&M

M & M Lighting have announced that Luff Light and Sound of London have purchased 40 Rainbow Scrollers to light the London production of 'Anything Goes'. The Rainbow Scrollers are the only part of the lighting that has been altered from the original New York specifications, after American lighting designer Paul Gallo saw them in action in London.

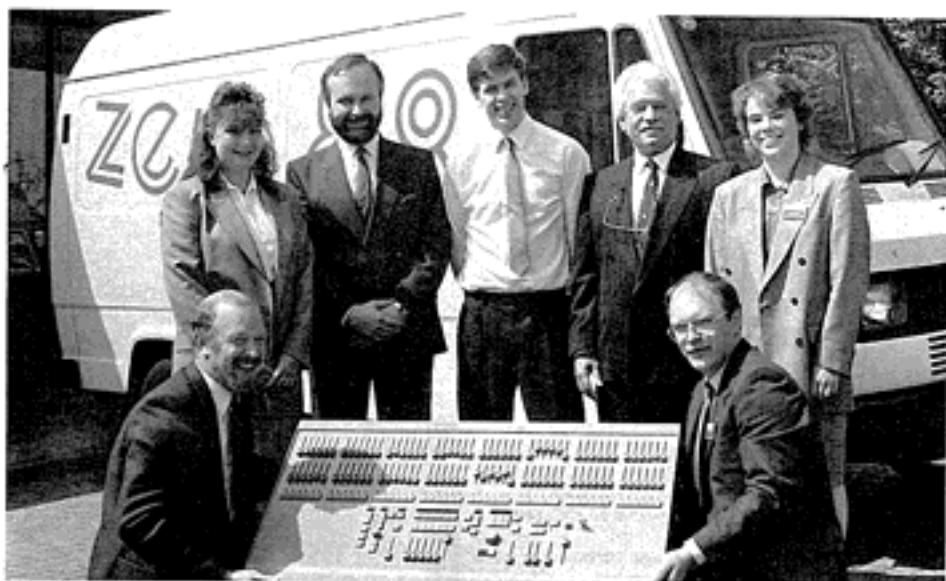
Blitz Vision

Three of the leading names in the communications industry have launched a new audio-visual equipment hire company. Charles Beddow, a former director of SamCom Production Services, and Chris Scadding, ex-MD of Samuelson Concert Productions and Vari-Lite Europe, have joined forces with entrepreneur Eddie Blitz, to set up Blitz Vision Limited, now operating from Watford.

All in a Name

The London Microphone Centre Ltd have changed their name to LMC Audio Systems Ltd reflecting the shift in LMC business over the last year. Since moving to their new west London premises, LMC have expanded their product range and are now, they claim, the top Pro-Audio suppliers to the live music and sound installation industry.

After a record year as Soundcraft's leading distributor, LMC have now become the sole distributor of Soundcraft's 8000 Extender console, and the new 8000 monitor console. LMC are now the UK distributors for all C. Audio products, including the new RA Series of power amplifiers and processing equipment.



Zero 88 directors and staff pictured with the new Sirius 48 lighting desk, unveiled with the new Belapack range at their recent dealer launch in St Albans, and later at the ABTT Trade Show.

Saved by a Whisker

An 11th hour technical hitch almost dropped the curtain on the gala premier of Andrew Lloyd Webber's smash hit musical CATS in Blackpool. A 3,000 strong audience including Prince Edward gave the show a standing ovation unaware that a dramatic plane dash from London had saved the production with just 20 minutes to spare.

Technicians carrying out routine equipment tests earlier in the day hit the panic button when a computer short circuit, the result of a tiny capacitor overheating, suddenly cut out a third of the stage lighting. The nearest spare part was at Luff Light and Sound in London, and engineering manager Ken Priddy dashed to Biggin Hill for the next plane north. A fast car then collected him from Blackpool airport and his arrival, just 20 minutes before the show was due to start, saved the gala production from being a dimly-lit disaster. Alan Kilford of Luffs told L+S: "With electrical equipment of this sophistication, we have to guarantee customer support. We're often boasting about the quality of our service back-up, but this story completely sums it up."



Only 20 minutes to curtain up. But Ken Priddy (left) and Cameron Mackintosh, producer of the show, have time to display the vital spare part.

New Distributorships

Michael Stevens & Partners have been appointed UK distributor for np Elektroakustik AS of Denmark. The latest product from the Danish company is the np Portable Modular Mixing Console which is a location 4 channel mixer suited to live music application.

Michael Stevens & Partners have also been appointed exclusive distributors for The Studio Box, a new idea from Raimund Wuerz of West Germany. The Studio Box is a simple, modular acoustic room and is available in two different 'weights'.

Laser Magic Worldwide

Laser Magic are actively seeking European and world wide representatives for laser display, installations and laser hire work. They will be exhibiting a new range of laser display systems from the cost conscious market to the top-of-the-range transputer based laser display system at the PLASA Light and Sound Show.

Companies interested in forming a working relationship with Laser Magic should contact Steven Harvey on (0273) 512149.

ABTT Winners

It was winners all round at last month's ABTT Trade Show. Rick Dines from the BBC is off to Broadway courtesy of Zero 88, who introduced their new range of power packs, the Beta collection, with a competition.

CTT employed the same idea at the show. During each of the three days, visitors were invited to put their names into a lenstube for a draw to be made at the end of the day. Prizes on offer were a Minuette Pursuit long throw follow spot or an FTP Regent 4 dimmer package. Tony Witton of the Secombe Centre in Sutton was the first winner, followed on the second day by Ric Edwards of the Leeds Grand Theatre and the third by S Auty of the BBC Design Group.

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Animated Dinosaurs

Following on from their design and lighting installation for the very successful Chinese Dinosaurs exhibition at the Natural History Museum, Eurolight's Andy Stone and Neville Lockwood of TSL recently completed the design and installation of a lighting scheme for the new American Dinatron Animated Dinosaur Exhibition. The exhibition was recently shown on television and has been receiving rave reviews in the media.

The Microlights range of low voltage luminaires was used throughout, ensuring that the light sources are as small and unobtrusive as possible. As the range offers theatre style control with fresnels, profiles, floods and spots, a mixture of fittings was utilised to create a complete atmosphere around the exhibits. Primarily the jungle atmosphere is created by profiles with leaf break up gobos and spots with Thorn green dichroic glass filters. Each of the seven dinosaurs is illuminated with six fresnels with barndoors to ensure even illumination.

As the dinosaurs are all animated, focusing lighting onto them proved fairly difficult as each time one section was lit the dinosaur had moved! Also, due to their size, the physical construction of the gallery and the seven metre lighting grid height, the focusing session took considerable time and effort. The structures used resembled a building site with scaffolding, ladders and hydraulic platforms. In all over 100 metres of lighting track are employed with circuits separately wired back to a computerised lighting controller and dimmers.

To date, Eurolight and TSL have successfully completed installations in Galleries 4, 7, 10 and 11 at the Natural History Museum.



Avitec Light and Sound for Volvo Launch

Avitec Electronics (UK) Ltd showed their versatility recently when they staged a light and sound show for the Hertfordshire launch of the new Volvo 440 range of cars. Commissioned by local dealers Burr Bros of Hitchin, they created a spectacle at the Letchworth Hall Hotel for audiences in excess of 300 people.

Avitec's Paul Dodd designed a comprehensive disco-style lighting display based around a Slick stage truss and stage lighting, supplied by Neonlite Associates, who were also responsible for the complete rigging. Lighting effects included Color Pro, Laser Chorus, Kremesa CR10/10 Super, Clay Paky Astropider and Optikinetics Strobeflowers to name but a few. Control was handled by a Zero 88 Sirius desk and five Gamma Master Sensors.

To a specially recorded sound track a simulated dummy, dressed as in the recently run Volvo TV advert, came 'alive' and slowly moved towards the covered car. To the intro of 2001 Space Odyssey and pyrotechnics the cover was lifted to reveal the car to a captivated audience. A ten-minute light show followed, proving, according to Avitec, that "discotheque style effects can co-ordinate with a stage lighting presentation". The sound system, also provided by Avitec, comprised a Ramsal/Cerwin Vega combination powered by Beta amplifiers.

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ed and with the addition of JBL 2404 bi-radial tweeters, provided a clean top end in the now three way system, which was incidentally using only half of the existing HH amplifiers.

More scepticism greeted Avitec's proposal to couple the six existing Cerwin Vega B36 cabinets on one side of the dance floor and discard the ASS exponential bass units, but the results verified Avitec's belief in point source bass.

The club reported that the ten year old B36 cabinets had been re-loaded with Causus drivers, but in fact they were found to contain the original Cerwin Vega drivers, all in good working order. Avitec, who have been UK distributors for Cerwin Vega since 1981 were naturally gratified by this evidence of long term reliability. **RER**

PEOPLE

● Martin Audio, manufacturers of P.A systems have recently appointed **Rob Peck** as marketing manager. He brings with him a wealth of experience from the audio and lighting company Icelectrics in which he sold his interest last year. Rob Peck's role at Martin Audio will be to provide back up and support to the sales department. Lynn Chappell has now been appointed sales manager and will continue to deal with customer requirements on a day to day basis.

● A new general manager, **Colin Cartwright**, has been appointed by Bose UK Ltd. Colin, who took up his new position in May, was formerly the sales and marketing director of Cimex International, part of the BTR Group, and prior to that, had a successful career in sales training and consultancy.

His appointment coincides with a major increase in the sales force of the company. Four new representatives will address the professional and domestic equipment markets. **Ed Evans**, the new central area representative for hi-fi, joins from the American Forces Network; **Geoff Skolnick** is the new northern area representative for hi-fi; **Hugh Williams** will be representing Bose in the south west; and on the professional products side, **Andy Barnby** has joined the sales team to cover the south west and midlands area.

● Zero 88 have announced the promotion of **David Catterall** to the position of sales manager with special responsibilities for the UK and near Europe.

● **Sean Meehan** has joined HNB Communications' expanding broadcast sales department following a 12 year career at the BBC, where he was latterly a project engineer at Radio Capital Projects. As broadcast technical manager, his new responsibilities will include the

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development and installation of specialised systems.

● SuperVision IDS Ltd, the London-based discotheque service company have appointed **Phil Roper** as technical manager. He will be responsible for new installations and servicing the company's existing worldwide contracts. Phil Roper formerly worked for Sound Electronics London/SGM and Squires Sound and Lighting.

Recently he has spent three years working as technical manager for Regimes in Cairo, which was designed and installed by SuperVision.

● Raper and Wayman have recently appointed **Neville Wake**, who will be responsible for public relations and exhibitions, as well as assisting Chris Collings, the company's sales manager.

For the last nine years, Neville Wake has been working as an independent public relations and marketing consultant.



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EUROVISION 89 LAUSANNE'S SONG CONTEST OLYMPICS

John Offord watched TV's major annual show live at the Palais de Beaulieu.

Aided and abetted by the cutting quips of Terry Wogan, the annual Eurovision Song Contest is one of those television programmes many of us in the UK love to hate. Despite viewing figures in excess of 500 million - the USSR and Canada took it this year as well - few people will admit to having seen more than the odd song or two, and just a few others will admit to watching later in the night when the voting gets underway.

True or not, a certain amount of cynicism is understandable. Even after watching several rehearsals, I found many of the songs were of the instantly forgettable variety. But that aside, as a live concert, with the added excitement of a winner at the end, it was rattling good stuff, and produced, it should go without saying, to the highest professional level.

Even so, why bother to go all the way to Lausanne in Switzerland to see a contest that I could view just as well from the comfort of my armchair? (The news that L+SI was covering the event at all caused the raising of a few eyebrows in the industry). Well, more of the good news from Lausanne was that UK equipment was playing a major role in mak-

ing sure those 500 million viewers had a pretty picture on the box. Lighting-wise, it was a British takeover, with three key elements: control by Avolites with their new QM500-TD desk, trussing and Parcans by Thomas, and special effects lighting courtesy the Starlite system from Tasco communications.

Pulling them together and coming up with the necessary expertise at the right price was the Basle-based company Power Light, who won the lighting, rigging and trussing contract against competition from four other companies - all from outside Switzerland. (Swiss television had evidently started out in the mistaken belief that there wasn't a nationally-based company either big enough or capable of dealing with the lighting set-up required).

The event was staged in the Halle des Fêtes in the Palais de Beaulieu, and like our last reported Eurovision Song Contest from Brussels in 1987, the hall was specially adapted for the occasion on a venue-within-a-venue basis. (The Halle des Fêtes usually houses ice shows, concerts, exhibitions and the like).

Lighting and scenic design for television for a show of this kind requires a clean and broad touch, and the key is to come up with a basically simple decor that can be adapted in a way that enables each entrant to perform in a personalised setting while at the same time ensuring a unified overall environment. The presentation area at Lausanne covered some 400 square metres and comprised three stages: the main stage, the orchestral stage and a stage for the concert presenters.

The red-glazed triangular main stage had its central axes flanked by two pillars, creating a frame-like perspective enhanced by neon lighting effects. The background consisted of a sloping and partly mobile wall, enabling visual variations. The wall itself comprised a mirror, reflecting multi-coloured rays of light to create the effect of a multi-hued horizon. Further scenic devices included variations to a mobile prismatic section in the centre of the stage, lighting effects on the horizontal stage ceiling - creating a compressed image effect towards the top, and the opening out of transparent fan-like walls on the side of the stage.



Eurovision 89, Lausanne: final preparations are made to the set prior to commencement of rehearsals.

EUROVISION SONG CONTEST 1989, LAUSANNE

L+SI's exclusive pictures of the show in progress



A highlight of the presentation was the part played by two large video walls. Syma Media Technology installed the latest back projection system from Philips, providing a 6 x 6 wall behind and above the orchestra, and an 8 x 8 wall at the rear of the presenters' stage. They were impressive to say the least and co-ordinated well within the overall presentation. And you didn't notice the joins on the superflat screens. (For a more detailed look at this latest system from Philips, see Tony Cottelier's article on the Metropool at Amsterdam in this issue, pages 53-56).

Following the Action

Suitably security tagged, I arrived at the venue 48 hours before the Contest was due to go on air. Everything was calm and well organised, and it stayed that way right through to the end of the transmission, although a little tension understandably crept in once the technicians got into their smart outfits when the 'real show' was just an hour away.

I talked to Power Light's managing director Nicholas de Courten in his production office alongside 'dimmer city'. He is 31, but what may appear lacking in years certainly isn't in experience. Power Light was started in a small way 12 years ago in 1977. "I began to see the difficulties promoters had in finding equipment, and set up an operation to do just that," he said. (His earlier experience had been with school productions and working with a friend on professional concerts). Over the years the company has added many big name tours to its list of credits, and when Switzerland won the Contest in 1988 qualifying them as hosts for the 1989 event, Nicholas de Courten made up his mind to push Power Light's claims forward, and to



win the lighting contract for his company.

"I worked behind the scenes to see if we could get the contract," he explained, "and in January this year I received a telephone call to quote against an equipment list. Basically I think we won because lighting director Claude Egger knew we could help him on the effects lighting and also he could draw on our 'on the road' expertise."

Close liaison on the lighting design followed. "For Claude, I am sure this was one of the main reasons Swiss TV chose Power Light. He could convince the television people because we could also offer more staff

and I could also throw in my own experience and know-how. He felt safer with a company who could provide assistance above just the supply of lighting."

Alongside their long credit list of major shows and events, Power Light have also built up a large inventory of stock, and all the equipment for the show came from their own resources - apart from the Starlite system which was provided by Capcon of Hamburg, complete with operator and technician. (Capcon are distributors of the Starlite system in Germany, Denmark and the Benelux countries).



Switzerland's 1988 winner Celine Dion launched the 1989 Eurovision Song Contest in dramatic style.



One of the Meyer loudspeaker clusters.

In terms of control, Nicholas de Courten faced circumstances where he needed very quick action from Avolites, and it eventually resulted in their newest control system, the QM-TD taking charge of the lighting in the deft hands of Felix Riva, de Courten's co-director at Power Light.

Avolites managing director Derek Halliday takes up the story: "My first reaction to Power Light's request to buy a QM500-TD in such a short time span was a very definite 'no!' After much negotiation however, we decided to work very closely with them so that they had the desk they really wanted for



Avolites' Shahid Anwar (nearest camera) and Richard Salzedo store back-up information.

this prestigious event. Needless to say, contingency plans were made, since neither company was going to risk its reputation with a new product in front of a worldwide audience.

"The designer of the desk, Richard Salzedo, and our senior software engineer Shahid Anwar travelled to Lausanne 10 days prior to the event to offer support if necessary, but mainly to finish writing the software in time for the big night!" continued Derek Halliday. "A QM500-90 and a Q-Patch were on stand-by should there have been any problems with the new desk, but thankfully there



Lighting designer Claude Egger checks light levels.

weren't. All in all, it was a successful launch for the QM500-TD to a worldwide audience. In addition, some useful feedback from Felix Riva was incorporated into the final software version."

Highlight of the lighting was the intelligent use of the Starlite units in conjunction with other simple devices like on-set neons. Combined with the flexibility of the set design, variable 'scenes' could be used in almost any number of permutations. Claude Egger and Nicholas de Courten could produce the 'look' they wanted by changing colour, movement and setting to suit the situation,



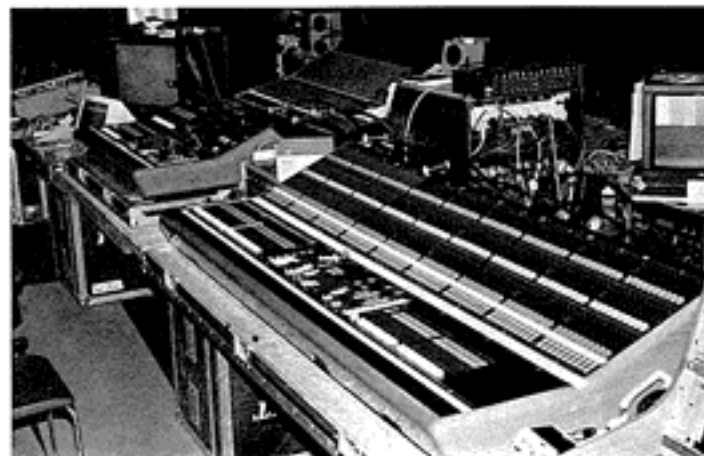
Heads together: Felix Riva, Claude Egger and Nicholas de Courten.



A close-up of Felix Riva's operating position with the new Avolites QM500-TD.



Part of the specially-created auditorium in the Halle des Fêtes showing location of the lighting and house sound control.



The complete Avolites system with the QM500-TD to the left and QM500 (nearest camera) as back-up.

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CELCO 400H, PLUS, MAJOR
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CLEAR-COM 20K SYSTEMS
BEYER DT-109 HEADSETS



MEETINGS & PRODUCT LAUNCHES



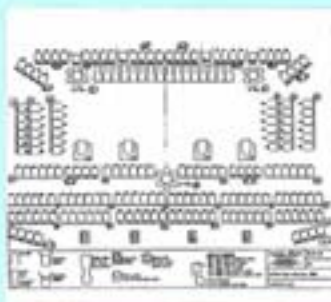
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and the flexibility of both the instruments and the design was the key to the show's visual success. From the high power, all-action introductory number from last year's winner Celine Dion, through to softer, slow-tempo ballads, you were switched easily and cleverly from one mood to another. And within the various scenes, there was still plenty of room for more subtle movement and colour variation.

The rest of the story as you can imagine is a numbers game, with all the intricacies involved with sending television pictures and sound to 30 receiving countries. 500 people were involved in the organisation and broadcasting of the event, and they had to be careful not to trip over 12 miles of cable or pull the leads on 48 wireless and 152 telecommunication circuits. The 10-camera TV set up involved two outside broadcast units and two sound vans, together with a total of 86 microphone lines.

Looking after the performance sound was Swiss company Hyperson Sonorisations of Paudex using equipment supplied by STC Dispatch of Roissy, France. The PA was a Meyer system with Amcron amps. The house desk consisted of two Soundcraft Series 4, 40 channels each, and the monitor system involved two more Soundcraft desks with Meyer monitors and control, and Amcron amps.

Back to the lighting, most of the 35 tons of suspended structures consisted of 64 metres of Thomas pre-rigged truss units and 120 metres of Thomas general purpose 52 x 52cm box truss and nestling some 700 lanterns, all of which had to go up within a 48 hour period so that trucks could drive in underneath to un-load all the decking and scaffold to take 2000 seats.

Final credit should go to Sony who were



Successful partnership: lighting designers Claude Egger (left) and Nicholas de Courten (right) and operator Felix Riva.

principal sponsors of the event, providing Swiss TV with all the necessary extra equipment required and also assisting incoming TV crews with on-site service facilities.

1989 Eurovision Song Contest

Executive producer: Raymond Zumsteg
Director: Alain Bloch
Set designer: Paul Waelti
Lighting designers: Claude Egger and Nicholas de Courten
Rigging: Serge Etter
Sound: Rene Sutterlin
Technical director: Charles Andre Grivet
Stage manager: Emile Felber

For Power Light:

Production manager lighting: Nicholas de Courten
Chief desk operator: Felix Riva
Rigging: Rudolf Surber
Assistant: Thomas de Courten
Electrician: Hans Rudolf Brand
 (Total crew 14 plus 10 loaders)

For Capco (Starlite System):

Operator: Manfred Voss
Technician: Hans Christian Jessen

For Hyperson (Sound):

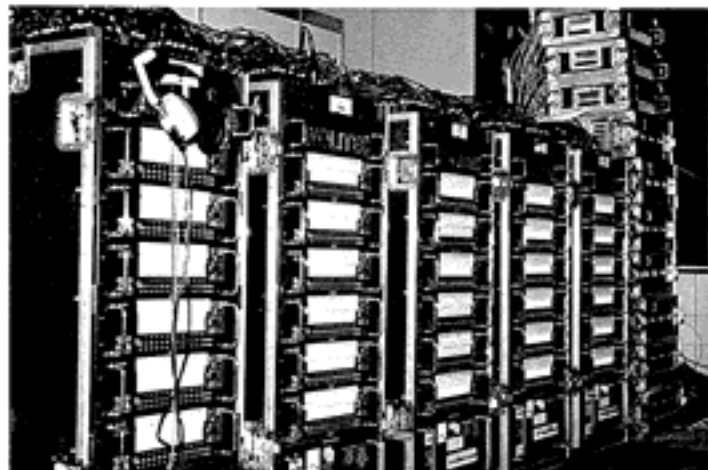
House desk operator: Paul Xavier Clark
House assistant: Olivier Croquennec (STC)
Monitor desk operator: Alain Schneebeli
Monitor assistant: Michel Lavanchy



Manfred Voss at the Starlite control console, alongside the main lighting control position.



Felix Riva at work on the QM500-TD.



Dimmer city: Avolites and Celco equipment in control.



End of show celebration: Claude Egger is hoisted aloft by the technical team.



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22 Thomas molelites 8x650W Par 36
 12 Posi Spot Par 64
 441 Thomas Par 64 1000W
 32 Thomas Par 64 250W aircraft landing lights
 37 DeSisti Leonardo 5000W fresnels
 6 Quartzcolor Castor 2000W fresnels
 35 Strand Cadenza 2000W profiles
 48 Strand Cantata 1000W profiles
 30 Berkey groundrows 4x1000W
 24 Tasco Starlites
 8 Pani 1200W HMI followspots

Control:

1 Avolites QM-500TD memory console
 1 Avolites QM500-90 memory console (back-up)
 5 Avolites 72 way dimming system, 48 x 10A,
 24 x 20A
 1 Avolites 48 way dimming system, 24 x 10A, 24 x
 20A
 5 Celco TV dimmers 6 x 25A
 3 Avolites relay modules 12 x 10A
 2 Posi Spot controllers
 1 Tasco Starlite control system
 20 Clear-Corn 2 channel intercom stations

Trussing:

50 Verlinde L-104m Litachain hoists
 3 Power Light 10 way motor controllers
 64m Thomas pre-rigged box truss
 120m Thomas general purpose 52cm box truss
 70m of Layher aluminium scaffolding catwalk
 1 genie personnel lift 9.5m
 50 steel rigging hooks

Sound System

House:

2 Soundcraft Series 4, 40 channels
 24 dbx 903 limiter/compressors
 3 dbx 166 stereo
 6 Drawmer DS 201 stereo noise gate
 1 AMS RMX 16 reverb
 1 Lexicon 224 reverb
 2 Lexicon PCM 70 reverb
 2 Yamaha SPX 1000 Multi Effect
 2 Yamaha D 1500 delays
 1 Yamaha REV 5 reverb
 1 Yamaha MEP 4 midi control
 5 CP10 Meyer parametric EQ
 1 Meyer SIM analysing equipment

PA:

6 Meyer MSL 3
 4 Meyer 650 R2 sub woofer
 10 Meyer UPA
 6 Meyer M1-A controller
 4 Meyer M3-T controller
 2 Meyer B2-A controller
 1 Yamaha YDD 2600 delay line
 14 Amcron MA 1200 amps

Monitors:

1 Soundcraft Series 4 40 x 16 monitor desk
 1 Soundcraft 800B 32 x 8 Premix desk
 26 UMI Meyer monitor
 16 M1 Meyer control
 16 Amcron MA 1200 amp
 6 CP10 Meyer parametric EQ
 14 DN27 Klark Teknik graphic
 4 Drawmer DS 201 stereo noisegate
 4 Drawmer DL 221 stereo limiter/compressor

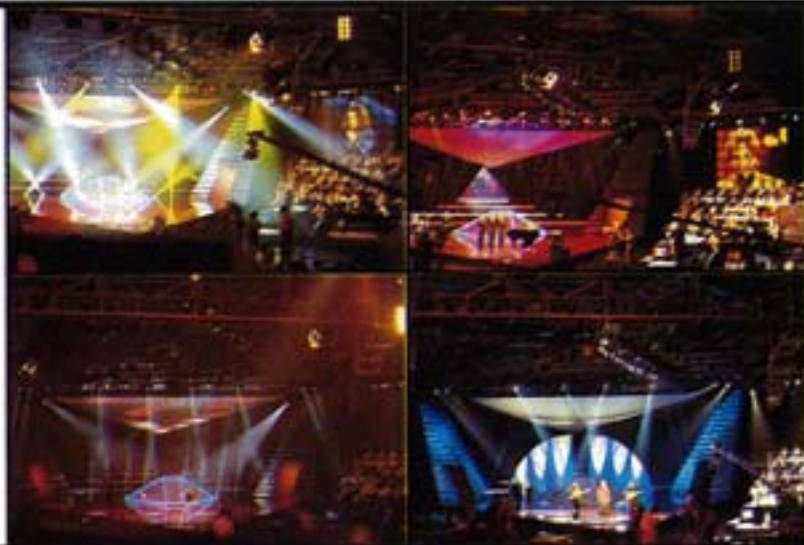
Premix:

1 Yamaha PM 3000 32 x 8 desk for strings and per-
 cussion

Thomas

congratulate

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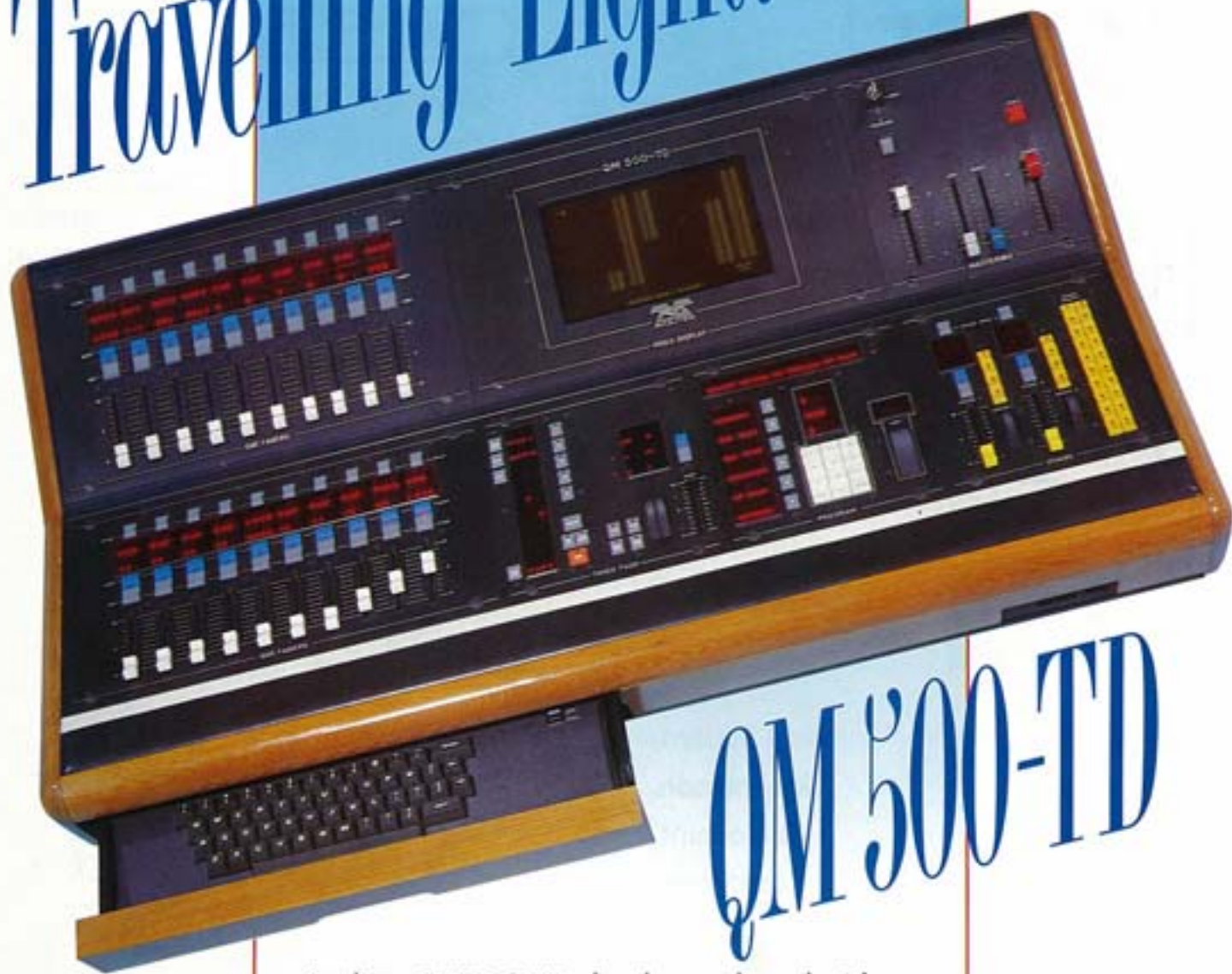
on their recent success at Eurovision in Lausanne 89, Power Light used Thomas equipment including General Purpose Truss, Pre-rigged Truss complete with Par 64 lanterns on 8 lamp bars, multicore and Par 36 8-Life Spot Banks.

Thomas equipment is available in Switzerland from Power Light.

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WHAT MANCHESTER DOES TODAY

Graham Walne attends the ABTT's forum on memory lighting control.

This article begins with a story based on the line more usually associated with Music Hall comedians than with lighting designers: 'A funny thing happened to me on my way to the theatre tonight'.

I was travelling up to Manchester for the forum and enjoying BR's over-priced breakfast when a coupling failed and the last three carriages gently separated from the main train and drifted off on their own along the track. Interestingly, the brakes failed to cut in and only a gaping hole where the buffet used to be brought the matter to a head. Since it took nearly two hours to rectify the situation your correspondent therefore missed most of the forum's hands-on session.

And so it was with a wicked twist of irony that low technology prevented me from enjoying high technology. 22 systems were exhibited by the seven companies that were later invited to speak and here congratulations must go to David Cusworth for achieving the near-impossible task of actually getting so many manufacturers together who must have been preparing for the ABTT Trade Show in London.

The seven companies introduced themselves with a brief statement of their philosophy. **Eurolite** explained that they aimed to produce systems with all that was needed in one box rather than opting for bolt-on extras, and their criterion 'needs, not wants' was to echo through the afternoon. **Zero 88** certainly picked up this theme and added another interesting phrase, 'niche marketing', to describe their role.

Arri identified themselves as 'clear competitors' and enthusiastically described their function-key approach which offered customising possibilities. They also introduced their Midi interface for tight sequencing and their designer's tablet. **Celco** explained that their traditional market uses fewer channels than theatre, and hence it was easier to make dedicated desks that were more user-friendly. **Strand's** vast experience (over 6,000 systems worldwide) showed in their simple and welcome philosophy that basic operation must be 'obvious' - their word, not mine, and it's an excellent one.

Lee told us that their systems were soon to be made here and their service manager had few glib phrases but concentrated on listening. **Furse** echoed Lee's call for a common control language, and MD Martin Moore also strongly criticised Marvin Altman for lowering the price of dimmers, thus reducing the amount of investment available for controls. This hot-potato wasn't particularly picked up on by the other manufacturers, but with so many systems on the market one does wonder about the profitability (and hence about the resources for research) of the control sector. (**Lytemode** also exhibited systems and, although technically speaking they don't make memory systems - and hence they did not take part in the debate - their DMX range of dimmers proved rather relevant to the later discussion on protocol).

The chairman of the afternoon's debate

was Philip Edwards, a lighting designer in his own right (usefully on his own ground at the Royal Northern College of Music), he, your correspondent, and less than a handful of others comprised about the only freelance designers present out of 100 people, perhaps because the invitation had made it clear that the debate would centre on operational matters. (Should the ALD now have a similar session?).

The first question from the floor identified possibly the most important subject of the afternoon. Alex Cartwright wanted to know if there could be more compatibility between systems, thus benefitting touring houses (of which his house, Bradford Alhambra, is one of the best). Calls were made for the ABTT or the ALD to push for the release of data that would permit the exchange of discs, (L+SI will publish any data sent), but one manufacturer later pointed out that softpatch facilities would still be needed, so exchanging discs is only half the story and many disc-based systems do not offer softpatch, so we need that too.

'Aspects of Love', 'Metropolis' and 'M Butterfly' were all quoted as examples of productions in which the rig is considerably smaller than it would have been in the past, specifically because of the increased use of remote control devices. With so many designers now combining different controls, dimmers, colour changers and other remotes, manufacturers admitted that they were aware of the need for a common control protocol. Zero 88 told the forum that manufacturers were not independent, but driven by the developments of the computer industry.

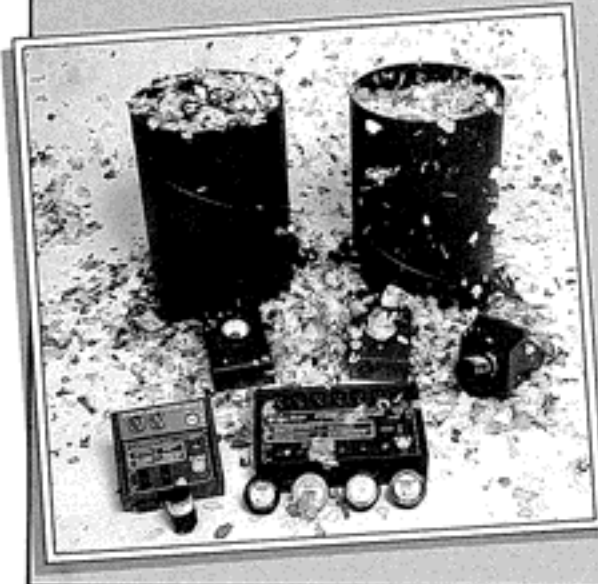
Reminders were also made of the efforts of USITT (the USA equivalent of ABTT) in securing the DMX512 standard protocol in 1986 (L+SI published the data in

December 86). In the USA the large share of the market controlled by the rental houses enabled USITT to make some headway, but here the situation is more diverse. But do we need a new standard? Surely we can just adopt USITT DMX512? After all, it is already here and most new devices launched at this year's ABTT Trade Show share this protocol. There was some dissension however. Celco felt that the DMX512 was not fast enough for the high quantity of information which their clients' vast rigs need, and suggested the adoption of the Vari*Lite protocol, accepting that it would probably never be published! Others questioned that the setting of standards would hinder future development.

Continuing the standardisation theme, Mr Edwards asked a question raised on the invitation to the forum concerning the different philosophies between USA and European systems. Arri clarified their approach saying that in 1 playback-pair systems they would expect the latest data to take precedence in 2 playback-pair systems and there was general agreement that the 'highest precedence' system was not easy to use. Strand reminded the forum that the US 'tracking' philosophy was based on the US 'move-fade' piano boards of the past and uses less memory than in the more common UK 'cross-fade' systems.

The old question about manual or timed cross-fades came up and the lack of support for the latter must have made the manufacturers wonder why they bothered to fit any such facilities at all. Understandably, the designer-operators (attending in large numbers) preferred manual fades; I recall my designer-operator days with great pleasure since then I had a constant opportunity to respond to the production, an organic event after all. But Mr Edwards

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reminded the forum that systems were used for many different shows and, hence, might be operated against type. For example, he said the Celco systems were used in theatres and Strand systems were used in rock 'n' roll, both not their traditional markets. There was much discussion about overriding timed faders and many manufacturers (notably Eurolite) later admitted to me at the ABTT Trade Show that they had learned from the discussion and made this facility more accessible.

Mr Edward's provocative question about putting cross-fade pushes on SM desks had no takers, but there was some agreement that fade-profiling and pre-heating lamps overcame the inflexibility of timed fades. However, only one person admitted using automation, stating that the margin of error was so slight that it was outweighed by the benefits. Indeed, I must agree, having been fortunate enough to work with some of the best musicians and conductors, notably at the Royal Opera House, Paris Opera and Boston Opera. In those houses I always used timed fades, but then my operators were all musicians! In addition, I always used timed fades on tour since there is no way I can teach each Monday's different operator the nuances of a show new to him only hours before.

I did find it interesting that few voices were raised in support of training better operators and a question of providing help menus (as far as I could tell only two systems on display offered any kind of operational assistance) led on to a discussion about who writes the manual. The individual companies were in much agreement on this: (Celco) "we need to interpret the underlying trend and not write for just

one person"; (Eurolite) "all operators need to use the system, not just the chief electrician"; and (Furse) "it's important the desk and manual is not designed by committee," were typical. All manufacturers admitted to extensive secret trials of prototype systems, some by in-house untrained staff and others by actual venues (interestingly, in these cases, systems are disguised in colours and logos of non-existent companies!).

Prototype systems have teething troubles and Mr Edwards asked how possible it was to identify the most frequent source of trouble and then duplicate components. Zero 88, after raising smiles with a description of a 'slop-tray' to catch the spilled drinks, said that doubling components effectively only meant that there was more to go wrong, but Arri pointed out that the reduced size of the components meant that more could go on fewer boards and hence reduce the number of connectors. Strand identified a wide variety of backup devices and said it was really up to the customer to identify the size of his investment in this area.

There was more response to Mr Edward's questions about the ideal number of sub-masters and how to identify them. Most people agreed that a large number was good, especially for one night stands, but in this alpha-numeric age, I was surprised that all agreed a paper plot was still the best. Perhaps this was because most also agreed that VDUs offered far too much data and most layouts were a mess (let's see what they do about it then). Mr Edwards asked whether it should be possible to work a desk without a VDU, and Arri reminded of the ideal (set by the legendary MMS) of LED readouts on the desk itself, surely a stan-

dard any good desk should have! There was an interesting question about eye-strain and VDUs, and the guidelines laid down in the Health and Safety Commission were mentioned but no one appeared unduly bothered. However, I would be interested to see if ABTT or ALD take up this point, having suffered this myself (notably in Boston where I plot at the stalls control) and I can't believe I am the only designer to do so; I also wonder if there will be any eye-strain from using graphics tablets, most of the legends on existing systems are far too small and faint.

The similarity between lighting controls and computers prompted a discussion on using systems for other functions, such as stock control, but all were agreed that systems would then be chosen by management accountants and not by operators. Indeed, this was perhaps the overall message to the manufacturers, that the benefits of computer technology had been allowed to blind system designers to the merits of dedicated (and simple) keyboards.

Control systems might be needed by lighting designers, but they are selected by operators and the ABTT provided a valuable opportunity for their views to be aired. However, we shall see if the pleas for standardisation are heard by the ABTT or indeed by anyone else. (PLASA, it is in your interest after all).

The ABTT North Committee has a heritage of famous lighting men. Let it now take the initiative on standards (as direction, intensity and colour increasingly come under the designer's stalls tablet) so that we can truly say 'what Manchester does today, the rest of the country does tomorrow'.

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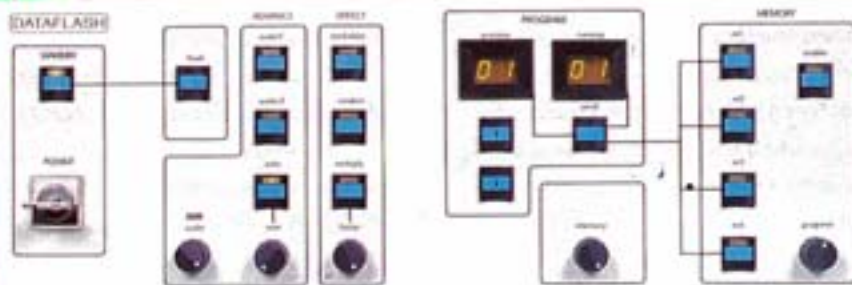
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SHOWLIGHT 89, AMSTERDAM

Francis Reid, Julian Williams and Tony Gottelier report back from the Hilversum colloquium.

If the entertainment industry's technology conferences, symposia and exhibitions were laid end to end, there would be no time left to go on holiday. Fortunately, these events are not cloned but take many forms, with the theatre technology associations of USA and UK representing the extremes. USITT confer with intensive zeal in many simultaneous sessions from before breakfast until after supper, with an exhibition on the side. ABTT concentrate on their trade show, leaving philosophical discourse to the informalities of the bar. Balancing these extremes, the international trend is to add discussion sessions to trade fairs; mainly due to the clear need for a more formal dialogue between maker and user, but also because the word conference can make it easier for visitors from sectors subject to public accountability to claim attendance expenses.

Showlight however is different, even unique. It is not exhibition-based, although the refreshment area has small commercial stands which are more in the nature of meeting points than product launchers. It is held every four years, having started in London in 1981 and reached Amsterdam via New York. Showlight is not just confined to lighting but to the lighting of shows viewed directly by the human eye or via film and video. It uses the label 'colloquium' to emphasise the opportunity for talking together.

However, it has to be said that in Amsterdam the nature of this colloquium was no different from that of virtually every other event - it happened outside the formal sessions. The word discussion appeared seven times in the printed programme but occurred only once and then briefly. This was as it should be: in a two day event it is possible to have papers on a broad spectrum of topics or to have discussion, but not both. And the strength of Showlight 89 was in the breadth covered.

Another major strength was the brevity of the papers. With only one conference room in session and most papers under 15 minutes there was an incentive to get involved beyond one's own special area. Here in Amsterdam the dialogue between various light users - that interaction to which we all pay lip service - actually took place.



The exhibition area at the Hilversum studios of NOB. 300 delegates attended the Showlight colloquium.

If there was a common theme, it was a plea for simplicity. Some calls were for a non-technological simplicity while others (usually from those, it has to be said, with a vested interest in developing and selling hi-tech) were for harnessing complexity to achieve simplicity. Top performers included:

- **Hans Wolff** who offered an entertaining polemic against formal lighting education and a splendid spoof launch of a new control system based on the 'armature control visor'. He warned against the race to be first to use the newest, and generally reminded us that we were a people industry.
- **Philip Edwards** took up this people theme in relation to control desk operation, making a totally convincing case for an involved operator using live rather than recorded time.
- **Tim Burnham**, a board operator from pre-memory days, knows that while new technology has provided lots of ladders, control systems have also provided a growth area for snakes, particularly in channel access time. With digitisers, the plot can become the control surface. This could be a way forward, although it raises as many questions as it solves: conference organisers in search of a theme should put this one down for an afternoon's discussion.

● **Max Keller** and **John Henschel** are possibly the most brilliant anarchists working in lighting today. Using non-conventional light sources they are a window on much of our future. Henschel with his 'wrecktech' involving such alternative luminaires as the dustbin, cyclops and sunbed represents the de-formalising of television, while Keller shows us the theatrical value of broad directional statements from single discharge sources. Their Showlight submissions received sympathetic hearing in the prevailing climate of technology as slave rather than master.

● **Lee Watson** was timely pragmatic about lighting education. While acknowledging the importance of on-the-job discovery, he emphasised the need for lighting newcomers to be made aware of knowledge which already existed and so avoid re-inventions of the wheel. And he triggered some of that informal glass-in-hand lunchtime debate: is the lighting designer a light person who works on shows, or a show person who works with light?

But my golden tulip for Showlight speaker of 89 goes to **Robert Menzies** who demonstrated gobos in general and his own DHA ones in particular. He did so in such a clear informative and interesting way that I shall henceforward regard him as the industry standard for the articulacy to which all sales engineers should aspire. (Not for Menzies such meaningless phrases as 'state of the art', for



Delegates await the official opening of Showlight 89.



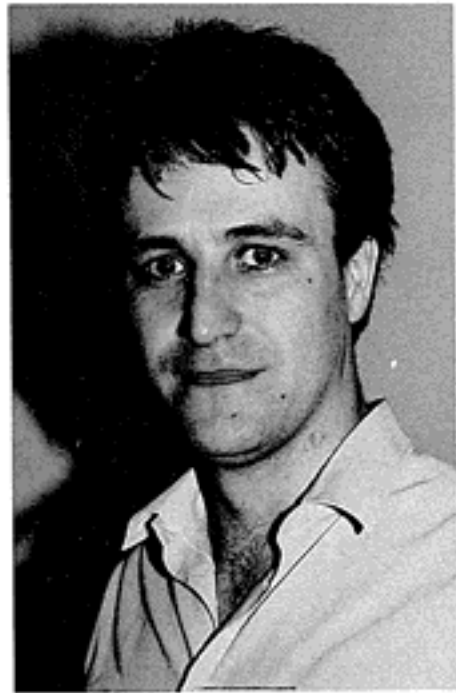
First-day trio (left to right): guest speaker Bill Klages, Ken Ackerman (chairman of the Showlight 89 programme committee), and Dr. A. Smit (general manager, television division, NOB).



Hans Woolff.



Béla Götz.



Robert Menzies.

me the ultimate turn-off in any sales pitch.)

These were just a few highlights as noted by one member of the audience at an event which rated a generally high standard of excellence in all areas. Apart from the diversity and depth of the formal programme, mention must be made of the high quality of presentation. It was certainly interesting to discuss the future in a studio setting of archaeological fragments and, thanks to NOB (Netherlands Broadcasting Services Corporation), this is the first conference where I can recall speakers being properly lit and the sound not only working but doing so with quality.

And full marks too for the boat trips. The first, along the canals from the Theatre Museum with stops at the Schaffy, Carre and Muziek Theatres offered an opportunity for us to meet, gel and become more than the sum of our parts. The second provided the real colloquy of Showlight 89: a rijsttafel buffet aboard a cruising restored paddle steamer was the ideal venue for informal discussion of the topics aired by the formal papers. The wine and conversation flowed. We landed aglow with our confidence in the future of light for shows. But the organisers presented us all with torches. Just in case.

Francis Reid

"Through the language of light, we have been connected together," said John

Henshall in his paper 'Wrektech Lighting: The Alternative Approach', as he illustrated with film sequences his lighting of the outrageous cult art network 7, which did not use any conventional TV or film lighting. His talk gave us a unique insight into other possible uses of lighting equipment and handling of sources, in adaptations ranging from dustbins to motorbikes.

Having spent two days at the NOB in Hilversum, near Amsterdam, I feel this is what Showlight is all about. Speakers combined their talents over a programme that covered television, theatre and film lighting, and this third international colloquium was presented to around 300 delegates from 25 countries.

The uniqueness of the event can be summed up in the words of chairman Ken Ackerman: "We do not expect any momentous decisions, but we do expect much individual benefit from the discussions between expert practitioners, equipment suppliers, and consultants, covering the whole field of entertainment lighting."

From a broad range of activities within the entertainment lighting business from users, designers, manufacturers and engineers, the subjects covered standards, light sources, luminaire design, safety practices and so on.

"The colloquium is aimed at technically aware and experienced delegates," said Phil Rose of CCT, a member of the organising

committee. Despite the specific aim of the colloquium to discuss equipment and not to delve too deeply into the artistic lighting philosophy, there were some intense papers covering diverse subjects.

But, for me, the purpose of such a unique event, where so many countries are in attendance, is to draw on global diversification and to learn from each other's knowledge - to hear speakers who are leaders in their field, and who have innovative theories which need to be aired and then discussed.

Although it is necessary for papers to be presented from the manufacturing sector, they need not spend so much of their time selling their product - a seminar at one of the numerous trade shows or fairs can be used for that purpose - Showlight is the place where they should be in discussion with experienced practitioners in the profession.

This Showlight programme consisted of seven sessions, respectively on 'Performances', 'Special Rigs', 'Controlling Light', 'Light, Art and Science', 'Light Sources', 'Automated Lighting' and 'Effects'. Each hourly session had about four papers. There was also a guest speaker to start each morning and afternoon session.

Some representatives from commercial companies limited themselves to their own products, while some speakers took their time in going over material, with which many of us are already familiar, to make



BBC Television's John Farr (left) with Lee Watson and Bill Klages.



CCT Theatre Lighting's Phil Rose (a Showlight committee member) with organiser Maureen van Woudenberg of NOB.



Joe Thornley and Peter Boott of Lee Colortran (left) with David Bertenshaw of Strand Lighting and Francis Reid.



Le Maitre's Rodney Clark (left) and Will Scott (right) with Ben Weijters of Jac Van Ham, their Dutch distributors.



Mario (left) and Fabio De Sisti (right) with Flashlight's Gerard Jongerius.



In between sessions at NOB, Hilversum.



Strand Lighting's Alan Luxford with Clive Perry, head of lighting for BBC outside broadcasts.



Brian Fitt of Lee Colortran (left) with Derek Gilbert of Glantre Engineering.



Outside the Carré Theatre: Neil Rice of Optikinetics with Lee Watson and Francis Reid.



Coffee, sandwiches and business on the Optikinetics stand with John Jeffcoat and Neil Rice (left), David Thomas (right), and Hans Noijens of Jac Van Ham.

their point. So there was inevitably little room for the 'informal discussion' - the essential 'other' ingredient.

Guest speaker Bill Klages from the USA, opened the first of the sessions over a background film of Michael Crawford's 'Music of the Night' from 'Phantom', performed live to an audience of 16,000 to celebrate the inauguration of George Bush. He used the example of the enormous installation for this networked television distribution to make the point that, even with the benefit of today's technology and experience, over a 20 year period the light level had not changed much from around a hundred foot candles.

In a jovial, yet stimulating opening address entitled 'Television Lighting Yesterday, Today and Tomorrow' he proposed that in order for us to obtain the result which we envisage, we should pay as much

attention to our intuition as to the rigid rules of the experts. He questioned the engineers who designed the switchboards of today with all the 'bells' and 'whistles' but who never visit the production environment and, giving us some detail about the reliability of the dimmer systems 15 years ago, suggested that they should meet some of the criteria built into some of the antique control systems.

Despite these reservations, he ended on a brighter note saying that he felt we had come a long way with our technology and can look forward to further advances. His view was that we have accumulated a catalogue of methods and skills due to accomplishments of our associates, and through their efforts have gained an acceptance that we could never have envisaged in the infancy of our profession. "Let us appreciate the fact that we have Showlight 89

and remember that there really is big fun to be had from what we do in the industry." Emphatically he concluded: "Let's not change a thing."

To come to this event in Holland was, for me, a chance to see how other practitioners work, and an enlightening paper came from Hungarian designer Bela Gotz. It was unfortunate that the video conversion from the Russian format was incompatible and resulted in its quality being impaired. This made it difficult for Gotz, with a limited English translation of his paper, to adequately illustrate his work. Despite this, the tape made apparent the theatrical quality of his work, both lighting and set design, with stunning examples giving a magical appearance in scenes from 'Passion of Czikomlyo', 'John the Hero' and 'Stephen the King', the rock opera lighting being supplemented with flame projectors, lasers



Nick Hunt of the Swan Theatre Worcester (left) - winner of a free trip to Showlight courtesy Roscolab and Mike Hall (centre). L+S's Julian Williams gets the story.



Masterlite from Rolite Holland: a Par 64 add-on that caused a great deal of interest.



Showlight banquet on board the paddle steamer M.S. Jan Nieveer: Joe Thornley (Lee) and Brian Fitt (Lee Colortran), Mike Wood (WB Lighting) and Martin Christidis of Philips Lighting are amongst the group.



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Flashlight of Utrecht's Gerard Jongerius (centre) with Joe (right) and Andrea Tawil of Great American Market and Gordon Pearlman.

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and military searchlights. He showed how the elements of lighting can change the appearance of different textures of scenery surface materials.

In the foreword to his brochure, Pal Mihaltz says: "Gotz had developed from a self-taught man into an expert of remarkable accomplishments . . . His stage scenes assist the communication of abstract ideas as well as the simultaneous manifestations of external and internal realities." The response to his work at the end of his paper could be judged by the number of people trying to obtain this illustrated brochure of his work, which was in limited supply.

There were some interesting papers in these sessions, from assorted, yet contrasting areas of the industry. For example, in the session about Performances, Anthony Bowne spoke of the different opportunities that lighting for dance presents to the other forms of theatre lighting. And Keith Reed showed some clips from the 'Bretts', the 1930's theatrical drama series and explained how Jim Laws' knowledge and his "painstakingly collected, theatrical Aladdin's Cave of archival stage lighting equipment" had helped him in realising the period lighting for the television production.

In the session on Special Rigging, although the scheduled paper on a rock 'n' roll feature could not be delivered and was much missed, Steve Kemp's paper came to be the nearest to the subject when he talked about his prominent Lee Towers Gala rig, featured last year in L+SI. Then there was Henk van der Geest's most informative paper on the difficulties of touring. He has come up with some ideas and explained his expectations of the equipment (though much said before in the past), on control compatibility, but where boards and dim-

mers should 'talk' to each other, to link computers together, and provide electronic cue loading.

Other sessions included Controlling Light, Light Sources, Automated Lighting and Special Effects, and a session on Light Art and Science in which Lee Watson talked of the trends and changes we are about to see in lighting education in the US and possibly elsewhere.

Though the standard of these papers was high, an invigorating and entertaining paper about Dutch lighting consultant Hans Wolff's ideas, was possibly about where we are at rather than where we are going . . .

He raised some objections to current issues. He spoke of the choice of a new light board on a consultancy project being always a big topic, and said that light boards today don't satisfy him at all as they need too much handling. Meanwhile dreaming of the mind control light board, he made the point of the slowness, while liaising through an assistant and a board operator, to carry out the simplest of tasks.

He talked amusingly about his own 'dreams of the mind' control light board and handed us over to his 'friend' playing the part in a spoof of a 'Delaware' products salesman introducing us to the latest product for the 'fast pacing lighting designer'. And further to a 'new, essential tool of the trade' to replace the electronic overkill that slowly turns the contemporary lighting designer into a 'monitor orientated desk pinned operator', instead of a highly manoeuvrable stage orientated craftsman. The 'salesman' then demonstrated the 'Armature control visor' an adaptation of an 'F16 pilot, fully equipped headset' with a so-called reading visor having all the instruments projected from the 'dog fight

panel.

But Hans came to the point when he said that every magazine in our field brings articles on these subjects. Seminars are dedicated to it. Nowadays everybody is convinced of the need for educating the lighting designer. Once again, apologetically, he questioned this, and said he had his doubts.

He questioned whether the current form of training for our prospective colleagues is in fact the best available, emphasising that our profession has to be learned in the old fashioned way, which is in practice. "You don't learn at school how to deal with hysterical actresses, directors who don't have the slightest idea of light, set designers who also think that their set is the most interesting part of the production, and who think that actors only disturb the picture!" Although he accepts that the lighting designer has to deal with technology, the main point of this profession, he contended, is dealing with all kinds of people. "You can be an expert in analysing scripts, technical drafts or colour theories," but he went on to say, "you don't learn lighting design from a book, but only in daily practice."

He recommended a good non-technical education as a base - such as art school. Being an educationalist, he specialised in the handling of difficult children and emphasised that this was invaluable training in association with his work now . . . To become a lighting designer takes years, and he claims that it's our responsibility to care for the training of our successors in theatres and studios as it is there that they learn what lighting design is about, and not from the theatrical dreams of a university.

He concluded that: "Shadow making is



Daryl Vaughan of Vari-Lite Europe (left) with Brian Fitt of Lee Colortran.



Qahtan Hardy and Mike Bacon looked after Telestage business.



Lighting 'anarchist' John Henshall.



A Showlight 89 session in progress.

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Lucien Van Nieuwenhuysen (left) and Bob Rutten of ADB.

our profession in a sensitive and caring way - not blinded by the newest technology, but by servicing the production, not with the cheap tricks of Batman, but with the integrity and craftsmanship of Rembrandt."

Another commendation should go to Philip Edwards who bravely got up, as a technician of the trade, and questioned the place of the lighting operator today. "There is little talk about the training of an operator, particularly in the theatre, and modern controls are tending to make us lose sight of the fact that theatre is about live performances," he said. As a practitioner in another area of the industry, Edwards said he felt strongly that "technology for the sake of technology is boring... live skill is fun."

Will we still be at the same crossroads of technology versus craftsman and education versus practice when everybody meets again in four years time in Rome? And at that time, it will be a year after 1992.

Julian Williams

This learned gathering of lighting luminaires was, indeed, a melting pot for ideas and cross-border thinking between all the different lighting disciplines.

Apart from the theatre, film and TV people, there was an interesting interchange with architectural lighting, both in a product sense, and as far as individuals were concerned. This was particularly apparent in the

presentation given by Dutch stage lighting designer Hans Wolff, who provided an object lesson in how to use theatrical stunts and props to keep a serious audience amused, without obscuring his message. I was not, therefore, surprised to discover that he is successfully applying theatrical lighting techniques to commercial interiors from his recently formed architectural lighting practice. If he gives his clients similar presentations, he will never be short of work!

Similarly, Dr Harald Hofmann from Erco gave a convincing talk on theatrical influences on their range of lighting products, using the famous glass pyramid at the Louvre as his focal point. Less easy to grasp was a lecture by a Polish gentleman on the potential use of lasers on stage which, I am afraid, left me, and I suspect most of the audience, more convinced than ever that their natural home is elsewhere.

Nevertheless, the very fact that the subject was given an airing at all, is indicative of Showlight's vision in creating a forum where the future is up for grabs. That is not to say that there wasn't plenty of retrospection also, in fact rather too much of it for my liking. What has happened in the past is not always helpful in explaining what may occur sometime hence; although it certainly helps to fill up the allotted ten minutes.

Although I was sceptical about the hijacking of the symposia by commercial interests, I now realise that they provided an essential



Showing the Starlite system: Ray French (left) and Roger Pearce-Harvey of Tasco Communications.

element and, of course, are more willing to talk as they have a vested interest. One who resisted the temptation to promote existing equipment, and looked only to future product possibilities was Tim Burnham. Always a visionary, Tim's thoughts are now engaged in the possibilities for applying CAD and computer graphics to lighting design, several steps beyond simple drafting of the lighting plot.

Those who didn't resist the temptation to promote, but who succeeded in engaging their audience's attention, were Strand Lighting who demonstrated the latest PALS driven lighting system; Vari-Lite who unveiled their improved model the VL2B; DHA Lighting who gave us a clear view of their gobos and other effects wheels; and Wilf Scott of Le Maitre who, as you might expect, attempted to blow us all up.

Missing from this list, simply because he demonstrated something which was new, at least to me, is Dedo Wiegert's eponymous Dedolight. Through what is claimed to be a unique optical arrangement, which moves in entirety in relation to the fixed front condenser, it succeeds in out performing the best fresnels by achieving a focusing range of 1:25. With a conventional instrument you would do well to achieve 1:6. In addition, considerably boosted light output and evenness of distribution has been managed, by using this set-up with a clear condenser and 12 volt halogen lamp. All this is housed in a light aluminum diecast casing which will fit in your hand.

There is an additional projection lens attachment available for this fitting which enables framing shutter, iris and gobos to be applied with no apparent colour fringing. This particular function was most successfully demonstrated, and makes it very useful for applications outside its intended market, for example in display and interior lighting designs.

It was, perhaps, to be expected that little interest would be shown in this so called, lighting colloquium by the rock and discotheque lighting designers and manufacturers. The one speaker on touring rigs failed to turn up and I only found Mike Woods of WB and a team from Optikinetics from the disco side of the fence.

I suppose this is still the feeling of rebellious young turks, having turned established norms on their head, yet intimidated by all the learned chat, or simply too impatient to take the time. It's a pity because there is considerable innovation on offer from this sector and the crossover is potentially great and mutually beneficial.

Tony Gottelier

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GOTHENBURG CITY THEATRE

Lighting manager Kjell Christiansen on the Theatre.
Lighting designer Mauritz de Vries on 'West Side Story'.

Gothenburg City Theatre was opened in 1934, and is the city's base for creative drama. As a theatre, it is unique in Sweden for its wide range of technical equipment. The venue comprises a variable form auditorium complete with all the necessary mechanics, stage and lift systems.

The revolving stage has a diameter of 18 metres and the facility of two lifts, covering about half of its surface. One of the lifts is capable of raising from the basement storage room, eight metres beneath the stage, a whole section of the set permanently built on a low wheeled platform. The depth involved in this equation means that there are no restrictions imposed on the height of the scenery utilised in this manner. In our performance of *West Side Story* discussed later, the theatre did not make use of this facility but rather lay the stage open all the way to the permanent cyclorama. The working height of the stage is 18 metres.

The original placing of lanterns was all in or behind the proscenium arch, but like so many theatres, many of our lanterns are placed in the auditorium. The theatre was designed to seat just under 1000 patrons, half of them in the stalls and the rest in two

tiers (considered to be of great architectural value).

Equipment-wise, lighting control is a new system from ADB Belgium which we installed in the summer of 1988. Two S-28/III memory lighting control systems are involved for both the big and small stages. After analysing and studying many different systems, we found the S-28/III system very sophisticated and the remarkable ES 28 Effects Module helped us to make our decision to go ADB. Best of all, in an operator's hands, we find the S-28/III system very easy to operate.

In addition to the control system, new lanterns were added including ADB 5, 2 and 1k, Niethammer 2k zoom profiles and CCT 1ks. In all we have a stock of around 350 luminaires, and much of the old equipment has been retained, including some good old lanterns from Strand: 223, 243 and 23 . . .

For the future we are looking forward to seeing the new DS 101 profiles from ADB, and next summer we will be investing in two Niethammer HMI 1200w followspots.

Kjell Christiansen

Staging a musical with a drama company is not without its problems, as resources may be wanting both in artistic and technical respects. However, by adding 'hired-in' dancers to our main company, our recent production of *West Side Story* at Gothenburg City Theatre was to become the season's big effort.

The first discussions were with the director and the stage, costume and lighting designers regarding the intended form of the production. It was felt that the focal point of the piece and one of the most potent images of *West Side Story* is the element of conflict. Emphasis was placed on leather and metal in the costumes and metal and concrete in the set coupled with the lighting style of a rock concert.

One of the factors I had to take into consideration was that the stage is used in a repertory system and, as a result, the time allowed for changing sets and both the lighting and sound equipment from one production to another is just four hours.

In order to give the production that rock-concert feeling, we got hold of Slick trussing and Telfers. In the theatre, I needed a backlight, especially for the proscenium



West Side Story: a scene from the Gothenburg City Theatre's record-breaking production.

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Another scene from West Side Story, Gothenburg City Theatre.

which projected like an arrow head into the stalls. Six modified Svoboda units were built all with nine lanterns in a row.

Ordinary Svobodas were also used as back lights in the two street sets, as they were for the finale, where the actors walked towards the light placed in the centre of the permanent cyclorama. At a very early stage, and at the request of the stage designer, smoke was incorporated into the effects to provide an atmospheric backdrop to the clashing confrontations of the Sharks and the Jets, the warring street gangs in the play. Two Rosco 1500 smoke machines were placed close to the cyclorama, and one ZR 20 in front of the iron.

Finally, a dance floor was built, made of tempered glass imported from the Netherlands and, with lights beneath, grouped in concentric rings in 10 channels. Utilising the facilities of the ADB ES 28, I was able to create a variety of exciting and vivid effects.

The new ADB S-28/II lighting control desk, installed in the theatre last year, facilitated the design and operation. Everything worked out well and the production was a great success. Instead of running the show for a

limited period of three months only, as initially planned, we sold out for the whole of the season.

Mauritz de Vries

Equipment List West Side Story Gothenburg City Theatre

- 8 x 2kW ADB profile
- 9 x 2kW Neithammer profile
- 56 x 1kW ADB JHS profile
- 6 x 1kW ADB JHN profile
- 10 x 1kW CCT axial profile
- 33 x 650W Strand P 23 profile
- 2 x 5kW ADB fresnel SP 50
- 16 x 1kW Berkey fresnel
- 5 x P 223 Strand
- 4 x P 243 Strand
- 8 x ADB Svoboda
- 6 x modified Svoboda
- 98 x Par 64
- 16 x Par 36
- 30 x pinspots
- 4 x Pani flood
- 2 x Pani 5KW
- 4 x Kodak slide projectors
- 2 x Juliat low voltage follow spot
- 2 x Rosco 1500
- 1 x ZR 20 smoke machine
- ADB control desk S 28/II/5, B 28 and ES 28



The ADB lighting control installation, Gothenburg City Theatre.

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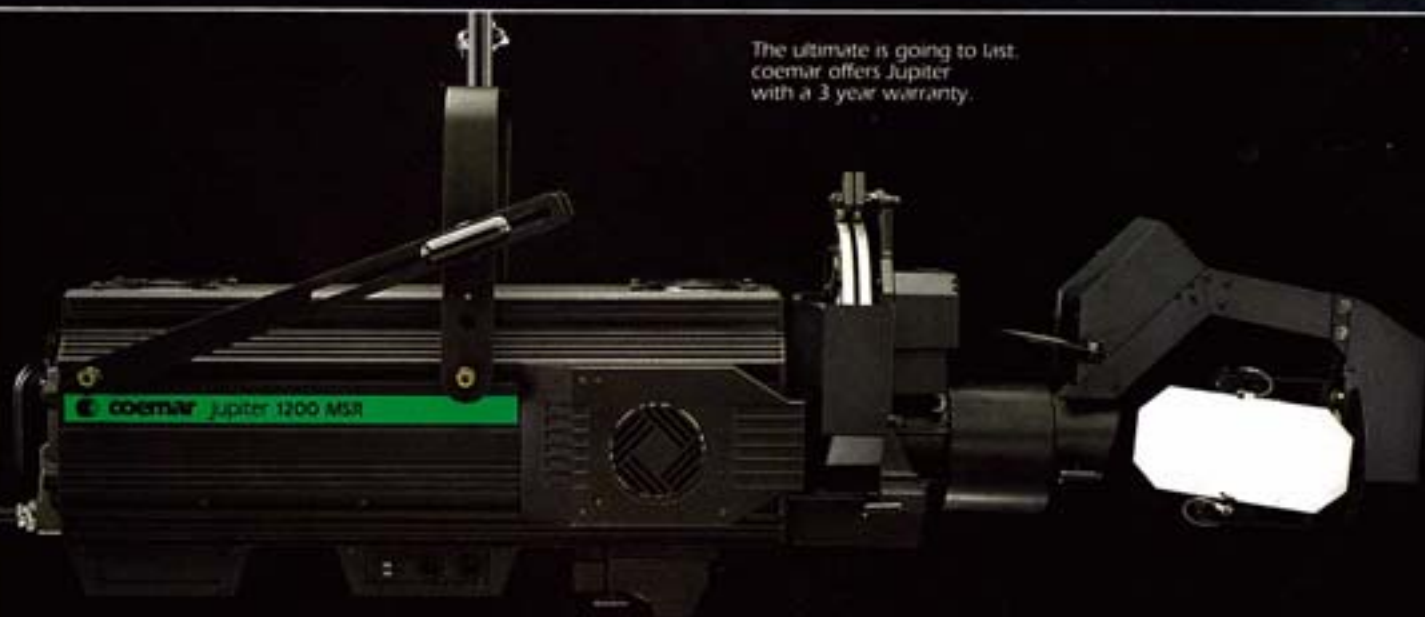
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ON-COURT CLOSE-UP

Ben Duncan outlines Stephen Court's part in the sound reinforcement business, and goes on to review Court's new 'Programme Processor' for installed loudspeaker systems.

Stephen Court has over 20 years experience in UK sound reinforcement. In 1970, he began importing JBL speakers. Aside from installing studio monitoring (in EMI, Decca and Marquee), Court's first clients were the early large-scale music reinforcement PA rental companies, notably Dave Heartstone's IES and Joe Brown's Tasco. In 1974, Stephen formed Court Acoustics. His clients included Queen, 10cc and Pink Floyd. Shortly afterwards, Court's involvement in developing PA and Studio speaker technology had branched out into control electronics, beginning with COURT graphic equalisers and active crossovers. In 1975 he began to manufacture what was probably the first Real Time Analyser (RTA), which was tested on the road with Brian Ferry.

In 1978, Pink Floyd became co-directors and the company moved to Britannia Row, a street in Islington that's become synonymous with a variety of company line-ups connected with members of The Floyd. In 1981, Court bought out Pink Floyd's share of Court Acoustics Ltd (C.A.L.), but subsequently he found himself unable to cope with the large scale distribution needed for the more popular products. Court responded by forming a new company, Court Acoustic Sales (C.A.S.) with Theatre Projects. Stephen Court initially stayed on as a director. However, owing to a poorly worded contract, Court could do nothing when Theatre Projects axed Court's directorship and then sold C.A.S. Court Acoustic Sales has subsequently been liquidated, and the name bought by a computer company. Meanwhile, Stephen Court is alive and kicking, being actively involved with five different product ranges:

S.J. Court & Associates Ltd. designs and supplies custom built sound systems using JBL, Fane and Peerless components, especially spherical (omnidirectional) speakers.

Court's Signature Series deals with control electronics and studio monitors. Aside from the programme processor reviewed here, the range of electronics includes digital power amplifiers for PA and guitar practice. The range of studio monitors are marketed worldwide by Studio Equipment Distribution Ltd., a subsidiary of Larking Audio.

Fane-Court loudspeakers are Court's designs, marketed by Fane Acoustics.

Pro-Tech Audio Ltd. is a new company based in Windsor. Formed by Court and Malcolm Toft (ex-Trident developments), it's set to distribute high quality consumer electronics to the pro-audio field, including CD players, DAT machines, CD and U-Matic video systems, cassette machines, graphic equalisers and RTAs.

The Programme Processor

Court's new unit is described as a 'multi-purpose processor for all sound systems', 'obviating the need for separate graphic equalisers, limiters, electronic crossovers and line amplifiers'. It's clearly been designed to cut out the complexity and cost of separate units, which are often over-elaborate for routine installations. Inside,



Stephen Court.

there's a fixed equaliser, a preset 'over-easy' limiter, a 2-way active crossover and a line amplifier.

For live sound, the equaliser is normally switched-out. But for recorded sound, where playback levels are commonly 10 to 40dB SPL below the live original, some form of tonal compensation is desirable. This is achieved by simply pushing a button. The fixed EQ curve that's been chosen is no accident: To arrive at a simple, fixed EQ that's right in 95% of installations, Stephen Court has painstakingly 'crunched down' nearly four thousand graphic equaliser-cum-R.T.A. records derived from 15 years of work in the field. The records range over mini-monitors used in clubs and recording studios, up to the actively-driven horn-loaded speaker arrays in 20kW PA systems.

This is important as sub-bass and full-range outputs are both sourced off the EQ'd signal - if EQ is selected. The filtration typically allows small 'full range' speaker enclosures to be driven up to 6dB harder without over-excursing the (bass) drive units. Programme below 100Hz can then be explicitly handled by the sub-bass output and a suitable sub-woofer enclosure.

In the unit we tested, terminations were unbalanced to XLRs, with the exception of the sub-bass output which appears on a ¼" mono (2 pole) jack socket. The XLR wiring convention was normal insofar as pin 2 is hot, but abnormal in that pin 3 wasn't connected at all. Having pointed out the difficulties this might cause to some installers and PA users, Court reports that future product is being revised with immediate effect, so output pins 1+3 will be linked. Furthermore, the inputs will be balanced, to make life even easier for installers - a balanced input provides a hum-loop free interface for unbalanced sources. Talking of hum loops, an internal PCB selector plug can be rotated

to 'lift' the unit's connection between the chassis and signal ground.

Test Results

Court's **Programme Processor** was tested on the Audio Precision **System One**, a PC-driven test set that's rapidly becoming a *de facto* standard in the field of pro audio. In figure 1, plot A shows the frequency response on a large scale, at the full range output, with the 'Live' setting. The response is nearly flat, being -0.5dB down at 20kHz. Beyond the audio band, and with the need for ultrasonic filtration in mind, the rate of attenuation is accelerating: it's nearly -2dB at 50kHz. Plot 'B' shows the effect of the 'Bass Cut' switch: The response is -½dB at 130Hz, but -4dB at 80Hz. At 40Hz and given the -18dB/octave slope, it should be -22dB down, meaning a full-range speaker will be driven at less than 1/100th of the power received by the sub-woofer(s) at this frequency.

In figure 2, plot A shows the frequency response with the EQ switch depressed - the 'Recorded' setting. With 0dB referred to 1kHz, the bass and treble are now displaying a response peak of +9dB at 85Hz and +8dB at 11kHz respectively. In plot B, with the 'Bass cut' switch depressed, the LF boost falls slightly to +6dB, while the centre frequency shifts marginally to 90Hz. The full range output is now just -2dB at 66Hz, but -10dB at 50Hz, which is still enough to give a useful measure of excursion protection to small drive units.

Figure 3 shows the response of the crossover outputs with the EQ disengaged; that's with the switch in the 'Live' position (i.e. disengaged). Then with the EQ switch depressed (figure 4), the response curves show the combination you'd expect, except for a slight kink in the high pass curve between 100 and 120Hz. Being 12dB below the main signal, the rapid rate of change in phase (or 'group delay') lying behind the effect as we see it in the amplitude domain, shouldn't be very audible. Phase measurements showed a fairly constant phase angle of -180° from 300Hz up to 10kHz, shifting back to 0° at 120Hz and +180° at 20Hz.

Figure 5 plots harmonic distortion with an output of +6dBu (1.6v rms) without the EQ, into the three load impedances available on the Audio Precision. The 100k load (plot A) broadly simulates the distortion when driving a single amplifier, while the 600 and 150 ohm (plots B&C) show how much distortion changes when driving 20 or more 'daisy-chained' amps in a large scale PA system. Even with 150 ohms (simulating over 30 amplifiers, and at high frequencies, a long multicore as well) THD+N (distortion + noise) isn't above 0.1% at all audio frequencies and beyond, and below 0.01% with more moderate loading.

Court notes that the average EQ settings arrived at after computer analysis seem to correspond with a combination of free-field equal-loudness contours and the typical response of moving-coil loudspeakers in free-air. The processor's manual notes that

'irrespective of size or make, most loudspeakers suffer from similar problems with lack of deep bass due to enclosure/room size and insufficient cone or mouth area at low frequencies. Similarly, high frequencies are affected by increasing cone/diaphragm mass, with frequency, directivity, molecular air absorption or simply hf losses in the recording/reproduction chain.' The only EQ curves used in the past which deviated significantly from the grand average were those needing 'one off' deviations for anti-feedback control, or 'personalised' characteristics introduced into unique installations.

Moving on to the limiter section, it too is preset, except for the threshold control. Being acutely aware of how much skill is needed to set up a conventional limiter correctly, Court has made the remaining settings (ratio/slope, attack and release) suit most users most of the time. Again, the parameters have been arrived at by averaging a large number of set-up records for both live and recorded PA installations. The limiter's activity is monitored by an LED next to the threshold control. For loudspeaker protection, the control can be set so the power amplifiers' own clip LEDs are just prevented from lighting; or rotated further, to clamp the SPL at a level below the system's capability. An 'in/out' pushbutton permits rapid comparisons.

The two-way crossover section has a slope of -18dB/octave, compared to the -24dB/octave that's become the 'industry standard' over the past nine years. Court argues (quite reasonably) that this slope gives adequate protection, and also sounds more musical. Although supplied with a crossover point of 225Hz, the frequency is

set by two plug-in cards, so it's readily altered to suit other requirements. The LF and HF balance-cum-drive level controls are sensibly ganged. This helps prevent loss of stereo image width, by reducing the scope for misalignment. Accurately setting independent left and right channel controls by ear for two frequency bands (let alone three) is nearly impossible. Another refinement which makes life easy for installers is the span of the crossover level controls. Instead of swinging from minus infinity up to 0dB, they're restricted to the +/-6dB range that's enough to tune most systems, with unity gain (0dB) arranged to lie squarely in the midway position.

The system's gain structure is also accommodated by an overall gain control on the front panel, which swings from 0dB to +6dB. It's enough to make the less sensitive kinds of power amplifier (requiring +4 to +10dBu up their inputs) driveable, without having to change their gain internally.

Besides the stereo LF & HF crossover outputs, two auxiliary outputs are apparent on the back panel. A mono sub-bass output operating below 100Hz is derived (as usual) by summing the L+R channels. Alongside are left and right channel full-range outputs, together with a 'bass cut' switch, which introduces a 100Hz, -18dB/octave high pass filter.

Figure 6 repeats the distortion measurements with the same test conditions, except the EQ is engaged. Notice how distortion increases by a factor of about 130% all round, yet **reduces** around 80Hz, suggesting that Court's LF EQ uses an inductor to do the hard work of boosting, rather than 'gyrators' built with op-amps. At the same time, frequencies encompassed by the

HF EQ show a distinct rise in THD. Nonetheless, overall distortion remains acceptable, being only 0.08% with the unit driving a worst case 150 ohms at the peak HF frequency of 11kHz; and 0.03% when driving 11kHz into 100k.

Harmonic distortion is a traditional measurement. Once it's below 0.1%, it tells us little about how equipment actually sounds. For the first time, figure 7 plots intermodulation distortion (without EQ) swept over a broad range of high frequencies, according to the SMPTE method. Here, a 60Hz and 7kHz sine wave are mixed. Distortion products are then registered at 2.5kHz and above. This method is held to give a better correlation with perceived sound quality. Once again, plots A,B & C show the effect of driving into the three load impedances. Note how IMD (intermodulation distortion) lies below 0.1% and is generally below 0.01% with light loading. The rise towards 10kHz indicates impending vhf non-linearity, showing why ultrasonic filtration is a good thing. Figure 8 shows how the picture stays much the same with the EQ in place.

The spectrograph in figure 9 displays how the unit's output noise varied across the audio spectrum. Plots A & B are taken under identical conditions, except the load impedance is 100k (A) and 150 ohms (B). In both cases, noise is below -95dB across most of the audio spectrum. The rise in noise towards 10kHz and the magnetic 'spike' at 50Hz will be heard as a faint hiss and hum respectively. And then only if you put your ears against the speaker(s).

Listening tests were carried out using a Turbosound TMS-4 enclosure driven by a Rauch DVT-50S. All the controls proved easy to set up, particularly the limiter, and sonic quality

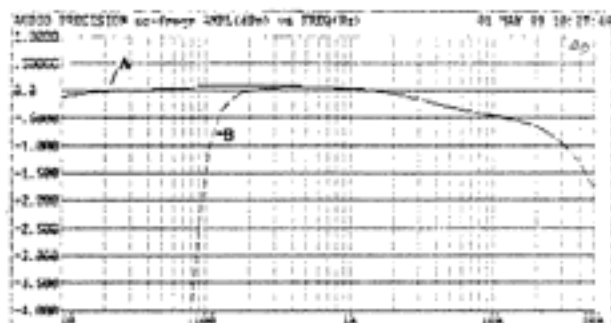


FIGURE 1
FREQUENCY RESPONSE
A: Full range output, EQ out
B: with bass cut switched-in

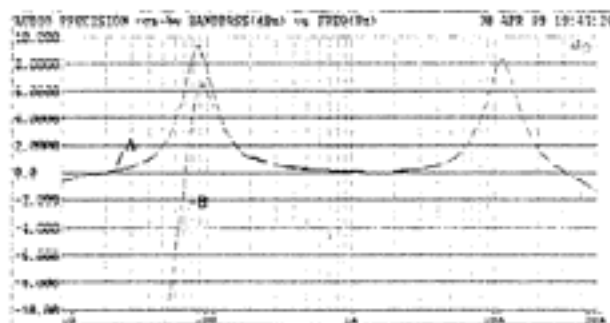


FIGURE 2
FREQUENCY RESPONSE
A: Full range output, EQ in
B: With bass cut switched-in

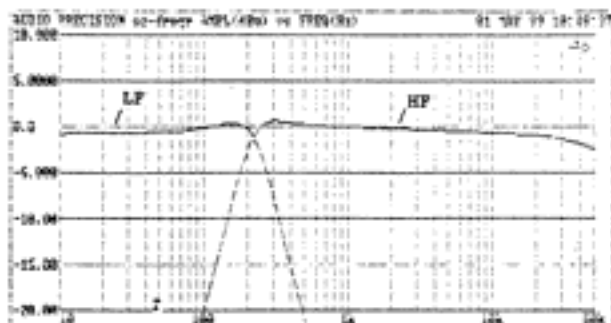


FIGURE 3
FREQUENCY RESPONSE
Shows crossover outputs summed, with EQ out.

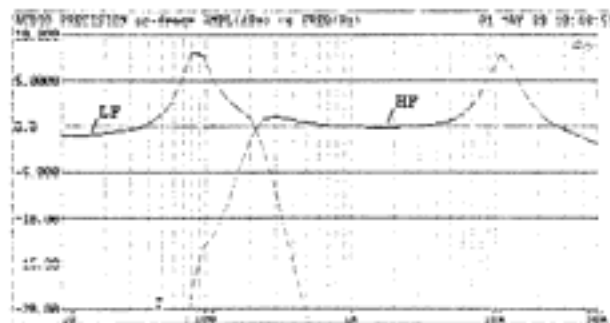


FIGURE 4
FREQUENCY RESPONSE
Shows crossover outputs with EQ in



Court Signature Series Programme Processor (front).

The same unit viewed from the rear.

was excellent, even when driven hard (at +10dBu) with the limiter threshold set low. This bodes well for loudspeaker longevity when the system is in the hands of manic DJ's!

The equalised 'recorded' setting proved useful at low SPLs, working like a loudness button. Given small speakers with a less than flat response, it would be just as useful at higher sound levels.

Summary

Summing up, despite its simple circuitry, Court's Programme Processor measures well. At the same time, I was initially disturbed to see TL0 series op-amps being used to

drive the outputs. Not being rated to drive 600 ohms, these must prejudice the processor's performance a little when it comes to driving a lot of daisy-chained amplifiers, particularly at levels above +4dBu. And while the measurements in figs 5 & 6 show no signs of impending trouble, they don't take account of the extra loading which would be presented by substantial cabling. At the same time, the TL074 does have a reputation for easy going sonic qualities, as demonstrated by the SMPTE intermodulation plot in figure 7. Still, having read our draft assessment, Court has agreed to fit NE5534 ICs in the processor's output stage with immediate effect, so the outputs are rated to drive 600 ohms up to +20dBu, and

can therefore drive 20 or more power amplifiers with little increase in distortion. The only remaining criticism is the 'limit' LED, which wasn't very bright in daylight, but that wouldn't be a problem in the average dark cupboard.

As for utility, the unit has great merit in its simplicity of set-up and operation - ultimately leading to faster installation and greater sound system reliability. Compared to the more sophisticated and expensive loudspeaker 'processors' which are often limited to one loudspeaker, this unit is an elegant condensation of existing active speaker technology, meaning it's thoroughly predictable and can also drive as many amplifier-speaker combinations as required.

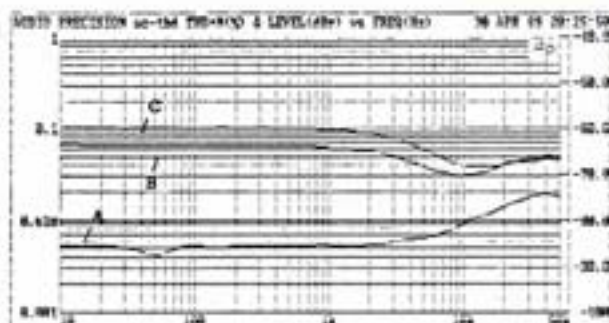


FIGURE 5
HARMONIC DISTORTION vs. FREQUENCY

Measured at the full-range output
A: with 100k load impedance at output
B: with 600 ohms
C: with 150 ohms

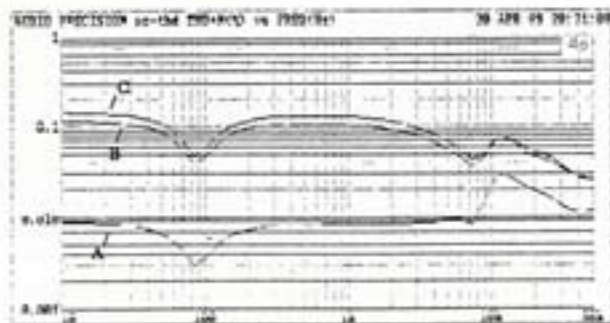


FIGURE 6
HARMONIC DISTORTION vs. FREQUENCY

Measured at the full-range output
A: With 100k load impedance
B: With 600 ohms
C: With 150 ohms

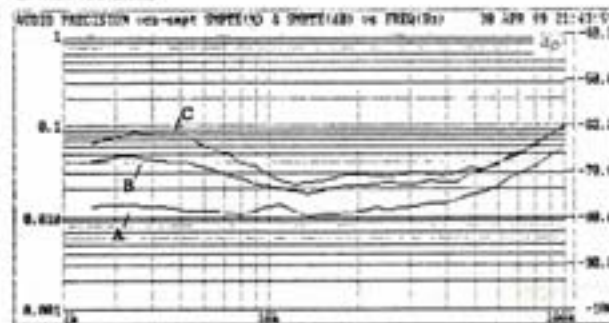


FIGURE 7
SMPTE INTERMODULATION DISTORTION

With +6dBu output, EQ out
A: 100k load
B: 600 ohms
C: 150 ohms

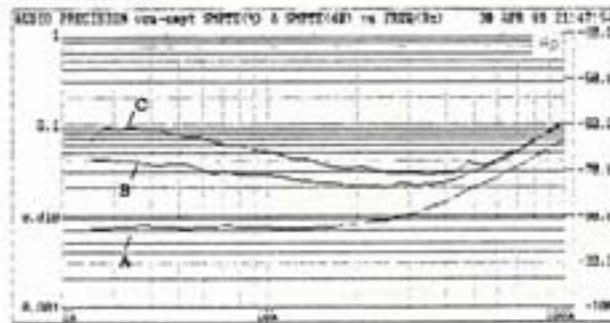


FIGURE 8
SMPTE INTERMODULATION DISTORTION

With +6dBu output, EQ in
A: With 100k load
B: 600 ohms
C: 150 ohms

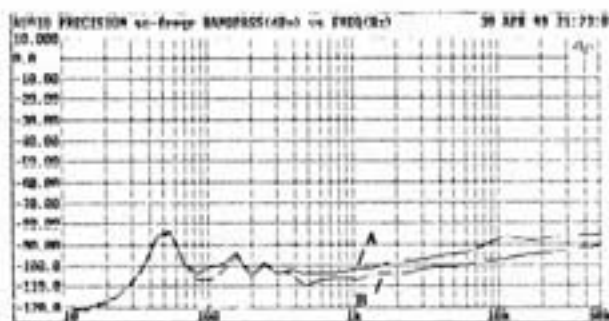


FIGURE 9
RESIDUAL NOISE SPECTRUM
* Input shorted
* Measured at full range output
* 10Hz to 50kHz measurement bandwidth
A: 100k load impedance B: 150 ohm load impedance

Court's Loudspeaker Processor retails at E420 + VAT.

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SPREADING THE WORD

Kathleen White visited the Heywood base of Wigwam

Since its inception in 1979, Wigwam Acoustics has undergone remarkable growth from a small PA hire company of dedicated sound specialists. Co-founders Mike Huck and Mike Spratt now oversee a multi-million pound business with a diverse and international client base.

Wigwam has gradually divided into three main areas. The hire operation includes complete production facilities for events ranging from major concert tours to broadcasting, theatre and variety productions. The contracting business has leapfrogged from church installations into discos, clubs, civic buildings, broadcasting and, most recently, theatres. As for sales, Wigwam has over 40 dealerships and sells both to the trade and direct to the end user.

Contract/sales coordinator Simon Campbell comments: "We like to keep the

business modular but interconnected, and the result is that information feeds quickly back to different sections of the company and reinforces our knowledge and understanding."

He continues: "This set-up also provides us with a great deal of flexibility. Our contracting service can include writing the spec through to designing the system and installing it, or any part thereof. It's a similar situation with our hire operations. If a tour is taking place overseas, we may just provide a crew. Since so much of our equipment is hired out, our sales side benefits from knowing how the equipment sounds and how reliable it is."

Wigwam's product lines include everything for sound systems large and small: loudspeakers to amps and mixers to mics, cabling, distribution systems and effects

units. The emphasis is on quality, and the major suppliers are all represented including Meyer, ElectroVoice, JBL, Soundcraft, Peavey, Yamaha, Shure and AKG. What they don't have, they buy in.

Touring clients include Chris Rea, The Hollies, Barry Humphries and James Last. Broadcast sound has been provided for Yorkshire Television, the BBC and a number of the independents. Installation contracts include jobs for the Harrogate Conference Centre, The Fairfield Hall in Croydon and St Paul's.

Wigwam is still based at the rambling country house in Heywood, Lancashire, where it all began. Over 1,000 sq ft of offices have been built on to the house, and a 4,000 sq ft warehouse complex down the road is already bursting at the seams. Wigwam's two founders oversee its much expanded operations with the air of those who have unexpectedly come into possession of the goose that lays the golden egg.

Mike Spratt and Mike Huck began their association back in the 70's in a gospel rock group called the Movement Band. Weary of life on the road, they started renting out the band's PA. Spratt's background as a BBC sound engineer and video editor provided the technical expertise, while Huck's involvement in the church as a Baptist minister offered an entree into a new market - that of church installations.

Though success did not come immediately, Huck and Spratt kept strictly to their policy of allowing Wigwam to grow organically, rather than lumbering the business with huge debts. The policy has paid off and the company has come through the rough and tumble of the 80's to find itself well placed to take advantage of the boom in sound reinforcement.

These days, Mike Huck's role is company chairman, acting more as a driving force than running day-to-day operations. He explains the philosophy behind the company, reinforcing the company motto, the people behind the people behind the sound.

"Our reputation is based on solid service and I take an interest in every client, whether he rents one microphone a year or a full rig. We've had several PLC companies chasing us every year to buy us out, but we are much happier to let the company grow naturally and keep it people based."

"We have not limited ourselves to any one market for a variety of reasons, the first being that the market place is seasonal. In addition, all our engineers and crew get a broad swathe of work, and are able to handle many types of situations, often working on their own initiative. Since I am involved in Christian events, it's meant that we have developed expertise for really big outdoor events with full media coverage."

The sudden surge in all Wigwam's markets has focused minds. Hire director Chris Hill notes: "This weekend we have eight separate hire gigs, and we have systems out on tour for up to two years at a time. Our biggest restriction on the hire side is finding the right engineers and crew. It's hard for the youngsters to get experience. Companies won't hire them without it, and unless they're hired they cannot get experience."

Simon Campbell adds: "There's been a big



The sound system at St. Paul's Church, Onslow Square, London was installed by Wigwam Contracting.



Mike Spratt.

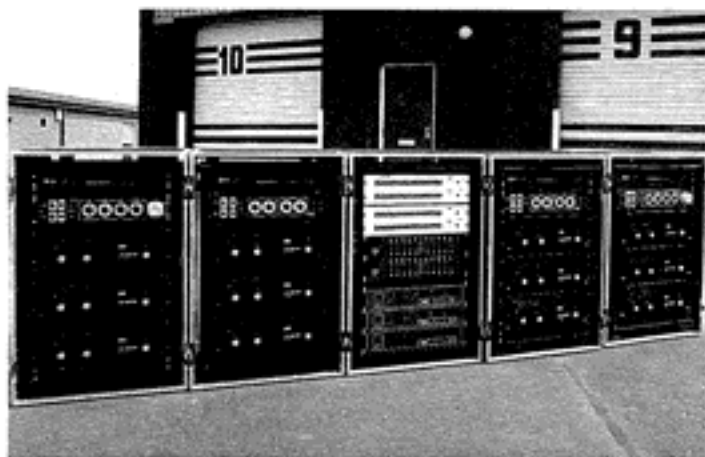
surge in the evangelical market and bands interested in turnkey touring systems are springing up all the time. Conference centres and theatres are investing heavily in systems, as are clubs. On the hire side, all our equipment is out on tour and the warehouse is virtually empty. If the reverse was true we'd much prefer to have equipment sitting in the warehouse rather than get into a price war situation. Renegotiating can be the start of a long spiral downwards. We've just got a contract for a system and crew for a tour of the musical South Pacific, and we'll have to buy in a whole new rig just for that."



The Meyer loudspeaker cluster at Croydon's Fairfield Halls was installed by Wigwam.

Wigwam is eyeing the European market in the run-up to 1992, and is quick to pick up on potential markets. "We see 1992 as very important, as we intend to market ourselves

abroad as design consultants, supervising local companies to do the installations. Also, we're finding that we are one of the few companies supplying top-end turnkey tour-



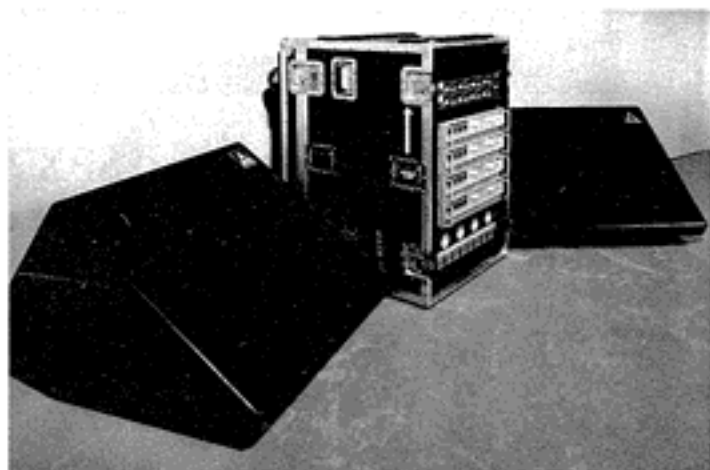
Amplifier racks for Christ for All Nations East Africa: the system was constructed by Wigwam's contracting division.



Wigwam Acoustics' cable store.



Wigwam's hire department warehouse.



A bi-amp monitor system from Wigwam's hire division.



The Abundant Life Church Bradford - sound installation by Wigwam's contracting division.



Simon Campbell

ing systems to the end users. Usually it's just hire companies that buy the big touring rigs, but we're finding more and more end users who specify such systems, both here and abroad. We just sold a £90,000 rig to Christ For All Nations West African Mission.

As for the future, managing director Mike Spratt succinctly comments: "We are expanding on several fronts and are taking on specialist staff for each area. The plan is to specialise in many markets."

Mike Huck adds: "No matter how much equipment we buy, it all goes out on tour. One thing we don't want to do is try to take on the world and then go bust five years down the line. There's no problem getting work at the moment, and though we're getting big, it's still fun. We're all hoping for a holiday this year, if possible."

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SOUND THINKING

AES SOUND REINFORCEMENT CONFERENCE

Tim Frost reports

AES London branch launched its first Sound Reinforcement conference in the last week of May on the basis of London's normal conditions of rain and traffic. Instead there was a heatwave and a tube strike, neither of which deterred the delegates or the specialists giving papers, although it did occasionally delay them.

Peter Mapp had spent a lot of time putting a conference together that covered nearly every aspect of sound reinforcement. There were specialist installations, history, client problems and new products, all discussed at a practical level.

Specific vertical market projects helped broaden the knowledge of most of the delegates who were themselves specialists in particular areas of sound reinforcement. 'Conference and Interpretation' presented by Auditel's Mike White, opened many eyes to the complications and opportunities of

large scale conference installations, with their options of hard wired, radio or infra-red distribution.

Peter Barnett from AMS detailed much of the theory and history of electronically assisted reverberation systems. He looked at the basic problems in producing effective electronic reverberation and discussed all the available systems. All of these, including his own, he felt had limited application and life-span. "The interest is going to drop in the next 10 years as it becomes passe. We are also now going through a 'green phase' where we want to do everything naturally. But it is useful, both to cover up cock-ups in new designs and in older venues where it is not architecturally possible to pull the building about."

Presenting an opposite viewpoint in part of his presentation, Barry Pritchard of architects RHWL, discussed sound reinforcement

systems from the architect's viewpoint. A brave man indeed to get up in front of a conference full of sound engineers who often have reason to feel that architects know little, and care even less about the problems of sound reinforcement in the auditoria they design.

Pritchard states as much in the pre-print: "Most architects are not technically minded when it comes to electronics and have very little sympathy with their installation." He goes on to say: "If one wanted to be cynical, one would think that the equipment was chosen and rigged to look spectacular . . . rather than ensuring the performance could be properly heard . . ." He went on to illustrate this with slides of substantial and inelegant clusters dominating beautifully restored Edwardian and Victorian interiors.

There was some sympathy with the view that it is the client brief and other external pressures that specify the concentration on looks rather than practicality. But it would be fair to say that the conference was not convinced that architects had in any way grasped the nettle of designing the practicality of day-to-day operation, as well as beauty, into their auditorium designs.

John Leonard, ex-Royal Shakespeare company, now an independent sound consultant, began by giving a history of the sound man from Shakespeare's theatre onwards. This included the Victorian play the 'Ghost Train' requiring 11 effects men working simultaneously to produce the sound of the ghostly train's arrival. Commenting on the generally low standard of sound equipment used in the majority of theatres today, he pointed out that, "in the age of digital lighting boards, the standard tape format still remains the B77 running at 7 1/2 ips." With only a little prompting from the chairman, John directed some of his not inconsiderable experience and barbed remarks against the excesses of sound designers in this Lloyd-Webber era of musical theatre.

There was a good cross-section of internationally-based presenters giving papers on microphones, both stereo and radio, and aspects of loudspeaker installation and design.

Bruce Bartlett from Crown described the general principles of noise cancelling microphone design culminating in the Crown Difroid (difference/cardioid) microphone. He followed it with details of the new Crown stereo microphone. This single unit, available in two versions using PZM or B & K omnis has been designated as the Stereo Ambient handling System (SAS).

Somewhat larger than an SLR camera case, but looking much the same, the SAS is claimed to have excellent stereo imagery, mono compatibility and insensitivity to wind noise.

On the system design side, Tom Clelland from Bose showed how the Winter Olympics in Calgary were sound reinforced without relying on horn-based clusters. The scope of the installations included the extraordinary problems of placing speaker towers on the sides of Mount Allan. Each tower, we were told, had its own generator and signal distribution via a 25W FM transmitter. In the very low temperatures of Calgary, equipment warm up routines ended



Barry Pritchard puts his head into lions mouth.



From Germany, Jurgen Gutman.



Community's Bruce Howze.



Consultant, Sam Wise.

with hard driving by running up "a CD with rock 'n' roll to blow away the snow from the drivers."

Mike Spratt from Wigwam demonstrated the opposite in system design, not only using horns, but also mixing speakers from four or five different manufacturers. For Billy Graham's tour of the UK, Spratt described a system that had to cover football stadium audiences of up to 50,000 that still allowed 360° unimpaired vision of the stage.

The system, a combination of Meyer, Martin and Bose, was mounted on scissor lifts and gas powered hoists, allowing fast set-up times and the flexibility needed to cope with many differing venues. Whilst being aware of the possible cost over-runs from outset, Wigwam still found that the original contingency funds were used in the first week, on what was neatly termed as the 'by-the-ways': 'By the way, we are having a 2,000 piece choir for this show' and 'By the way, we want a 220 way translation system'.

Continuing along the practical design installation and support of reinforcement systems, consultant Sam Wise discussed installation cabling, equalisers and earthing. Showing the five basic connection options from unbalanced to differential balancing, Wise made the point that the method is less important than the thinking behind it, "with earthing, the important thing is to plan it. Make a decision, and, because it has been designed, it will work. If you don't design it, it will damn well not work, and you won't know where you are."

Gary Ashton of Shuttlesound continued with a related theme, 'Field Failure and Maintenance'. He showed how system reliability could be substantially affected by the care paid to installation detail and client

training. Citing the night club and discotheque market as one that demands a great deal of attention to detail, Gary stated: "We all too often go to a site and see that if the installer had done the job properly, then the problems wouldn't be there. Problems are often with cabling and documentation, how and where cables are run and labelled, and how well the system is documented."

He outlined a client support package that included full system documentation, with parts list and serial numbers and full on and off site training for a nominated system operator.

"The biggest cause of problems is operator abuse. Education should be the responsibility of the installer. Training up operators over just a few hours can cut servicing by half."

Turbosound took the opportunity of the conference to unveil their new Flashlight speaker system. The new unit, demonstrated in prototype form, is four way, splitting the mid range between a 12" and 6 1/2" drivers, both Turbo loaded. Flashlight, according to Turbosound's John Newsham, marks a return to narrow dispersion along the lines of the original Festival system produced in the late 70's. "We wanted at least half the dispersion of the Turbo mid." The unit using some new drivers has a 25° dispersion enabling it to form part of a very large cluster.

With 16 papers over the two days, it is only possible here to give a flavour of the conference. Well attended with a broad range of topics, the UK AES committee should consider this first crack at the sound reinforcement sector a qualified success. All the delegates came away with additional practical information and were generally content, even if not everyone got to bite the architect.



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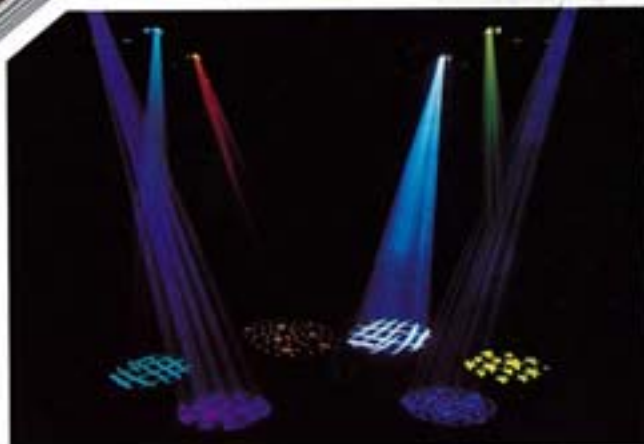
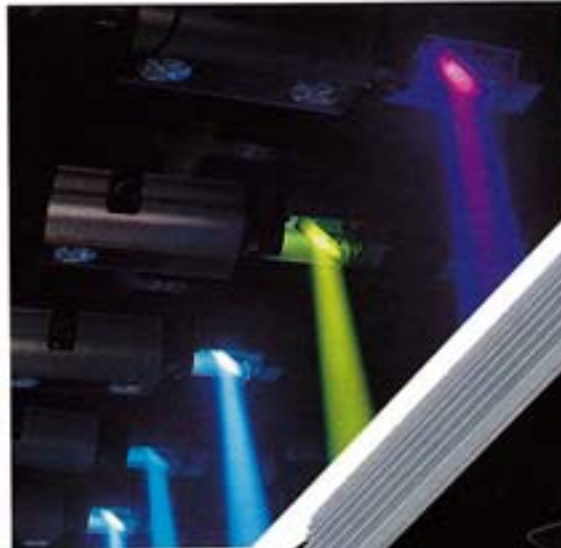
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NETWORK NETHERLANDS

Although The Netherlands is a small country, not much bigger than Wales, the enterprising Dutch have traditionally been major importers of discotheque lighting especially from the UK. Where does it all go? Tony Gottelier went looking for the answers, with L+SI editor John Offord as driver and navigator.

It is many a long year since I used to drive to Dover laden to the gunwales with lighting gear for an astute electrical appliances dealer, turned disco equipment distributor, to tranship in his Mercedes van to Venlo on the Dutch/German border.

Despite leaving from Harwich, this trip was to bring all that back, including the feeling of furtiveness one always felt when reloading the goods from vehicle to vehicle in the traditional portside lay-by. Must have looked very odd to any passing customs official. Well all of that was a long time ago, and times have certainly changed, as John and I were to find out at our first call, which was to Prof Sound Systems in the south-east of the

country.

This firm is most famous as the company responsible for the world's first really big installation of articulate lights, and possibly still the biggest. For, The Escape in Amsterdam was fitted out with no less than 64 Coemar Robots long before most people had even thought of using them and, consequently, gets top marks for originality and bravura. Actually, there is a direct connection here with our visit, for in the original L+SI article on the disco, the writer credited the job to another company, so we had also come as penitents.

Ex-Philips man Cornelius Avezaath runs a tight ship from Prof's neat premises, employing some 17 personnel in their business as

wholesalers and distributors for such manufacturers as Zero 88, Coemar, J. Collins, Major, Datronik, Fostex and others. They even tried to handle Clay Paky as well but realised, with the competition hotting up, that this was perhaps a bit ambitious.

A mere ten years previously the parent company had fallen into this business as the result of supplying amusement machines to cafes and bars. Customers often asked for additional speakers to complement the juke boxes marketed by the company. After all, this was a teenage market. One thing led to another and the next was a demand for lighting.

Sensing an opportunity, Prof Sound was formed in 1979 to take advantage of this rapidly expanding area and the crossover into discotheque was a natural consequence. Nowadays 60% of their sales are via trade outlets and installers, the rest by their own direct sales to clubs, or rentals for AV presentations and promotions.

They maintain an in-house lighting design facility which enables them to plan installations, usually in cooperation with their dealers who generally do not have the appropriate facilities to carry out such work themselves. This struck me as an eminently sensible arrangement and one that some UK suppliers could consider emulating. Apart from Escape, some other successes among many have been Beebop in Amsterdam, The Palace in Groningen and Belle Fleur in Leeuwarden.

While the company produces its own literature, it finds that its biggest marketing weapon is the large showroom which it has established on the premises. Every attempt has been made to make this as true to life as possible, with a bar, banquet seating and interior decor to give the impression of a real dance area. The light show is up-dated each year and Prof Sound subsequently hold an open day to show off the new effects to their customers. The current demo, soon to be reconfigured once more, was exciting stuff and would certainly give many clubs a run for their money.

The technical department, essential to support their 24 hour back-up service, have inevitably gone in for some innovation of their own and with some success. Having been landed with a new Collins 128 channel multiplex controller, which came before a demultiplexer was available for it, Henk Manders set about making one himself. Cleverly, he designed a four channel interface which, piggy-backed onto the normal signal input of standard Zero 88 power packs, enables them to be serially addressed in a daisy chain.

One last word before leaving Prof Sound. When visiting these charming people their generous invitation to a 'light lunch' should be taken with caution, especially for those watching their waistline, but then the Dutch are noted for their understatement!

Several kilos heavier, I nearly said pounds, we set off to find the premises of Jac Van Ham, another big name in distribution and



Showroom discussion at Profound of Veldhoven: Tony Gottelier with managing director Cornelius van Avezaath (centre) and William van Nistelrooy (right), designer and showroom manager.



Technical talk with Profound's technical engineer Henk Manders.



The showroom at Profound's HQ - a major plus for the company's marketing.

installations in the Netherlands.

Here, I was pleased to meet Ben Weijters again, one of the most amenable people in the industry today, as I had previously discovered at the Rimini exhibition during a night out on the town with Optikinetics. At his home base, Ben controls a team of 17 staff devoted to the disco business. But once again it was juke boxes and amusement machines which got the company involved in the first place.

After 25 obviously successful years in that market, the company has established a very substantial base with every facility. With a metalwork shop, spray shop, cabinet makers and electronics, all on the same premises,



Profound innovation: Zero 88 wall mounted dimmers with Profound's own demultiplexors on board.

they are in a perfect position to serve a wider market than that provided by their games machines and juke boxes, many of which are, of course, made and assembled on the premises. As with Prof Sound, it was a logical progression into sound, they make their own Mosfet amps and crossovers as well as speaker enclosures, and from sound into lighting.

This background has also provided them with their own offices elsewhere in the Netherlands and also in Belgium, France and Switzerland. So, add to this their dealer network, and exports to Dutch ex-protectorates overseas, and you have the picture of a substantial outfit. This also explains why they have such an impressive list of suppliers with whom they have distribution deals. Clay Paky, Colibri, Fabriluce, Laserpoint, Le Maitre, Pulsar, Wavelength, together with Optikinetics and Lampo (jointly with Toverli of Amsterdam) have all trusted Jac Van Ham with their distribution.

Jac Van Ham also mix distribution successfully with designing and completing installations for clubs themselves, using their own CAD system for the design work to produce complete service manuals for the jobs as they are completed, which struck me as highly efficient. The simple CAD system used for these purposes, which will be reviewed in a general article on computers in lighting design in a subsequent issue of L+S, uses a British software package which seemed to perform well for the purpose, indeed some of the drawings which accompany this article were produced via that system.

Two of their most recently completed schemes are Cosmo in Vissingen and Blue Tiek in Rotterdam. The latter is a 2500 capacity disco of 400 square metres on one floor. Although it features big screen satellite TV reception, it also has a totally separate video room for the screening of pop promos and movies, which struck me as a new and

interesting idea.

The light show at Blue Tiek includes Clay Paky Golden Scans, Sapphires and Martes, eight ColorPros and some White Lightning strobes. These, together with quantities of Par 56 and 64s, are all suspended from Trilite truss and controlled by an OSKA, the first in the country. An Aries laser system is another major effect.

The company are also in the process of equipping a big new showroom, which will include all of the above products and more.

Having seen the facilities at JVH, I wasn't totally surprised to discover from Ben, as his parting shot, that they also equipped the discotheque on board the Harwich/Hook ferry which brought us to Holland. "Mind you, its only a couple of light bulbs and a sound system," he told us sardonically.

And so to Toverli in Amsterdam. For 40 years, Toverli have been serving the theatre market and, since being acquired by the current management 15 years ago, they extended their interests to include hire and discotheque.

They sell many of the substantial brands in the business and are Cerebrum Lighting's agents in the territory. They have a demo room and manufacture their own line of dimmers, which are in use in Amsterdam's modern opera house. Lighting control at the recently completed Golden Tulip Hilton Hotel, in the centre of the city, was another substantial project in which Toverli were involved.

The next big discovery, indeed the find of the trip in my book, was Stage Accompany who were almost single-handedly responsible for the technical aspects at the Metropool Superdisco featured in this issue.

For a business founded in 1977, to manufacture flight cases and speaker cabinets, they have come a long way. By 1979 they were already producing a range of electronic equipment and had embarked on a programme of innovative electronic development. This culminated in the 1985 introduction of the first commercially available programmable parametric equaliser.

Meanwhile, they introduced what is thought to be the world's only compact, sometimes called ribbon-type, driver for high and mid frequency sound reinforcement, aiming to add Hi-Fi quality reproduction to high power sound systems. There followed their own unique low level transducers, which were together packaged into the 'Blue Box' to create a full range speaker of high performance specification.



Design at work: the CAD system at Jac Van Ham's.

Indeed, SA are firm in their claim to the only, true, full range speaker system.

If you add to that their subsequent development of an intelligent amplifier and sophisticated control software, you have the makings of a digital sound package capable of running up to 250 speakers from one IBM, or compatible, PC. No wonder they are specified by Disney and other major theme park operators.

Let's take a close look at the Blue Box. Because it is both programmable and also an active speaker system, it will tell us a lot about Sound Accompany and their progressive products. Each computer designed enclosure incorporates a 60W RMS Compact Driver, a 15" low-frequency speaker and two way active electronics consisting of a linear phase Bessel crossover, two power amps and a microprocessor.

Instead of using a conventional diaphragm and voice coil, the Compact Driver uses a flat, rectangular diaphragm made of a synthetic elastic material laminated to aluminium foil and very resistant to high temperatures. Thus a driver of extremely low moving mass is achieved, able to handle all frequencies from 1-32kHz, to withstand transients up to 1000W and delivering low harmonic distortion characteristics of less than 1.5% at full power. In the Blue Box, this slim device is directly coupled to a constant directivity horn.

The 15" woofer, developed to complement the high frequency driver, uses a robust chassis design, which encloses the magnet structure to prevent it moving, and the whole assembly, including SA's own 4" reinforced voice coils, is constructed using aeronautic adhesives. This results in a speaker with a wide dynamic range and low harmonic and transient distortion.

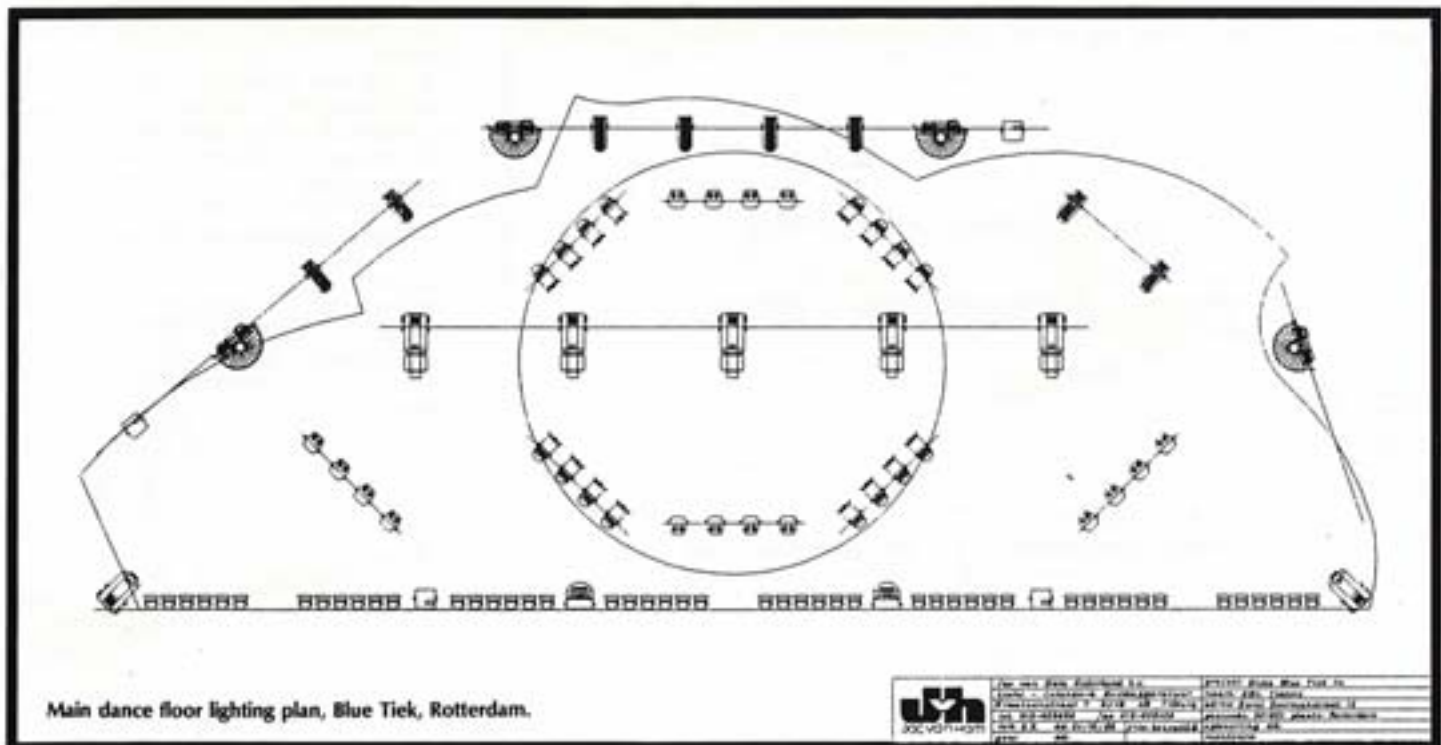
The on-board power amplifiers with built-in electronic crossovers and microprocessor are fully PC, as well as manually, controllable as to all their operating functions. Otherwise factory prepared presets ensure optimum performance, protection and crossover level settings, which are modified, or new ones created, by a PC with SA's interface. In addition, as with SA's stand-alone amps, the microprocessor continuously monitors and quickly corrects speaker cone movement,



The Blue Tiek Inn, Rotterdam, a scheme from Jac Van Ham.



Ben Weijters (left) with Tony Gottelier.

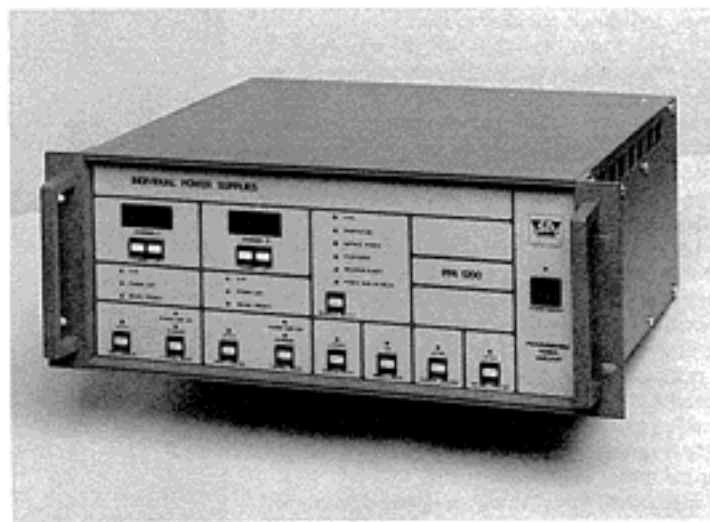


Main dance floor lighting plan, Blue Tiek, Rotterdam.

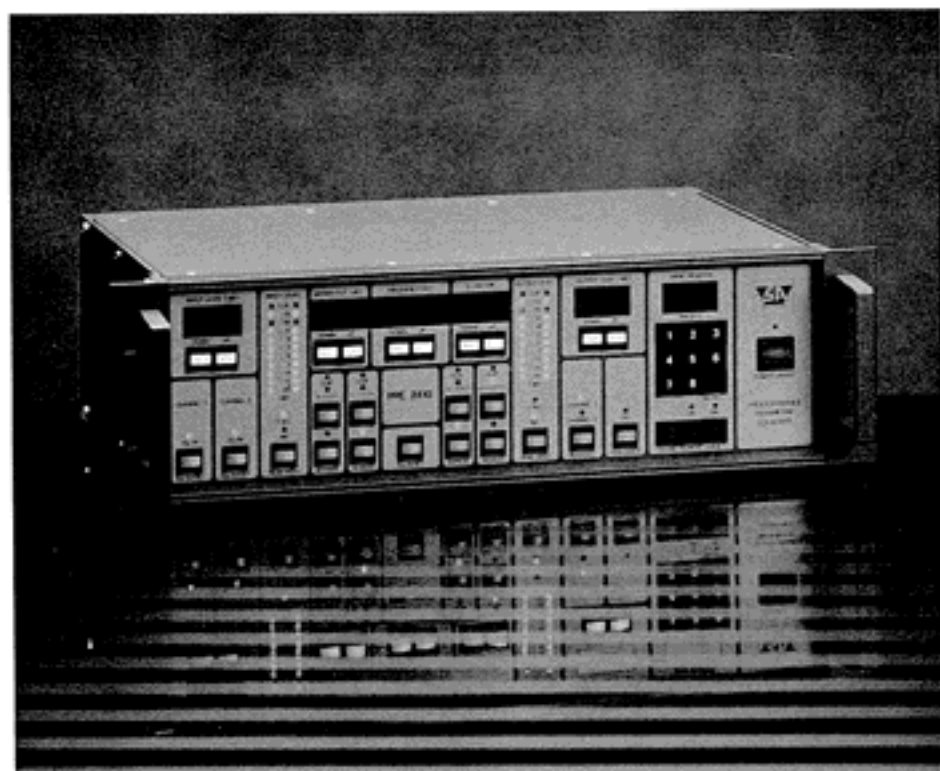
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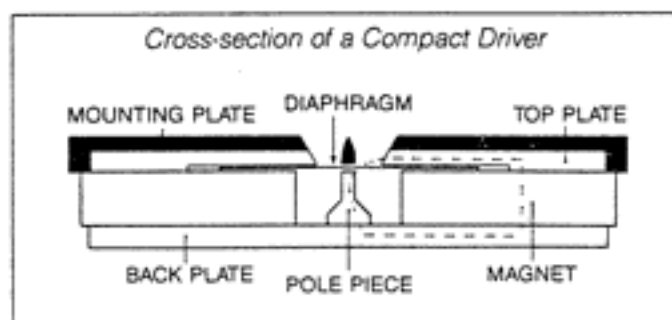
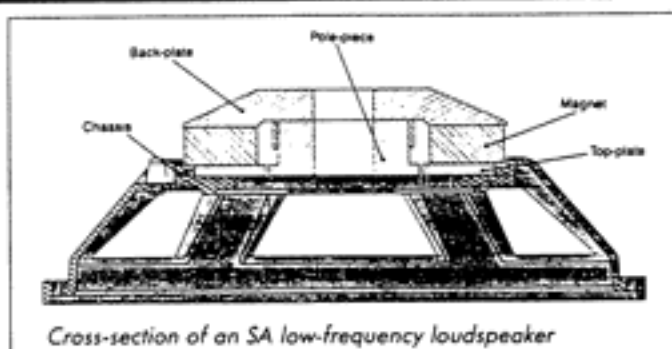
The SA 4525 Blue Box from Stage Accompany.



The SA PPA 1200 amplifier.



The Programmable parametric amplifier.



providing an almost infinite damping process. It also measures output voltages and currents and makes adjustments, against clipping and power overloads, in such a way that there is no perceptible sacrifice in sound quality.

With all these sophisticated components combined together in the Blue Box, a frequency response from below 30 Hz to over 30 kHz is achievable, leading to the claim that both sub-bass units and super tweeters are rendered unnecessary. High acoustic output of 120dB with 10dB of headroom is possible, while maintaining good transient response and clarity of reproduction with very low distortion.

Anyway, they sounded pretty good to me, apart from perhaps lacking in the physical sensation associated with sub bass in discotheques.

This is just one of a range of enclosures produced by the company, alongside their state-of-the-art digital audio control systems. As the list is too long to mention in this one article, I was pleased to discover that they have a representative in the UK. Readers may wish to contact Anthony Morris for more information on (0353) 662278.

It is clear that the Dutch take full advantage of their geographical proximity to Germany and Belgium. This, coupled with their natural pragmatism and inventiveness, leaves them ideally poised to benefit from 1992 and beyond.

So one way or another, this visit to the Netherlands was a revelation, and not only to discover that your editor navigates by the sun and has a craving for crepes!

Technical specifications SA 4525 Blue Box

Acoustical	
Frequency response:	30 Hz - 30 kHz
Max. output level (SPL, 1m):	120 dB continuous, 130 dB peak
Noise output:	< 5 dBA PwL
Nominal dispersion:	70° H x 40° V
Electrical	
Input:	1.4 V in 20 kΩ
Max. input level:	+ 20 dBV (ref. 0 dB = 0.775 V)
Cross-over:	1 kHz, 24 dB/oct., Bessel
Max. output power: Low freq.	250 W RMS, 380 W peak
High freq.	350 W RMS, 590 W peak
THD (any output level):	< 0.01% (20 Hz - 20 kHz)
IMD:	< 0.01%
Slew rate:	60 V/μs
Damping (with DDC):	> 10000:1, 1kHz in 8 Ω
Power consumption:	Stand-by: 75 W, Max. output: 600 W
Physical	
Dimensions (h x w x d, mm):	470 x 730 x 730 without case
	510 x 780 x 520 in case + cover
Weight:	84 kg without case
	110 kg in case + cover

HOLLAND BY METRO

The Dutch are beginning to make a habit of creating mould-breaking discotheque concepts. Remember The Escape, featured in L+SI two years ago, with a light show based on no less than 64 first-generation Robots?

As part of his Netherlands feature, Tony Gottelier visited the latest word in Dutch disco, Metropool in Zaandam near Amsterdam.



The Metropool, Zaandam: legal capacity 4000.



All action on the Metropool's dance floor.

Little did I realise, when I met multi-lingual Swiss lighting installer Phillippe Reich at SIB Rimini, that I would be visiting his latest contract in the Netherlands within a few weeks. However, since everyone I talked to from the business in that country was generous enough to suggest that it was the venue of the moment, even though the lighting contract had gone elsewhere, I quickly realised that I had to make the pilgrimage.

I was not to be disappointed. There was more innovation in this one location than I had seen elsewhere in many a long year. Innovation in format, in operation, and in financing, innovation in sound, in video and in lighting.

One thing about The Netherlands which is always impressive is that with a population of 14 million in an area the size of Wales, road communications and transport are so efficient. During our entire visit, we only saw one traffic jam, and that was on the eve of a bank holiday when the whole country was on the move, and even then the jam was moving.

So the fact that Zaandam is a few kilometres north of Amsterdam is no disadvantage; a twenty minute train journey drops you virtually at the door. The building, custom-designed for its purpose on a green field site, is what, in archi-speak, would be called an out-of-town shed if it weren't in the town centre. Its appearance, location and structure are very reminiscent of Hollywood in Romford, but there the similarity ends.

For, based on a ground plan of 2,200 square metres with a legal capacity of nearly 4,000, this building has been laid out inside with circulation as the prime concern. Indeed, it's an object lesson in interior formatting from this viewpoint.

On arrival, the visitor passes through one of two metal detectors, made fashionable by Paradise Garage in Manhattan, but also a wise precaution in these days of Clockwork Orange reality. A two-way island cash desk speeds flow as does the fact that the entrance does not double as an exit. So the cloakroom, capable of storing 3,500 coats, is sandwiched between the two, providing for deposits on one side and collections on the other.

Now for major operational surprise. Other than your entrance money, no cash is usable inside the discotheque other than at one special Bureau de Change where you convert your money into the Metropool legal tender of plastic chips. Obviously, this takes away all the worries of cash control behind the eight bars and in the cafe, while the customers clearly found it a friendly and acceptable arrangement. Furthermore, we had it on good authority that 10% of all chips were never used or cashed. UK operators please note!

The interior is constructed on two levels with a surround gallery and administrative



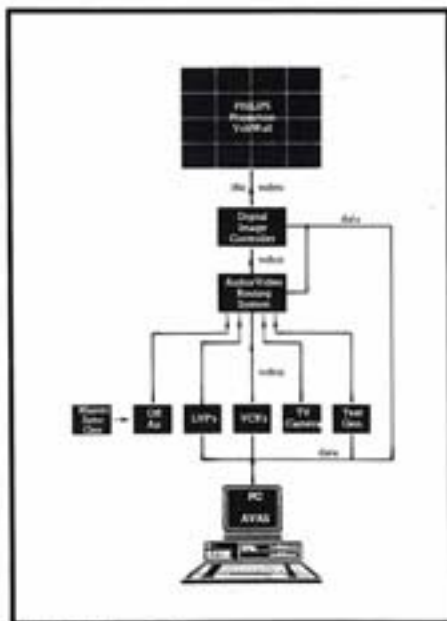
The Philips VidWall set up for a promotion at Metropool.

offices on the upper. While this balcony provides ample room for viewing the stage and dance floor, it also houses four of the bars. And these are bars with a difference, each has its own theme and music to match, so they are screened off from the disco itself by glass partitioned walls.

For example, in the Countdown Cafe bar they play rock, while Trendy Cafe plays a mixture of pop and golden oldies; in the cocktail bar anything goes, from Frank

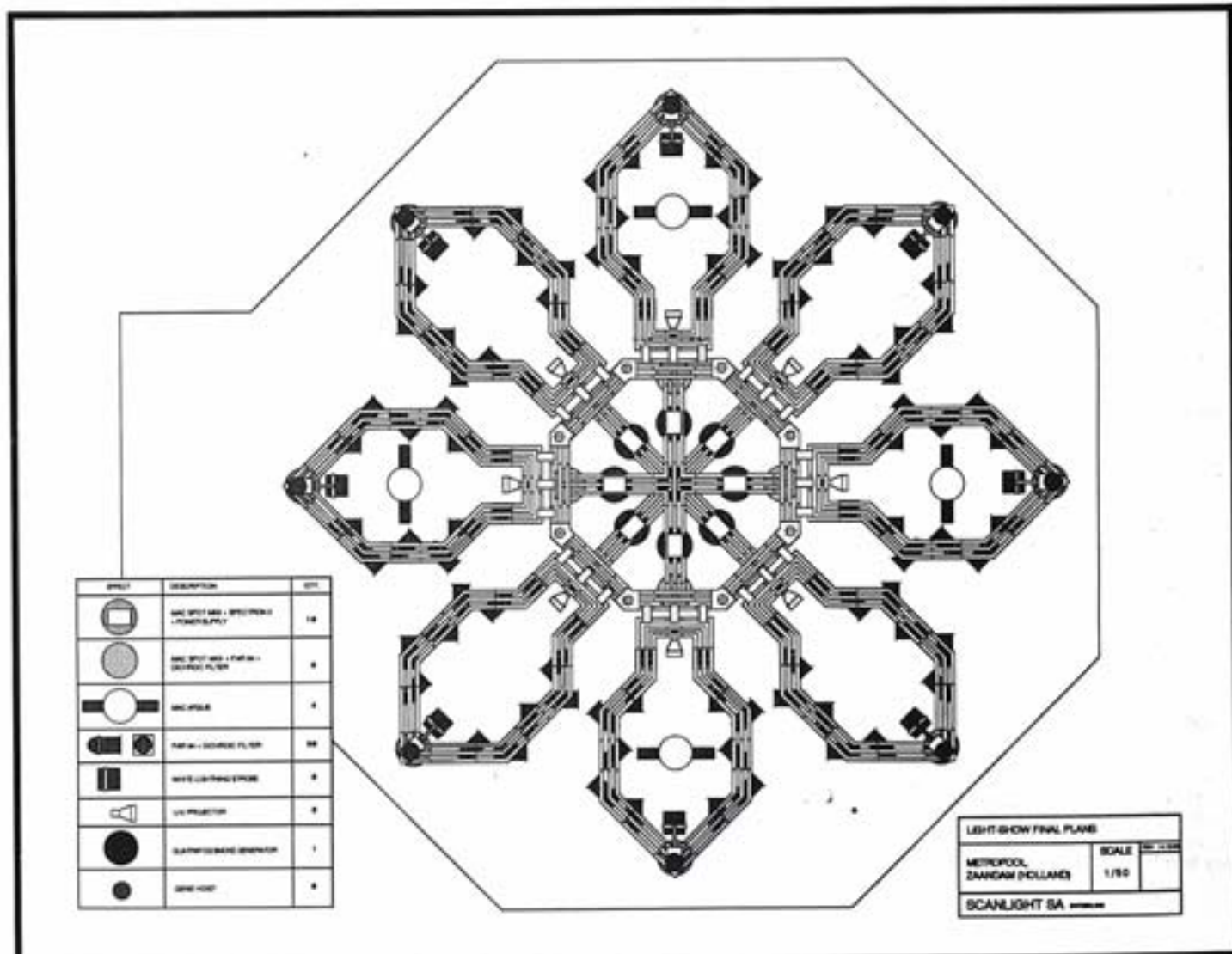
Sinatra to Salsa so long as its easy listening, and Party Line majors on current Dutch hits. Each of these areas has its own music system controlled by the bar staff from a stacking cassette deck. All music tapes are produced by the in-house DJs to specifications laid down by Ulrik Saba, entertainments manager.

These mini atmospheres seemed to me to work very well and were certainly very popular. The only problem was that the



VidWall schematic.

levels had to be kept fairly high in order to screen out the music from outside, but even this was surprisingly successful, a credit perhaps to Stage Accompany, the Dutch firm who designed the sound system, about whom there is a lot more to come as they seem, single handed, to have been the main technical contractor on the entire project. In any event, they used two of their 4744 Hi-Fi cabs in each of these areas to achieve a very pleasant, clean sound response. In-



deed, they claim distortion stays well below 1.5% at maximum levels with these speakers.

To achieve such a smooth result they use the same unusual full-range technique described in the previous piece, but using a 12" flexible driver and a small compact driver, without a horn, for the highs. In this way they are able to achieve a flat frequency response beyond 30kHz but also superior transient response.

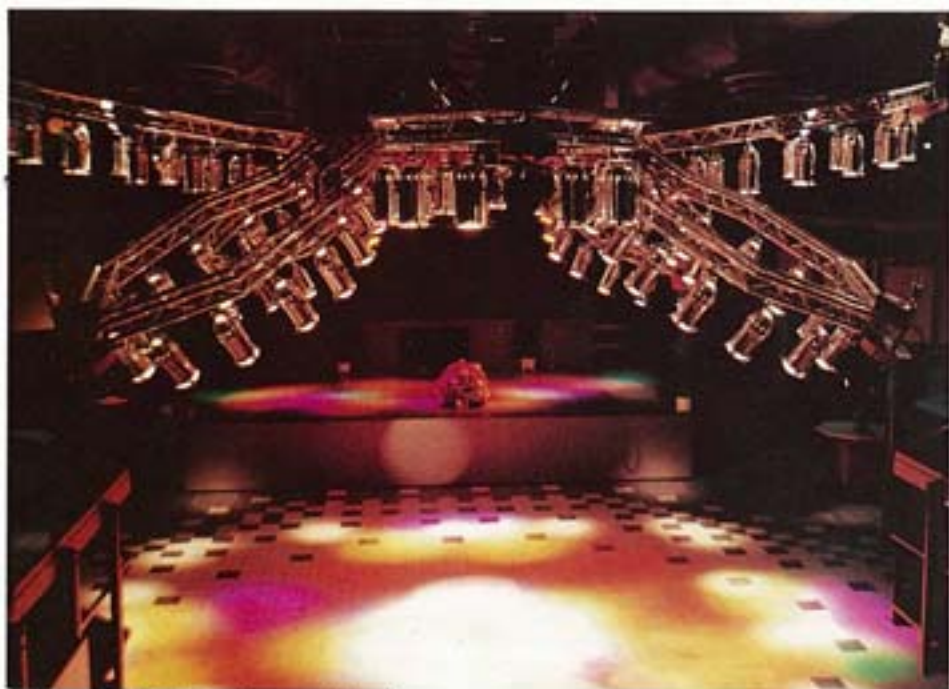
The only link to the outside world, in the disco proper, are the video monitors, which are supplied from the main control box wherever they may be located, and this provides continuity throughout. And video is a main theme of Metropool which boasts, what is claimed to be, the biggest permanent video wall in Europe covering an area six by five metres and consisting of 48 large screens stacked six high and eight wide. It is this wall, at the back of the stage, which smacks you straight between the eyes as you come down the stairs from the gallery. (See also L+SI's editor's article on the 1989 Eurovision Song Contest in Lausanne).

I said 'screens' advisedly, for these are not monitors, and it is this which explains the brilliance and high resolution which is instantly apparent. For Vidiwall, the latest video technology from Philips, eschews the use of monitors in favour of video projectors at close range onto tensile back projection screens. This gives individual 105cm screens, each with a resolution of 680 x 578 pixels in PAL, and consequent screen-to-screen imagery. It is claimed that a six-by-six wall at 30 metres gives a similar perception to a 65cm TV screen at one tenth the distance - and I can believe it.

Despite Philips' surprisingly poor record in this technology in the recent past, I believe there is no doubt that they have cracked it this time. For while the cost might be a bit rich for most discotheques, it must win hands down in studio use, in stadia, in shopping centres and for AV presentations and promotions.

The VidiWall system is controlled by Philips AVAS, for Advanced Video Authoring System, which allows control of the various sources, whether tape or disc, satellite or camera, into animated configurations and patterns. Two parallel sources can be transmitted simultaneously on the Metropool set-up, and the system provides both on, and off, line editing and creation of programs from simple-to-use menu-driven software. A digital image controller, also from Eindhoven, enables manipulation of these images from enlargement, to freeze-frame, plus mosaics, solarisation and numerous other effects.

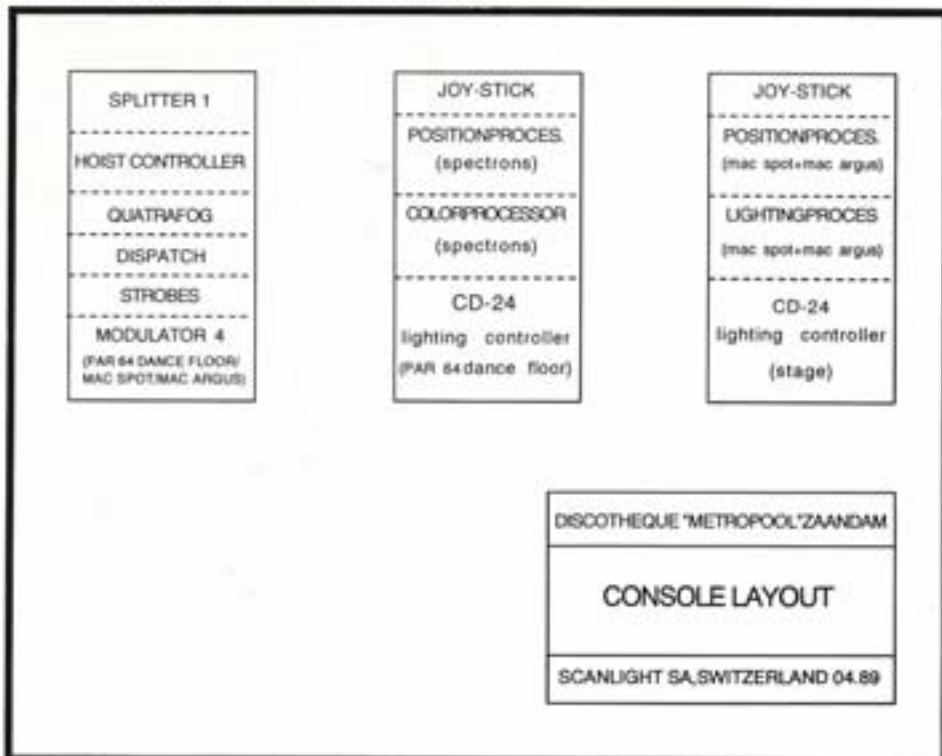
Interestingly, Stage Accompany, who were also responsible for the installation of the wall, have added a computerised input of their own, to enable the automatic transmission of commercials to preset volume levels, from a single button push. Although this has not proved popular with the DJ, who would prefer to have sensitive control, it reflects an essential element of the creative financing which has made the Metropool possible. Without sponsorship, the VidiWall would not have been a viable proposition and Stage Accompany have taken this on board and set up a company to market the air time. It is mandatory, within the rental deal for this equipment, that a commercial is transmitted every two hours. If the DJ fails to implement this the computer screen flashes and when this warning is ignored also, it overrides the music and transmits the advertisement automatically at the same level as the music

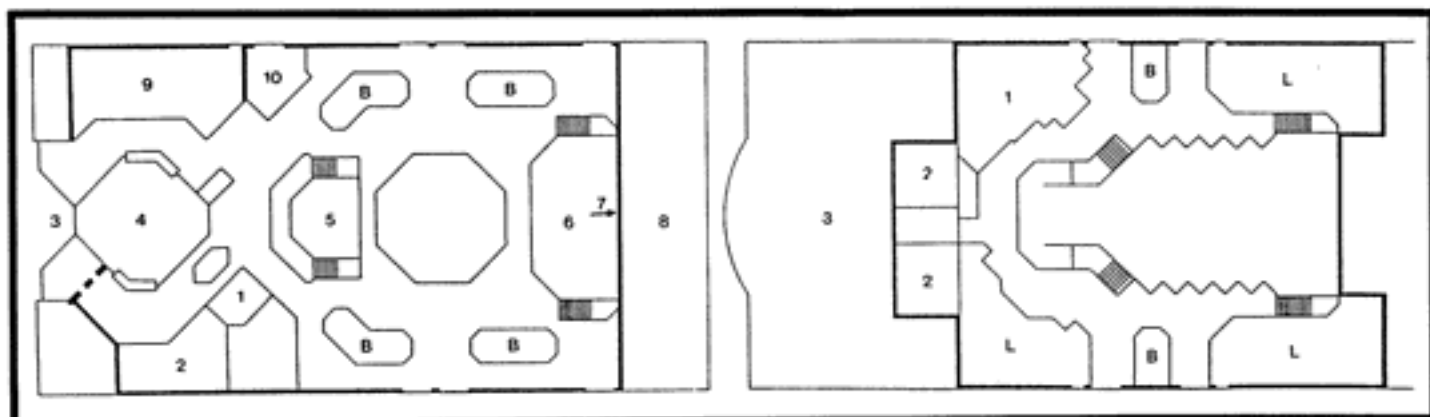


Metropool, showing rig, stage and dance floor.



The Metropool lighting, sound and video control area.





Metropool, entry level, ground floor.

B Bars 1 Toilets 2 Offices 3 Entrance 4 Cloakroom 5 Light/Sound control
6 Stage 7 Video Wall 8 Dressing Rooms 9 Cafe area 10 Amusement Machines

Metropool, first floor.

B Bars 1 Cocktail Bar L Lounge/Bars 2 Toilets 3 Offices

previously playing. Otherwise DJ and VJ have normal access to play licensed pop promos at will, in this case the 'Disc Eyes' programme from Thetford based IDEA, who were selected for their ability to provide material on video disc.

Stage Accompany believe they offer a unique package with this partnership of the wall and their computerised sound system, which combination they prefer to call 'StageWall' just to confuse us still further!

Although it may not seem to be the case at first sight, money is not sloshing around in the venue; in fact I suspect everyone has been told to make do with what they've got, at least for the time being - and quite right too. The reason I say this is that I found the VJ doing amazing things with his own Commodore PC using 'Omega Deluxe Paint 3', and managing to create some really interesting graphics manipulations from software that cost only about £75.00, albeit a little slow to programme.

It's amazing what can be achieved with patience and intelligent, enthusiastic operators who understand that everything has a cash limit!

Well, if I haven't lost you with my video enthusiasms, we are back on the ground floor where there are four open bars, a fast food cafe, a small amusement room and, of course, dance floor, stage and control.

When it came to the dance floor, accepting that lighting is not their métier, Stage Accompany commissioned Phillippe Reich of Scanlight, Switzerland, to design and supply the moving rig. Using Optikinetic's Trilite, Scanlight produced a motorised structure based on an eight petalled flower. In this case, when extended, bearing an uncanny resemblance to a blown tulip! Surely not a coincidence.

Electric motors allow 3ms of travels for the petals and a custom control provides for both individual or combined movement via 16 presets which can be ordered to suit. Main workhorse of this rig, in a lighting sense, are 96 Thomas Parcans which have been, unusually, fitted with dichroic filters adding a quality and strength to the colour not obtainable with gels. Unfortunately, a few problems have been experienced with heat, but that the can was not designed to be used in this way and would probably require a larger air gap between snout and filter. There is also a safety factor to consider.

Where the Parcan provides the muscle, a selection of ACR driven lanterns are there to add finesse. In the past, these particular driven lights have acquired a reputation for being less than robust and I knew that ACR had been working hard to resolve these pro-

blems. The Spectron II, a stand-alone colour changing luminaire using their 'magneto-optical' dichroic colour mixing system as featured in last month's SIB review, is the first of a new generation of luminaires from this Swiss company which promises to resolve such difficulties. Knowing that 16 were in use in Metropool, I had been looking forward to seeing them perform with the smart looking new drive system featured in their latest catalogue.

This was not to be, the Spectron II's are all mounted on the existing Mac Spot drives, presumably because the new motor systems were not ready and proven when the club opened in February. Nevertheless, in a discotheque environment, especially where gobos are not involved, a certain lack of positional accuracy may not seriously detract from the impact of the light show, and nor did it.

(ACR will, of course, need to get this right for the Spectron III, which will include gobos, and I am assured that the new drive systems, with on-board motor control electronics, are now available to give a higher degree of precision. I eagerly await the opportunity to see them in action).

Support is provided by other ACR devices, including the controllable nine-headed Mac Argus which uses 28v 250W Par 36's in a crescent, together with 'White Lightning' strobes and a 'Quatrofogger' from Optikinetics. Control is a hybrid system of ACR, Pulsar and Impulse from Belgium, the latter supplying two 48 channel desks, one of which controls the stage lighting based on 36 Thomas Parcans.

One impressive statistic: the whole rig and lighting installation of 15.2kW was installed by Scanlight's team, average age 24 years, in five days flat. The secret, according to Phillippe Reich, is in maintaining a modular system which can be pre-assembled and tested in their plant at Vevey near Montreux



Walk-through security.

prior to shipment to site.

The sound system, which was also supplied and installed by Stage Accompany, is a masterpiece of state-of-the-art digitally controlled PA. Intelligent amplifiers and graphic equalisers are controlled by a Sanet PC working alongside a conventional disco mixer. A total of 28 'Blue Box' speakers are employed and configured to cover both dance floor and stage/video wall PA.

20 of these are located equally at each corner of the dance floor, while a further eight are directed from either side of the stage and video wall. With the additional support of 12 flown boxes, based on the previously described Hi-Fi cabinet but this time using a 12" non flexible low frequency speaker and the added horn to the front of the compact driver, this is a very flexible system for both stage and dance floor. Obviously, with programmable EQ and computer control amplifiers it is possible to adjust the emphasis of the system to suit the situation at any given time.

Surprisingly, it was found that no sub-bass was necessary, giving credence to Stage Accompany's exclusive claim to a true, full-range speaker design.

An extensive array of microphones, monitors, DI boxes and signal processors make up the stage PA in-house support systems, controlled from a TAC Scorpion 32 channel mixing desk.

The last word on the operation of this self-styled Superdisco is an experiment, unique in my experience, which Metropool are conducting with the Dutch police. The police are allowing the club to stay open until they choose to close, in an attempt to combat drunkenness caused by drinking to a deadline. In return, Metropool are operating their own shuttle buses to a whole series of pre-determined drop off points at half hourly intervals throughout the night. It is hoped that those the worse for drink will avail themselves of this safe transport home, leaving their car's behind in the club's vast car park.

Obviously the local constabulary are keeping a careful check on the success of this trial, although we understand that so far they consider that it has proved successful. I feel sure that many UK operators would be interested in taking part in such an enlightened test, but what chance with the British establishment?

As you will have seen, a great deal of creative thought, to say nothing of creative financing, went into the business of turning Metropool from the dream into a reality. It shows, if nothing else, that the private entrepreneur can still succeed where others fear to tread. At least in the Netherlands.

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For many years people wishing to create an effect of low lying fog clinging to the floor are only too familiar with the problems of doing so. Invariably it entails a long journey to the chemical company for supply of dry ice, carrying special storage containers and by the time you have returned 25% of the dry ice has evaporated, also by the time you are ready to use it, you probably just have enough for the show and that is after you have spent an hour or so boiling 100 gallons of water!

JEM are pleased to announce the demise of dry ice CO₂ — dry ice is a thing of the past, just a bad memory. From October 1988 JEM will be in full production of HEAVY FOG, the most advanced special effects smoke/fog machine in the world.

HEAVY FOG has taken three years and over 20,000 hours of development and has revolutionised smoke/fog effects throughout the leisure industry. HEAVY FOG is not just a machine that simulates a dry ice (lock-a-lee) effect, it is vastly superior in every way, and is capable of producing a vast range of special effects.

JEM's Research and Development Department has developed a very specialised low temperature freezing plant capable of temperatures below -30° combined with a high power industrial fog generator. HEAVY FOG has an enormous output and is able to throw a layer of fog to cover a floor 11,000 square feet (1021.90 square metres), 1 inch (2.54 cm) off the floor to 6 feet (1.83 metres) high in the air, and at the touch of a button can produce normal smoke effects.

JEM have also developed three special water-based fog fluids.

- A1 Quick dispersing
- B2 Medium dispersing
- C3 Long lasting

HEAVY FOG fluid is completely dry and will not leave any residue. HEAVY FOG can also produce fog and smoke continuously without stopping to recharge. To enable HEAVY FOG to produce both effects simply fill one fluid tank with standard 2B FOG LIQUID and the other with HEAVY FOG FLUID. HEAVY FOG costs less than half the cost of dry ice CO₂ to run.

Do not be fooled by poor imitations. HEAVY FOG machines are manufactured by JEM PYROTECHNICS & SPECIAL EFFECTS CO. LTD. HEAVY FOG is a Trade Mark of JEM PYROTECHNICS & SPECIAL EFFECTS CO. LTD.



The controller has a comprehensive range of controls which include variable smoke/fog output, joy stick control, horizontal and vertical scans for the creation of special fog effects, and six pre-set special effects: Wave, Sea, Cloud, Waterfall, Volcano, Curtain. To vary the height of fog simply adjust the fog/smoke output level control and move the joy stick forward or back ward depending on the desired height of fog. All effects can be achieved manually or automatically.

As an optional extra a 5-way ducting system is available and comes complete with 5 x 100mm x 5 metre lengths and front ducting adaptor. Also pictured, rear duct adaptor to which 400mm ducting can be fitted.



ILLUSTRATED RIGHT: 5 WAY DUCTING SYSTEM
Comes complete with 5 x 100mm x 5 metre lengths and front duct adaptor.
Also illustrated rear duct adaptor to which 400mm ducting can be fitted.
Both duct systems are optional extras.

JACKSONS LANE

A Flexible Neutral Performance Space
Opening New Horizons for Disabled Technicians

FRANCIS REID

Stage lighting is not a career that has hitherto been regarded as normally open to disabled people with mobility difficulties. It is half a century since Bentham showed that boards could be designed for operation by a single seated person rather than by a standing and walking team. But since the mid-sixties, all new lighting controls have been capable of operation from a wheelchair - assuming, of course, that wheelchair access is available. Alas this is very rare, since most control

rooms fail at least one aspect of the three part test:

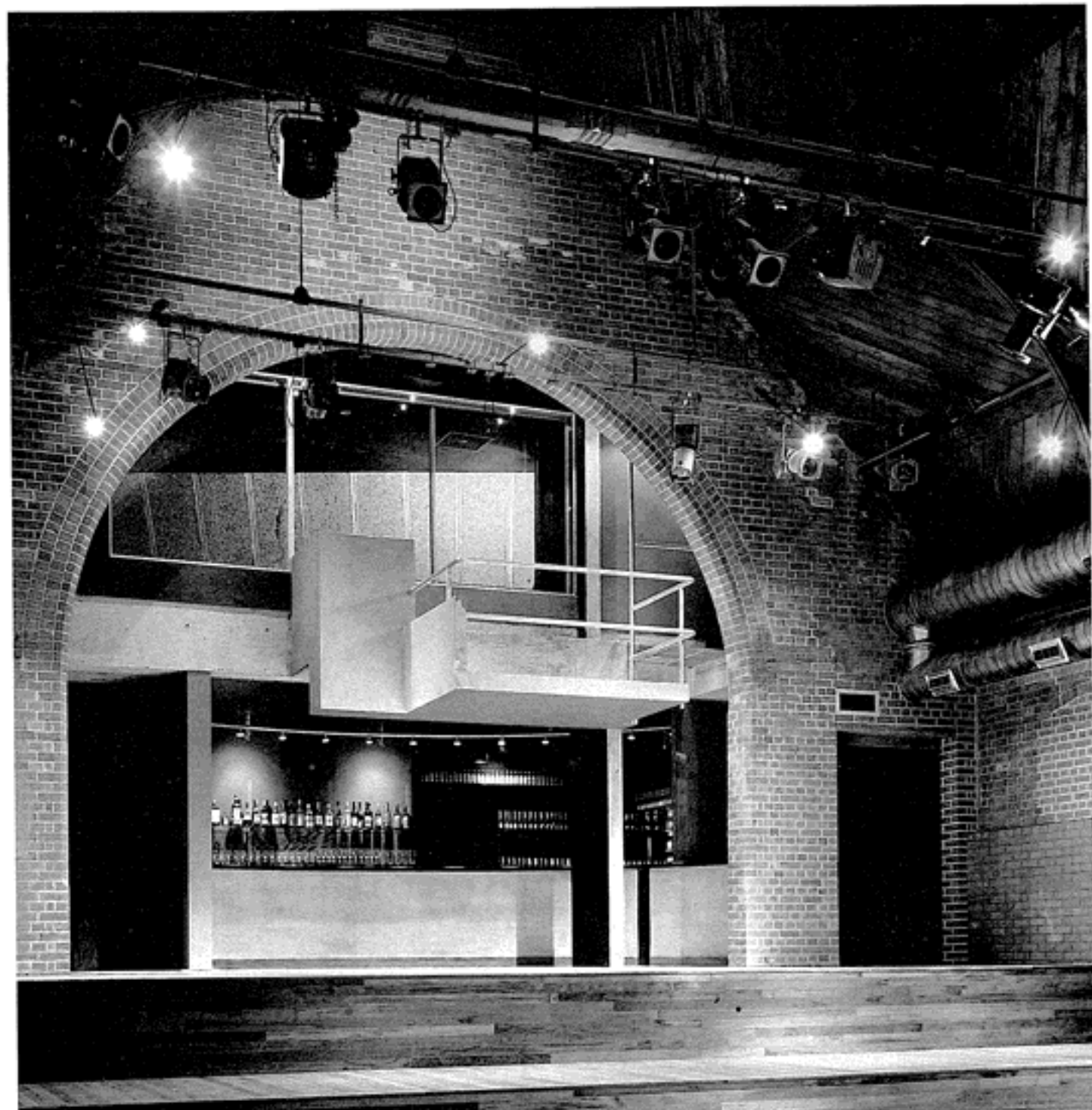
- Get a wheelchair from street to control room door
- Get it through that door
- Give it sufficient manoeuvring and working space

Not easy to achieve, especially when one considers the access, amenity, sightline, contact and climatic problems that are endemic in theatre control rooms despite battalions of spec writing consultants.

But the will provides the way and Jacksons

Lane Community Centre in North London has done it: the needs of mobility disabled audience and actors have been taken well care of, so a wheelchair technician can easily get from street to rear of auditorium. From there a suitably-sized elevator leads directly to a control room with ample space to move between light and sound desks without an excess of three point turns.

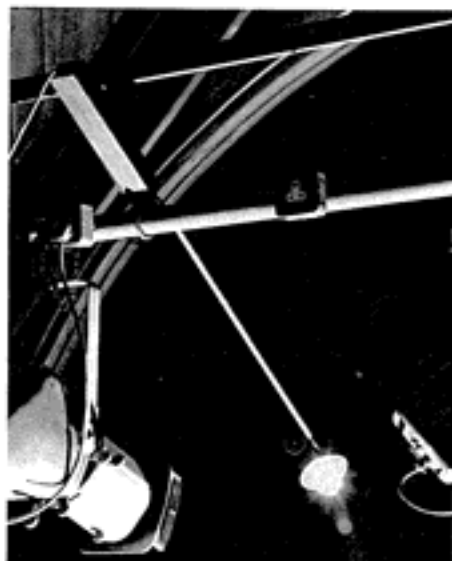
This new theatre at Jacksons Lane is the latest phase in the development of a suc-



Jacksons Lane: the control room located above the bar is reached by an elevator sufficiently large to accommodate a wheelchair. The platform is reached from the control room, and provides a followspot position and an alternate location for the sound desk.

cessful community centre whose efforts to improve the quality of life for Archway residents include a performance programme which attracts a wide spectrum of audience interest. It is housed within a former place of worship prominently sited opposite Highgate tube and presenting a somewhat stern countenance to the Archway Road where London traffic comes and goes but rarely stops.

However, the extent to which the original building set out to confirm the strength of the faith of its Victorian sponsors has enabled architect Tim Ronalds to respond to the problems of acoustic isolation by applying an appropriate largesse of concrete roof. The problem was not just one of keeping



The architect-designed houselight.

road noise out, but of keeping performance sound in. As a result of the 25mm thick concrete slab cast over the roof, heavy goods without and heavy metal within can raise their decibels without fear of mutual interference. Adjacent residents have to live with the traffic but are spared the rock.

This is a performance space which is both neutral and adaptable, but avoids the polemic extremes which were a feature of sixties and seventies thinking before ideas were tempered by experience. Tim Ronalds has provided a room which is flexible within the likely parameters of its use. There are no structures or machinery to get in the way of future experiments, but the major format has been clearly identified as end-stage with audience configuration easily interchangeable between seating in conventional rows or around tables.

The neutrality, in line with today's flight from the black box, is natural brick - the austerity of the old softened with a partial lining of the new. The lightness of the brick walls and pale flooring will doubtless produce some muttering from the lighting fraternity but, wearing my audience hat, I applaud a neutrality which does not impose doom and gloom side effects. Anyway, when seats are tiered as they are here, the stage floor covering is the major design surface - whether delineating acting area, offering visual metaphor or providing the main surface on which light falls.

There are many visual features of the space, particularly details of asymmetry which do not respond to logical analysis, but they look right and need no further justification than the pleasure we receive from Tim Ronalds allowing us to share his artist's eye.

He has lit the house with 40 units of his

own devising - 12v 20W dichroic lamps each mounted on a rod extending from its transformer. Simple, elegant and allowing easy adjustment of position and angle. Production lighting and sound installations are by Eurolight, and the grid carries a miscellaneous collection from catalogues new and old - mainly the latter.

Which brings us back to physical disabilities and the lighting technician. Ladderwork may still be standard practice, but is no longer essential. The new automated spotlights are wheelchair compatible. As this would be the ultimate demonstration, presumably manufacturers would look very favourably upon the appearance of a sponsor.

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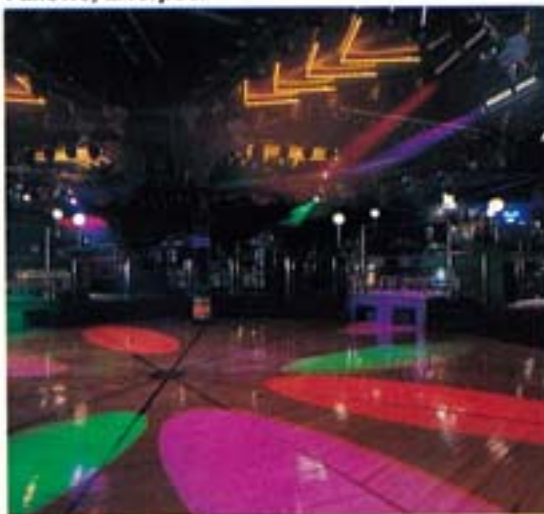
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Camden Palace, London



Fallows, Liverpool



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ABTT TRADE SHOW 1989

Graham Walne reports from the Hammersmith Riverside.

It seems to me that if I like the play I won't notice the queue at the bar, but if I don't like the play I'll grumble about everything. Perhaps trade shows are no different; certainly this year the talk at the ABTT Trade Show wasn't about exhibits but about exhibitions, but more of that later.

So what can I tell you about the show itself? When reviewing I naturally assume that you want to know about the new products, so that's the question I asked on every stand. But many exhibitors answered that question with dazed and blank stares (they'd just returned from Showlight in Holland) and many offered empty phrases like 'there's nothing really new, but we have improved it'. (OK, how?). The genesis of new products should, of course, come from the needs of the market and not from the need to give exhibition reviewers something exciting to write about. The reality of their attending so many exhibitions is that companies can't launch a new product every time.

But let's start with some good news. Roger Ashcroft of **A&B Theatre Services** won the Product of the Year award for his portable dry-ice making machine (reviewed in L+S - November '88), an excellent choice, and the award couldn't have gone to somebody more hardworking or sincere. And the product doesn't pulse, flash or change colour. Other products nominated included the EC64 from new company **Scorpio Controls** (created out of the old Dynamic Technology Company). The EC64 lighting control has a versatile effects system and interesting geographic mimic; **DTL's** products were also well made up so keep an eye on Scorpio. **Lee Colortran** were nominated for their Windsor range of modular spotlights - there are 10 versions from 19 modules and they are now

coming off the production line. **M&M** (at the show for the first time) were nominated for their Rainbow rapid scrolling colour changer (currently part of 'M Butterfly' at the Shaftesbury) and now available with a new 4-channel DMX512 controller - the company are also working on follow spots and light curtain scrollers. **Northern Light** were nominated for their System 2000 logic working light control ('should be in every prompt corner' said awards chairman Anthony Easterbrook) and **Ark Light** were nominated for their iris modification to the Pattern 23, an idea that even brought a cry of approval from Mr Bentham himself - praise indeed!

One idea that was not mentioned in the awards came from **Light Works**. Always an ingenious company - they created the PALS system - their stand featured a prototype data projector with MSR lamp fed with PC generated images. As I mentioned in L+S in December '88, LCD's have been at the centre of attention for colour change and projection for some time. There is an OHP system, but I think this is the first time anyone has produced a prototype system for a theatre luminaire, so maybe a future trade show will award Light Works the silver hookclamp for the first all-electronic gate/gobo. Light Works also featured a new lightweight effects projector and a startling improvement to the Carousel 2000 series light output via a modified lamphouse containing the ubiquitous MSR lamp (which also provides 10 times the life of the usual 250W Carousel lamp). An optional mechanical dimmer can also be fitted. Indeed the proliferation of non-dim lamps has produced a variety of motorised irises and mechanical dimming systems and the Show provided an excellent opportunity to make com-

parisons.

Several stands were so busy that despite numerous visits to each there was no one available to answer my questions. This happily overworked bunch included **Arri**, **Triple E**, **AC Lighting**, **WB Lighting** and **Specialist Lamps**. However, easily collected brochures (why do other people hide brochures on the back of stands so that you have to cross 'The Line' to get one?) have elicited that among other things Arri have produced their own designers tablet for plotting, joining the Lee Magic Sheet on our production desks while **Strand** are non-committal. Arri also displayed their MIDI interface for the Imagine control system. Triple E featured strongly in Anthony Easterbrook's awards speech: 'It's marginally boring how this company keeps coming up each year with immensely ingenious devices.' This year their Unitruss system won the attention. AC Lighting's room featured a multitude of excellent products including those by Jands (new lighting controls from Australia), Great American gobos, Gamcolor, Colorwiz, Lightwiz, Access, Altman and Pani, and here I'm sorry that I wasn't able to chat to AC because I want to know if they can get hold of the Pani effects discs that I have been using in the USA. WB Lighting promoted the fact that the Coemar range is now available for hire and attracted attention with the Jupiter intelligent spotlight.

Actually this year there seemed to be fewer 'wobble-lights' than usual - perhaps they are getting more intelligent (or subtle!). Certainly this is true of a new product from **Cerebrum**, the new PosiSpot. This unit is based on the popular Thomas Par 64 but carries its own dimmer, motorised pan and tilt and 12 colour scroller and



Award winner: A & B Theatre Services' Dry Ice Box won the Product of the Year Award. The stand was so crowded you couldn't get a look-in, but our November 1988 issue gave you the info and a picture.



The best disco show at ABTT, courtesy Arri (GB) Ltd.



White Light featured the Modelbox CAD system.



Alternative show: CCT went to the Rutland Arms down on the riverside.

all the controls talk down a single daisy-chained XLR line. The unit is very quiet and accurate and it is also available for hire. Another excellent product from Cerebrum's sister company, **Presentation Consultants** is the Digi-Lift control system for chain hoists. It will control up to 72 hoists and display the positions in colour on any IBM compatible PC; the Preci-Lift variation feeds back to the screen details of the precise weight of each hanging point, useful for large structures which might not all move by equal amounts thus altering the stress.

One of the most successful 'wiggly-lights' at the moment is the Golden Scan, and Pulsar demonstrated this at the best site in the show, next to the bar. They wisely relied on a video for the overall effect and restricted themselves to exhibiting a single luminaire operated by the excellent OSKA control (still unique with the touch sensitive screen). It's interesting how sound controls are now overtaking lighting in their use of this technology. Golden Scan featured strongly on a recent 'Tomorrow's World' in an indulgent trail for their use on a Wayne Sleep tour. Hopefully Mr Sleep's lighting people will take lessons in subtle operating from Derrick Saunders and render the much vaunted infra-red controls redundant. Peter Brooks wasn't being so subtle when I asked him about Zero 88's new Betapack range of dimmers and control. "They're aggressively priced!" he said. And judging by the opposition's disdain he must have got it right. The units also have auto-sensing of plus and minus volt control, proving that Zero 88 are aware of the growing tendency to match one person's control with another's dimmers. Nearby, the excellent Sirius, now 48 ways, was attracting much attention. Dimmers generally featured little this year, but of note were DEW of course, with their exceptionally high quality product and Playlight with an attractively priced range of touring dimmer packs. For example, 36 x 10 amp units with mains and soft patch, diagnostics, etc is £6,700 list. Look out also for Playlight's new film and TV hire division, exhibiting at the show for the first time.

I particularly liked Teatro's stand, which, reflect-

ing the show's conviviality, provided a quiet area where Andy Collier and Mike Lowe demonstrated Italian hospitality. They made a good case for taking their products seriously, and anyone so doing will find some very well made luminaires. Otherwise, finding luminaires at all was harder this year. Strand's stand was inverse in area to the company's experience (75 years this year), but I liked the contrast between the big Galaxy (one of the few dimming computers that will also control remote luminaires) and the tiny Action control systems. Strand are soon to distribute a major datapack on their products so get in touch about ordering your copy. Alternatively, you could subscribe to ACT Publication's Lighting Book, a ring binder format (happily not personal organiser style) of manufacturer's data which will be freely updated every two months. Editions on control, sound and rigging are to follow. I can't decide if this is an excellent idea or not; I'd like to be kept informed, but we ought to be able to rely on the manufacturers themselves to do this.

Strand's traditional rivals CCT were ensconced along the river bank in the function room of the Rutland pub, an excellent venue in view of the good weather, but a gamble nevertheless. It seemed here that the gamble had paid off in that those who made the trip had to be serious and there were many items in which to be interested. A new (and simplified) control from Avab rivalled the Furze agency for the very attractive low cost Access control, one of the rare memory systems to feature help menus and function keys to simplify the desk layout. Furze MD Martin Moore looks set to introduce many USA techniques here so the company will be interesting to watch. Also on display from CCT was the Minuette Pursuit, a 650W followspot fitted with the Regent 1, a foot operated dimmer.

Two other well-known lighting companies are set to be featured in L+SI later this year, so here I will be brief. Firstly, White Light commended for their stand design, featured the Modelbox Cadd system, now available on sale as well as a service. Next DHA Lighting, rather tucked into a corner but well able to attract attention. Their Effects

Handbook is excellent and I hope it helps to extend the use of their wonderful animation discs. DHA have just moved to new premises, something also affecting Donmar who were promoting their award-winning catalogue and occasionally elusive lighting stencils. DC Lighting featured their own version of the 9-light softlight using the Thorn M250 sealed glass lamp in well ventilated mounts.

Control systems weren't as prominent as they had been in the past although clearly there are still more coming onto the market. This has prompted L+SI to commission me to undertake a survey for later this year so I won't give too much away here. However, the show provided an excellent opportunity to study the Avolites QM 500-TD and it was interesting to compare this production model with the prototype L+SI reviewed in December '87. Another manufacturer of high quality control systems Celco were putting their distinctive range through its paces and disturbing a few customers as the operators jumped up and down on their credit-card-sized Q cards to prove their durability!

Nearby Eurolight launched their Smart connection system, a small peripheral control which interfaces between manual desks and dimmers, greatly extending softpatch techniques but also capable of being used as an operational memory desk. Furze also offered Snapshot, a similar product which greatly facilitates the interfaces, typically those between touring boards controlling front of house circuits and the house boards controlling backstage. Systems like this take advantage of the USITT standard on DMX512 and watch for a growth in softpatch devices based on this, although the ABTT's recent conference on control systems had other ideas on standards (see 'What Manchester does today' in this issue). On the Eminence Audio stand, Sight and Sound displayed their Quasar control (a low cost PC based system) which was launched at Frankfurt in January. A welcome relief from all this modern technology was provided as always by Jim Laws promoting his unique hire service of period lighting, now housed under one vast roof (see



Smart launch: Andrew Stone and John Coe of Eurolight.



The Dless intercom beltpack from Elliot Bros.



Andy Graves and Derrick Saunders complete with Oska and Golden Scan.



Lee Colortran trio of Richard Atkins, Pat McGuane and John McAlonan.



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Richard Thornton Brown of Zero 88 (left) with the new Sirius 48.



Farrah's small but busy stand in Studio One.



AC Lighting's studio had a wealth of international lighting product on view.



Press call: L+SI's editor shares a breakfast orange juice with Teatro's Mike Lowe and Bob Abecera of Pariscene, France.

L+SI Sept '88).

Another survey which L+SI will be doing later this year will be one on smoke and fog devices so of particular interest was **Lighting Technology's** dry ice fog machine based on Howard Eaton's design for 'Phantom' (for which LT still supply the candles around the world). The company was also showing the new Thomas 1kW fresnel: 'a return to the old style'. Famous foggers **Roscolab** introduced a chiller for smoke machines and a reintroduction of glitter.

Out of 73 companies exhibiting I counted 33 solely promoting lighting and only 7 solely promoting sound, so as far as sound goes, it's a case

of quality rather than quantity (hopefully in more senses than one). Quality is certainly applicable to hire companies **Farrahs**, the **Sound Department** and **MAC** who have a new brochure and detailed price list just out. Farrahs were promoting the Apogee loudspeaker range recently installed on 'Aspects of Love' (see L+SI May '89). Back on the M&M stand I was introduced to the XBTA FXC effects control interface which permits six channels of control over sound effects triggered from fades on the lighting desk, thus guaranteeing precision in lighting and thunder flashes, smoke and lighting bursts and the like.

Elliot Bros demonstrated the most versatile

headset intercom system I have seen, the Dilex, each out-station has a telephone-type keypad so any other station can easily be contacted and up to five simultaneous channels of conversation are possible. The system can also talk to paging systems and accept line inputs from show relay. In contrast, one of my favourite companies **Canford Audio** reminded us of the improved Tec-Pro system and also introduced an improved Maxon wireless headset intercom. These are licence exempt by the DTI and early reports are good. I have used similar units in the USA (they were \$10) and have been looking for something like them here for focusing and additional but rare out-



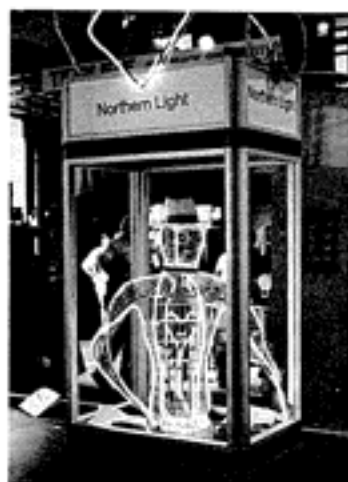
Powerdrive equipment on the Cerebrum Lighting stand.



Hall Stage Products showed a full range plus working counterweights.



The Sound Department: emphasis on Community.



Lighting techniques from Northern Light and Action Lighting.

Looking in on Presentation Consultants (left) and Avolites (right).

station positions.

Among the non-electricals were P.L.Parsons whose display of Steeldeck was complemented by the stand design awards team, but the winner was Flint who were described as the "well known 'other' firm; they keep getting better each year". Hall Stage, the 'other' firm have gone back to traditional designs of counterweighting systems so that new components will match old tried and tested ones and they also specialise, of course, in tracks and point systems, now cable operated so they can be placed anywhere in the system. Materials were demonstrated by N&I Costello, Varia Textile and good old Gerriets. Harlequin flooring again made me wonder whatever did we do without them.

A new and welcome departure for the show was the Small Firms stand which offered leaflet and brochure displays at low costs to 29 organisations, too many to list individually here, but my interest was caught by Stagecraft Engineering, a company new to me but with some experience judging by their leaflet, and by Cardiff Theatrical

Services whose excellent colour brochure showed the many sets they have built and painted.

The Small Firms Stand was ably manned by Ken Smalley who had earlier been awarded the silver hook clamp (the technician of every year) for his services to training. Other special awards were made to James Twynam of the legendary Tabs (26,000 readers at its height) and of the original Cue publication. ABTT Chairman John Faulkner described Mr Twynam's work as belonging to the Golden Age of Strand when the company promoted itself via the ultimate softsell and before the word marketing was invented. Another Strand legend, service manager Fred Brown, received a special award "for all the succour and comfort over the years". The final special award went to Trade Show organiser Roger Fox for his unstinting service to the exhibition, and the Association certainly owes him an enormous debt. The ABTT needs the Trade Show, firstly to provide valuable funds (something PLASA also understands) and also to maintain an identity with its members in changing times, and the Show is as much about

people as product.

However, the ABTT Trade Show has outgrown Riverside. It spills over into tents and nearby function rooms, and so several major manufacturers are now talking about forming a pressure group to force a move to bigger premises. This isn't new. For some years there has been talk of mergers with other exhibitions, first with Entertainment in Harrogate, now with PLASA, and my review last year hinted at the same problem. But the ABTT have always fought shy of losing their identity in the bigger venue that such a merger would need. In his acceptance speech Mr Fox strongly defended the atmosphere that the compact Riverside engenders and he is right to identify this. It has been a major factor of all the ABTT's previous 10 Trade Shows.

But the influence of the PLASA Show cannot be ignored much longer, and I speak, not of the influence it has on exhibitors, but much more vital, of the effect it has on the customers. These days the ABTT's world and PLASA's world are overlapping. Most of the people who visited Riverside will

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Playlight: touring dimmer packs attracted attention.



Another view of the AC Lighting emporium.



Eurolight: a new logo and new systems.



Ark Light: nominated for an award.

also visit Olympia this year, and there they'll find that Olympia has its own underground station, its own car park, better air conditioning and better catering. And people notice these things. They are all good for PLASA's image, and the absence of them is bad for ABTT's.

Of course, there have been some improvements this year, but the ABTT could do much to diffuse the criticism from its exhibitors if it put the selling of space on a more professional basis rather like that of PLASA (although I have heard strong criticisms of their methods too, so perhaps there is no ideal method). Of course the exhibitors complain that there are too many exhibitions anyway (they mean in Europe where ordinary UK

customers don't go), but are two major exhibitions in the UK too many? In fact, of course, there are more than that, the ABTT North and Northern Ireland regions run very successful local shows (possibly one reason why the attendance has fallen in London over the years).

However, small and medium sized companies will continue to need the ABTT Trade Show because it remains the only way they can reach so many people at once whereas the big boys all have networks of agents and can happily survive on their own promotional tours. I suspect that if the big boys do form their pressure group that Mr Fox might just call their bluff. But I don't envy him when he has to make the decision.

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Mike Tanner of Jands shows the new Instinct control system on the AC Lighting stand.



Alternative venue: CCT drew the crowds to the riverside.



Christer Owe, sales manager of AVAB, with the new Expert control system.

Even the dummy was speechless.



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ON TOUR

Carlona Forcer

I finally managed to interview the elusive **Allen Branton** after years of admiring his work and interviewing his directors, John Osborne on David Bowie's *Class Spider Tour* and C. D. Simpson on *The Moment of Truth* tour with Whitney Houston. The interview took place at Shepperton Studios where Allen was rehearsing with The Bee Gees who have just started a world tour.

The accompanying interview this month is with Pat Marks, who is currently on tour with Big Country. He has exercised his controversial streak by passing comment on freelance designing and the effect on crew of the 'price war' between lighting companies. Pat also supports the comments that Louise Stickland made in her recent interview, as have a number of people that I've met since it was published. I would like to give you room to air your views on any of these subjects - so get writing and maybe we can publish some of your replies.

Allen Branton

When did you become involved in the lighting business?

In 1973, when I was 20 years old, I was playing saxophone in a bar band, and when the band split up a friend invited me to work for a lighting company called Showco. I did so just to earn a bit of money, although it turned out that I had a good aptitude for the job, probably due to my musical background.

The business was pretty primitive in those days, so I was made lighting director for The Beach Boys after only six months. I've been lighting designer or director on virtually everything that I've done since, which was very fortunate at the time because nowadays you have to wait years for that sort of opportunity.

I was very impressed with the lighting and stage design for David Bowie's *Class Spider Tour* which I reviewed in 1987. Where did the ideas originate?

The spider idea came from David, the set designer Mark Rabitz interpreted that, and then we collaborated on how we would marry lighting to the image. More than anyone else I know, David goes for a theatrical, conceptual presentation. He's very aware of the visuals all the time and he has fantastic suggestions to make and insights to offer.

He'll say a song means something to him or that he has a certain image of it and just those few words really set you free to do something more focused than if you have to sit through a rehearsal and just drift and interpret on your own, because there is no real concept. Some concerts are simply concerts and others are more; his are always much more.

Someone like Whitney Houston is quite different. She is a beautiful woman and a great singer, and it's more of a classic superstar approach. It's a whole different philosophy and I find it interesting to jump from one to the other. I like to think that I don't have a particular style and that I can adapt easily, and shape my thinking and my craft to an individual's needs.

John Osborne told me that there is 'a certain Branton way of designing which people in the business recognise'. Can you tell me what this is?
That's a very nice thing to say, but I have no idea what he means by that. It's probably true, but I don't know what it is.

Brian Monahan (lighting designer for Frank Sinatra) told me that he admired you because you were constantly finding new ideas in lighting. Clearly a different concept from that of John Osborne.

Yes it is. Actually, I find that I'm a bit bored with the idea of searching for new tricks for the sake of being different. I find that if you take a focused approach to the show you're working on and what it requires, then it ends up being a lot more effective in the long term. A by product of that will often be that new and different things will happen. I see a lot of shows that are way too novel or tricky just for the sake of it. It's very easy to do a disservice to your client when you run your own creative agenda instead of theirs.

What was it like to work with Michael Jackson?

Michael was a lot of fun to work with. Like Bowie, he is a person who you get a great deal of input from and with whom you can build a good rapport even though he doesn't say very much. You end up being able to do a better job for him because he communicates what he is doing theatrically. At rehearsals he gets on stage to talk to everyone present about what he wants the band to do, the lighting, the sound effects and a whole manner of things. He speaks about how he

wants to affect the audience and he gives everybody a little philosophical outline on how he wants to do a particular piece. From that everyone is far more focused on an idea than they are with most rock stars.

I actually did two designs for Michael because when the show commenced in the summer of 87, he was only going to take it to Japan and Australia. The *Bad* album wasn't out at the time, and the shows didn't contain much of the *Bad* material. In fact, the show referred, to some extent, to his history. The earlier performances with his brothers played a part in terms of choreography and so forth, mainly because little of it had been seen in that part of the world, and he didn't have time to take it any further.

Then we came to do America in February 1988. We did another rehearsal for four weeks in Florida with a new lighting design and a new set designed for indoors. There were two completely different sets and lighting designs in six months. Actually the second design I created was much simpler and probably more to the point than the first because, after having worked for him, I realised that his talent was amazing and so much the focal point that it would have been foolish for me to try and make some statement with the lighting beyond his performance. The second version was very conventional, straight trusses running left to right, 60 ft deep with a very standard lighting arrangement.

Many of the lighting designers that I interview say that they admire your work. Are there any designers that you admire?

I don't want to sound evasive, but I don't really think about it. I've seen certain things that people have done that I've really admired, a specific project, but I haven't seen enough of someone's work accumulatively to pass comment. Roy Bennet, Peter Morse, Steve Cohen, Jonathan Smeeton - any of these people - I would have to see show after show to have any sense of admiration.

The most impressive show that I've seen in a couple of years was the Yes concert designed by Steve Cohen. He was something like the fifth or sixth lighting designer that the band had gone through, and they were having a hell of a time getting the show to work. I thought that it was a masterful interpretation of that sort of concert. He really made it a visual spectacle and yet it was so natural in its approach. The lighting was good and yet it was transparent and I found myself enjoying listening to the music. Their public appeal is not in their personalities, but in their sound, and I thought that Cohen really nailed that little secret and that's why he succeeded. To come in when the show is on the road, with all that political manoeuvring going down before you get there, and then to end up with a good result, is pretty impressive - not only because of the calibre of the design, but because of what he was up against. Damned difficult with no formal rehearsal or time to organise.

Is there anything, lighting wise, which you hate to see in a show?

When a show annoys me, it's almost always because the flow of lighting is incoherent to the action. Again, it's a guy running his agenda thinking 'wouldn't this image look really nice at this moment in this song' when often there's some real visual content happening that requires something else and that doesn't get addressed. Often you can't see the performers because the lighting overwhelms them and I think that is wrong.

Tell me about your current design for Diana Ross.

I've actually designed two shows, one in the round and one in stage, and they can both be made from the same equipment package. It's the

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third time that I've done that. Certain artistes like to perform in the round and Diana is masterful at it and she really loves it. There are not that many artistes comfortable playing in the round, but Whitney Houston is another performer who can carry it off.

I've learnt how to design in the round from doing early Diana Ross shows eight or nine years ago. At first it's frustrating because it's different, almost none of the lighting that you use in proscenium works or makes sense. In the round you're putting the show nearer to more people, and so you have to light it in a way so that no one thinks that they are in the front or back.

That can be really limiting until you learn new techniques and develop new ways to make it interesting. There's very little that you can borrow from the other approach. It doesn't require so much because it's really intimate and, when the performer is good at it, really exciting. The in stage is easier because we are more accustomed to that, it's easier to think about and generate ideas for. After all these years of doing Diana's shows in the round that's becoming pretty comfortable for me too. Actually I think that the round show is my favourite. Tom McPhillips designed the set which is based on a triangle motive. The lighting system shapes are triangular as well and I've done a lot of things in threes as opposed to twos and fours which is interesting. That's all the design concept there is, beyond that it is just lighting and her performance and, if you haven't seen her, I'm afraid that my description could not do her justice. She really is a fabulous entertainer. The wardrobe is fantastic and that is one of the joys of working with her as her gown can be the centre piece of everything else you do, and you don't get that with rock bands. The show is a lot more aggressively lit than in the past and a lot more heavily cued.

Recently you appear to be doing a lot of designing and not a lot of touring. Is that intentional?

It just sort of evolved. Several years ago in 1982/83 I got my first real schedule conflict with a choice of major shows to do. It had never really occurred

to me that I could do more than one show at a time. I was doing Diana Ross when the opportunity to do David Bowie's Serious Moonlight tour arose and I really wanted to do it. David comes from a very traditional theatre approach and it had never occurred to his organisation that the lighting designer would stay with the show anyhow. So it worked out well and because I was a little insecure, I probably put better people out there than one normally would have to fill in for me. That was the first major thing that John Osborne and I did together. More and more opportunities arose where I could do this and I actually discovered that what I have to give to a project, particularly as I get older, really happens at the rehearsals and the first week or two of shows. After that there is nothing more that I have to contribute and it's a waste of people's money to have me out after that because I'm not a better board operator or spot cuer than other people. I'm as good as other people, but that's not really what lighting design is about. It's understandable that when many of the younger people start doing shows, they don't think they are lighting designers, they think they are lighting desks and they can't get to grips with the fact that their eye and judgement is most important.

In 1988 you did a great deal of television work. Do you see your future more in that medium than live concerts?

No. I think it will be about 50/50 as live shows are still very exciting to me. I started doing television about six or seven years ago. It was a conscious move to try to do more, but within the areas I think I'm capable of working in. Over the years, when I was younger, there would always be a video crew show up sooner or later at any major show to film the concert and sell it to cable TV or whatever. They would always send someone along to babysit me because the lighting would have to be changed for the video cameras. There were one or two people who were really quite good at it and quite sympathetic to the concert itself, but many of them tended to adopt a very crude approach. I started to get an idea of the

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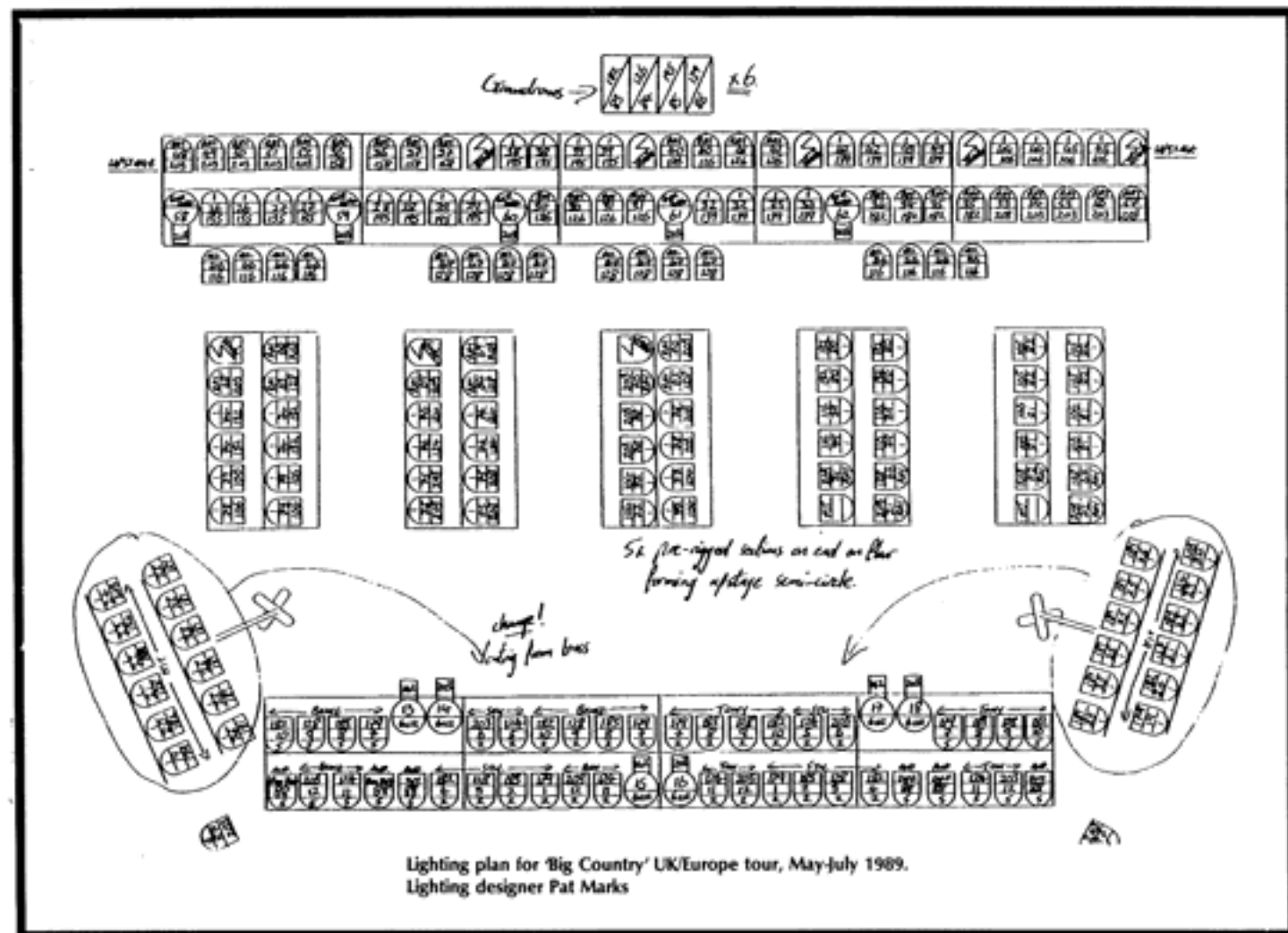


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criteria for producing video, both technically and aesthetically speaking. I got the opportunity to do a couple which turned out quite good and I got asked to do more, although I never actually did more than four or five until last year when I did about 10. So, apart from four weeks with Whitney Houston and six with Michael Jackson, the rest of 1988 was spent working in television.

Is there a particular act you would like to design for?

The act which I am most fascinated with at the



Lighting plan for 'Big Country' UK/Europe tour, May-July 1989.
 Lighting designer Pat Marks



Big Country.

moment is Gloria Estafan and The Miami Sound Machine. I had a call to do some work for them a couple of years ago but I was too busy to do it at the time. Since then I've gotten to know more about the group and I think that Gloria is a fantastic singer and has a presence that a lot of performers don't have. I really regret not being able to do them before. I'm fascinated by Madonna, she reminds me of David Bowie - other than that nothing else comes to mind.

Are you enjoying working with the Bee Gees?

Yes, it's been an interesting show. I've been talking to their management for a couple of years. They wanted something that would be fairly clever, but with a tough image. They've got a bit of an unfair identity, or rather label, from the Saturday Night Fever era and a lot of people forget about the great music they did a decade

and a half before that, and the great music they've done since for themselves and other people. We agonised over that a great deal and we ended up working with a set designer in Los Angeles called Jeremy Railton. He came up with the idea of doing everything asymmetrical with 45° angles from front of stage so there were no apparent straight lines. That's something that doesn't cost anything and it sort of jumbles the picture a bit which is fine as long as it's done artfully and isn't just gimmickry. The set has quite a few moving pieces so we can have scene changes and so forth. It's really meant to be, to me, a traditional concert.

What are your immediate plans after the Bee Gees?

I'm going to be working with The Who in June on their American tour. I'll also be doing a television job lighting the International Rock Awards in New

York which will be the first of yet another annual award show.

Where do you see yourself in the future?

I'd like to spend a lot more time fishing and a lot less time in hotel rooms! I've thought a great deal over the past few years about taking on a younger partner or two so I can do less travelling and so forth, but the right people haven't really turned up so it's not the sort of thing you can force. I'd like to expand the contribution I can make in my work by having an organisation but that's very tricky and so I'm not going to rush it as I'm not that old yet!

**Big Country
University of East Anglia
L.D.: PAT MARKS**

Like many people Pat Marks got his first experience in lighting whilst at university, although it was mainly in theatre and dance. After leaving university he became a teacher of severely emotionally disturbed teenage boys. A fellow teacher was a keyboard player and together they set up a studio from which they worked on a few concerts, Pat looking after the lighting.

Some time later when a band called The Enid approached him to do their lighting, he was only too keen. Unfortunately, the liaison was not a success, but he then went on to join D-Lights where he worked for some time before going freelance.

As a result, his portfolio numbers many bands amongst his lighting designs including Aswad, Aztec Camera, Gary Numan, Feargal Sharkey, Saxon, The Christians, Andy Sommers, Roger Taylor and 5 Star which was, according to Pat, three weeks of pure hell! The bands that Pat works regularly for - Big Country, Gary Numan and Aztec Camera - are all planning big things at the moment, but Pat is sworn to secrecy. Fortunately, he was not so coy about his work for Big Country in the past and his views on the lighting business.

"The Big Country 'jaunt' is planned to last nine-and-a-half weeks and we will be playing toilets



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through to main ball rooms. Wherever appropriate I like to play around with my own distinctive ideas in lighting. One idea that I have been considering for the past 18 months is rotational symmetry. I started to get into the idea of the asymmetric so that you can get the strength of the diagonal resulting in more tension and power. Because asymmetry can look too scruffy and can be boring, you need the power of the diagonal. Also, if you have huge chunks of colour, you don't get scattered asymmetry. It's an idea that has been stolen from early black and white movies and the German theatre. English theatre has traditionally grown up on the 500 watt and 1kW small unit, and lots of them, whereas the Germans have traditionally always used the 5kW unit.

"The result is one big light source as opposed to four or five scattered around. In our case, instead of having 24 Par lamps, we just have four doing the same job, wherever appropriate.

"I thought that Big Country would want me to almost emulate the work Peter Barnes did for them, but they didn't. Their manager said that what Pete had done for them had been so distinctive that he now wanted something totally fresh. Fortunately he had seen block colours used on some of the rigs at festivals that Big Country had played and he really liked the idea."

Pat and his crew member Mike Hegget were very keen to put across their views on being freelancers in the lighting industry and I was only too pleased to offer them the opportunity.

"At the moment there is a price war being waged between lighting companies and the people at the end of it are not the companies, but the crew. It might be the same for sound companies, I don't know. Crews are expected to go out for less and less, but to do more and more. Rigs are becoming much more complicated, so the responsibility is far greater and yet I know people who are earning exactly the same as they were three years ago. I know one lighting company, whose name I won't mention, who were contracted to do some work for a very large TV company, which necessitated the crew becoming union members. This was arranged and the TV company paid the lighting company the full union rate. It was discovered later that the lighting company paid the crew only half this and pocketed the rest. Now that's not unusual - crew's wages are continually being depressed and creamed off by lighting companies. In my opinion it's a shame that unions won't work in this business, because as a freelance there is no protection, and consequently you are used much of the time. OK, I chose to be freelance, but it also happens to permanent PAYE crews. Companies are not prepared to take a dive.

"I really liked what Louise Stickland did for the Blow Monkeys, because I believe that Louise and I

are aesthetically in accord. I tend not to go to see shows unless it's a lighting designer that I know personally. If I'm not touring I don't hang around shows. The last show that really blew me away was the Depeche Mode show that Jane Spiers designed. It's a shame that she has gone, because she really knows how to do a tasty show. I crewed for Jane at three Depeche Mode shows in 1987 and she was great. Women have to be very strong to survive in this business and that's a real shame. Mind you, so do the guys!"

It was at this point that Mike Hegget concluded the interview with some poignant comments.

"Louise's article was the best thing that I have ever read in Lighting and Sound International. She said a lot of things that people have always wanted to say. Unfortunately, a lot of people are afraid to say what they think, as they feel so vulnerable, especially if they're freelance. You can't afford to make any enemies in this business."

Lighting equipment, Big Country UK/Europe tour

14 x 8' sections Thomas pre-rigged truss
1 x Celco Gold 90 way desk
2 x 72 way Novalite dimmers
1 x Novalite strobe controller

Layout Breakdown:

(Front Truss)
32' pre-rigged truss
66 x Par 64 lamps
6 x 6x16 Lekos
(Back Truss)
40' pre-rigged truss
50 x Par 64 lamps
16 x Par 64 ACL lamps
5 x 6x12 Lekos with break-up gobos
5 x Par 64 Novalite strobes
1 x Rosco 40' x 20' projection screen
(Floor)
5 sections pre-rigged truss on end
57 x Par 64 lamps
3 x Novalite Par 64 strobes
6 x 4 cell 1K Thomas groundrows

Series 200B's On Tour

The start of the summer tour season has again increased demand for Soundcraft's ever popular mixer, the Series 200B. Two consoles have just been bought by top group Simple Minds: a 24 channel console for use as a keyboard mixer and a second 8 channel 200B for on stage guitar mixing. Both are being used on Simple Minds European Tour, which starts this month in Italy.

Acker Bilk has purchased a 16 channel Series 200B with sweep EQ for his band's European/UK tour. The console plus multicore system was supplied by LMC in April to Les Squires, Acker Bilk's front of house engineer.

Equipment on Tour

(courtesy Samuelson Concert Productions)

Fields of Nephilim:

82 x Thomas Par 64
40 x Thomas Par 36
12 x 6x12 Lekos
6 x Leko gobo holders
2 x Sil 30
4 x 2kW fresnels c/w barn doors
7 x 6 lamp bars 64/1
4 x 6 lamp bars 64/110v Raylites
1 x 72 way US rack
1 x 60 way Celco desk
2 x RD5 projectors c/w Step/D transformers
3 x Smoke Processor
3 x Hylite strobe
40' A type trussing
2 x 1/2 ton Verlindes
1 x 4 way Verlinde controller

Pet Shop Boys

108 x Thomas Par 64
22 x Par 64 Mag cans
18 x 6 lamp bars
2 x short-throw Pani spotlights
4 x Orbiter spot lights
4 long throw Lycians
Vari*Lites: 22 VL2, 10 VL3
1 x 72 way Avo US rack
1 x 8 way Lodestar controller
8 x 1 ton Lodestars
316' of Telestage truss
24 x Colour Mags plus groundrows
1 x RD5 projector c/w transformer
1 x cracked oil smoke machine

Bee Gees:

169 x Thomas Par 64
33 x Thomas Par 64 Mag cans
6 x Thomas Par 64 floor cans
12 x 20 lamp MR16 Batters
2 x Minilites
6 x short throw Panis
3 x Pani long throw lenses
6 x 10 Berkeley spots
3 x 2kW Xenon heads
33 x Colour Mags
12 x Molemags c/w vertical Molefay
3 x Molemags c/w Xenon adaptors
Vari*Lites: 28 VL2, 9 VL3
2 x 72 way US racks
1 x Celco 90 way Series 2
2 x cracked oil smoke machines
24 x 1 ton Lodestars
17 x 1/2 ton Verlindes
1 x 30W hoist controller
1 x Avo hoist Commander
2 x Verlinde controllers (8 and 6 way)
1 x 4 way Verlinde
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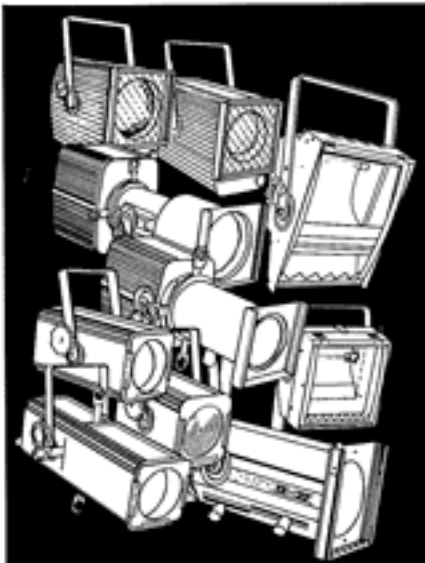
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VIEWPOINT

Tony Gottelier

1992 and all that

After 1992 EEC competition laws make it illegal for manufacturers to appoint exclusive distributors or agents within Europe. Tony Gottelier discusses this in the light of last month's first page article in L+SI, which he describes as the first round in a battle which could reshape the entertainment lighting industry in Europe.

The subject of the main news item in last month's L+SI, entitled 'Distribution Breakdown', could be considered to be a pre-emptive strike in what may become a full-scale battle for supremacy among lighting manufacturers, in response to the European 1992 non-exclusivity rule. And in my view, it should at least be treated as an early warning. Otherwise there promises to be a great deal of blood on the pavement by 1992, especially if others rush their fences, lemming-like, in the wake of the Italians. The fall-out could easily be as great as 1979/80 if we don't take care.

So, on balance, perhaps Clay Paky (whom I assume are the company concerned) have done us all a favour by opening the debate, and enabling the appropriate evasive action, well ahead of time. Those who ignore this warning, or stand on the sidelines saying: "This has nothing to do with me," may get run down by the bandwagon round the next corner.

1992 has been billed as a major opportunity for big business, and that is precisely what it looks as if it will be. For BIG business, will do no favours whatsoever for small companies, in small industries such as ours, where capitalisation is inevitably low.

Now, I will admit that this is the doomsday scenario, and others, more sanguine than I, and successful survivors of the last debacle, believe it will go away. Indeed, one highly respected manufacturer, when I asked for his views last week, summed up his attitude in one line: "1992! Like 1984, it will never happen." I hope he's right, and we should take this on board. But unless we examine the worst case possibility, we will only have ourselves to blame when it all goes wrong.

Aside from which, if we stand off while others take it seriously, as they seem to be in Continental Europe, we may expose ourselves to an even higher risk. By the time open heart surgery is required it will be too late.

Some of you, aware of the Italians' history of grey or parallel exporting, will be saying: "So what's new?" And it is true that the expression 'there are many roads to Rome' has taken on a new meaning in recent years. The difference in this case is that it is out in the open, it is official company policy, and others will almost certainly follow suit.

So let's examine the Clay Paky strategy, as one option open to others.

They will argue, of course, that their sales to each of these countries are restricted by partisan arrangements. While this may be true in the larger geographics, I believe this could be rectified by smaller territorial appointments. In my experience they cannot do it all successfully. What they may gain in sales, they will lose again in extra overheads and damage to their reputation if things go wrong. They will also lose the benefit of valuable feedback from those in the sharp end of marketing in those territories.

Furthermore, they will discover that controlled credit plays a part in these strategies, something of which is an anathema to them at present. As the competition hots up, they will lose control - a few bad debts, and what have they gained from those extra sales?

Frankly I doubt, in the long run, that this is either a feasible or affordable policy at all. Just imagine the cost of setting up your own offices all over the world in one sweep, to say nothing of staffing and controlling them. However, it may break the existing mould and cause severe pain meanwhile. So how should others respond, more particularly, how should existing distributors protect themselves?

In my view the solution is there to ensure the survival of all but the incompetent. Firstly, if the manufacturer is forced to sell direct, he cannot afford to do so and wash his hands once the goods have gone out, nor can he do it covertly and expect to get away with it. So any arrangement needs to be transparent, both to the buyer and the erstwhile distributor, thus protecting them from underhand discounting. It must be a matter of clearly understood policy between the parties. The distributor, on the other hand, will need to be able to offer added value to the customer, and not simply be a distribution point for the goods in question.

Fortunately these two motives coincide as

we are dealing, these days, with highly complex product which requires considerable support. The supplier can't support it adequately because of the distances and costs involved. With this kind of product, the customer demands on site service and I believe he is entitled to it.

However, if their dealers are in on the marketing strategy, it's a different matter. In my opinion there is a formula here.

Those manufacturers who are going to sell direct should bring their dealers in on the act. They should make it clear exactly what their pricing strategy is, and guarantee the agent a percentage of each and every sale in the territory, in return for support and service. This would serve to maintain prices and it follows that only technically competent dealers would remain, or those who have acquired the necessary know-how in the meantime.

Outside Europe the arrangements might have to be different; you can't expect people in Hong Kong or the US to be sympathetic or to understand a change in our trading laws.

This then is the added value that distributors must offer, and there are plenty around in Europe capable of doing so. But they could also consider providing design and installation services, both of which can be bought in, if not fully sustainable in-house. In the UK many of the major installers already have greater buying power than local dealers. So suppliers have already been forced to adjust their policies to reflect this.

In the future, therefore, manufacturers could look at their dealers in a different light, more from an angle of local support, than necessarily their ability to sell product.

In the meantime we should look to PLASA to advise its members chapter and verse, what the rules state; and to take expert advice on the implications on their behalf; and to lobby and confer with other similar organisations such as APIAD.

This is precisely the kind of situation the members set up PLASA to deal with, on a one voice basis, and I believe we are entitled to expect that they will do so now.

Well known to our regular readers, lighting designer and consultant Tony Gottelier has been hard at work in May having contributed two major feature articles to this issue of L+SI. As you will have noted, his picture has appeared on more than one occasion and, rather than print it again, we suggest you turn to page 49 if you really need a second look.

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