

LIGHTING+SOUND

International



COEMAR AT SIB IN RIMINI

- SIB/Magis: Angles on Projection
- Francis Reid at The West Yorkshire Playhouse
- A World First from Light Works
- Rosco: an International Dialogue
- Big R's Latest Venue in Milton Keynes
- Quartzcolor: Strand's New Italian Factory

MAY 1990

The VL4. Smaller. Lighter. Faster. Brighter.

Vari-Lite Inc.'s new VL4™ wash luminaire is the latest addition to the Series 200® system — with superior response and the latest in technological advances.

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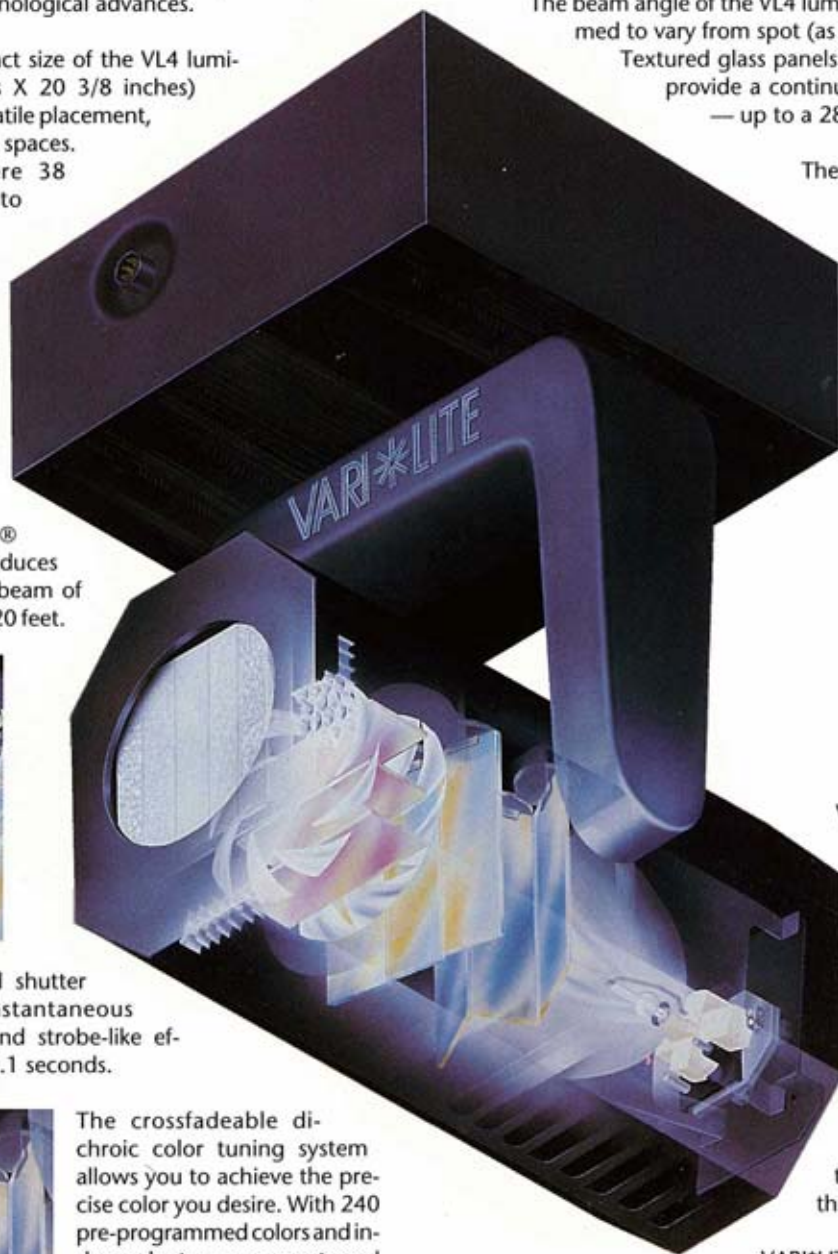
The beam angle of the VL4 luminaire can be programmed to vary from spot (as narrow as 4°) to flood. Textured glass panels intercept the beam to provide a continuous range of diffusion — up to a 28° field angle.

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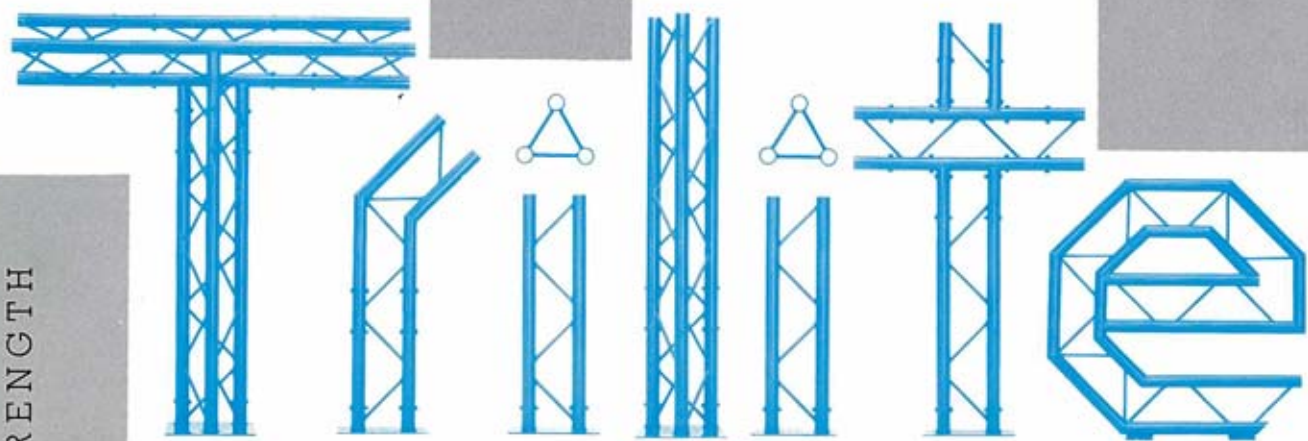


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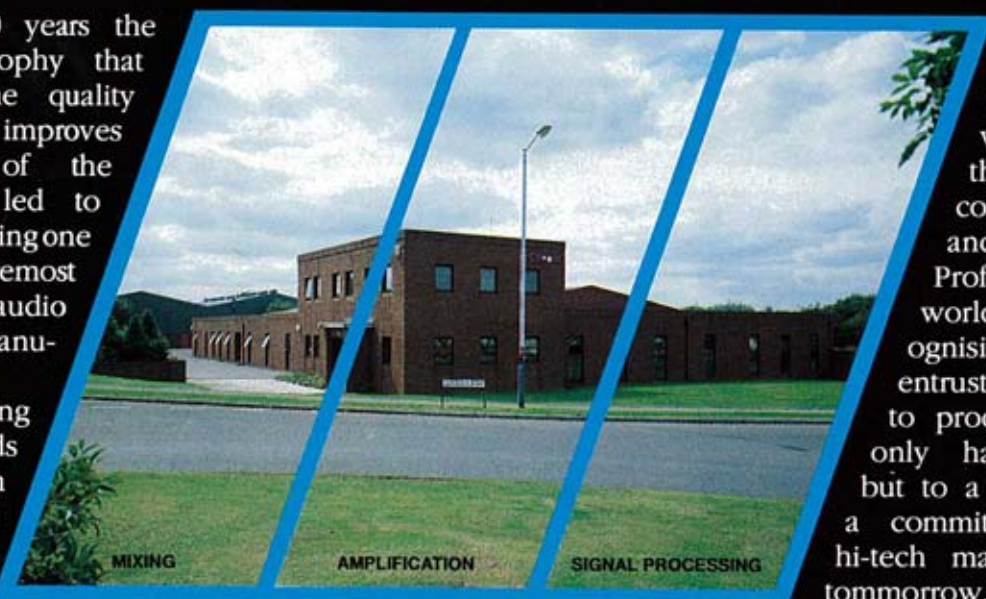
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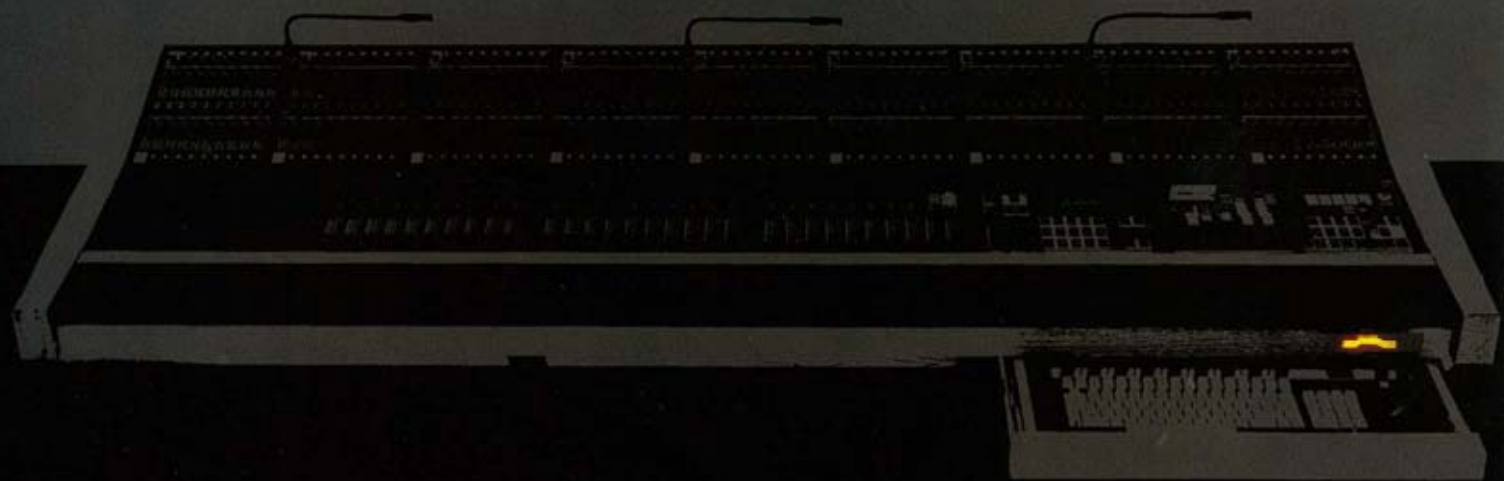
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If it ain't Celco ~ It ain't Rock'n'Roll!

LIGHTING+ SOUND *International*

May 1990

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The caravan, which is the band of intrepid international lighting and sound exhibitors and assorted camp followers, having wended its way inexorably across Europe from Paris, via Frankfurt, unfurled its tents and revealed its wares at SIB and MAGIS in Rimini on All Fools Day. Tony Gottelier tethered his camel and paused to reflect.



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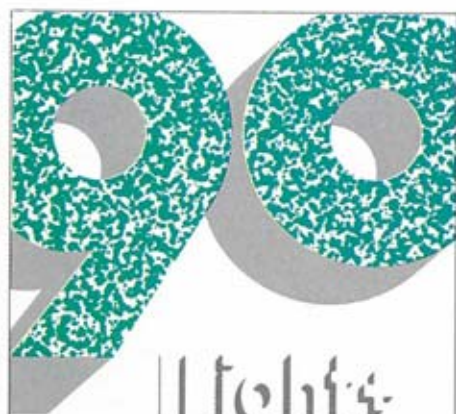
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Light & Sound Show

9-12 September
11am-6pm
Sun/Mon/Tue
11am-5pm Wed

Olympia 2
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Britain's premiere international trade show.

If you are involved with equipment used in discotheques, clubs, theatres, leisure complexes, opera houses, symphonic halls, presentation arenas or film and T.V. studios then you can't afford to miss the Light & Sound Show.

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From May 1990
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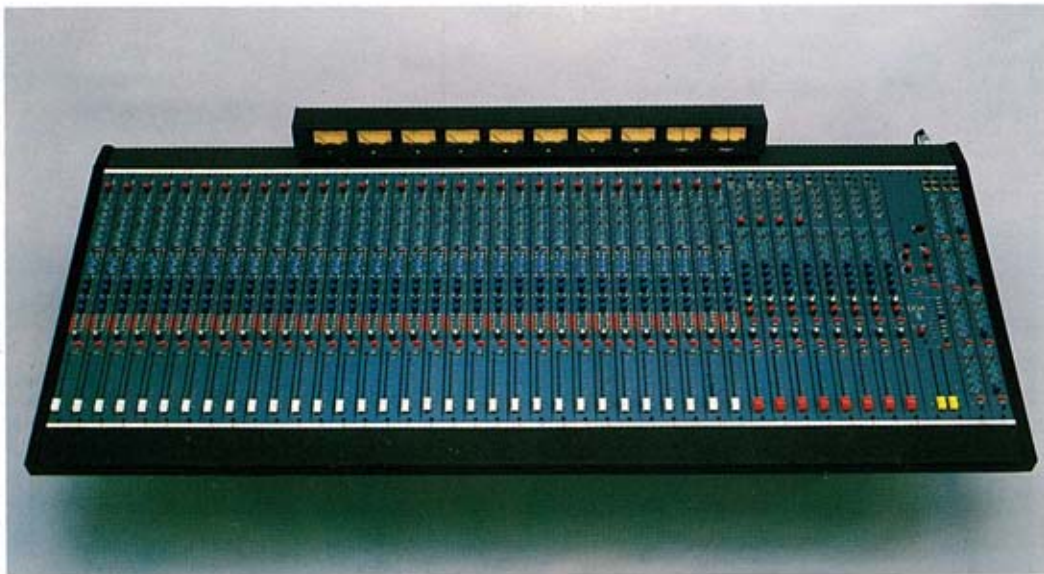
Any console with this much flexibility deserves a closer look

Q

THE Q SERIES

Examine the new Q Series sound reinforcement console from DDA and it's easy to see how it combines greatly expanded mixing flexibility with simple, logical operation.

From the superior sound of the Q Series mic inputs to its versatile EQ section, every aspect of this powerful console reflects the quiet, transparent audio quality DDA is famous for. Immune to noise and hum at every stage, the Q Series offers a sonic performance that is difficult to beat.



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Q Series. So much flexibility, you can't help taking a closer look. Call the appropriate number to arrange a demonstration.



Q Series features a Direct Output with level control on every input.

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8 Mute Groups (Q-Mute Input version).

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LIGHTING+SOUND *International News*

JEM and PLASA Initiative over Equity Concern

The Professional Lighting and Sound Association (PLASA) and member JEM Smoke Machine Co Ltd of Spilsby, Lincs have responded quickly to concern expressed recently by actors and actresses to the actors' union, Equity, over safety standards in theatres.

Equity are questioning the potential dangers of certain stage-effects and in particular alleged health hazards of the smoke produced by smoke machines.

JEM and PLASA have invited representatives of Equity, The Association of British Theatre Technicians (ABTT) and other PLASA members who manufacture smoke machines to a meeting in May to discuss the issues raised and suggest action as necessary.

Lightfactor Record

Lightfactor Sales recently announced record sales for the past 12 months. Commenting on the 42% increase over the previous year, chief executive Paul Ryan told L+SI: "We are continually reviewing our product range to enable us to offer the most comprehensive choice of equipment."

Wembley Refit

Shuttlesound have won the contract to install the Terrace Sound Sub-System during the current refit at Wembley Stadium. Klotz UK will install the Central Processing System.

Travers Morgan Consulting Group, design consultants, were called in to specify the new system. They've come up with a revolutionary digital, multi-function sound system, reported to be the first of its kind in the world, which is currently being purchased by Wembley Stadium Ltd. The system can be used with major pop shows, and is designed to optimise sound quality

inside the stadium, helping to minimise outside disturbance at the same time.

CCT Move Manufacturing

CCT have announced that all their manufacturing operations are being transferred from Mitcham to their Nottingham factory. Don Hindle, managing director, told L+SI that increasing sales demand meant that the Mitcham factory had reached the limits of its capacity. The company has recently put significant investment into computer-aided production methods and the operation of a two shift system.

The acquisition of Furze Theatre Products in 1988 included a large factory in Nottingham, which so far has been primarily used for the manufacture of dimming and control equipment.

CCT's headquarters will remain in Mitcham where its administration and sales management will continue to be based. Finished product will be available from Nottingham and Mitcham for both UK and overseas consignment.

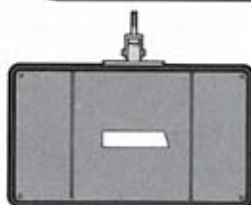


Worldwide Interest

Allen & Heath's studio set up on their stand at the Frankfurt Music Fair attracted customers from every continent. Alhaji Rafi from Nigeria (pictured) tests the A&H Sigma console shortly to be supplied to a recording studio in Lagos.

Sales for Sigma consoles in Malaysia, Austria, Spain, Italy and Germany were signed at the Fair, whilst the worldwide success of the Saber console continues, claim Allen & Heath.

Any speaker, any size, anywhere



The new range of fitments in the Powerdrive sound range might not look the most exciting things on earth, but what they do is really something. Now you can rig almost any type of speaker to any of the wide range of Powerdrive stands and hoists.

Wall and ceiling brackets for most pro-audio enclosures are also available. Send for our new technical sheet to get complete information on range availability.

At Powerdrive we aim to give Europe's sound and lighting professionals exactly what they need, so if you have a query on rigging your sound speak to us first to find out the name of your local dealer and remember to ask for Powerdrive by name.

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Europe's best-selling *professional* Equipment Stands

Astralloy Soiree



Adrian Brooks: party host.



John Macphail in action.

Last month, Leeds-based Astralloy opened its doors to its world-wide distributors for an informal soiree. Guests from such diverse fields as a small nightclub owner/operator from Leeds, through a multi-national distributor based in Germany, to a sheep farmer from Wales brought the number in attendance to over 350 people. Entertainment was continuous; food and drink abundant.

Aside from the company wanting to get everybody together in one place at one time, a further reason for holding the event was to celebrate the tenth anniversary of Adrian Brooks, Astralloy's managing director, starting in business. WB Lighting supplied the Coemar lighting effects, Advanced Lighting Systems supplied the Enigma console, with John Macphail overseeing operation, whilst special effects lighting was supplied by Lynx Lighting. Mushroom Lighting provided the stage lighting and dimmer racks, whilst the whole was put together to correspond to the designs of Graham Barron of Lizard Lighting. The Music Company supplied and operated the Turbosound PA system, with Hi-Tec installing all the electricals.

Outside the unit was a 20 watt laser and Skytracker courtesy of Laser Grafix, whilst Le Maitre delivered the pyrotechnical effects.

Morpheus Illuminates Madonna

Morpheus Lights Inc, of San Jose, California recently announced that a PanCommand system has been selected for the lighting system on Madonna's 'Blond Ambition' 1990 World Tour. Lighting designer Peter Morse specified 78 PC Spots and 172 PC Beams as the central configuration, in addition to using 28 ColorFaders, 42 ColorRangers, 86 Par cans, 15 nine-lights and 12 Cue Spots, which are doubled together and anchored on Cue Spot Platforms.

Over 500 feet of Flip Box truss is being utilised to hang one of the largest flying systems ever manufactured for touring purposes. The elaborate set, designed by Planview, is lit primarily by PC Beams. These automatically change beam size from a very narrow (ACL) to a wide flood pattern and use either an 11-frame colour system or the new ColorFader technology. All of the PanCommand products have a built in library of preprogrammed movement and effects known as M-Cue which address complex cues without spending costly time in programming.

Powerhouse Expand

Powerhouse Hire and Rainbow Discotheques who currently trade in both north and south London will open their new Leeds branch on Wednesday, May 2nd at 482 Broad Lane, Bramley, Leeds 13. Robin Smith will be moving from the Sydenham branch to manage the new Leeds showroom, and his place at Sydenham will be taken by Steve Tourle, who has been working as technical adviser for the last 12 months.

North London will continue under the same management of Steve Hawkins and Norman Smithers. The same facilities will be offered at Leeds including free deliveries of Hire within a 25 mile radius of the showroom. Telephone numbers for Leeds are (0532) 551090 and (0532) 550918.

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7 St. Georges Estate, 380 Richmond Road, Kingston,
Surrey KT2 5BQ. Tel: 081 549 1787. Fax: 081 549 6204.

USITT Updates Standards

In April 1990, the USITT released an updated version of the DMX512 Standard for communication between controllers and dimmers. The new document, called DMX512/1990, is the culmination of 18 months of work by the DMX Clarification Project of the USITT. The revised wording in the standard is designed to clarify certain ambiguous areas of the original 1986 Standard, thus increasing the interconnectability of DMX equipment.

High points of the revised standard include: better definition of the line state during idle periods between frames and between packets; modification of the impractical 4 usec 'Mark-After-Break' timing parameter; new limits on the number of packets sent per second (Minimum Break Spacing) in order to avoid swamping receivers with very high refresh rates for very small numbers of dimmers; a newly clarified Timing Diagram.

Users and manufacturers of DMX512 equipment are urged to obtain a complete copy of DMX512/1990 from the USITT National Office. The charge is \$12.00 for members and \$17.00 for non-members, including postage. USITT can be contacted at 10 West 19th Street Suite 5A, New York NY 10011-4206. Tel (212) 924-9088.

Purelight Laser Catches On



Following last month's revelation that Coherent had launched a 4W rated mixed gas whitelight laser, erroneously described as a Krypton whitelight at the time, Tony Gottelier witnessed his own prophesy of its anticipated success coming true on two occasions in the past week alone. He writes:

No sooner had Laser Grafix Sales and Hire installed their first Purelight unit in European Leisure's Camden Palace, than Laser Media of California had capped it with another at the London Laserium.

Added to the existing laser configuration in the planetarium at Madame Tussauds, this was part of a re-launch for the famous waxworks — the UK's number one tourist attraction — aimed at a younger evening audience.

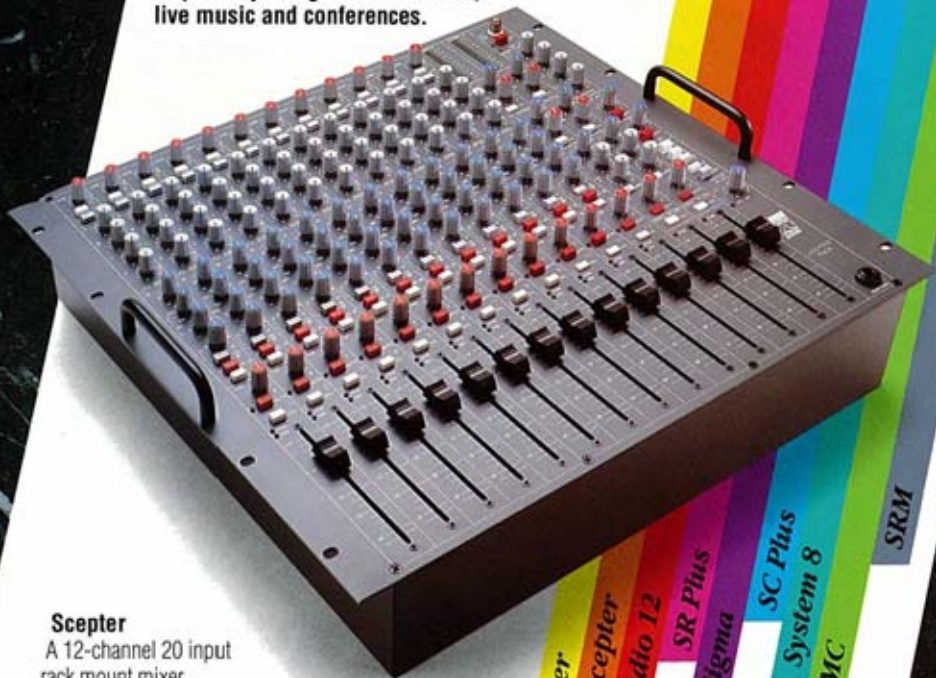
In fact, the Purelight featured strongly in two new concepts launched by Laserium at a party, on Monday April 2nd in Tussaud's new Garden room, which was sponsored by CBS records. Called LaserTrax and War Of The Worlds, both drew heavily on Laser Media's famous graphics which were configured to add visual excitement and emphasis to the music.

LaserTrax is an audio visual experience with a strong American flavour. Based around a graphic juke box, it heralds a series of rock tracks illustrated with appropriately stunning laser-generated graphic images onto the domed ceiling of the Planterium.

The other offering, based on Jeff Wayne's musical version of War Of The Worlds, relied more on Laserium's original kit of a 4W Argon, 1W Krypton combination and a battery of other effects including Golden Scans. However, the Purelight, driven by a pedigree-blanked control system, made an emphatic and sinister guest appearance as the Martian's Fighting Machine. As if to justify the role it was playing, it overwhelmed all opposition in both brightness and colour intensity.

Mixing for live sound

Allen & Heath offer a range of consoles especially designed for theatres, live music and conferences.



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A 12-channel 20 input rack mount mixer.



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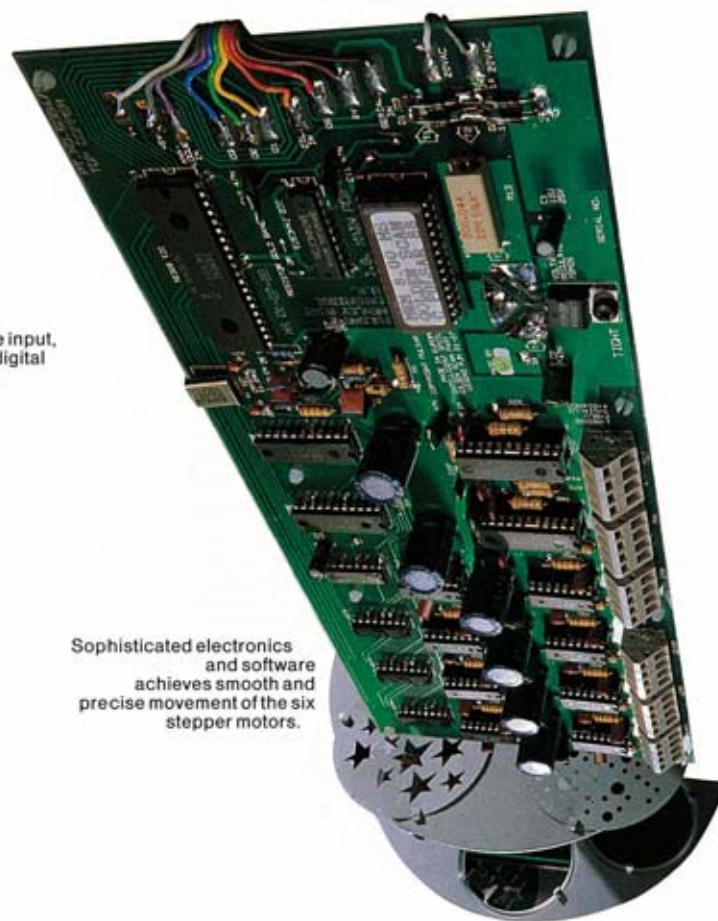
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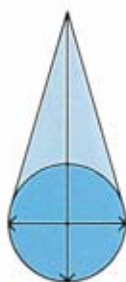
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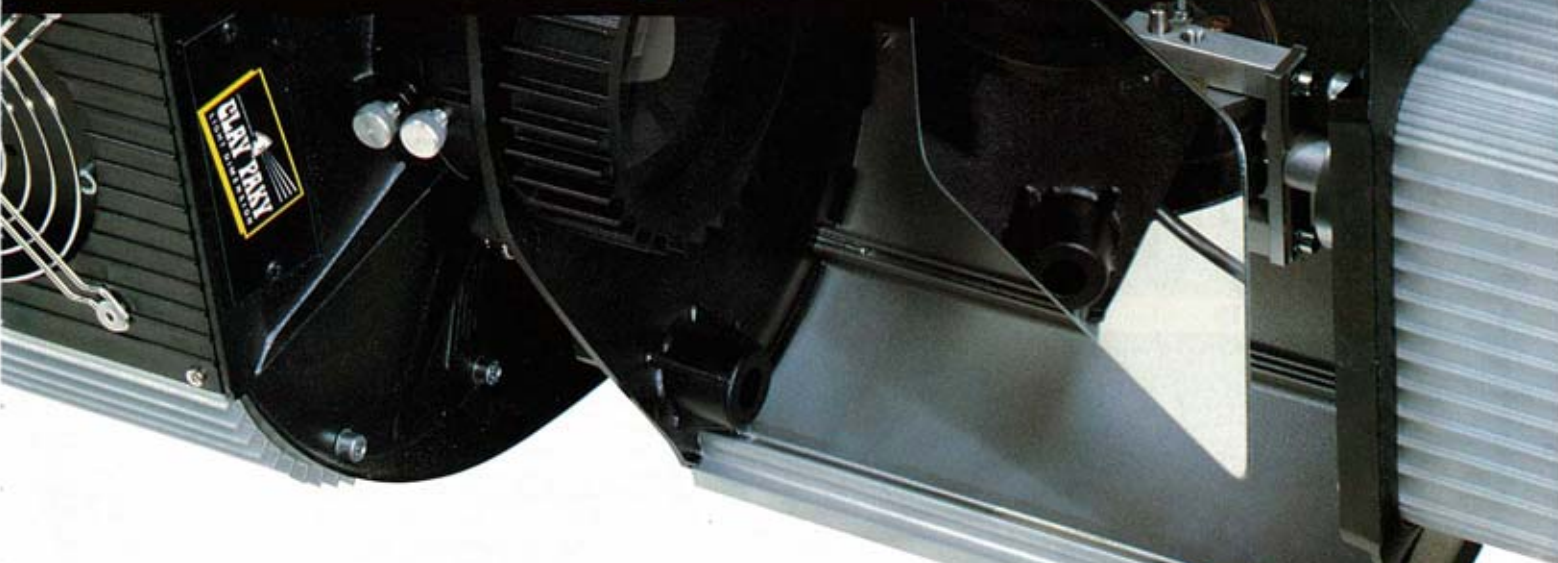
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Light & Sound Show 90: Bigger and Better

Just weeks after PLASA (Professional Lighting & Sound Association) opened stand sales for the Light & Sound Show 90, more than 4,100 sq.m of stand space has been sold. In particular, companies have been looking for larger sites in order to show a wider range of their lighting, sound and entertainment equipment.

The show, which takes place from 9-12 September 1990 at Olympia 2 in London, is the UK's only comprehensive exhibition of entertainment equipment and supplies and has grown steadily during its 13 year history. Now acknowledged worldwide as one of the leading events for the theatre, disco, live entertainment, and TV/film fields, the show's appeal is spreading into diverse areas such as the growing theme park industry, leisure centres and architecture.

In excess of 5,500 visitors attended the four day show last year, with more than 700 of those from overseas — representing a 100 per cent increase in foreign visitors over the previous year.

"The reaction by existing and new exhibitors has been very encouraging," David Street of 3D Services, organiser of the Light & Sound Show, told L+SI. "The size of the show will effectively increase by some 30 per cent with the inclusion of Olympia 2's new lower ground floor area. Many of our existing exhibitors jumped at the chance to increase the size of their stands, many of them opting for site-only stands for the first time."

Almost 130 exhibitors are already committed to taking stands at the show including a number of important companies new to the show this year. Amongst these are Arri, Allen & Heath, Doughty Engineering, Colin Eades Partnership, Martin Audio, MSL, Squire Light & Sound, Peavey Electronics, Tannoy, White Light (Electrics) and Yamaha Kemble. From overseas, visitors will be able to see ETR Lighting from Switzerland, Hardware Xenon from France and Light Beams from Belgium.

David Street is confident that the growing appeal of the show is a direct result of the expanding lighting and sound industries. "13 years ago a Light & Sound Show of this size would have been unthinkable. It is clearly a measure of the success and growing professionalism of the industry that the show has now reached these proportions. I believe that with our continued efforts to promote the exhibition to potential visitors in a range of related industries and professions that the upward trend will continue."

For further information on Light & Sound Show 90 contact: David Street, 3D Services, 12 Brentford Business Centre, Commerce Road, Brentford, Middlesex TW8 8LG. Tel: 081-569 9742.

From Junk to Jazz

London's latest radio star jazzed up the opening of the capital's newest Megastore when Squire Sound & Light opened its doors on the 19th April. Jazz FM's breakfast presenter, Diana Luke, cut the ribbon marking the move away from the world famous Junction Road.

After 18 years Squire move to nearly 1,000 square feet of selling space, complete with a customised night-club rig and masses of free parking. Stocking everything from the mobile DJ to the multi-millionaire night-club owner, the new Megastore is the latest in Squire's expanding chain of outlets.

Jive Talking

A two day conference covering all aspects of the rock 'n' roll industry is being organised by the Music Retailers Association (MRA) on May 15th and 16th. To be held at the Park Hotel in Cardiff, the agenda covers industrial levies, the role of technology and whether a franchise dealership is worth a toss! The promotional leaflet promises two days of drinking and debauchery. An event not to be missed surely! For further details contact MRA at PO Box 249, London W4 5EX.

Imagination Lights Telecom Spectacular

Imagination — the company that lit the Lloyds of London building and Waterloo Station — is set to stage one of the most spectacular light shows ever seen in London. Focused on the Telecom Tower, the show will be visible throughout the capital on Friday 4th and Saturday 5th May, providing a dramatic finale to British Telecom's London telephone Code Change campaign.

"The brief was to create a public focus for the

introduction of the new 071/081 codes for London," Imagination's head of lighting design Simon Bruxner-Randall told L+SI. "In particular, we needed to provide a spectacular event that could be broadcast by London Weekend Television, as well as to light up the most prominent landmark on the London skyline."

The show will comprise a combination of red and blue floodlighting, starbursts and roving searchlights. The lighting scheme includes over 350 individual lights plus over 1km of 'Arc-Line' strobe lighting. A firework display will provide the finishing touch.

Swiss Distribution

Effective from the 1st June 1990, the distribution of Soundcraft consoles in Switzerland will move to a newly formed company, Audio Import AG in Basel. Complementing the move, Audio Import have also been appointed by AKG Vienna to distribute their full range of mics and headphones, with a further contract in place for Aphex signal processors.

Broadcast Widely

Britannia Row Sales' Broadcast division is moving ahead in the UK broadcast sound market. With 14 prestigious contracts confirmed since the end of 1989. The division (which already accounts for 50% of BRS Sales) now has a fast-growing share of this hard-fought market. Director Bryan Grant told L+SI: "The potential for our service to the broadcast sound industry is enormous — and we're putting a lot of energy into making it the best in the country."

The company's specialist sales and support team is currently being further strengthened to make the most of a product line-up that includes Amek/TAC, Westlake, AEG and Howtech.

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AETTI: The Next Stage

Regular L+S readers may recall that the Aetti, the Industry Lead Body founded two years ago by Graham Walne and Alan Stevenson, recently moved into its new headquarters at London's Cockpit Theatre and boosted its workforce by adding the services of Bob Fitzpatrick and Joe Aveline. The Initiative has also now appointed a consultant (from a short list provided by the Training Agency) who will assist the Aetti in the main stage of its work which is due to begin in a few weeks time.

Under the title 'The Next Stage is You' the Aetti will soon begin to form working groups of practitioners in stage management, design, technology and stagecraft and these groups will meet regularly over the next year to identify the occupational standards which form the basis of National Vocational Qualifications. At regular intervals both relevant organisations and large numbers of individuals, at all levels and throughout the profession, will also be consulted.

Throughout the summer the Aetti will be holding a number of open meetings and conferences to make information on NVQ more accessible, and the conferences will also include speakers on other related subjects such as the voucher scheme, BS5750 and the Closed Shop. In particular there will be a conference on June 8th which will be aimed specifically at training providers, with another on June 13th for the industry generally. Both conferences will be held at the Cockpit Theatre and the cost, with lunch, is £40. For further information contact Graham Walne on (0794) 301386.

Broadway Rainbows

A new version of the Rainbow Light Curtain Scroller has been commissioned for the Broadway production of Aspects of Love, which opened at the Broadhurst Theatre on April 8. Lighting designer Andy Bridge commissioned the scroller for the show after seeing it in use on Miss Saigon in London. Seven Light Curtain Scrollers, together with over 40 standard Rainbow Colour Scrollers are in use on Aspects, all running on DMX512.

The new version manufactured by Camelont AB of Sweden, has been designed to fit a shorter six rather than nine Light Batten which has been produced by Howard Eaton Lighting of Lewes. New tensioning devices have been installed on the Scroller which give an even quieter and smoother movement of colour. The equipment was supplied by M & M Lighting to Howard Eaton, who were overseeing the installation of the Rainbow system in New York.

Sounds Fair

Hi-Profile Technical Services, part of the HPC Leisure Group, have been down to the seaside. Folkestone was the location for the installation of a sea front promenade leisure park sound system.

The request from the operator detailed the need for a high quality system, evenly spread along a half mile sea front, distributing both music and announcements.

The design consisted of a mixture of Toa PJ100's and CS152's. The PJ100's were used for close proximity distribution in areas which were surrounded by outdoor buildings, kiosks and indoor arcades. The CS152's were fixed from the sea front lighting poles, projecting sound into the park from a higher level, this enabled the sound to be distributed evenly throughout the complex.

A range of mixer amplifiers and slaves were used distributing the system in three zones. Hi-Profile used their HR amplifiers with a total of 750W. The sound source came from a multi stack CD player, and a Toa zone microphone was used for announcements.

ARRI's Sales Counter



Graham Kerr: now with ARRI.

ARRI (GB) have established an immediate viewing and purchasing facility at their fast-expanding Heston headquarters and appointed Graham Kerr, ex Strand Lighting, to run it. The Company believe that, while they have developed an outstanding range of equipment with their lighting product, it is a product field where there is often a pattern of one-off, 'take-away' purchasing to meet an immediate requirement. The new sales counter will supply this type of demand, ex-stock, across an extensive product list.

The appointment of Graham Kerr recognises the high personal service aspect of this kind of operation. One of the best known figures in the business, he has built an exceptional reputation over the past 14 years for understanding user needs and meeting them with total reliability.

and meeting them with total reliability.

Part of his 'free hand' brief as manager of the new facility is to expand the stock list to include all kinds of related items such as lamps and accessories, as well as spares, even for competitors products. A complementary development at ARRI is a new lighting and control systems showroom. Also based at Heston, this will offer a comprehensive display and trial opportunities to users, for familiarisation, order for delivery, or immediate purchase at the sales counter.

Canadian Expo

An international lighting exposition is to be held at the Metro Toronto Convention Centre, Toronto from June 19-21. Organised by the Toronto section of the Illuminating Engineering Society of North America the show will feature new lighting products and services. There will be displays from all areas of the industry including light sources, fixtures and programmable lighting controls for commercial, industrial and residential applications.

In addition the IES Toronto section is producing a series of seminars on a wide variety of topics ranging from lighting controls to the role of the lighting designer in interior design. The IES Canadian Regional Conference entitled 'The Art and Science of Lighting' will also be taking place throughout the show.

LDP For Glasgow

Glasgow's St Enoch's shopping centre is currently the largest glass-roofed building in Europe, filling an entire city-block. Lighting Design Partnership (LDP), one of Europe's largest independent lighting design consultancies created the lighting installation for all its public spaces.

The shopping centre within is structurally independent of the superstructure, which created a space flooded with natural light. The system designed by the company is programmed using photocell and timer-switch technology to respond and change with the lighting-conditions outside.

Six eight-metre-high glass obelisks form the most distinctive and unusual aspect of the centre's lighting. These extraordinary structures bristle internally with a huge array of lighting equipment programmed to run through a series of flashing, chase and colour-change sequences every hour on the hour. They cover a range of different performance-sequences depending on daylight levels.

The roof of this enormous glazed structure consists of 12 glass pyramids; LDP lit these from below using sodium light-sources, causing them to glow attractively at night. The uplighting to the roof-structure also serves to co-ordinate and link the centre from inside.

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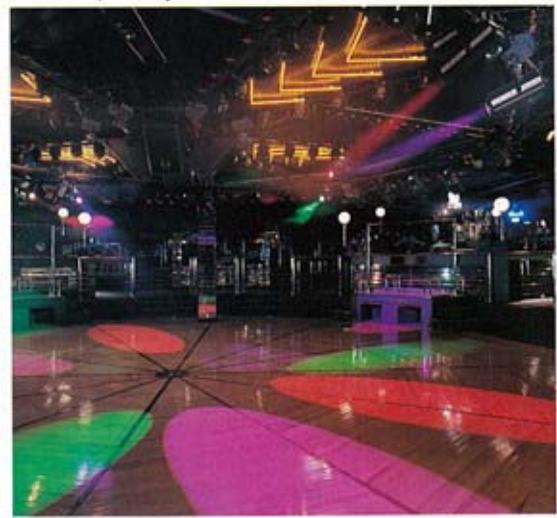
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ANGLES ON PROJECTION

The caravan, which is the band of intrepid international lighting and sound exhibitors and assorted camp followers, having wended its way inexorably across Europe from Paris via Frankfurt, unfurled its tents and revealed its wares at SIB and MAGIS in Rimini on All Fools' Day. Tony Gottelier tethered his camel and paused to reflect

It would be cynical to suggest that April 1st was an inauspicious day to start such an enterprise as the Rimini Fair. Indeed, I heard of not a single practical joke, for these exhibitions are a very serious business costing very serious money for those involved. (Of course, the absence of any stunts may well have been due in large part to the absence of the ebullient John Jeffcote, the erstwhile export manager of Optikinetics, who, for all those who enquired, is now a partner in a small chain of hotels in the UK).

Naturally, everybody comes to these shows anticipating something new, by which they mean some radical new device which will change the face of the business for the immediate future. The fact is that quantum leaps of this kind are, and always have been, few and far between. Maybe we expect too much these days and should be prepared to dig a little deeper to look for the detailed improvements which are going on constantly in the background, some of which will go towards making our jobs that much more interesting and rewarding.

It is all too easy to get bogged down with

the groans about the plethora of wagging mirror devices, and it does seem a chronic waste of resources that so many companies have put their energies into the same or similar product, but then hasn't that always been the nature of this game? Witness the competition in Xenon searchlights; can there really be that many customers for such items?

Imitation can be more cost-effective and secure than innovation, if you get the timing and marketing right. After all, in the end it is only those who have gone a mirror too far who will really get seriously hurt.

On the lighter side, the name game for these automatrons continues. Just how many combinations of Pan, Scan, Vari, Robo etc, etc, etc can there actually be? I don't need to tell you that there are yet more names to add to that list since Rimini. The significant new items being, the much awaited Super Scan from **Clay Paky**, which may raise the possibility of elevating articulate driven lighting to a more subtle plane and, perhaps more importantly for most of us, the Golden Scan 'Two', a much improved product at much the same cost as

the original.

And I'm pleased to be able to report that there are signs that companies are starting to address the middle market once again. In particular, **Coemar** have introduced a new range, almost entirely aimed at this sector. Most are based on a common 1000W AL projection chassis with a series of different front-end attachments — I wonder where I've come across that before — and even including a liquid wheel! Ian Brown of **WB Lighting**, the Italian company's UK distributor, was bubbling over with excitement. "This is what I have been waiting for, for years. After all not everybody can afford Jupiters, and this was always the sector in which Coemar products have excelled in the past."

As if to prove that they are keeping their feet firmly on the ground, Coemar also launched a number of display fittings based around the Forte chassis.

There were significant developments also from sister company **Teatro** which, under the firm helmsmanship of ex-Strand man Mike Lowe, has applied some radical new thinking to follow spots and also

Clay Paky's much delayed SuperScan finally saw the light of day but, perhaps even more interesting to most specifiers, so did Golden Scan 2. This much improved model now offers eight colours and eight interchangeable gobos with mixed colour beams, colour modulation or sequencing and gobo mixing possibilities. Variable rate control has been added to colour change and the high speed shutter provides strobing from 1 to 7 flashes per second. Furthermore, the adjustable scanner head is now firmly attached to the body casting rather than, somewhat precariously as originally, to the lens.

SuperScan, with similar slimline styling, houses a 1200W HMI lamp and, in addition to all the new features mentioned above, provides RGB colour mixing (have they got this right?), three trioptic prisms and full mechanical dimming. This is a tool of far greater potential subtlety than the Golden Scan and as such may find favour outside the disco arena, its elder brother's natural habitat.



The Clay Paky show with Pulsar's Oska in control.



Pasquale Quadri (right) explains SuperScan.



Tony Gottelier (left) with WB's Ian Brown.



Coemar boss Bruno Dedoro (right) makes a point.

Coemar unexpectedly, but sensibly, declared a truce in the battle of the Titans, and revealed an exciting new range of projected effects in the much neglected middle price bracket. Most are based on a common diecast projector chassis with mirrored 1000W tungsten halogen lamp many, available with on-board sound-to-light. Among these are Colorbeam, with eight selectable dichroic colours; Light Mover, which is Colorbeam with a beam moving device added; Dinamo, with a sound activated effects wheel; Graffiti, which has liquid wheels within wheels (would you believe! Is it time to bring back the Splodoscope?); and Pointer, which uses a back reflecting parabolic device, looking for all the world like a reflectable TV satellite dish, to whack eccentric beams about a wide dispersion envelope.

From various MSR light sources come the following Coemar effects: at 400W, Trafix, which is a similar concept to Pointer but with two beams rotating on an axis, colour change, gobos and segmented variable parabola; at 700W, Duo, a twin beam double-headed controllable scanning device from a single light source; at 1200W, Atomic, Ritmo and Mirage offer various combinations of internally and externally controllable dichroic colour wheels, gobos and effects; at 200W, Multibeam is a moon-type effect with rotating beams.

A horseshoe-shaped lamp, developed for Coemar by Philips, the 750W Roundlux has been co-opted for Tunnel, which produces a conical beam while Multitunnel does this in spades; myriad coloured cones expand and contract from a sound trigger.

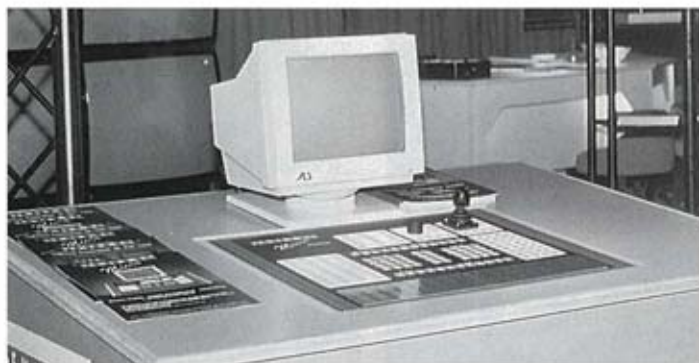




Mike Lowe applied his own sure touch to *Teatro's* new range of follow spots and came up with what may well amount to a mini revolution in the science. He recognised that zoom is probably a nonsense when it comes to limes, as most operators set for distance at set up and never touch it after that. Yet zoom takes up a lot of length, so Mike set about calculating average image diameter requirement against typical demand of throw and came up with a system of three interchangeable clip-on lenses. Thus he was able to considerably truncate the snoot of his Talento models, making the fitting infinitely more manageable, while at the same time increasing light output, as only a single lens is interposed.

Looking at Talento in detail was a real object lesson in the fruits of intelligent design. A slot running the length of the cast body allows you to balance the fitting exactly, whatever the front-end attachments, and friction fit to the tilt mechanism provides easy adjustment. All handles, which are hollow, incidentally, to prevent heat transmission, are also movable along the slot to a position of the follow operators choice. The optional colour magazine is also loaded with design features. Mike is particularly proud of the fact that it can be applied for left or right hand operation. I was impressed by the clear flags on each frame, which allow for the insertion of a slip of the appropriate gel so that you know exactly which colour you are going to every time. Mechanical fade, iris and beam shapers are offered and 1200W and 575W MSR models are available, the 500 MSR with inbuilt ballast. A new range of small bodied profile spots were also introduced.

Lisa Papi of Teatro (pictured above) was kept busy with follow spot explanation.



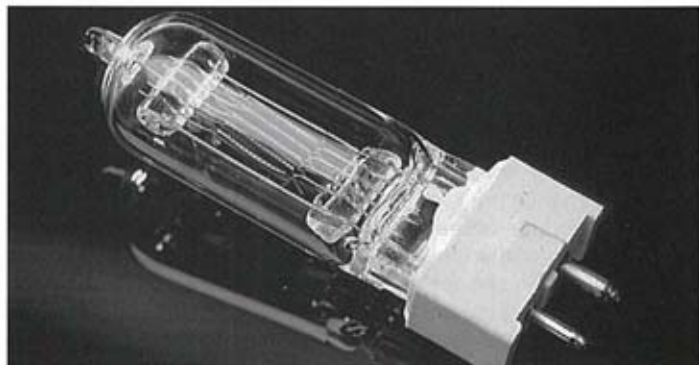
Advanced Lighting System were situated with the Mode stand, as the Ware-based company apparently developed some gadgetry for them, and were proudly showing their new reduced spec. controller, Micro Enigma. With control limited to 128 channels, plus eight articulating projectors, but at a more friendly price than its antecedent, this junior version is a sure-fire hit.



Citronic's latest line-up of sound equipment was a smash at Rimini, you might even say a smash and grab! So popular was it that the entire display equipment was stolen first night out!



Ampilux: This specialist in special effects equipment such as bubbles, smoke and foam, came up with a very impressive snow blower which seemed to leave minimal residue. Quite an achievement.



The Belgium-based Special Products Group of *GTE Sylvania* introduced a comprehensive range of Theatre class lamps as well as a 500W Par 64 to complement their existing 1000W range. The T-Class lamps have a more compact coil which, *Sylvania* claim, gives the best combination of efficiency and life. Types available are T25/18, T26/27 (shown above), T19/11 and T29 in 120, 220 and 240 volts.



Tony Gottelier eats the latest word in dichroics — *ACR's* unbreakable version.



The new ADB control system from ADB ran the lighting for this year's Eurovision Song Contest in Yugoslavia. Pictured on stand at Rimini are Giancarlo Canali of La Scala Milan (left) with ADB's Dirk Van Nieuwenhuysen.

introduced a new range of 650W profiles.

Everyone was very taken by the first public outing of some unusual effects from **Griven**, another Italian company, whose address in the same home town as Coemar, probably gives some indication of its pedigree. British distributors were seen queuing up to take on the line. So watch this space.

Anticipating this move towards the middle market, **ALS** of Edinburgh produced the Micro Enigma, a sawn off version of their successful integrated lighting controller and at a more friendly price.

Of the laser companies, while **ACR** and **TARM** were impressive as always, newcomer **Lobo** made the biggest impact, with a very slick performance featuring multicoloured graphics. **Laser Media**, on the other hand, played it cool, featuring their ColorRay product now available with laser as the source.

ACR have also introduced the unbreakable dichroic filter, upon which your doughty scribe was forced to eat his words in order to demonstrate its indestructibility to an over enthusiastic photographer masquerading as John Offord.

However, my prize for the most valuable product at Rimini, although most people will have been unaware of its existence as it doesn't flash, change colour, produce smoke or make a noise (I hope), goes to Dick Steward for **Mode's** solid state low-voltage transformer. Designed with the MR 16 in mind, this neat package weighs in at only 250 grammes, and will be a sure-fire hit with OEMs seeking to reduce weight and bulk. All credit to the ever-inventive Steward, who has achieved, from a comparatively small base, what many much larger lighting companies have been struggling to do for years and are only, just now starting to indicate practical results.

Needless to say, there were many items which did generate smoke and other special effects. Most notable of the debuted items were the Roboshop Dry Fogger from the US which heats liquid nitrogen to produce acres of low lying fog without the aid of



Rallying Strand: Andrea Molinari.



Canada in Rimini: Zero 88's Freddy Lloyd (left) and Peter Brooks (second from right) with Ron and Jane Bourq and Jim Porter.

chemicals or oils. At present this is an expensive and bulky system, unlikely to find favour in discos, but which should find a ready market with heritage museums, theatrical productions and the tour rental market. The news that Equity are to investigate the effects of theatrical fog on actors may lead to pressure that such techniques are given very serious consideration in the future. (See this month's general news).

The **Ampilux** Cortina, no it's not an old banger, impressed as a very realistic snow blower, which seemed to use small foam particles to create very realistic snow without any apparent residue. **TAS** gave us the Volcano, a large conical device which blew smoke rings of delicate proportions (it was instantly christened Ivor by some wag in the British camp; I can't think why).

So what of the show itself? Well, it reminded me of a Turkish bath, I would have said Roman, but I don't want to step on the sensibilities of the Riminis who, I understand, are rather touchy on anything to do with Rome. Anyway, you know the



Optikinetics' Neil Rice (right) with Italian distributor Roberto Santini of Etabeta.



Pulsar's Derrick Saunders (right) with Eric Loader of Light Force, Hollywood.

sort of thing: one room which is the steam bath, immensely hot and sweaty, another a massage room — in this case where all the senses are pummelled non-stop, and a cool room where you go to recover, or is it to die!

In this case the cool room was occupied by **MAGIS**, the exhibition of theatre and cinema equipment. To be perfectly honest it was more like a morgue most of the time — a great relief to those of us who needed to escape from elsewhere — but it can't have cheered the exhibitors who weren't exactly there for the sake of their health. There must now be a serious question mark over whether **MAGIS** can survive in its present form into next year. What a shame it is that the senior discipline doesn't sit more comfortably alongside its noisy adolescent offspring.

As to **SIB**, the view seemed to vary very much along the lines of whether or not you were asking a current exhibitor. Most exhibitors seemed delighted, from Nigel Morris of **Jem** who claimed to have sold 700 foggers (no, it's not a misprint), to **Citronic** who had all their new products, reviewed in



Swimming Pool and Super Arcs from TAS



Lobo: "hands off" production.



FLY in control.



Ralph Dahlberg with AVAB's new Digibloc dimming system.



Two Highlights, two fibre optic heads and an Innova Purelight mixed gas laser were among the formidable battery of laser weapons used by impressive laser effects newcomer *Lobo* for their original sci-fi graphics sequence. From a vast console, untouched during performance, this hands-off production solved many of the problems associated with effective use of exhibition stands as a stage for light shows, through the use of motorised screens which sealed the booth only during presentations.



Dutch blue box company, Stage Accompany, introduced a new modular mixer among an impressive display of audio product.



An impressive debut for this newcomer to the international show scene, *Griven*, who (significantly?) are located in the same Italian town as Coemar, caused a queue of potential British distributors to form at their door all scrabbling to get hold of their interesting and refreshingly new products. In particular, *Tricorno* impressed (see illustration) and *Rock Fan*, *Can Can* and *Fan Dance* all offered variations on the theme of moving mirrors but, for once, with a difference. All work with variously segmented mirrors mounted on a diaphragm, the different segments giving different patterns, and as the diaphragm moves, so do the beams. Not an entirely novel idea, except in its application, but none the less effective for all that.



As always German lasermeisters *Tarm* impressed with their brilliantly choreographed multi-laser presentation, relying on Argon/Krypton combinations, live water effects and graphics.



A repeat show: Arri's Magis stand.



PC control for OptiColor on the Adlite stand.



A subtle effect show on the SGM stand.

L+SI after Frankfurt, stolen two nights running. "They must like the product a lot!" was the enigmatic comment. They also admitted to interest from as far afield as China and Argentina.

It was notable that many British companies who did not exhibit were there in force, either supporting their local representatives or stalking the halls seeking out the numerous international distributors, many of whom had made the trip. So it seems that the pragmatic leave this show to their local outlet while taking the communal opportunity to cement relationships elsewhere. Keeping the powder dry for the PLASA show?

PRODUCT BRIEFS

As stand-by-stand reviews of exhibitions can be somewhat tedious for both the reader and writer alike, Tony Gottelier provided L+SI with snapshot descriptions of the products he found significant at SIB. Some have been used as picture captions, others are set out below.

The innovative Swiss company ACR, demonstrated the latest improvements in their Spectron II colour changing, and articulate, light as part of a multi-effect production culminating in a laser show. For the latter both an Innova Purelight mixed gas and a Spectra Physics krypton Whitelight were employed, giving the first opportunity for the discerning visitor to compare the performance of these two combatants.

Originators of many of the graphic laser concepts in use today, Laser Media of California were concentrating on demo'ing their Color Ray device, now available with laser power. While increasing the zap of this device, now in a sleek new package, this move opens up the possibility of retro-fit to existing laser installations. (But was the laid back approach to their regular laser line, the result of resting on laurels following recent coups at Laserium, see general news and the Lido in Paris, about which more in a later issue).

The Yanks are coming. First wave of the attack from High End's Intellabeams left for European distributors just before SIB and the first major installation in the US took place for British group Julianas (see June issue). As this showed the lie to those sceptics who had suggested that Lightwave might be in trouble with the product, we asked Laura Cowen, High End Systems export manager, to comment: "We simply wanted to ensure that the product was 110% before shipping. We were not prepared to repeat the mistakes of others in the past, which we knew from our own experience as distributors in the US, by releasing product prematurely."

At the budget end of the moving image business, Martin of Denmark seemed to have got it about right with the first public outing of their Roboscan. What a pity we were unable to make an immediate comparison with Colour Sweep and Varyscan, as neither product was shown at SIB. (Perhaps at PLASA?).

Among this, by now, vast array of movers and shakers there are still newcomers arriving to join the crowd. Italian Studio Due's Vary Beam, and German companies, Adlite and SLE, with Vector and Intellite. It is interesting to compare their different approaches to control of these beasts, which are generally PC-based with differing forms of on-screen graphics. SLE have gone for rubber-banding to indicate beam direction, much as the off-the-shelf software system available from their compatriots Lightpower, but they have sensibly added a tool box of standard patterns for selection. But can the market really support all these products?

Quiet revolution. Mode Electronics' lightweight electronic transformer is suitable for all forms of external level control, including hard fired and domestic dimmers, and will handle the range of



Michael Hall of Roscolab (left) with Ralph-Jörg Wezorke of Lightpower and one of his fast selling MA series lighting control consoles.



JEM's Heavy Fog provides a background for the Nuova Sysma stand which also demonstrated High End Systems' Intellabeam.



Another Space Cannon searchlight display.

MR16 type lamps up to 100W. A sure-fire hit with OEMs, the ET105C is also available with on-board control.

I don't know if bunny means something entirely different in Italian, but, if not, I spent some considerable time trying to fathom out what this product from Litebeam had to do with rabbits. Well I suppose if it's good enough for Volkswagen! Anyway, this effect really is worth considering. Basically, it's what others call a Saturno, but in Litebeam's case a Deltalight, a single light source into eight lenses arranged in a crescent. The difference here is that a controllable mirror is set in front of each lens so that the beams can be co-opted into numerous combinations.

It was also a pleasure to see the interesting results achieved by LED with combinations of multi-faceted, multi-coloured reflectors and diffractions. Some pretty and subtle light as confetti is achieved.

Looking for all the world like a twin laser scanner, and almost as big, Novalight's Discovery generates four beams from its 700W MSR lamp. Each beam can be deflected by ?? and colour and gobo selection is built-in. Presumably an economical way to simulate four discharge projectors.

Not content with the biggest range of new effects at the show, Coemar also launched a range



Niethammer and Astralloy products on the Spotlight stand.



Anytronic's busy corner was in the thick of heavy noise in Hall D - Bob Hall still reported good business.



Getting in close to the Coemar Jupiter.

of light fittings for the display market. Again based on two of Coemar's handsome castings, Primo is a soft-edged fresnel in 70, 150 HQI-T and 250W th; while Sag (how unfortunate!) is a 70 or 150W HQI-T mini projector with 60mm objective lens and a range of accessories including iris, dichroic colour, framing attachment and manually adjustable mirror device to allow a positional beam from a horizontally mounted unit.

An interesting angle on the possible future of fog machines was provided by Roboshop, a business located in California not a million miles from Hollywood, for whose studios they develop special effects. Their Dry Fogger, which uses liquid nitrogen to solve many of the problems associated with dry ice and liquid-based smoke, generating humungous amounts of heavy smoke, unfortunately fails to deliver the goods when it comes to size. At 1.2x0.6x1.0m excluding the canisters which are huge, it is probably only suitable for theatre and theme park use, although it might find favour for touring. But how long will it be before someone gets it down to a manageable size?

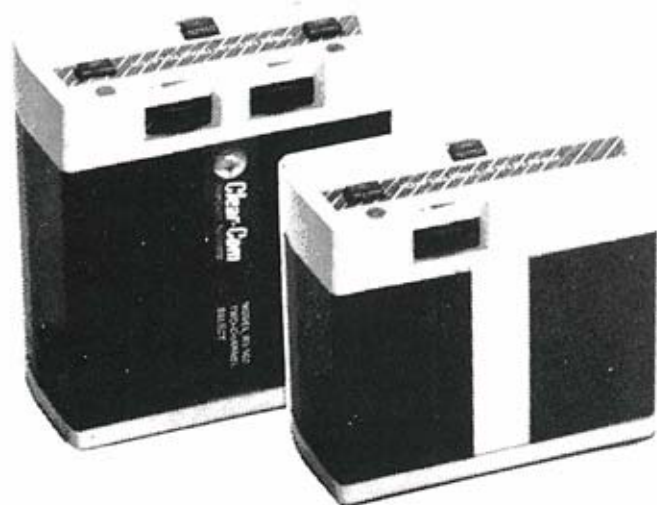
Rob Peck was busily expounding the virtues of bedroom mixing for Vestax in rather too close proximity to L+SI's booth for comfort. None of us had the itch to scratch. Is this an indication of the first sign of a generation gap emerging?



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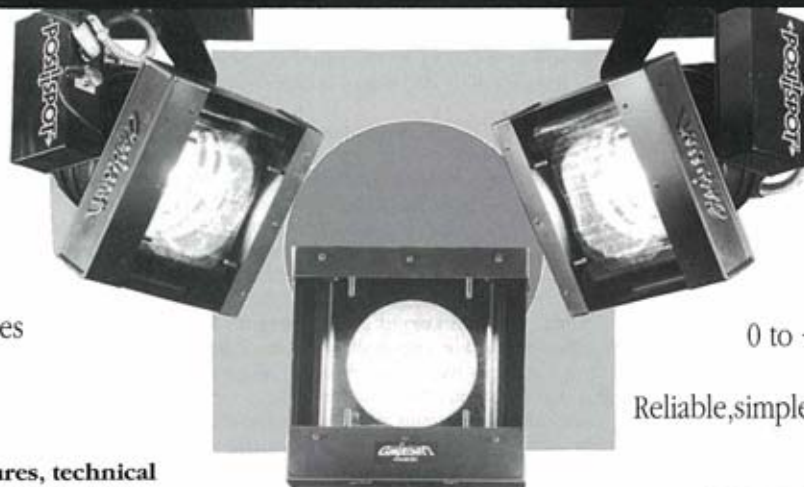
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WEST YORKSHIRE PLAYHOUSE

Francis Reid

Labelled as the last major producing theatre complex to be built this century, the West Yorkshire Playhouse is in some danger of being regarded as marking the end of an era. But I made my visit in the hope of finding indicators for the future rather than a curtain call for what was known in my youth as 'The Rep Movement'. I was not disappointed. This is certainly a playhouse for today. And one that stands a pretty good chance of serving a long tomorrow without inducing despair in its audiences, actors and technicians. This is because Leeds seems to have got the key pointers right: **scale and flexibility**.

A recurring difficulty of post-war theatre construction has been the frequency with which there have been marked differences of aspiration and philosophy between the commissioning client and the actual first users of the building. The key members of the Leeds team who opened the theatre, and who continue to run it, are those who wrote the brief, debated every pencil mark on every drawing with the design team, and eyeballed every detail of the daily construction process.

An unusual, indeed for Britain almost unique, feature was the use of a competition to select the architect. Having advised one of the competing teams, reviewed the results for the Architect's Journal and seen the result, how do I feel about the appointment of architects by competition rather than interview? On the basis of results justifying means, it has to be said that the end product at Leeds is certainly a happy one. Whether it is better or worse than the alternatives can never truly be known because so much detailed design development is geared to debate between architects, clients, consultants, planners and firemen and financiers. However, one must surely question so much creative energy (not to mention resources estimated to exceed half a million pounds of design time) being deployed on odds of nine to one against winning.



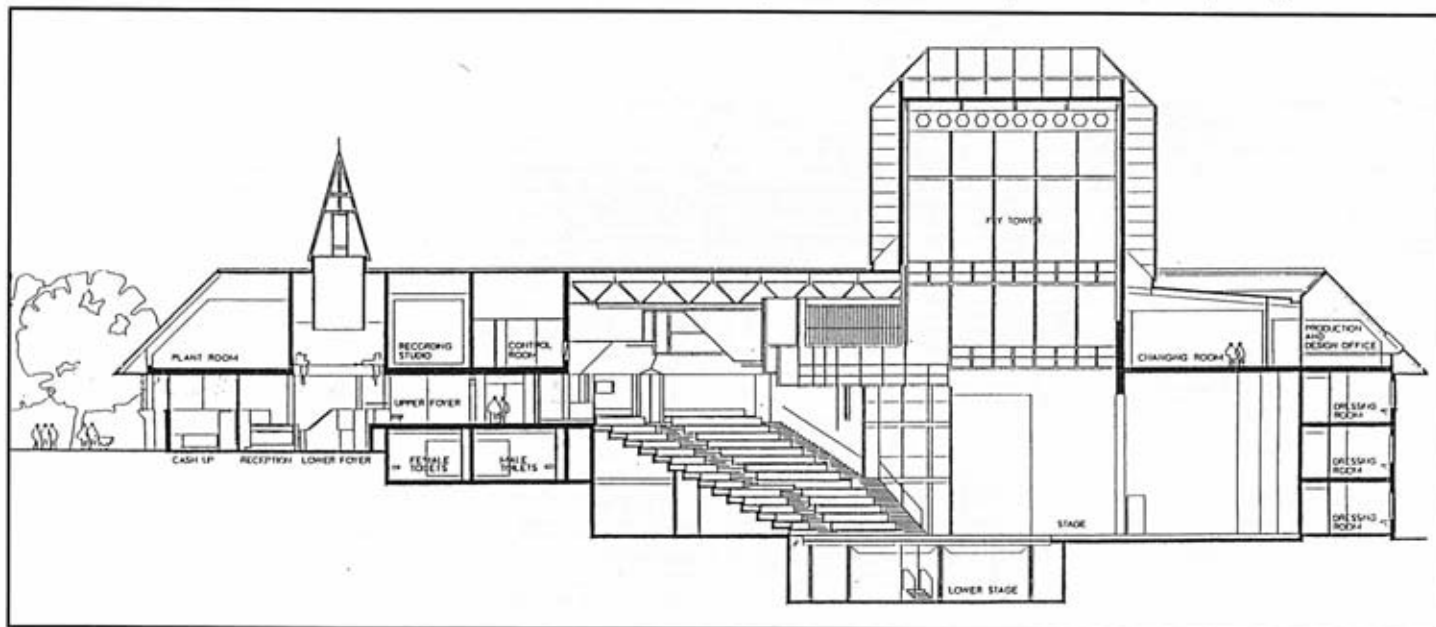
"the National Theatre that we failed to build on the South Bank."

The Grand Theatre, providing a base for Opera North and a home for major ballet and musical touring companies, is eminently suitable for all forms of lyric theatre. Consequently it has been possible to dedicate the facilities of the new complex to the specific needs of drama. A major first for a regional producing theatre is that both auditoria have equal status. West Yorkshire Playhouse is not cast in the conventional mode of main house and studio. The Quarry Theatre and The Courtyard Theatre are both main houses providing alternative environments appropriate to the staging styles chosen for particular productions.

The Quarry takes its name from the Quarry Hill flats, a mega housing estate

whose demolition provided a prime civic centre site for the new complex. It is cloned from the original Leeds Playhouse of 1970 — a temporary demountable theatre within a shell originally earmarked for a student sports hall but now to be retained by the University as an assembly and conference space. This provisional theatre was so successful with both actors and audiences that, under the leadership of the project's catalysing triumvirate (Board chairman Bernard Atha, artistic director John Harrison and executive director Will Weston), there was always a clear intent that its format should be fundamental to the concept of the new building. This has been achieved triumphantly.

Contemporary theatre architecture has often tended to be rather more successful within the constraints of adapting existing spaces than when exploiting the freedom of



open sites. In recreating the spirit of the original Leeds auditorium in a new space, whose dimensions could be chosen rather than imposed, much could have been lost. But I find only gain. The audience continue to be seated in the faceted blocks rather than continuous curves, and a small increase in auditorium width allows fewer rows while retaining the same capacity (750 seats). Flexibility in the tiers adjacent to the stage allows optional vomitories to be formed when required.

A major gain is the way technology has been used to enhance the design capability of the stage and make its technical management cost-effective. A 'D' shaped motorised wagon stage (13m deep \times 16m wide), capable of moving a distributed load of 25 tonnes and being flushed into the surface on a compensating elevator in the downstage position, allows the current production to be removed to provide a clear stage for rehearsal. (It is not easy to play Sunday one-nighters or rehearse elegant interiors on a shingle beach!).

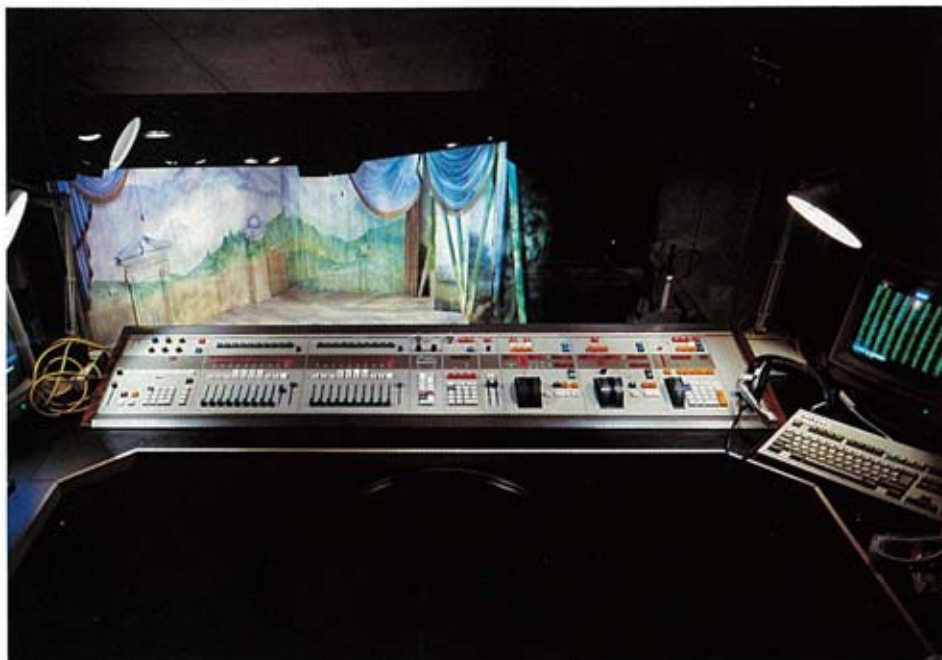
The wagon and elevator floor are

modular, with 34 1.2m \times 2.4m removable sections provided for trapping. A floor track along the centre line and a standard hand-operated truck winch in the basement allow a small scenic truck to be operated in the most commonly required mode, without the need to lay a raised floor. The fly tower over the main stage area provides 18.5m max flying height while there are 10m of suspension height available over the forestage. All bars are truss type with 55 single purchase sets running across stage and six double purchase running up/down stage. Rope locks are transferable to stage level, and all fly and intermediate galleries have timber pin rails with removable belaying pins for flexibility in tying-off handlines.

There has been growing realisation over the last couple of decades that the form which has become known as courtyard is the most flexible format available for theatre performances. In naming their alternative space the Courtyard Theatre, West Yorkshire Playhouse have promoted the word 'courtyard' to a generic status equivalent to opera house. I hope that Iain Mackintosh,

champion of the form in general and the word in particular, feels suitably elated. Courtyards adapt to most formats, particularly End Stage, Georgian, Traverse, Promenade and even Italianate Opera House. The one format which a courtyard cannot provide is the open thrust stage with fan seated auditorium, derived from the classical theatres of the Greeks and Romans. But that is precisely what the Quarry Theatre supplies, so Leeds has everything... with the possible exception of a true theatre-in-the-round which can only be contrived uneasily in a courtyard.

The Courtyard Theatre (seating around 350, depending on format) was not open when L+SI went to press and so we cannot whet reader's appetites with a photograph. But it has strong visual resonances with the National Theatre's Cottesloe, except that the ratio of width to length makes its auditorium tend towards a square feel rather than the Cottesloe's rectangle. The Cottesloe, although courtyard in form, is still a black box: but Leeds, with its coloured gallery fascias, reaffirms the increasingly universal



Both auditoriums have Strand Galaxy 3 systems and Green Ginger Dimmers.



The Quarry Theatre (right) and rehearsal room (above).



belief that neutrality is more complex than mere black paint.

The theatre room is flat floor throughout, but the basic format is end stage for which retractable bleacher seating is provided. The first three rows of seating are lowered on an elevator and modular units provide a raised stage. A grid over the stage area gives a maximum flying height of 9.8m with fly galleries at 5.5m and technical galleries at 8m above stage level. Suspension is by self-sustaining winch sets, but there are arrangements for installing temporary counterweights plus pin rails with removable belaying pins at 300mm centres. Over the area not covered by the grid, five RSJs offer winch and handline provision for alternative staging formats.

Lighting positions in both theatres are comprehensive and the inventory is a mix of the best of CCT, Strand and Thomas. And where the elox department felt that today's catalogues have gaps, they have had their golden oldies refurbished by White Light. Both theatres have Galaxy desks with Green



Ginger/Eurolight dimmers (2,450 in the Quarry and 120 in the Courtyard). An old panatrope operator like myself can only boggle at the size of the sound mixer, its superb open positioning and the soundproof casing of the Revoxes.

Carr and Angier were the stage machinery consultants and their detailing is full of imaginative touches. The theatre acted as their own theatre consultants with light and sound chiefs (Tim Thornally and Mic Pool) having a very positive input into the choice and installation of the equipment which they would subsequently have to use and maintain. Mike Brown masterminded the whole technology operation and has done a great job. As production manager of the original playhouse he built up a picture of exactly what was required: the theatre's directors and management are to be highly commended for giving him his head. They have been rewarded with systems which were not only cost-effective to install but, more importantly, will be cost-effective to operate.

The scope of tie-line provision is particularly comprehensive and every likely duct requirement for future and temporary cabling appears to have been foreseen. Communications are particularly well planned and Northern Light have taken yet another step in consolidating their role as master cuers, pagers and worklighters.

The West Yorkshire Playhouse is a fully comprehensive entertainment factory. A workshop block provides every construction facility and throughout the scenic, prop and wardrobe manufacturing areas there is concern for health and safety that sets new standards for our theatres. Another enhanced standard is that the comprehensive disabled facilities extend to the backstage area. Dressing rooms seem practical, look cosy, and have windows. The rehearsal room is stage sized, has roller shutter access to the scene dock and its own little greenroom.

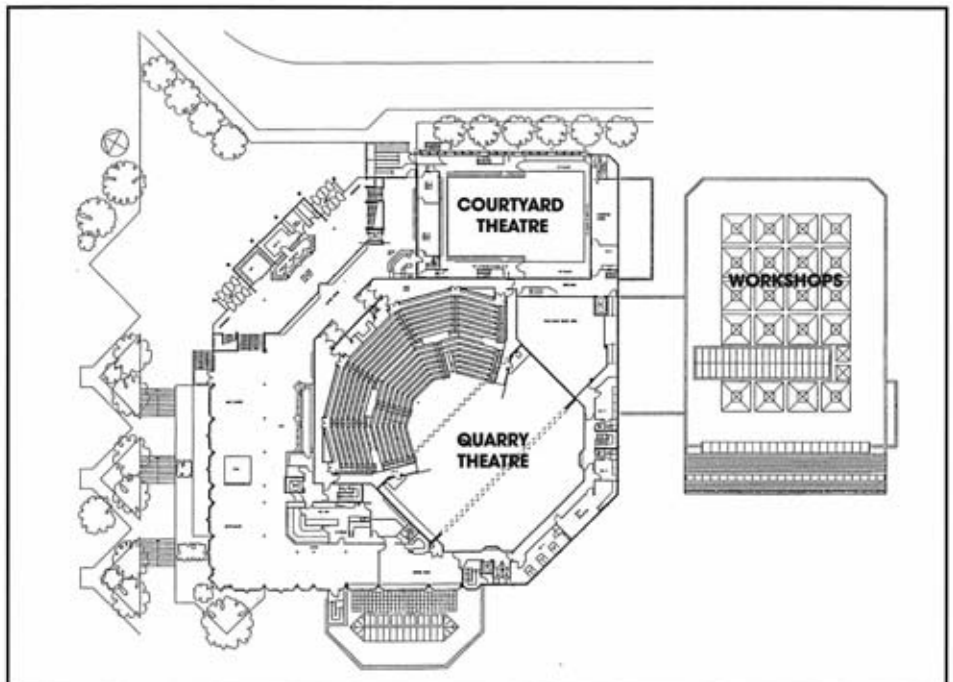
The huge bar and the bistro-style restaurant are ideally situated to building up lunchtime pub trade and can double as informal performance spaces. Two other rooms, linked to the catering facilities, can be hired during the day for meetings or used for entertainment by the sponsors without which no theatre is now permitted to function. The Box Office is open plan and exudes an air, still more rare in our theatres than it ought to be, of the customer being king.

And what of the architecture? The Appleton Partnership have provided a building that is very much of today. This is very positively a late 80s building and if its architectural style has something of the visual feel that we associate with supermarkets — well that's okay because we live in a market-oriented society to which theatre is increasingly having to pay more than just lip service. The whole building is a considerable relief from the concrete bunkers of the recent past. The flytower makes no apologies but stands in proud proclamation of its theatrical function. The banded brickwork has a feel of local industrial building traditions and the slate roof helps to bridge any theatre's inevitably uneasy gap between the institutional and the domestic. The building, generally, scores pretty highly on the 'come hither' scale.

Perhaps the greatest compliment I can offer to all concerned is to suggest that The West Yorkshire Playhouse is the National Theatre that we failed to build on the South Bank.



Michael Brown production manager and theatre technical adviser.



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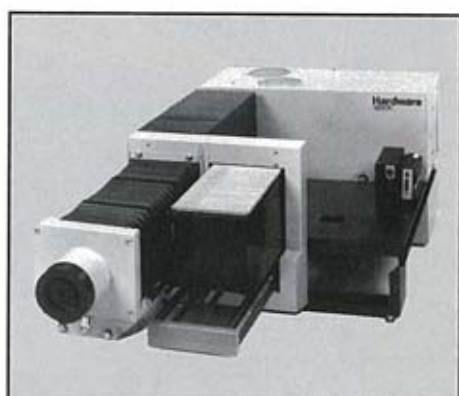
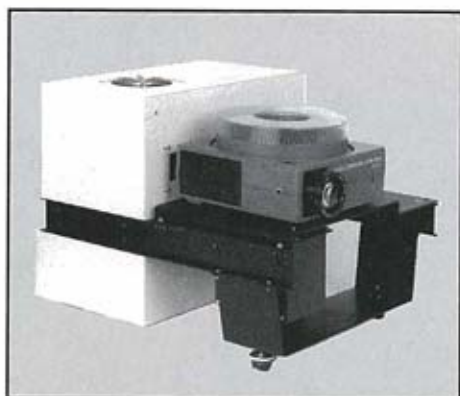
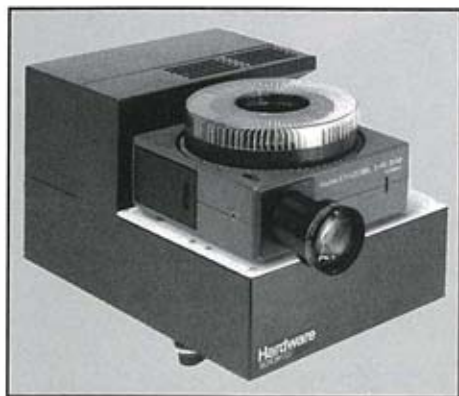
Architects: The Appleton Partnership
 Mechanical and electrical engineers:
 Ove Arup and Partners
 Quantity surveyors: Davis Langdon
 & Everest
 Stage machinery consultants: Carr
 & Angier
 Acoustic consultants: Sandy Brown
 Associates
 Theatre consultants: West Yorkshire
 Playhouse
 Technical advisor: Mike Brown
 Production lighting equipment:
 Tim Thornally
 Production sound equipment: Mic Pool
 Main contractor: Fairclough Building Ltd
 Stage machinery: Theatre Tech

Production lighting controls: Strand Lighting
 Paging & worklight systems, outlet panels:
 Northern Light
 Front of house area dimmers and controls:
 Northern Light
 Production dimmers: Eurolight/Ginger
 Production lighting patch panels: Eurolight
 House light dimmers and control: Eurolight
 Hill Audio sound controls: Pro Audio
 Amplifiers, tape recorders & outboard
 equipment: Pro Audio
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 Cable systems (Lighting): CLS
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PLASA News

Equity Meeting

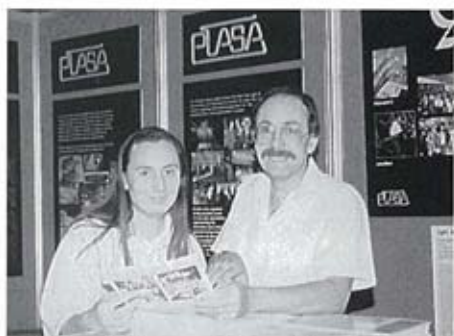
In quick response to concern regarding safety standards expressed by the actors' union Equity at their recent AGM, PLASA has supported member company JEM in arranging a meeting between Equity, ABTT and other interested parties (see News page 7). In particular, questions have been raised about the possible health hazards to performers from the smoke produced by fog/smoke machines. It is interesting to note that the same topic arose in 1984 when ABTT met with Equity, The Health and Safety Executive and The Theatres' National Committee. Although a working party was established, it seems the matter wasn't settled. With a push from PLASA, we hope a fresh initiative might be more successful.

PLASA has also pre-empted enquiries regarding the potential dangers from lighting rigs. Member company, Kenneth Burr Associates, have produced a safety manual which will shortly be available to all PLASA members.

Diary Dates

PLASA's Annual General Meeting will be held on the 10th July at 'The Blakemore' near Hitchin, Hertfordshire. Members will be sent full information soon.

Plans are underway to hold three or four PLASA 'get-togethers' each year, with seminars and/or workshops being a feature. It is intended that some free time be left for discussion/drink/chat for members to meet with other members. The first of these gatherings will be held on June 19th when the subject of discounting will be reviewed. On the same day, a meeting of the 'sound' sub-committee will take place under the chairmanship of Tony Kingsley.



PLASA chairman Kevin Hopcroft with interpreter Claudia Pratelli on stand at SIB in Rimini, April 1-4.

PLASA/L+SI Abroad

Representatives of both PLASA and Lighting and Sound International will be attending Showtech in Berlin (stand 12-13) and Expo Musica in Madrid. They will be promoting the Association, the PLASA show and the magazine whilst there, and look forward to meeting with any PLASA members visiting the event.

New at PLASA HQ

PLASA head office welcomes its latest team member, Mrs Annabel Williams, who will work alongside John Offord, Christine Sogno and Pam Revington. In recent months output from the office has vastly increased, and current new projects include establishing a technical book service, arranging a computerised information stand for visitors to the Light and Sound Show 90, and promoting subscription sales for L+SI.

Annabel will be joining Ruth Rossington to run the PLASA stand at Expo Musica in Madrid.

Exhibition Diary

SHOWTECH

May 8-10, 1990.
Berlin, West Germany.
Enquiries: AMK Berlin, Ausstellungs-Messe-Kongress GmbH Messedamm 22, D-1000 Berlin 19, West Germany.
Telephone: (30) 3038-1.

EXPO MUSICA

May 16-20, 1990.
Madrid, Spain.
Enquiries: IFEMA, Avda de Portugal, s/n Casa de Campo 28011 Madrid 1101.
Telephone: 470 10 14.

APRS

June 6-8, 1990.
Olympia 2, London.
Enquiries: APRS, 163a High Street, Rickmansworth, Hertfordshire WD3 1AY.
Telephone: (0923) 772907.

ABTT TRADE SHOW 90

June 28-30, 1990.
Riverside Studios, London.
Enquiries: ABTT, 4 Great Pulteney Street, London W1R 3DF.
Telephone: 01-434 3901.

PRO AUDIO ASIA 90

July 11-13, 1990.
Hong Kong Convention Centre
Enquiries: Business and Industrial Trade Fairs Ltd, 28/F Harbour Centre, 25 Harbour Road, Wanchai, Hong Kong
Telephone: 5-756333

PLASA LIGHT & SOUND SHOW

September 9-12, 1990.
Olympia 2, London.
Enquiries: David Street, 3D Services, 12 Brentford Business Centre, Commerce Road Middlesex TW8 8LG.
Telephone: 01-569 9742.

PHOTOKINA

October 3-9, 1990.
Cologne, West Germany.
UK Representative: Tony Pitman, 12/13 Suffolk Street, London SW1Y 4HG.
Telephone: 01-930 7251.

DISCOTEC/HOGATEC 90

November 5-9, 1990.
Messe Dusseldorf, Dusseldorf.
Enquiries: Dusseldorfer Messegesellschaft GmbH, NOWEA, Postfach 32 02 03 D-4000 Dusseldorf 30, West Germany.
Telephone: 0211 45 60 01.

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Tim Edwards finds, amongst other things,
a world 'first' at the

LIGHT WORKS

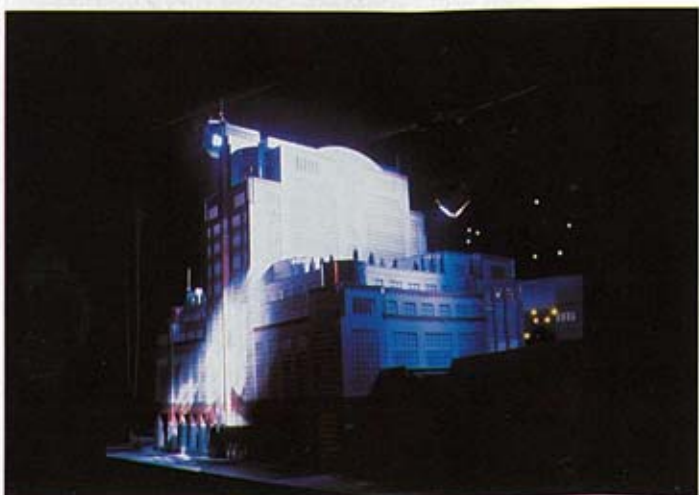
... read on ...

It was one of those days. Charlie Paton had asked me over to see the latest developments at Light Works Limited: I had been a former director and colleague. I chose a Friday so that the day would be a nice end to the week. Alas, the night before, I had got involved in a long discussion about poll tax, and why the average age of a London Marathon runner was 39, and this had taken up at least three bottles of fairly poor wine. And so, by the time I arrived at Light Works, I was somewhat the worse for wear.

The London-base of Light Works is to be found in Dalston, Hackney, and is well-served by cabs from Liverpool Street station. Put like this, it is not a long way out from the centre of town. If you are one of the petitioners for better public transport to the East End, then it is miles away. But the journey allows you to put away the humdrum, uninventive world and prepare for the Light Works' workshop.

There are always a number of visitors. Even through the pain, I spotted the familiar VAT

Inspectors. Customs and Excise regularly send two people round, not because of any irregularity in the accounting, but because their staff seem to find it fun. Freshly made coffee comes in lively Portuguese mugs, and erotic sculptures on the mantelpiece are mixed in with drawing boards as far as the eye can see. The boards themselves are covered with all kinds of brochures and magazines, wires, circuit boards, reports. Stacks of information of all kinds: a haven of invention and idea.



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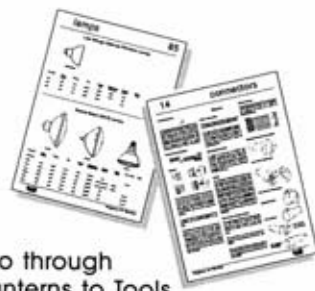
What makes the Rainbow so special is its speed and its quietness in use – faster and quieter than any rival product – combined with a versatility of colour which gives lighting designers a limitless creative range. The Rainbow's robust yet lightweight construction and ease of maintenance also make it a must for concert and touring companies.

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Some of these ideas are plainly ludicrous. Whoever heard of the idea of moving lights? We can all accept that the sun moves round the earth, which is suitably flat, so that the shadows continually change from long and faint to short and dark — and back again. But not for the conservative theatre, surely? Charlie Paton's original idea was to control a series of Par 46s with motorcycle brake cables: the patent office thought this suitably wacky, so they awarded a patent with few questions asked.

Subsequently, we have all found the great truth. Which is: that everyone wants moving lights, and they want them fast! This is not to say that they want them about five minutes after the placing of the order, because as we all know the theatre has a limited amount of money. No, the consumers want lights which rotate quickly about each axis. And change colour, please.

Light Works graduated from motorcycle cables as Paton's supply of old Norton Commanders began to dry up. In due course the company developed the PALS system which is now manufactured and marketed exclusively by Strand Lighting Limited. PALS is distinguished by its accuracy of movement, and the flexibility of its data protocol, which is currently being promoted by Strand as the SMX industry standard, and therefore available to all.

This all came flooding back as I was recovering my senses, thanks to the fresh coffee, and the odd question from each of the VAT men. But before hearing of the latest developments I went off to play with a few of the toys. The workshop at Greenwood Road is full of bits and pieces from the lighting industry. In amongst the tools, the pillar drill and the lathe are various remnants from the past: old mirror balls, strange gobos, a rejuvenated Pageant, and one of the celebrated 264s, alongside bits of electronics being developed for current projects.

Downstairs, at the back of the workshop, everything was set up for a slide show. "What's this?" I asked, pointing to a very smart-looking device which I am sure had once been a Kodak Carousel. It turned out to be one of the new Light Works Daylight projectors. Merlin Milner, who is the mechanical design engineer, hastily found a power lead, switched on, and... "Wow!" there was this extraordinary fresh blue sky projected cleanly onto a screen at the other end of the workshop. It looked just like the sky outside. Further slides of flowers and rivers revealed more strong, clear, real colours. It was quite a strange experience. You think one slide projector is much like another, and to a large extent that is true, because they all share roughly the same light source — it has been only the quality of the optics which has separated them.

Light Works got together with Philips to use their new MSR lamp and then obtained permission from Kodak and Hasselblad to convert their existing projectors as specials (in the same way, I suppose, that Cosworth jazz up Ford cars). The result was the projector which was my new-found enthusiasm.

It transpires that Charlie Paton first met Martin Christidis of Philips at ABTT many years ago, but the serious discussion about the use of discharge lamps only happened while ballooning around Wiltshire. Christidis is the chief pilot of the Philips hot air balloon known (rather inventively) as Compact Disc. They discussed discharge lamps at length, until it was time to come down.

In due course, when Philips were about to release the MSR they let a few select members of the industry have some pre-production samples, and Light Works was one of these companies. The lamp is at the heart of both the Light Works Daylight projectors: the Kodak Carousel version and the Hasselblad PCP80 version. In reality, the MSR lamp more than



One of Light Works' Daylight projectors — the Kodak Carousel.

doubles the screen brightness, and with a colour temperature of 5,600k this gives a true daylight feel to the slides. Since photographers go to some lengths to capture locations in the right natural light, it makes sense to reproduce them in the same way. These projectors give remarkably realistic colour rendition.

The Philips MSR lamp is a more compact light source than the usual tungsten halogen bulb, and this leads to a sharper high resolution image. The lamp also gives ten times the life of a standard tungsten bulb which is a useful feature in some of the more semi-permanent

installations.

The engineering work on the projectors is very neat. The units are attractive to look at in a gun-metal grey. The dark colour prevents the machine from looking too grubby after only a short amount of handling. The basic projector units have been extended by a housing which contains the electronics and fan cooling for the new MSR lamp. The standard projectors can also be fitted with a useful mechanical fader, which works like an iris and can be controlled electronically from either the standard Carousel side connector or from a 0V to 10V input.

These mechanical additions do not disturb the overall footprint of the machines so that they can still be stacked for multi-image projection. Furthermore, for the Carousel series, compatibility with all existing control and dissolve units is preserved. I was not surprised to hear that the company had already received some strong enquiries.

"So what else?" I asked somewhat churlishly. After all, I had come to see the developments (plural) and one was not enough: I expect at least two or three new ideas from Light Works every six months. Charlie Paton then explained to me his latest designs for the lighting of architectural models. It seems that this is one of the new methods being employed by property developers to market their properties. For large developments, a suitably complicated architectural model excites everyone, from the financiers putting up the money at the start, to the individuals and businesses seeking to enjoy



Charlie Paton: making light work.



The Carlton Gate development: the use of lighting is intended to catch the client's imagination.

the space once it is built. Modelling the space in three dimensions makes it much easier to perceive as a working or living space.

The next step in making the models even more lifelike is to vary the lighting states from dawn to dusk. "Actually, from dawn through to day, through day to dusk, and then through dusk to night," expanded Paton. Further realism on one model was provided by having the interior light in the largest office in the building remain on until last, before finally extinguishing in the middle of the night. "The Chairman finally going home," explained Charlie. Not like anyone I had ever worked for, I thought.

Other effects included fibre optic stars and street lights, various interior lighting schemes (within the models), and in one case, control of the trains that went under the building so that they ran according to a timetable, with peak

movements in the morning and afternoon rush hours.

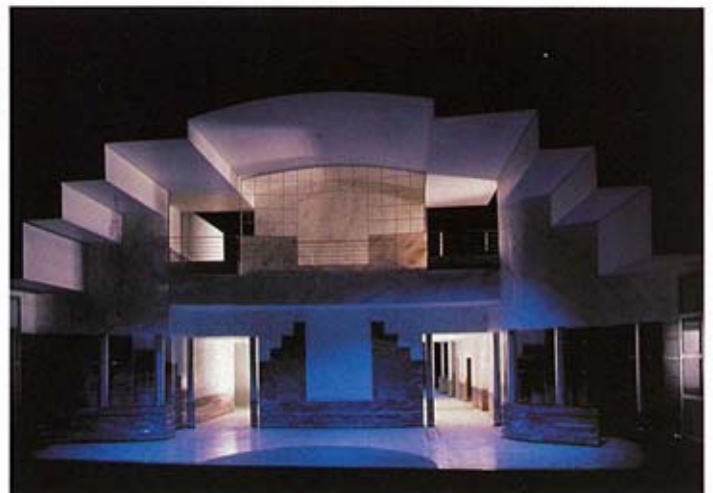
The lighting states went automatically through their cycles, but this process could also be manually overridden so that the properties could be viewed at specific times of the day. For one large development, individual units within the scheme could be dialled up from a plan and pinpointed by a small light source. This allowed prospective purchasers to identify their property in relation to the overall site. A sort of follow spot for property.

The lighting design at micro level is very effective. It is quite an achievement to organise this degree of control. By using a programmable logic controller hooked up to Environ dimmers, Light Works were able to build a low-cost memory lighting controller, without the high price and rows of buttons. The company were

also able to deal separately with the concepts of timing and lighting states. This meant that programmed cross fades could be linked to soundtracks. Light Works have lit three large scale architectural models to date, and their clients are extremely pleased because the customers are suitably impressed.

After hearing about these two developments, and some others in the pipeline, my head was now clear. The only thing missing in the set-up was some decent task lighting in the workshop. Maybe that's next.

Tim Edwards is a former director of Light Works Limited. He is currently managing director of BBRK Group Limited, a small group of private companies providing services to the film, television and advertising industries. He is a regular writer for computer magazines.



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Carlsbro go Ritzy

Mecca Entertainment took the bold step of spending £1 million on an advertising campaign earlier this year. The theme of the campaign was centred around their Ritzy nightclubs, and involved all nine located in the Central TV region.

A company that has been closely involved in the nightclub revolution is Carlsbro Technical Services. At the latest opening of a Ritzy nightclub, this time in Streatham, South London, C.T.S.'s Ivor Green is seen pictured above (right) with Mecca Entertainments managing director Tony Marshall.

Ivor Green and Keith Woodcock, literally just off the plane from SIB Rimini, spoke of the Ritzy concept as a theme that C.T.S. had developed with Mecca Entertainments over the past two years.

Effects Lighting

Effects Lighting of Leicester have been extremely busy recently, both as electrical contractors and as installers. On the electrical side they have just completed contracts at Hollywood Bowl, Tottenham; Roller Bowl, Romford and the Super Bowl in Stafford — all bowling rinks.

On the discotheque front they have just finished refurbishing, as well as undertaking all the electrical contracting on a number of venues for First Leisure. Namely, Oz, Central Pier Blackpool; Aquarius, Windermere; Roxy, Trecco Bay Leisure Park and Peppermint Place,

Blackburn. Other contracts recently completed include the Cafe Bar, Milton Keynes and the Windows on the World at the London Hilton Hotel.

Avitec/Jasco Appointed

Avitec Electronics and Jasco Light and Sound Ltd have been appointed by Entertainment Concepts Ltd of Harrogate to supply and install the sound and lighting for 'The Institute' in Digbeth, Birmingham, which is due to open in July.

More Avitec

Avitec have just completed two installations, both of them for local authorities. Lea Valley Council were the client for the Picketts Lock Leisure Centre. Avitec installed the lighting in the Great Hall, which has been converted into a roller skating rink.

The installation included: two JEM ZR20 smoke machines, four Gamma intelligent lighting LiteMover projectors, three Kremesa lighting effects — two CR10/10 supers, 20 lamp helicopters and one Tango centrepiece.

The company's second installation was for Welwyn and Hatfield council at Rollercity, which is part of the Campus West complex. Again, the hall which had been used as a multi-purpose venue, has been converted into a roller rink at an estimated cost of £500,000.

Avitec supplied a Cerwin Vega sound system, with Beta Sound processing equipment. Neon Lite Associates supplied the Trilite rigging, Par cans and 'lots of neon'.

JBL at Wembley

Following on from our list of winners published last month we can now reveal the facts and figures about the sound system used at this year's World DJ Championships held at Wembley Arena. JBL considered it a significant coup to be offered this DJ Championships.

Apart from the difficulties inherent in the venue, PA company Roadstar, working alongside JBL, had to take into account the restrictions imposed by the video company who wanted an unobstructed view of the stage which was set 'in the round'.

In just eight hours, the JBL/Roadstar team erected a rig that comprised two main clusters of custom-built Electrotech cabinets using JBL components, flown at either end of the stage.

On the ground they had a wall of the new JBL Sound Power 4788 triple chamber bandpass enclosures, providing 15,000 Watts of sub bass. Auxiliary sound power units were placed around the stage, and JBL monitors were used on the stage.

An estimated audience of 10,000 witnessed the spectacular and the 60,000 Watt JBL sound system certainly made its mark.

SEDA 90

The South East Discotheque Association (SEDA) inform me that all stand space for their forthcoming exhibition, to be held at the Woodville Halls, Gravesend, Kent is sold out. The exhibition, which takes place on Sunday, June 3rd will open at 12.00 noon and run until 6.00pm.



Stage set for the 1990 Technics World DJ Championships at Wembley Arena.

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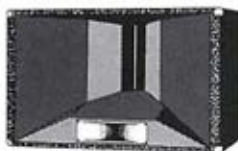
DSM-200

"Dual Spruce Moose" Mid/High Cabinet

QUALIFICATIONS: Twin M-162 2in. exit compression drivers, one titanium TI-11in. compression driver. A controlled and wide 90°x40° horn. Astonishing efficiency, 111dB at 1 watt/1 metre, with low distortion, <0.3%. Built-in crossover, full-HF unit protection. 200Hz-18kHz.

EXPERIENCE: High quality, high intensity music reproduction, ceiling mounted, in conjunction with Cerwin-Vega bass cabinets in medium to large venues. Popular choice for vocal reproduction and side-fill monitoring.

SALARY REQUIRED: A one-off payment of £800.00 employs the ultimate high intensity mid/high cabinet!



D-32C

3-way Mid/High Cabinet

QUALIFICATIONS: Twin ER124 12in. cone drivers in short exponential horn, one JMH-1 1in. compression driver in a controlled 60°x40° horn, one H-25 tweeter, High efficiency, 106dB 1watt/1metre, 150Hz-16kHz. Full protection. Built-in crossovers with full auto-protection on HF components. Trapezoidal cabinet shape.

EXPERIENCE: High quality, high intensity music reproduction and sound reinforcement in conjunction with Cerwin-Vega bass cabinets. Arrayability, long throw capability and controlled midrange dispersion has allowed use in the largest acoustically-hostile environment. Popular choice for vocal reproduction and side-fill monitoring.

SALARY REQUIRED: A one-off payment of £580.00 employs the ultimate long-throw mid/high cabinet.



B-36A

Compact Folded Bass Horn

QUALIFICATIONS: Single 188EB 18in. driver with 3in. voice coil, handling 300W. High output. 103dB 1watt/1metre, extended response down to 40Hz. Compact dimensions, 915mm x 610mm x 622mm. Integral wheels.

EXPERIENCE: Popular in arrays of two or four, in conjunction with Cerwin-Vega mid/high cabinets, for touring sound reinforcement or discotheque and any installation where "trouser-flapping" low bass in a compact enclosure is required.

SALARY REQUIRED: A one-off payment of £466.00 employs the ultimate compact bass horn!



B-119

Compact Direct Radiating Bass Cabinet

QUALIFICATIONS: Single 188EB 18in. driver with 3in. voice coil, handling 300W, in a direct radiating vented enclosure. High output, 101dB 1watt/1metre, 40Hz-2kHz. Compact dimensions, 915mm x 610mm x 405mm.

EXPERIENCE: A versatile performer and a popular addition to any sound system where smooth, uncoloured bass extension is required — arrayed in multiples for discotheque installations or singly for bass guitar and keyboard reproduction.

SALARY REQUIRED: A one-off payment of £365.00 employs the ultimate versatile direct bass radiator!



Pro Range - CVX 153

Compact Full-range Cabinet

QUALIFICATIONS: Direct radiating 153T 15in. cone driver, horn loaded M162 2in. exit compression driver and 90°x40° horn loaded 1in. exit Ti-1 titanium compression driver. High output, full range 100dB 1watt./1 metre. Super-strong cabinet construction and compact dimensions, 880mm x 610mm x 610mm.

EXPERIENCE: Keyboard monitor, drum monitor, video shoot playback, mobile discotheque, compact touring PA, flown in discotheque installations in conjunction with additional Cerwin-Vega bass units — anywhere where compact, full-range; high power, high quality music reproduction is required.

SALARY REQUIRED: A one-off payment of £1083.00 employs the ultimate compact full-range cabinet.



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Shown here are just a selection of the range of Cerwin-Vega speaker cabinets available from the Avitec sound department. Cerwin-Vega from Avitec has a product for every application and every budget, and Avitec have the expertise and experience to recommend the right product for your situation. Contact the Avitec sound department now, and let us show you our C.V.'s!

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ROSCO: UK and INTERNATIONAL

Active listening, dialogue and quick product response and service: John Offord gets the background from Michael Hall, MD of Roscolab Limited

You have a light source — a beam of any sort from a lantern of any sort. You may be able to move it, dim it or alter its shape. But either before or at the point it hits an object, Rosco will often have been responsible for interfering with it. They will have coloured or changed it in some other way or put a smoke screen up en route, and at the stage end there's a fair chance it will hit something that is either a Rosco product or at least painted with something from a Rosco tin.

For many years one of the standard industry names, Rosco, as we know it, started in the States in 1958. President Stan Miller bought a small New York company, Rosco Laboratories, and started to develop the corporation that exists today. Ten years on he had aspirations to be an international operation and set about seeking agencies in England and France. In England Richard Pilbrow's Theatre Projects became the importer of Roscolene, an acetate-based gel that had largely displaced Cinemoid in the USA.

"In the mid seventies it was decided to create a formal company structure in the UK," explained Michael Hall. "Previously the concept was to 'create demand' and for dealers to import, but it soon became impractical to offer the users a very fast response, so Rosco needed a company with stocks to provide a local resource for the dealers and users.

"We acquired small premises on the South Bank in London, near the National Theatre, and started in the traditional way of a small company. One person did everything, and that experience for me certainly speeded up the learning curve of creating a company.

"The climate for Rosco was slightly daunting. There was a strong Strand presence, a young Lee Filters company, low prices and the Cinemoid philosophy of colour numbers and names. We had different materials, and most important, different colours and different names. All we had to offer was service!"

The purpose of the enlarged company was initially to service UK needs and to introduce other diverse product ranges — broadly known as consumables — in the first instance to the UK and then to Western and Eastern Europe.

"Over a number of years we have built up a network of stocking dealers throughout the EC countries, the Middle East and South Africa," continued Michael Hall, "and these dealers are involved in serving the performing arts, either theatre, television or film — mostly in connection with lighting and other production needs.

"For instance, our Portuguese dealer went across to Madrid to form a fully-owned Rosco subsidiary — Rosco Espana — now with a network of dealers across Spain. We also formed a branch in Lisbon. Rosco Laboratories Inc in New York are responsible for the marketing and servicing of the Americas, Japan and the Pacific Rim. In Japan



Steve Miller (left) with Michael Hall at LDI International 89 at Nashville.

we also have an associate company."

Rosco's staff policy and people philosophy is deliberate, and possibly unique.

"Apart from administrators and accountants, everyone has had previous involvement in the performing arts or a comparable skill," said Michael Hall. "So Peter Edwards, an expatriate Englishman who heads up Rosco in Canada, is a lighting designer, and twice Emmy Award-winning ex-head of lighting from CFTO of Toronto. Pedro d'Amorim in Spain was a working professional lighting cameraman, but he has largely dropped that for a 'regular' life with Rosco. Two other direct Rosco employees live in Florence and Belgrade: one a Broadway lighting designer, the other an underwater cameraman! It seems to

happen that where a Rosco person lives and operates, demand for Rosco products follows."

The Rosco company has shown growth from \$50,000 in 1958 when Stan Miller bought the small company to over \$25,000,000 this year. I asked how products had been developed over the 30-plus years from start-up.

"It is sometimes hard to tell whether Rosco has created growth or whether we have associated ourselves with a trend. And there are two aspects: product, and the business of distribution.

"On the question of product, let's take the filter market; put crudely the intervention of coloured plastic between the object and the light source, either for image recording or live performance. The whole of the lighting



Jackie Turner in Rosco's Scroll department.



Michael Hall: "I had been in the lighting industry, both in manufacturing and as a lighting engineer working with GEC in the USA, and the decision to set up a company in the UK was really decided on the basis of one dinner with Stan Miller. We liked each other and decided to set the company up. Then he walked away. This is typical of the company style of autonomous but responsively close-linked companies."

industry is such a small sector, and it is rarely possible to introduce bulk manufacturing technology in our industry.

"However, the sixties and seventies saw fundamental changes in plastics and dye technology, and we have been fortunate in being able to capitalise on these changes with our own plant and facilities. For instance, our search for a plastic base to carry dye to resist high temperature and to be made more non-flammable than polyester bases, led us to the concept of extruding dyed-in-the-mass polycarbonate. And in the last few years we have refined the technique even further by using a co-extrusion system that helps lock the colour in.

"But the real growth of the product comes from either perceiving the need of lighting

designers, or them identifying it for us, and then seeking a solution to a problem. In the early days of film for instance, great film makers like D W Griffiths used acres of raw silk to diffuse the quality of the available light. The need of diffusion materials stayed, and we produced a range of various diffusion materials to replace the miscellany of materials that were currently in use.

"In theatre we introduced a range of diffusion and actually haven't finished introducing the products in the diffusion area for Supergel, the extruded polycarbonate product. Some of these match the directional quality of silk, some embody colour as well, and some just provide the merest hint of diffusion to mask any optic aberrations in spotlights.

"Although Supergel polycarbonate is currently state-of-the-art, we maintain intensive research on alternative and future technologies. However, the older technologies never completely disappear. For many years in the States we produced a large range of gelatine-based colour media which were widely used in schools, and it is only in the last few years that one of the West Coast Television stations stopped using them on cyc lights. The next development after gelatin was in cast or extruded acetate. Cinemoid from Strand in the UK, and Roscolene from Rosco in the US. The production of clear polyester film by ICI in the 1960s permitted another radical change in the filter technology and the use of polyester continues today as a common base for filters."

Rosco's main plant is based in New Jersey and under close control from head office in Port Chester. A small plant was recently set up on the West Coast to manufacture an increasingly diverse range of fog machines

and other special effects products. Bulk shipments to the group's major facilities are made from these points. Local availability based on a theme of service Michael Hall regards as an essential characteristic of Rosco, and some engineering work on fog machines and conversion of colour filters from bulk form, is carried out in various Rosco international facilities to suit local needs.

Dialogue with designers and users is one of the essential aspects of Rosco. I asked Mike Hall how this takes place.

"It happens on several levels around the world. One of our important product ranges is Cinegel, a family of filters for light control in film and video, and we won an Academy Award for the creation of this range some years ago. Initially, the filters enable cinematographers to qualify light, to change colour temperature and colour balance and reduce brightness. Later ranges of filters handle the emerging ranges of discharge lamps used in film and television and reflection and diffusion products.

"Vittorio Storaro, the distinguished director of photography for the award-winning 'The Last Emperor', needed a particular quality of diffusion without 'warming' the light in large panels but which wouldn't create problems for the sound man. We developed a special product called Silent Frost specifically for him, but it is now in the product range. In this range there are some 15 different diffusion quality materials developed mostly for specific needs.

"In Europe we developed a special artificial sky 60m X 8m to light the whole set of 'The Shining' behind which there were 1,000 Par 64 lamps, harnessing our experience in making large projection screens.

"For the theatre and television our flagship is Supergel. We have a policy of introducing several new colours every year reflecting the needs of designers world-wide. For instance, we were driven into the very dark low light transmission Blues in Supergel which were needed by Tharon Musser for 'Chorus Line'. Extending the range into Lavenders owes much to the late Gill Helmsley's exploration of warm and cool Lavenders. Francis Reid pushes us towards lighter and lighter Hamburg Frosts. David Taylor is fascinated



Kate Burgoyne: sales, marketing and Paint Frame manager.



Joanna Butler: international sales manager.

with the saturated Pinks — the dialogue is continuous.

"Culturally, the demand for colour is not universal. In Spain the most popular colour is in the Rose Indigo/Purple area where it is widely used in the Flamenco style of presentation."

The Rosco 'dialogue' happens worldwide. Much of the origination for the film industry occurs in Hollywood, but often products develop in overseas facilities because of in-house skills. In London Rosco have developed a range of products for grip equipment. These are the large frames up to 20ft square which carry diffusion for location work, are marketable around the world, and part of the company's commitment to growth.

'Colour' of all sorts covers about half of Rosco's turnover. I asked Michael Hall where the rest came from, and in which areas they are pushing for growth.

"An important thrust in Rosco growth is the development of new products as a continuous philosophy. Where possible we use in-house manufacturing skills and facilities: for instance, the vacuum metalising plant that is used for making reflectors for the film industry is also used on the decorative Designer product range techniques for aluminising non-flammable surfaces, creating colour and texture and illusion, for instance diffraction, and we are now exploring the logical step of hologram technology. We also have an interest in stage textiles having acquired a tiny mill on Rhode Island. Out of this a range of woven products has developed.

"For some time we marketed screen materials and screens, and when we needed to move from our cramped quarters in Central London and came to Sydenham with five times the space, it was a good time to move in an associate company to produce screens. We also needed a wide-width material and have just launched a 2.4m seamless width range of rear and front screens. From this facility we are developing other products that are needed in the theatre and television, for instance on-stage Chroma Key water tanks, Fog Bags, etc.

"Scenic paint was a need identified nearly



John Riddell: UK regional sales.



Jackie Turner and Robert Achlimbari (UK sales) putting the Rosco 'dialogue' into practice.

10 years ago. The range has grown and includes successful theatre scenery paint ranges plus special products for UV fluorescent and Chroma Key for television."

As reported in recent editions of L+SI, Rosco's new building has enabled them to create a Paint Frame — opened in November 1989. It has been in continuous use ever since. In Europe the prevailing practice is to paint large sets and drops horizontally, but English scenic artists evidently prefer the vertical approach, and that's what Rosco provided.

"Our fog product range was a question of being in the right place at the right time," continued Michael Hall. "In a very short space of time fog was needed everywhere there is lighting for the Performing Arts. We now can control fog in its density, weight, colour, scent, etc and it is used for some scientific purposes and for fire training as well as the conventional Performing Art application. At present the direction seems

to be specialised engineering for theme parks and the like.

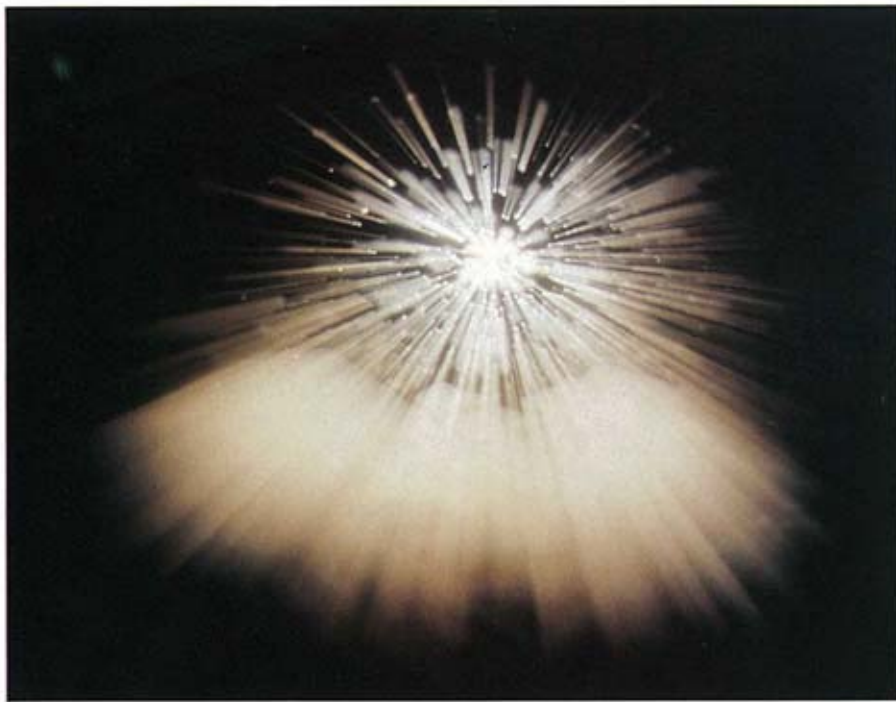
"Back to filters, scrolls have become a popular way of using several different colours on one light without having to dedicate that light to one colour gel. We recently set up a small scroll making department; a simple exercise of precision cutting initially and sticking magnetised sensitizers. This has inevitably grown to a more complex and sophisticated form, and there is lots of product development in this area."

Distribution can be a headache at the best of times, but huge rolls or sheets of colour and other scenic devices can pose special problems. I questioned Michael Hall on how they had achieved this fast response to many complicated orders.

"One of the changes that we think we have innovated and participated in is the development of the theatre dealer — initially in the US, but the concept is spreading.



The November launch of the Rosco Paint Frame reflected the company's commitment to offering the complete service.



Recently a lighting designer needed a contained wall of fog and from this idea Rosco developed the concept of a three dimensional screen, which can be integrated into a set, or as a full proscenium width element. Fog is pumped in and by controlling the density a 3 dimensional screen is located giving laser like effects. Test pictures shown here were taken by John Offord in Rosco's HQ development/showroom area.



Robert Stottard and Steve Waite in the Fog Engineering department.

Rosco has an enormous range of products and coupled with all the other expandables and lighting and sound equipment and associated stage work, there is an ever-increasing shortage of time where people are concerned with the logistics of getting product to them. Film makers anywhere in the world expect to find our products locally. So we helped, perhaps, to create marketing professionally of theatre and associated products world-wide. Often the skilled distributors are theatre technicians who branch out on their own, and we've helped develop them as marketeers – even to the point where people are beginning to have complete ranges of equipment for the theatre business. Rosco feel proud to be part of that."

The internal discussion on such matters is interesting. Michael Hall again: "The management of the associated companies meet several times a year for brainstorming sessions where we share all experiences, new product ideas and performance of launched products. There is always a good interchange of people between the companies and world-wide territories and an annual meeting where all the sales and marketing people meet for several days.

"The associated companies are largely autonomous on the core products. Colour filters, gobos, fog and paint are universal even if perhaps packaged differently. If needs or product or service are identified for instance in Europe, we source either in our own company or outside for the product. At present 40% of the business of Rosco is made outside the US and that is still growing. The way we work internally is that everyone has unlimited opportunities for freedom matched only by an equal amount of responsibility. And David Sugg as general manager has to focus on information technology to make the impossible demand of service actually happen.

"Joanna Butler's sales group, in the UK, has Robert Achlimbari and John Riddell, both of whom came from the theatre and maintain working links. Kate Burgoyne joined us from Donmar and became responsible, on her first day, for the marketing of the Paint Frame."

Finally, I asked Michael Hall how he and Rosco look at the future.

"Rosco is essentially a niche marketing company and we have no doubt at all that around the world the performing arts is a growth business: in live theatre, dance and film and television and video, theme parks and clubs. Everywhere there is a heightening of 'production values' and that is our niche coupled with a strong 'service' culture.

"Our 'mission statement' has always been 'to produce safe products', and this is becoming ever more important. There is an increasing awareness of Health and Safety, not only in legislation but from performers and technicians. We spend a lot of time and direct resources ensuring that Rosco products conform and even exceed the Safety needs.

"It is clear that if Rosco keeps its world-wide policy of active listening and dialogue followed by a quick response of products with service, coupled with the assured industry growth, then we **have** to grow. There's no finite limit."

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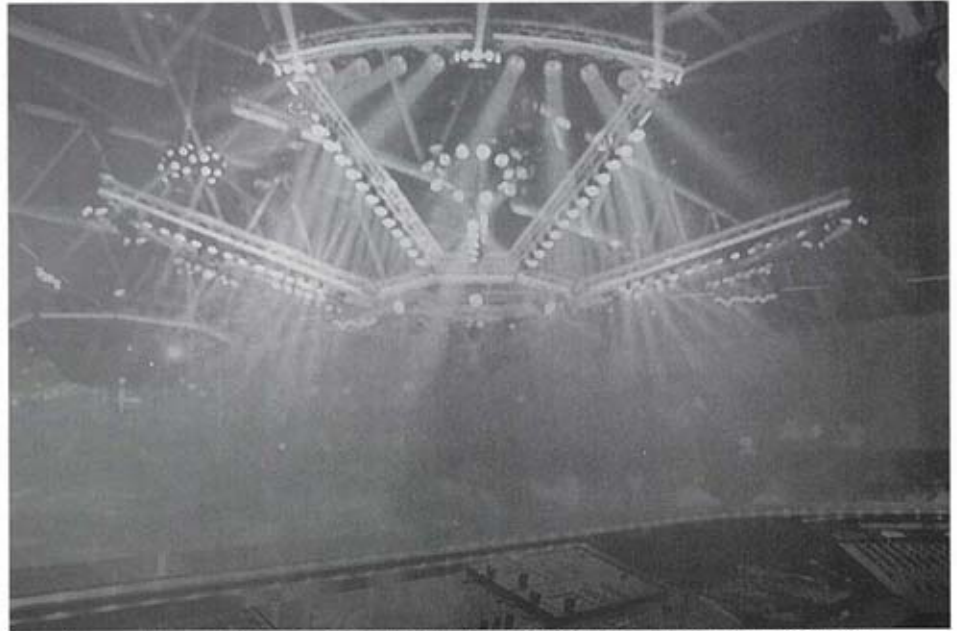
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ROLLERS — MILTON KEYNES

Vincent Rice visits the latest roller rink to be added to Big R Leisure's growing entertainment venue portfolio

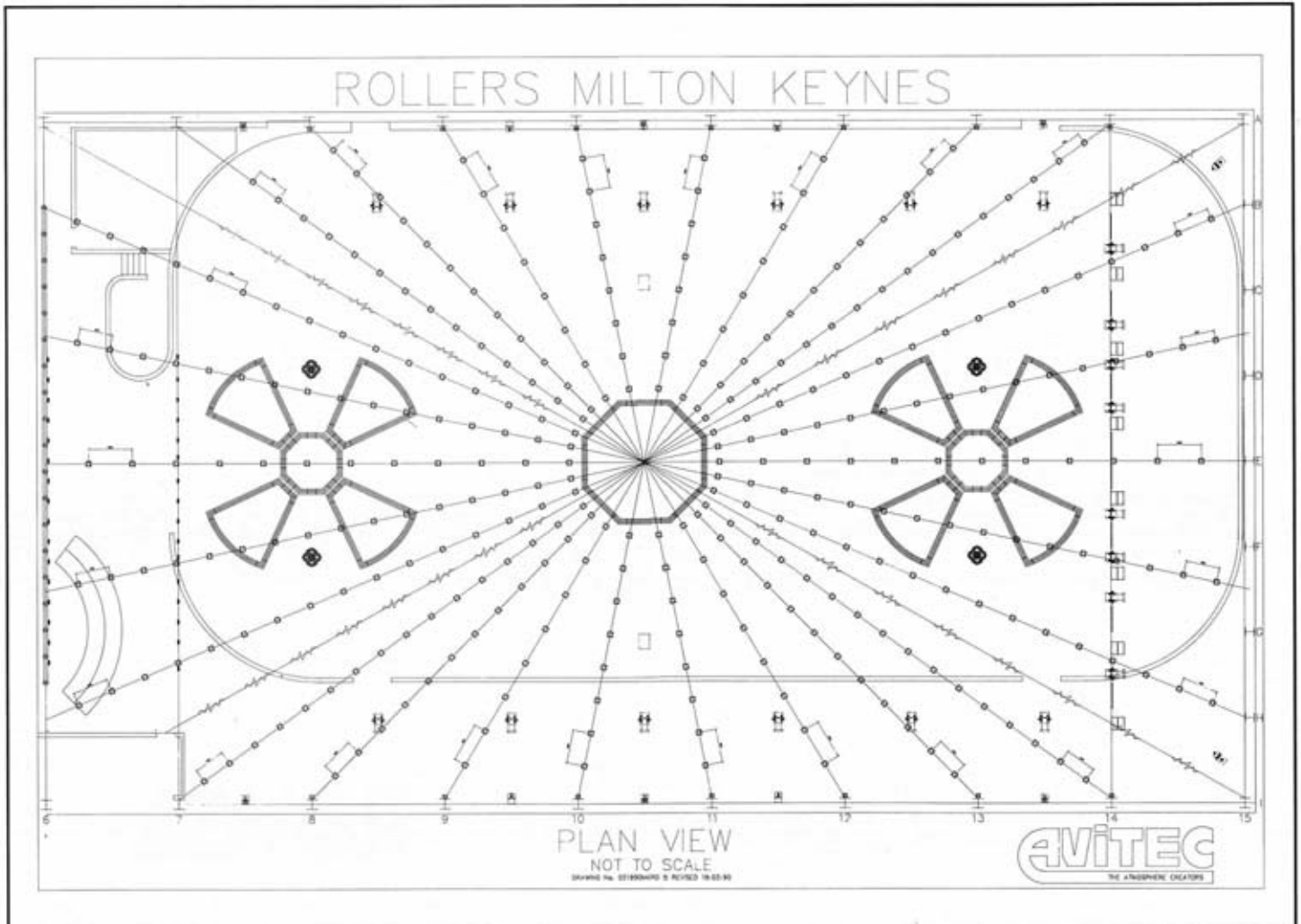
Milton Keynes isn't so bad you know. There are plenty of trees and green spaces and plenty of that low-rise apologetic late-modernist industrial architecture that hides its embarrassment by the addition of gentle bay windows and gaily coloured arches. As a town planning exercise it is, of course, a disaster. Like some green-belt Los Angeles there is no discernible centre. You can't tell where you are without looking at the road numbers and you need a car to get anywhere. Prince Charles will not be moving here. The people that are moving here, and in large numbers, are the young high-technology workers and middle management of companies that find Milton Keynes convenient and cheap with plenty of space for housing. These people tend to have young families and are into 'leisure' in a big way. Milton Keynes must be the perfect site for the latest development of the Big R 'Rollers' concept with its emphasis on family fun and fitness — with all the technological spectacle of the biggest nightclubs, but without any of the noise/violence stigma attached.



From the control console to the centre lighting rig which is flanked by two large outer rigs.

This being the third and largest 'Rollers' in the expanding Big R portfolio, the concept has been finely tuned to what must be its logical conclusion — at least for the present. The huge bold

colours and graphics of the interior design reflect both the need to make an impact in a large industrial unit, and that the carpets and furniture need to withstand the punishment that 2,000



There is no comparison!

FEATURE	Synchrolite Series II	Vari-Lite VL 2B	Pan-Command PC Spot	Tasco Starlite	Moto-Light Moto-Arc	DESCRIPTION
Fading color			•			Fade or bump color. Fades directly from one color to another.
Rotating gobos			•			Rotate gobos in either direction with variable speed.
360° Continuous Pan			•			Uninterrupted 360° revolution.
Zoom optical system			•			As beam size decreases, intensity substantially increases.
Mixing gobos			•			Create new gobos by mixing existing gobos.
Color correction			•			Correct light source for TV, film and video lighting as needed.
Zoom pattern system			•			Control pattern size with zoom. Pattern remains in focus.
Designer option scroll			•			Designer choice in adding custom colors and effects for each application.
Pre-programmed cues			•			A library of pre-programmed movement and effects in the fixture.
Soft-edge light		•	•	•		Soften edge of light beam.
Basic features	•	•	•	•	•	HTI 400 lamp or equivalent; color, gobos and aperture/iris systems.

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The rig features an arsenal of lighting effects including Fal Ventaglios and Kremesa Dichrolights, Helicopters and Harvesters.



The central loudspeaker cluster consists of 12 Turbosound TMS-5 loudspeakers in a single ring augmented by six TSE-11 mid-high packs.

people in roller skates can, at any one time, inflict. Big R have kept faith with their previous contractors: First Audio supplying the Turbosound sound system, with Electromusic designing and installing. The system was completely designed from the ground up by Jon Trotter and Mike Novak of Electromusic. They had to convince Big R Leisure, via a comparative demonstration, of the value of a central cluster, whilst specifying all loudspeakers including the TMS-5's and persuading Crest to introduce the new Ledhead product. The cluster frame was designed and built by MAN flying systems to Electromusic's specifications. Avitec Electronics designing and supplying the lighting system, with Jasco installing. Big R's Richard Dixon and Avitec's Paul Dodd had to invent a way of lighting a dancefloor/rink the size of a football pitch in the style of traditional discotheque, whilst providing the coverage and ambient light level required for safe roller-skating. The solution, used at Peterborough, Nottingham and now Milton Keynes, is to use a centre lighting rig, two large outer rigs, and vertical lighting bars on the long side walls. To get the coverage required, long 'catenary' systems of steel conduit were used which radiate from the centre rig to the walls, supporting regularly spaced Par 56 spots and neon features. An interesting decorative note is the use of 20 Strand 1kW Prelude profiles to project gobo patterns onto the long-side walls.

The sheer size of the three rigs means that Avitec have been able, obliged even, to use a large number of their arsenal of lighting effects. Static chasing fittings include Par 36, Par 56, Lynx SX100, F70, LED U-Rays, Fal Ventaglios and the excellent Kremesa Dichrolight miniature flood. Motorised fittings include Kremesa CR10/10 Helicopters, CR20P Harvesters, Cosmos Balls, 90° and 360° Par 56 Scanners, and Clay Paky Astrospiders. For the first time Richard Dixon was persuaded into the realms of 'intelligent' lighting and the centre rig carries eight of Avitec's own LightMover projectors. This is the most recent of a long line of installations of these projectors into the roller/ice rink/swimming pool type of venue where the long throw and programmable movement of this type of fitting really comes into its own; especially in a local authority situation where the finance for a Big R operation is not available but a spectacular effect is required. The outer walls of the rink also carry a selection of sound activated effects — Alligators, Lightflowers etc. For further variety the centres of the outer rig have a vertical motorised movement, while the petals are fixed at the outer ends, allowing a change of angle.

On the control side, Avitec's Paul Dodd still eschews the single integrated



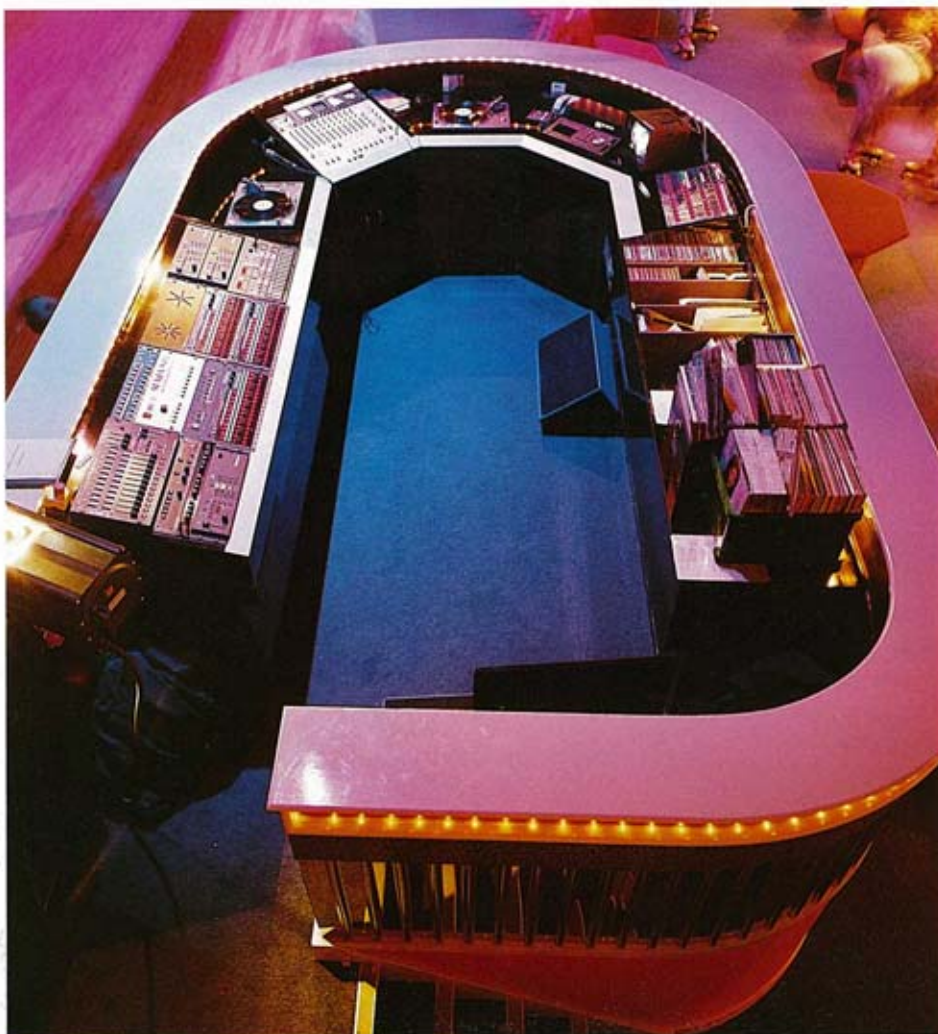
On the operational side, Avitec have specified Mode 16 touch panels to control the massive lighting rig.



The bold colours and graphics of the interior design will certainly make an impression with the roller-skating population.



Milton Keynes: The impressive frontage of the third and largest Rollers to be added to the Big R stable.



Typical of the Big R venue: The compact and flexible lighting and sound control area.

controller approach. Since the massive rig here is controlled ultimately by three Mode 16 touch panels and control of single lighting channels is still possible, it is hard to envisage what advantage an Enigma or Oska would be: especially when constant lighting-jock operation is the order of the day. The point is that Big R have got exactly what they wanted — a traditional nightclub lighting rig, but four times the size. The rig structure is not going to win any design prizes for originality, but Paul Dodd has done what he excels at. He has produced a balanced and versatile rig that allows varied and exciting light-shows to be produced day after day with every musical style catered for. It is when one wants to get out of the traditional nightclub lighting format that perhaps the programming flexibility of the integrated controller comes into its own. Interestingly, the actual control signals from the various controllers are relayed to the Anytronics packs via Jasco's own Genesis digital multiplexing unit so the 'eggs in one basket' argument against integrated control must now be null and void.

With the Milton Keynes building Richard Dixon was finally able to specify the theoretically optimum arrangement for loudspeakers in a reverberant environment — a centrally mounted 360° cluster. In turn, First Audio were able

to specify the yet-to-be-launched Turbosound TMS-5 full range cabinet. The cabinet is new in that the usual TurboMid device and H4 horn can be orientated in a variety of ways for different dispersion patterns. It also contains a new 12" TurboBass device. 12 TMS-5s are used in a full circle in the cluster with an additional six TSE-111 mid/high cabinets being used to fire the top end into the farthest reaches of the rink. Two TSW-121 21" sub-bass are set into the rink walls to inject some low energy into the proceedings.

Because the DJ's enclosure is quite a way from the central cluster some form of DJ monitoring is required and this is catered for by two TMW-212 compact floor monitors. Amplification is provided by the Crest range with a BSS crossover and Klark Teknik equalisation. One of the Rollers trademarks is a dimmer/amp rack room with a glass front in a prominent position — in this case above the DJ's heads. The spectacle at Milton Keynes has been enhanced by the use of perspex covers on the dimmer packs and ten giant rackmount 'Ledhead' LED meters on the Crest amplifiers. These meters apparently provide accurate output monitoring but, let's face it, they just look good.

When everything is wound up Rollers really is like a giant discotheque. Some of the lighting has a hard time reaching the

floor in this huge venue, but then it doesn't have to: the beam paths in the air and the sheer volume of co-ordinated effects provides more than adequate spectacle. The sound system works well though there is some reverberation when listening from the rest areas. Once in the rink area proper things clean up very nicely and the TMS-5s really do project a nice 'thud' in the bass end. With the sub-bass cabinets separated somewhat from the main cluster there are only certain areas where the two are in sync. With the crossover point being very low however, the effect is not off-putting and simply having some low-frequency energy around helps the excitement quotient. In fact, with over a thousand people skating around at high speed, the house music pumping away and the light-show going ape, excitement is not in short supply!

Even though there is an over-18s bar on the second floor of the rest area, the atmosphere seems so much more 'wholesome' and fun than the average 'disco' — no doubt due to the feeling that you can get fit whilst enjoying yourself. This sort of operation is undoubtedly part of the future of the entertainment business and thank God sound and lighting are part of the package. We may find ourselves facing the problem of entertaining even larger numbers of people in even bigger 'sports' arenas in the future!

Rollers — Equipment List

Sound

- Main cluster 360° flying system
- Custom-built TMS-5 flying frames
- Custom-built TSE-111 flying frames
- 6 × Crest P4801 power amplifiers
- 3 × Crest P6001 power amplifiers
- 1 × Crest P8001 power amplifier
- 10 × Crest auxiliary LED display metering
- 3 × Klark Teknik DN360 crossover-limiters
- 2 × BSS FDS-360 crossover-limiters
- 1 × BSS DPR-402 compressor-limiter
- 1 × Greystone Inflexor SPL eq compensation
- 2 × Schraff 19" control/amplifier racks
- 1 × Electromusic custom-built sequential mains system
- 12 × Turbosound TMS-5 loudspeakers
- 6 × Turbosound TSE-111 loudspeakers
- 2 × Turbosound TSW-121 sub-bass loudspeakers
- 2 × Turbosound TMW-212 DJ monitors
- 1 × Formula Sound system 2000 mixer
- 1 × Sennheiser radio microphone system
- 1 × Sennheiser MD531 microphone
- 2 × Technics SL1210 turntable
- 1 × Technics CD player
- 1 × Technics twin cassette deck
- 1 × Sonifex cart machine
- 1 × Crest P4801 power amplifier
- 1 × Crest P6001 power amplifier
- 1 × BSS FDS360 crossover-limiter
- 2 × Toa 310D digital delays
- 1 × BSS DPR-402 compressor-limiter
- 1 × Klark Teknik DN332 graphic eq
- 2 × custom-built loudspeaker flying brackets
- 2 × Turbosound TMS-2 loudspeakers

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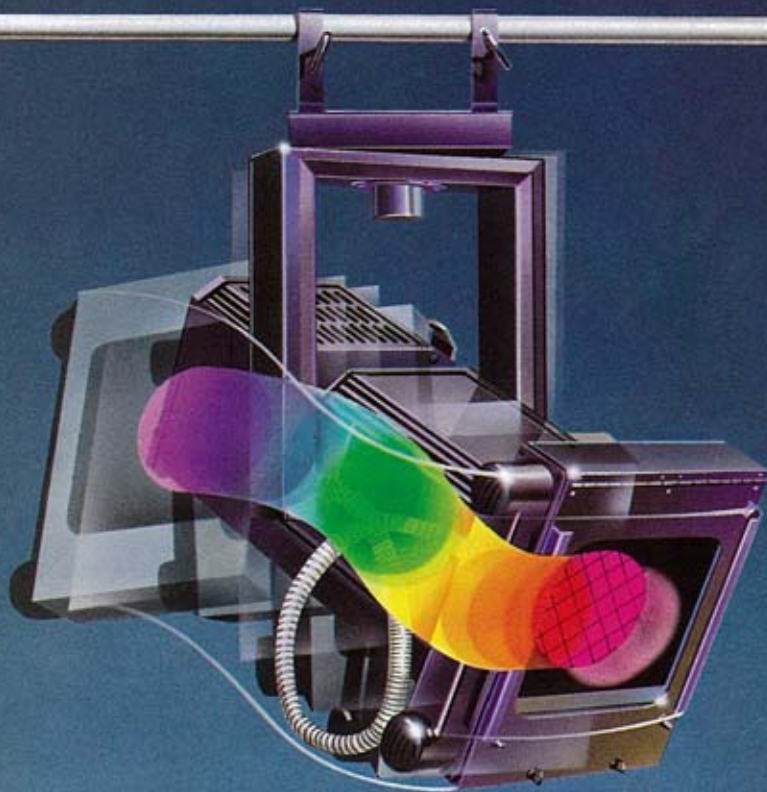
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RANK LIGHTING IN ITALY

John Offord visits the new £5m Strand/Quartzcolor set-up south of Rome

On April 20 an all-present and newly-led and re-constituted Strand Lighting management team travelled from the UK, USA, Germany and France to Pomezia, south of Rome, to preside at the launch of their new manufacturing base in Italy. Rank Organisation chairman Sir Patrick Meaney, charming eloquent, and safe to a word, plus 130 green-decked factory staff and other guests were present at the ceremonial session. The Bishop of Albano dedicated the project, and outside it was raining. Even that fact had everyone's blessing because they hadn't seen the stuff for months.

The 85,000 sq.ft. complex, newly built on a 15,000 sq.ft. green-field site, now combines the 'Quartzcolor' manufacturing operation (formerly based north of Rome) with Rank's trading arm in Italy (formerly near the centre of the City). The factory itself is splendid, although as often happens in Italy, it is set amongst an unusual and seemingly unplanned and messy mixture of homes, highways and high-tech.

It is owned by Rank Lighting, a new subsidiary company registered in Italy, and manufactures luminaires, electronic controls and other related specialist lighting equipment for the worldwide television and motion picture industries. General manager, and in overall charge of the complete operation,



is Alessandro Rossi and a short walk along the marbled corridors of power Andrea Molinari heads up the Italian trading operation.

Strand purchased Quartzcolor in 1986, and it has traded exclusively through Strand since 1969. Reckoned to be the leading brand of luminaires for TV and film in the world, Strand say they have a 30 per cent share of the market with three distinct ranges: portable equipment, their studio range, and the outside broadcast/HMI range.

Certainly the commitment from the Rank Organisation is high, as Chris Waldron,

Strand's newly appointed boss for Europe and Asia confirmed: "The financial manufacturing base in Italy will ensure that our customers will be supplied with a wide range of high quality professional lighting products. We are confident that Rank Lighting at Pomezia will become the leading international manufacturer of lighting equipment in Italy."

The rest of the story is best told in pictures, with passing news that we'll have more exclusive news on Strand's other future plans in a future issue . . .



VIP factory tour: Alessandro Rossi (left), the Bishop of Albano and Sir Patrick Meaney, chairman of the Rank Organisation.



Chris Waldron (right) in production talk with Mike Collier (Italy), Ian Haddon (UK) and Tom Sullivan (USA).



A Strand Lighting international line-up at Pomezia: Mike Collier (Italy), Heinz Fritz (Germany), Chris Waldron (UK, managing director of Strand Lighting), Bernard Bouchet (France), Ian Haddon (UK), and Tom Sullivan (USA).



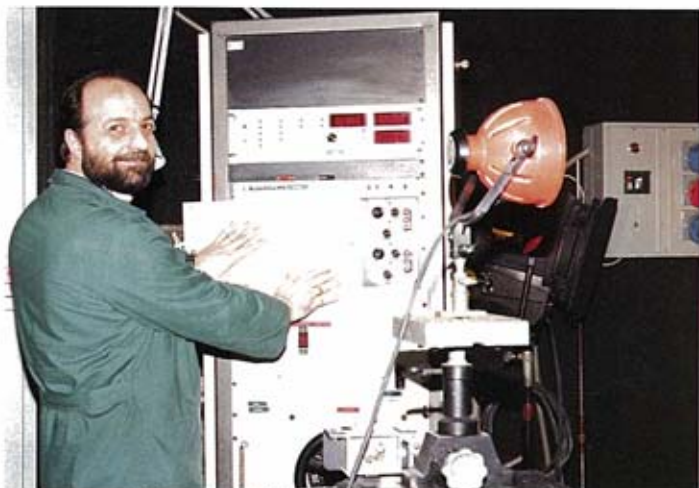
Sir Patrick Meaney launches Rank Lighting in Italy.



Part of the metal processing shop at Pomezia.



Tom Sullivan (left) and Bernard Bouchet (right) get the German view from Heinz Fritz.



Senor Maccari is in control of the Pomezia light laboratory.



Andrea Molinari (right) heads the Italian trading arm.



Alessandro Rossi, Peter Blaxtan (managing director of Rank Precision Industries), the Bishop of Albano, and Sir Patrick Meaney pictured outside the entrance of the new 91,000 sq.ft. Pomezia complex.



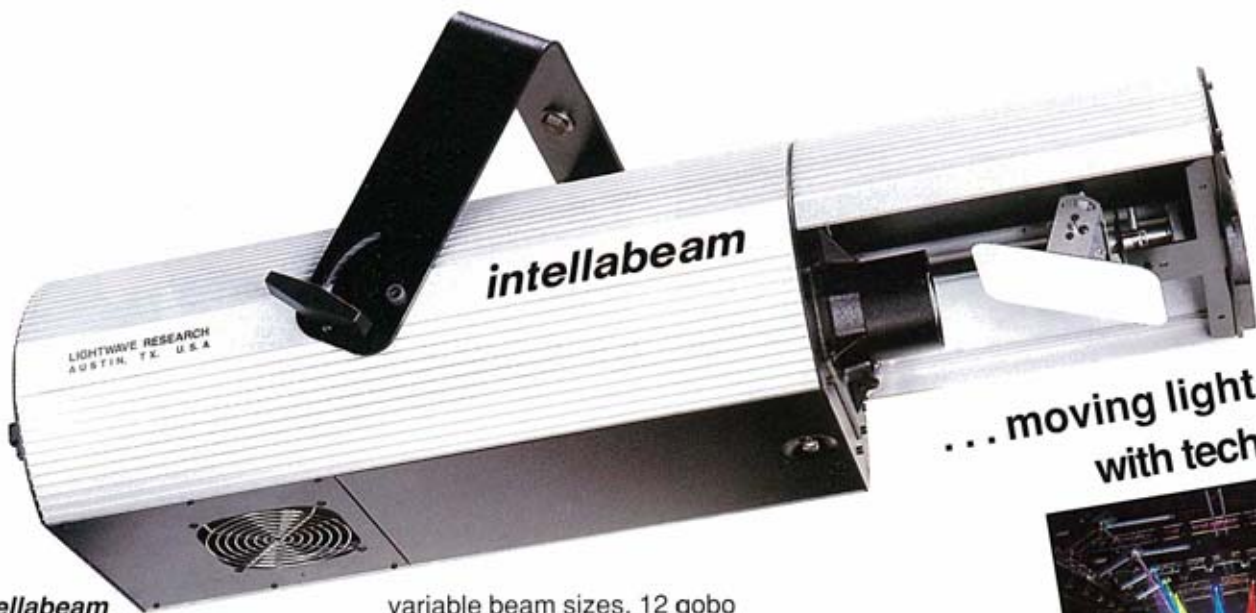
Inspecting the light lab.



Part of the huge assembly/production line area.



Metal bashing heavyweights.

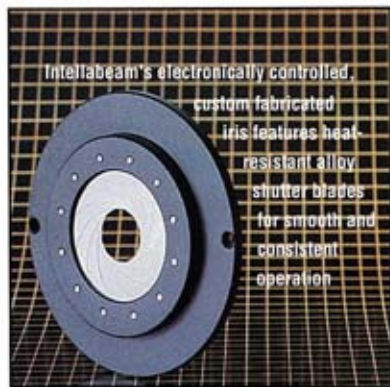


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Each microprocessor based fixture can be easily programmed into a scene with precise beam positioning, choice of 12 colors,



variable beam sizes, 12 gobo patterns, variable light intensity, and variable speed programming for mirror scanners, colors, gobos, and strobe effect. The Intellabeam system is ideal for theatrical applications, stage and studio, concert touring or nightclubs.

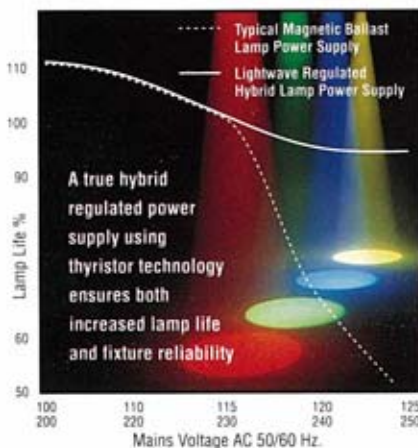
Brightness . . .

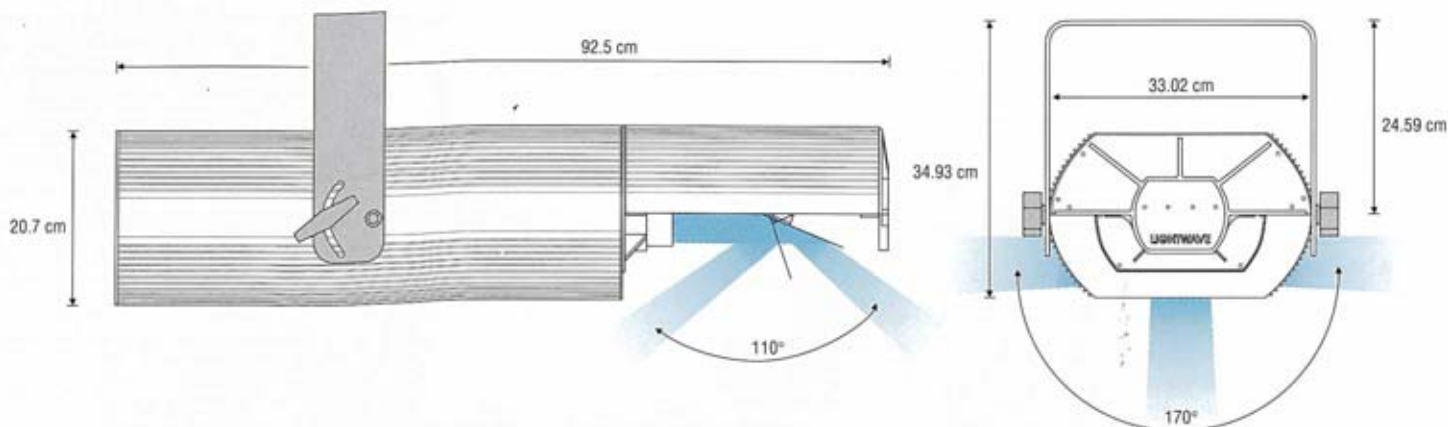
The ultra-efficient optical system, featuring dichroic filtration and infrared heat dispersion coupled with MSR lamp technology, allows Intellabeam to achieve a light output unrivaled in the industry. The 400 watt Philips MSR lamp, with an average lamp life of 500 hours, has a 5600K color temperature and can be dimmed to 40% of its full brightness, making it possible to execute crossfades from one fixture to another.



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The Intellabeam luminaire is able to animate the light beam by means of an extremely swift and accurate scanning mirror assembly which can scan to 170 degrees of pan and 110 degrees of tilt. Lightwave Research uses only high resolution, high torque stepper motors for its scanning mirror assemblies, remote iris, indexing shutter, gobo and shutter systems.





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Total individual control of up to twenty four of the lighting fixtures can be accessed by a single Intellabeam controller. More than 24 Intellabeam units may be controlled from a single controller by setting the address switch at the fixture's rear panel and slaving fixtures together. Multiple sets of 24 fixtures can be added by slaving controllers together for individual addressability of hundreds of Intellabeam units.

The Intellabeam controller has nine memories, with each one containing 99 scenes. A total of 891 scenes can be programmed or edited. Any one of

twenty four presets can be instantaneously accessed by depressing one of the 24 preset buttons on the left hand side of the controller. A preset can be programmed with adjustable parameters for any of the fixtures. These parameters are speed, color, iris, beam position, intensity, gobo pattern and strobe rate. Each fixture can be easily programmed, individually or collectively, to any combination of the parameters within a preset. The preset buttons can call up an individual scene or a series of

scenes in a fade or chase loop by setting the controller in auto mode.

A delay factor of 0.1 to 99 seconds and other time variables can be included into scenes and adjusted manually . . . for countless variations. The controller has stereo audio inputs for two audio advance functions and modulation of color, gobo, and light intensity. A professional, extremely precise joystick allows for manual operation of the scanning mirror and light beam and is used to position the beam during programming.



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- 891 programmable scenes
- Controls 24 channels - Master/Slave capabilities
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- Professional inductive joystick
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ON TOUR

Catriona Forcer



John Rinaldi.

Everything But The Girl

Royal Albert Hall

LD: John Rinaldi

For the past few years John Rinaldi and his company Stage Light Design have gained a reputation for lighting trade shows,

exhibitions and conferences to a high standard. John has found himself specialising in large, single event type trade shows often for car companies like Porsche. On those jobs, particularly when outdoors, he has begun to diversify into handling everything electrical including the site electrics and generator hire. Rinaldi has not toured with a band since 1985 when he spent the first half of that year doing projection and slides for Frankie Goes To Hollywood with Meteorlites. The second half of the year was spent with the first Everything But The Girl tour to be handled by Stage Light Design. Since then he has taken a step back from touring, leaving James 'Judge' Louden to look after Everything But The Girl until their last couple of events just over a year ago. The tour was originally planned for last November but Judge couldn't do it, so John stepped in. The tour was then cancelled in favour of doing a video and when it was rescheduled, he was only too pleased to go back on the road.

"Having had so much past experience with the band there was no difficult teething period of meeting everybody and finding out the sort of thing they like," explained John Rinaldi. "Their attitude to lights is much the same now as when I first started working with them. In fact, they seem to have become a lot fresher and brighter about the whole thing.

When I first met them they were very enthusiastic about what myself and Keith Dale were doing, but then they lost interest in the visual side of things on the last couple of tours, which doesn't particularly help a lighting designer's morale. This time around they're much keener to know what I'm doing and, although they never make me change anything, they mention little things here and there.

"It's a two-truss system with a very ordinary front truss providing upstage, midstage and downstage washes plus ten profiles with colour changers on each of them to light specific people. There are a couple of Manfrotto wind-up towers with a 6 lamp bar on each because I prefer to light the upstage risers from the sides rather than from the front truss. The back truss is completely asymmetrical and has four 4 lamp bars of Pars, each of which has a Geljet colour changer. I've limited myself to eight colours on each Par can. They're in two groups, one half has one set of colours and the other half another set. I've got about ten basic colours available from the rear. There are eight profiles (Lekos) on the back truss to backlight on to specific areas. There are six Minulette profiles with a split gobo to create nice dots on the floor and, if there's an air haze, you get split beams in the air.

"There's an asymmetrical bit at one end



Everything But The Girl.

where there's a piece of Trilite hanging diagonally underneath the back truss and it's got six 2k Bambinos — film and TV-type fresnels. They are used to put a big steel blue wash over the stage for the song 'Driving' and there's a couple of pink ones up there for 'Meet Me In The Morning'. Floor lights are based around the percussion and groundrows on the white cyc have a black scrim in front so that it can either be there or not, depending on whether you've lit it. There's a 2k Cadenza projector behind the cyc which projects 3 1/2" slides made up from the album cover 'The Language of Life'. Boardwise, we have a Celco Series 260 way which controls all the main lighting and a 30way to control the 26 Gel Jets as well as the projection."

Moving on to other things, Rinaldi spoke of his plans for the future: "I'd like to do some more touring but I wouldn't want to make it a habit! Having done it already, it's not something I find particularly appealing to spend nine months of every year out on the road. Three weeks away from the office has left me a pile of mail to plough through. I think I'm probably better off running the business rather than touring. On the trade side of things you can earn as much just doing the drawings for someone like Porsche than going on the road with Everything But The Girl for three weeks. Unfortunately, the budget on this tour was not that great but I managed to force a remarkably good deal out of John Cadbury at Meteorlites! Some of the control gear is my own but the rest of the equipment is from them, as is most of my equipment for trade shows.

"After this tour I'm working on the next big

Porsche show to be held at Millbrook Proving Ground — the Lotus-owned car testing facility. Once a year they put up a remarkable structure of domes, Portacabins and triangular tented structures all interlinked by tunnels on a 400 metre diameter concrete disc. It's all outdoors and powered by generators which are supplied through myself and Danny Murphy of Showtrade. We link services because he's really good at site electrics whilst I look after all the actual design work. It's good because it's not just theatre lighting — it's environmental lighting where we do things like putting fluorescent tubes through troughs along the floor to provide edge lighting. There are hundreds and hundreds of fittings on the job and the planning takes quite a while. It's a six week project including one week to set up and one week to take down.

"I was part of the team which was invited to pitch for the DTI sponsored stand at Expo 92 in Seville. That would have been quite something because I would have been doing the lights for the UK. Unfortunately, the team didn't win. I think that the design was too daring. That was through the design consultants Furneaux-Stewart who also look after Porsche and who are innovative and creative. I also undertake a lot of work for Impact Promotions who are involved in hospitality suites for arenas, and I worked on all the Floyd shows at London Arena last year. I quite liked it because there was so much going on and it was technically outstanding. I find conference work is just as hard as rock and roll. In fact, sometimes it's worse because you can find yourself working up to 40 hours without a break."

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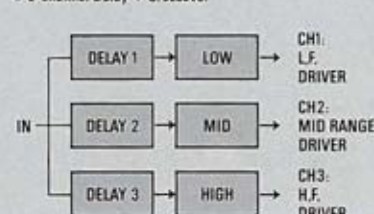
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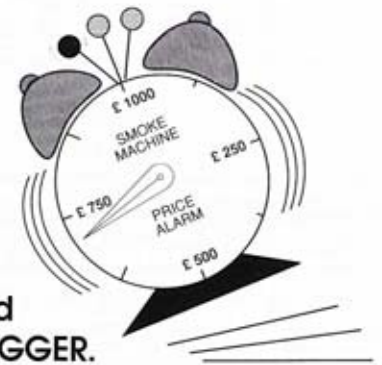


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USITT's MILWAUKEE MECCA

Peter Brooks reviews the United States Institute for Theatre Technology's annual trade show

My first impression of the USITT conference and trade show at Milwaukee was of its similarity with the ABTT Trade Show in London. However, this soon proved to be deceptive.

The venue was a modern, purpose-built hall, part of the Milwaukee 'Mecca' exhibition complex with many seminar rooms and about 25,000 sq.ft. of exhibition hall. The cost of visiting, in common with all US exhibitions, was exorbitant at \$125 on the door, but no-one complained. Registration was run exclusively by local USITT member volunteers who provided an excellent service.

I'm not sure that holding the show during Easter week/Passover was a good idea. Attendance was about 3,000 (including all exhibitors) but this was described as 'patchy' and even 'spasmodic' by exhibitors, and it underlined the particular problem with this show — who attended? North America has many University faculties who are concerned with all aspects of theatre and performing arts, and I understand the USITT conference is their annual time to meet and exchange ideas.

The problem from the exhibitor's point of view is that these visitors advise on, and teach about, the products and services that are on display at the exhibition, but they rarely buy. There are few real specifiers/purchasers/users who attend because of the geography of North America and the consequent high cost of

travel to such a show. Few expense budgets justify a trip from California, for instance.

It is for this reason that the show has no permanent venue of course, but is there enough real purchasing power to justify some of the larger exhibits? I can only pose the question, but there were some large companies with a relatively low key presence, and some who were absent altogether. For the record, by the end of the third day I had met only three others from the UK — and they were all selling rather than buying.

So who exhibited? A brief survey showed that manufacturers of lighting controllers and dimming equipment were the most numerous, followed by audio manufacturers, mains connector manufacturers and general theatre equipment distributors. There was a superb variety of exhibits — from makeup and costumes to fabrics and curtains — and the ubiquitous personal computer was well represented with applications such as visitor recording, editing cues, designing production layouts and, of course, lighting control. There were relatively few large stands — the biggest was **Strand**, closely followed by **Teatronics** and the newly merged **ETC/LMI**.

The exhibition floor was dominated by a superb collection of scenery from Chicago Lyric Opera/Northern Illinois University, and it included some fine pieces of antique furniture manufactured from polystyrene foam marked 'light-

weight — do not move!'

What was new and/or interesting? Purely because I visited each stand in turn, starting at number 100, the first item new to the show was the **AVAB** Patchcenter 2000 which allowed intelligent cross patching of two DMX512 inputs to two DMX512 outputs. This has to be one of the Rolls Royces of patching. On the same stand **Neithammer** were showing new 1k and 2k zoom followspots with double condenser optics. On Stand 211, **JCN** were showing their range of Lighting Designer and Scheduling Assistant software. The Lighting Designer enables the user to enter lighting data into the system and produce all the associated paperwork including a draft of the lighting plot, all automatically. (**JCN** are looking for European distribution — more details from L+SI).

I was staggered by the range of products offered by **Great Performance Products** of Winnipeg, Canada. The range included stands, hook clamps, 6, 12 and 24 channel control desks, two with matrix options, 3 and 6 channel power packs, a colour changing lens light and a fully controllable moving light. John McDowell of GPP said that they had been "quite busy!" in the development department lately!

Next on my trip round was **EDI**, who were showing their new Omega 72 channel control desk and the Omega show controller, a subset of the desk. Both desk and show controller was capable of

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patching 900 cues onto 490 dimmers; the show controller was capable of real time operation for use by the major theme parks.

The **Avo** stand was a superb example of minimalism — just a large Avolites sign suspended from the roof and above a white floor and low podium. Very effective. They were showing a new version of the Geljet and LSC multiplexing equipment in addition to their own products.

As one who is intimately involved in the world of dimming and control, probably the most important new item at the show was on the Teatronics stand. Here a standard Genesis 1224 dimmer (12 channels of 2400 watts) was side by side with a Genesis 1224 which did **not** use the traditional SCR/Choke control system. The prototype was about one half the weight of a normal unit and was completely blow-up proof. Questions about the commercial availability were neatly side stepped — this was a strictly 'show it is possible and judge the reaction' exhibit.

The unit was described by a fellow visitor as "truly gorilla proof!" Also on the stand were some very flexible modular touring racks for the Genesis range of dimmers designed for Cine/TV applications.

ETC, who have recently bought LMI of Rochester, NY, showed their combined range of products and introduced the MicroVision computer-based 125 channel controller. The design of this was quite futuristic and featured a proportional fader wheel that felt and looked as if it was made from grey stone.

Lee Filters announced eight 'cosmetic colours' to help enhance skin tones, primarily for TV use; **Lee Colortran** announced further enhancements to their ENR (Electronic Noise Reduction) range of modular dimmers, and introduced their 50/50 Series of 1000 watt Ellipsoidals.

In addition to their recently introduced architectural series, **Leprekon** displayed a 96 channel lighting desk which featured an interesting combination of memory stack control, moving light control, multiple submasters and manual two preset operation.

NSI introduced their Melange memory lighting controllers. This is one of the computer desks where a VDU is essential. It seemed to offer a very comprehensive package capable of controlling 128 channels with 200 cues and up to 512 dimmer channels via a proportional softpatch and DMX512. The Melange had five 'tactile soft pots' which performed the function of a conventional fader wheel. It will be interesting to see how customers react to these.

Opposite the Strand stand, but in many ways linked to it, was the **Lucida Corporation**. They were exhibiting software which allowed off-line editing of Strand Light Palette cues on a Macintosh computer. The software appeared very

easy to use and could answer all the important questions asked while putting a show together, such as unused channels, unused cues, full lists of cue linking, and so on. In addition, it tracks all changes that have been entered since the Light Palette desk was loaded and allows free format comments to be added. The disk is then returned to the Light Palette 'ready to run'. This must be a great time saver and gives a clear and detailed graphic overview of a complete show.

Great American Market were showing the Access Pro, Panache and Easy Rider controllers. The Easy Rider is a playback only controller which takes linked cues, programmed on an Access and transferred via a Cue Card, then replays them in real time as required. Once again, this is in response to a demand from the theme park market.

After all these exhibits — what of the seminars? On the opening day there were 37 seminars from 8am to 11pm on

subjects ranging from 'Awards' to 'What is Theatre Consultant?'. In addition, day two had 62 seminars, day three 49. A superb organisational feat alone! Martin Moore from Furze Theatre Lighting chaired the DMX512 session which covered test boxes. He tried to attend the SMX session, but this was cancelled — rumoured to be through lack of interest.

If nothing else, I found out how hard an amateur has to work to be a journalist! I guess that professionals can walk up and down the aisles of an exhibition with a 'nose' for new products. As an experienced exhibitor, it underlined the importance of:

1. Marking items that are shown for the first time as 'Just Received' or 'New'.
2. Stating clearly and visually on a stand just what you are selling.
3. Always provide a press release — even if you have nothing new.

I found this an invigorating and exhausting experience — here's to the next time!

PUB CLUB AND LEISURE SHOW

Phil Roper at Olympia 2

In the melee of beverage stands giving away samples of their wares, a few light, sound and video companies displayed their products at the recent Pub, Club and Leisure Show held at Olympia 2. The first person I bumped into was the effervescent Dick Carrier on the **LSD** stand, with a selection of Bose speakers and a bijou video wallette on show. John Dodson of **Bose** and Richard Studerer of **Park Light and Sound** were also in attendance.

After a medicinal helping of that famous black beer with Mr Carrier I moved on. One of the stands on the ground floor housed **J.W. Parker** of Old Kent Road fame. John Parker, a man with many years in the industry, had some of his range of Downtown Music on display. Offering a vast selection of tracks by well-known bands and solo performers on cassette for subscription by pubs, clubs and hotels. Hardware on display included Toa fourway cassette players, various amplifiers with Toa and Bose speakers.

On the **Rediffusion** stand I found a Databeat Digital Music System along with its mentor John Leefe. Also present, Peter Clarke of Databeat told me that a lot of interest had been shown in the system. As John Leefe explained, the Databeat system gives complete control over the style, tempo and era of the music that is played at any particular time of day. Incorporating two Sony 60 way CD multiplay systems it is now installed in some 23 countries.

Lightfactor's stand had four Color Rays on display. The fibre optic-based lighting system imported from America displayed on an illuminated stand did not fare too well Lee Sharpe informed me.

Simon Spragg of **Orange Audio and Lighting** had a large array of lights on display including Martin Roboscans, and **Nightlife** had various lighting effects on display with an Infinity International illuminated dance floor. Dave Holmwood informed me that the show was proving successful and their order book for installations was full.

One stand in particular caught my eye. The joint display from **Xylo**, **Enlightened Audio** and **Diamond Time** was attracting a lot of attention. I was looking at the first public demonstration of the Xylo video Turbine. (Which I am sure will be covered further in a later issue of L+SI). The video Turbine can handle up to eight video sources and 96 screens at one time. Through a touch panel controller, the operator can strobe, chase or scratch images. The Turbine can spread video images around a dance floor or fun pub and create visual effects never before possible, synchronising them precisely with music. Up to four separate zones may be defined. **Diamond Time** and **Enlightened Audio** have been amongst the first companies to spot the potential of the Turbine. **Enlightened Audio** are the first dealers to be appointed.

Diamond Time, producers of the Disc Eyes and Ambience video tapes are also enthusiastic, adding that they are keen to support new uses of video in the leisure industry. They are working with Xylo to ensure that video software is always available to maximise use of the Turbine's power. Having seen the Turbine at work in a limited space I am sure we have not heard the last of this product.

Party House Ltd had a prime site on the ground floor showing a full range of carnival, novelty and party atmosphere products, and very successfully it seemed. On show for the first time was a new product for which sister company, **SAV** are exclusive distributors — namely the Bubblelite. This is a bubble tube column of water filled with bubbles of air which ascend to the surface, and which is illuminated from beneath providing an effect of constantly changing colours. Other exhibitors at the show included **Music Mix** with their range of Gemini tape machines and amplifiers and **Marquee Audio** who attracted a large crowd with their sing-along video display.

VISION+AUDIO 90

Graham Walne takes a brief look at a new show

First of all I have to clarify that L+SI asked me to attend this exhibition in the knowledge that video was not my forte but no other writers were available and we wanted to bring readers some impressions rather than none at all. The exhibition was presented in Earl's Court in association with emap. Vision and, despite the 100 or so stands, it still left vast areas of the famous venue vacant, indeed vast areas of the exhibition were pretty vacant too. It's always a bad sign when standholders start talking to each other. Maybe this is also the place for my usual exhibition gripes — poor catering and brochure famine.

In terms of the video content I really cannot bring you an authoritative overview, except to say, as a layman, that rather like the situation with sound and lighting control desks, these days video cameras, recorders and mixers all look exactly alike. Another similarity is that most of these appear to come from Japan. Clearly with over 300 million pre-recorded video cassettes sold worldwide last year this whole area is very attractive to manufacturers.

In these circumstances it is the unusual which stands out and full marks to Sony for the biggest, and probably the most informative, stand with their interactive product locator. I was particularly interested in the IRIS, instant recording image system which is produced by EOS, a Welsh Sony Dealer. This device stores up to 90,000 different images on one hour-long cassette. The device works in conjunction with standard video cameras and monitors and will also print, making it invaluable for archival and security use. Also on display, to whet our appetites, was Sony's High Definition Television, film quality in a 16:9 format. Most impressive was Sony's Jumbotron, a large screen TV which dominated the catering area producing excellent pictures in high ambient light levels. Less impressive was the scarcity of information about the product.

Video projection systems were much in evidence and the exhibitor did provide an excellent opportunity for comparisons of picture quality in varying ambient conditions. An interesting variation on the usual delivery system was the Epson portable colour video projector on the Solitaire stand. This uses LCD colour technology and measures only 12" x 5" x 10" and yet it will project up to 12' wide. LCD technology is, of course, now a standard in



Sony's Jumbotron.



The Epson portable colour video projector.



High definition from Sony.



The IRIS: Instant Recording Image System.



The RMS2000 radio microphone system from Audio Limited.



Jon Spurling and Phil Price on the Audilec stand with RCF's new LS4000 large screen video projector.



Marquee Audio launched the Zeta Three EM audio/video/midi synchroniser/emulator.



Hardware for Xenon: more to come at PLASA.



Raper and Wayman: new products from RAMSA, Hill Audio and Adams-Smith.



The London bus of PAG.



First Audio with Turbosound.



Programming in progress on the busy Tecnation stand.

projection work (incredibly it's less than a year since L+SI brought you news of prototypes), notably in conjunction with overhead projectors and there were many systems on display, both colour and monochrome.

The systems generally offer up to eight colours, a 15 or 16:1 contrast ratio and 640/720 x 200/480 resolution working to most PC's, with many systems offering infra-red remote control. Notable exceptions to the above are the FOLEX-LSK system which provides 64 high resolution colours from its palette, and the Davis Transview Memory system, as shown on the **Datascan** stand.

As far as I can tell only **GBI** gave any light efficiency data, a useful fact since LCD's have a maximum light transmission factor of 25% (of light entering), thus LCD tablets rely on good OHP's and controlled ambient light. Once again the UK appears to have stiff competition from abroad in this area and it was good to see **Elite Optics** involved. Elite is the only British manufacturer of overhead projectors. An interesting variation on the OHP theme was provided by **Hanimex** with their Elmo EV-408, this looks like an OHP but a tiny CCD camera placed where the mirror normally is provides a video picture of any flat or 3D object placed on the platten below and the device also offers instant blow-ups of objects, text or drawings; the output can be connected to any normal video system.

I was particularly interested in the Panasonic Panaboard on the **Metroplan** stand. This device looks like a conventional white chart board with a 1200mm x 760mm surface but the clever bit is that whatever is written (or taped) on the surface can then be instantly printed — up to 99 copies are available. Indeed, judging by some of the products on display the conference area is still a big market and old friends **Show Contracts** have considerable experience in this field, they demonstrated their Stella multi-purpose screen system which is either manually or electrically operated and which rises up from a box or floor mount and can automatically tilt to deal with distortion angles from OHP's and other acutely angled devices.

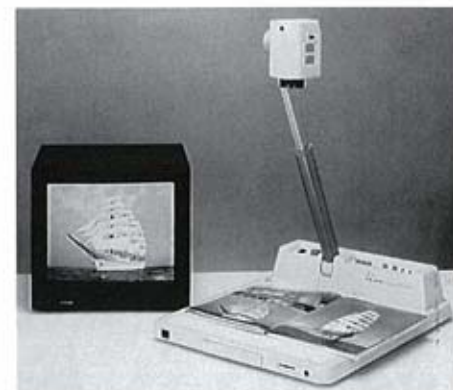
E.P.G. Dorleans (soon to have an office here) launched their stretched inflated screens, these are large scale items used in the Docklands Concerts (80m x 30m). The set up time is usually 3/4 hours for two men and inflation and deflation can be effected in an incredible 15 minutes. On the same stand **Hardware For Xenon** launched an impressive range of xenon slide projectors including 600, 1000 and 1600W xenon upgrades to Kodak Carousels or Hasselblad PCP80s and also the

company's own range of really high-powered slide machines with 4500 and 7000W xenon light sources. Look out for these at the Plasa show this year.

The 'sound' section of this exhibition was rather limited but at least it made up in quality what it lacked in quantity. Among the well-known names exhibiting were **Raper and Wayman**, **Canford Audio**, **Marquee Audio**, **Music Lab** and **MAC Sound**. However, my interest was caught by **Audio**, a company which has a particular place in sound equipment history because their founder, Geoffrey Blundell, pioneered the design of the radio microphone. Today the company has some stiff competition, especially in theatre, but it has clearly established itself in TV and film with an impressive list of credits. The company demonstrated the new rms2000 series which includes diversity receivers and pocket transmitters.

Accompanying the show was an impressive schedule of seminars covering digital audio, electronic presentations, broadcast television, corporate video, computer graphics and interactive video.

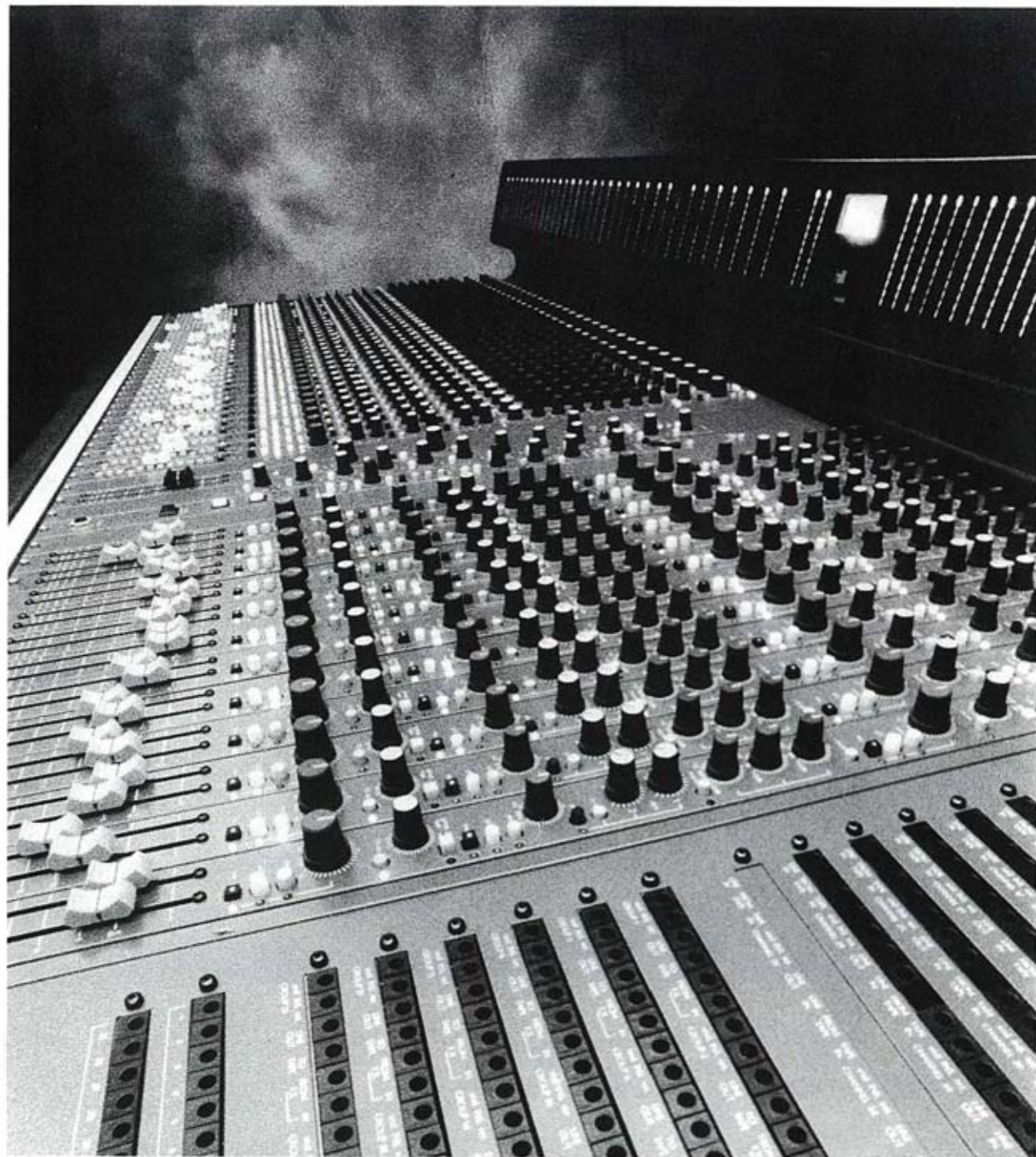
The exhibition brought home to me the pressure placed on all of us to keep abreast of the latest developments, and these days a common bar-room theme is the increasing shortage of good reading time. Clearly, exhibitions are still a good way of immersing oneself in new products and trends but here too, the plethora of trade shows in Europe is in danger of spreading the delegates too thinly. Reports on these shows are not easy to write. It is impossible to cover every stand and those that are covered may not always be the most objective selection for every reader. Nevertheless, I hope that once again L+SI has given you some idea of what the latest developments are in one of our related areas.



The Elmo EV-400 from Hanimex: crisp, clear video images from any original including 3D objects.

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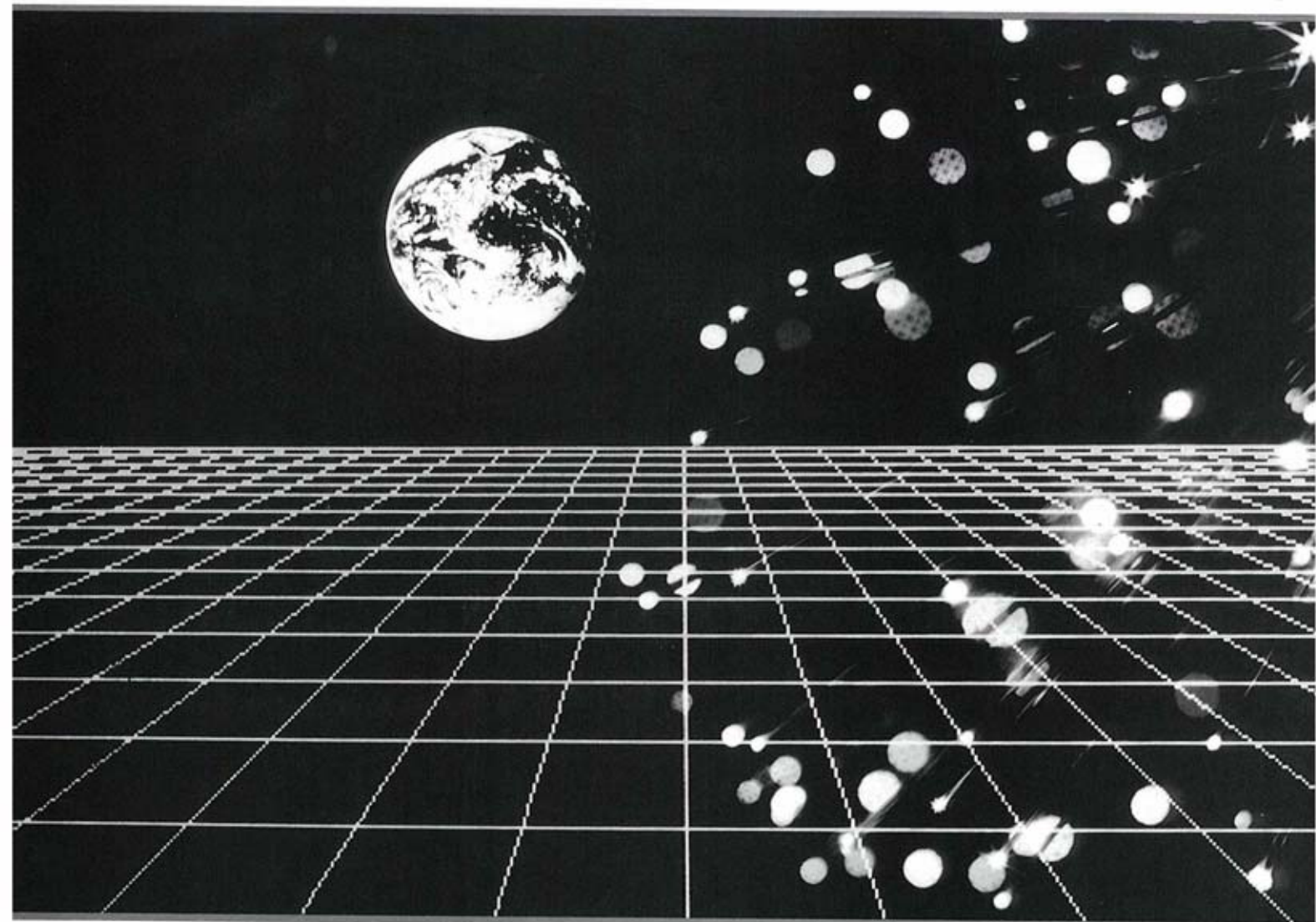
Hill Audio would like to congratulate the two manufacturers whose mixing consoles finished first and second in a recent test of sonic purity in 15 top recording consoles*. It should be noted that the price range of the **Hill Audio Concept Series** mixing consoles, which came third in this review (beating all of its established competition as well as the widely acknowledged recording industry standard) is less than a third that of the second placed console and less than a tenth that of the winner, as well as being lower than almost all of the consoles that it beat.

However, as the review pointed out, sonic purity is only one element in the equation, with facilities and reliability being other important factors. The Concept 8400 tested was configured 32/24/24/2 and included a full bantam patchbay, P+G faders, 12 auxilliary sends, a choice of 4 band sweep or 6 band fixed frequency Eq, programmable muting, simultaneous metering of all inputs and outputs, solo-in-place and pfl, and comprehensive talkback, oscillator and monitoring facilities. This console is priced at under £17,500. These facilities are unrivaled in this price range and the combination of sonic excellence, facilities and proven reliability makes the Concept Series, at its price . . . **UNBEATABLE**

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Friday 5 October 10:00-17:00 hours

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EQUIPMENT *News*

Electrosonic Developments



A new generation of dissolver and hand-held programmers have been recently launched by London-based Electrosonic. CDU (Compact Dissolve Unit) is a compact, lightweight dissolve unit for two projectors, intended for both pro and semi-pro use. Its features include simple manual, stand-alone control for presentation rooms, boardrooms and conferences, sophisticated auto-timer facilities for unattended operation in displays and exhibits, playback from pre-recorded audio/control tape, and a base for true multi-image — up to eight CDUs linkable for computer control.

CDP (Compact Dissolve Programmer) is extremely compact, little bigger than a calculator, and converts two CDUs to a powerful memory programmer for up to four projectors. For further information contact Electrosonic in London on 081-855 1101.

Sub-Woofer Update

Recommended for driving your neighbours crazy, albeit from a distance of at least one mile, is the recently updated 1000 Watt Celestion B18-1000 super sub-woofer. Its features include new mounting positions for the terminal posts in relation to the top suspension ring, a dust cap that's mounted in a convex rather than concave manner, and

improved chassis edge treatment. Celestion's 15" 600 Watt B15-600 has also benefitted from these updates which increase both unit's durability. For further information contact Celestion International in Ipswich on (0473) 723131.

Disco Power

With the introduction of Light Processor's MkII universal mounting power packs, comes the benefits of DMX serial multiplexing. On the front panel there are channel output, fuse fail and digital input indicators, as well as all the technical specifications.

Each pack can be fitted with a DMX expansion card. This allows the pack to accept standard DMX512 protocol which is fast becoming an industry standard for intelligent lighting. DMX allows information for up to 512 channels to be passed through a simple two core cable which is daisy-chained from pack to pack. Each channel within a power pack is assigned to one of the 512 DMX channels. Full details are available from Light Processor in Greenford on 081-575 5566.

Fogger from JEM

After some months of research and development, JEM Smoke Machine Co has unveiled its new low-cost smoke machine which the company claim is the best engineered machine of its type. Using high quality industrial grade components the machine, simply called The JEM Fogger, comes with the usual five year warranty. It is also supplied with two litres of perfumed fluid and a remote control featuring variable flow.

Additional one litre bottles are available in 'Party Packs' of four featuring different fragrances: English rose, orient, mint and coconut or banana, strawberry, orange and pear. For further information contact Jon Petts at JEM Smoke Machine Co in Spilsby. Telephone (0790) 54050.

Second Plug-in Dimmer

Light Beams' development and manufacturing branch, Silicon Controls, specialises in power electronics for lighting control, and has recently introduced several innovations concerning dimmer technology. This company has designed a specially integrated circuit which is the central element of the new PC 225 DP dimmers.

The Power Card PC 225 DP is a modular two channel dimmer rated at 5kW for each channel. A 19" rack mounting is available for two modules. The dimmer, in both size and features, is identical to the PC 410 DP, and comprises electronic overvoltage protection with acoustical warning, electronic sensing and 110/220V switching, and zero level calibration of the 0/10V signal input. Its technical specifications include a total maximum load of 11,000 Watts both inductive and resistive, dimming from 0 to 100%, and noise suppression by special vacuum-encapsulated chokes. It is powered by back to back thyristors rated at 40A 800V each. For further information contact Light Beams in Belgium. Telephone (32) 91 86 82 55.

Zero 88 on the Level

Following hard on the heels of last month's news of an improved version of the Sirius 24, Zero 88 have introduced yet another family of lighting control desks. The Level series is a family of simple desks with special interest for schools, amateur theatre, drama schools, in fact all users where economy and value for money is a large part of the equation. The series ranges from a 6 channel single preset and master, up through 12, 18 and 24 channel 2 preset systems, each with preset masters, timed crossfader and time override buttons.

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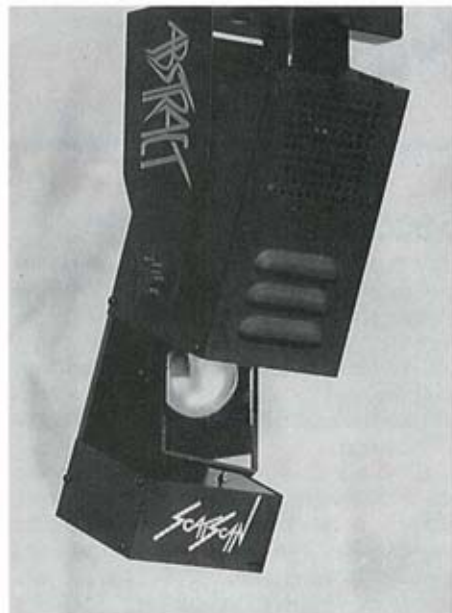
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Scatscan 100



Abstract Design to Light have launched the first of their SCAT lighting range. The first off the production line is the Scatscan 100, a 100 Watt scanner unit that projects a striking scatter effect with individual beams in white or dichroic coloured reflectors with a 35° beam spread.

The unit scans through 90 or 180° and is adjustable, with safety isolation of both transformer and motor, via two separately rated fuses of the implement release type holders. The Scatscan mounts in all angles with the self-locking bracket that travels through 360° around the unit. It is a robust and compact unit with dimensions of 37mm x 12½mm x 12½mm, and is available in matt silk black, and can be used

direct to mains or with inductive light controllers to give a combination of effects. For further information contact Abstract in Leicester on (0533) 825520.

Shadow Play

The Great American Market have recently issued Shadow Play 4 — their latest catalogue of creative pattern designs. The 320+ designs illustrated offer the lighting designer the opportunity to create numerous projected images at a reasonable cost, claim the company. For further details contact GAM in Hollywood. Telephone (213) 461 0200.

Samson Technologies

Samson has introduced what it claims to be the most budget conscious VHF wireless microphone system to date. Featuring a transmitter that offers mute switching, sensitivity control, on/off switch and a fixed battery cover, both Samson VLP lavalier and hand-held systems are available with a single microphone element. The VLP is supplied with 14 frequencies, all compatible for simultaneous use in the same location. It is expected to broaden the appeal of wireless systems by providing a realistic entry level price for guitar players and vocalists in particular.

As exclusive distributors for Hartke Systems, Samson are introducing the Transporter Series, a new line of budget conscious loudspeaker cabinets for bass guitar. The cabinets feature the same aluminium cones and therefore the same sound as Hartke's professional XL Series. They are also smaller, lighter and more transportable. The system is available in 4 x 10, 1 x 15 and 2 x 10 configurations. For further information contact Samson Technologies in Hicksville. Telephone (516) 932 3810 (USA).

New Pro-Mix Consoles

Carlsbro has unveiled three more models in their Pro-Mix range of unpowered modular mixing consoles. The three new options on offer, aimed primarily at live work, home recording studios, AV users, smaller recording studios and theatre and club installations, are a 16:8:2, 20:8:2 and 24:8:2.

Modules supplied for the Pro-Mix range are four channel input, four channel sub-group and master module. Each channel features phantom powering, 3-band EQ with parametric mid control, high and low frequency shelving buttons, EQ cut facilities, four auxiliary lines, monitor control, solo in place button, and mute control. Each sub-group module includes pan control, tape gain, 3-band EQ with parametric mid control, four auxiliary lines, solo in place, and mute. All three consoles also feature eight sub-route buttons per channel. Flight cases are available as an optional extra.

Carlsbro have also extended their range of live performance cabinets. The new look Delta Series of PA cabinets comprises of four separate units. All incorporate a full metal grille, metal corner pieces, and angled fronts encased in heavy duty nylon.

Rated at 300 watts and available in both 4 or 8 ohm versions, the D115 unit utilises a 15" driver and a pair of bi-radial horns. The D208 combines a pair of 8" speakers with a high frequency tweeter to deliver 200 watts, while the D158 features a 15" driver, one with 8" speaker, a bi-radial horn and a bullet tweeter that together deliver 300 watts. All three are available in 4 and 8 ohm versions. The D300X rated at 4 ohms, is a 15" 300 watt bass bin. For further information contact Carlsbro Electronics in Kirkby In Ashfield. Telephone (0623) 753902.

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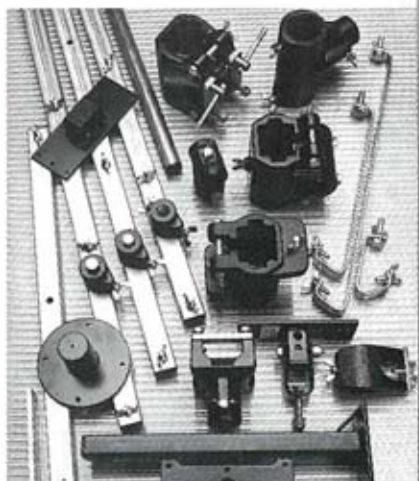
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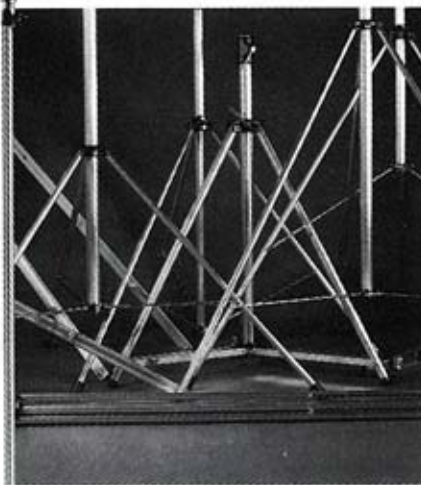


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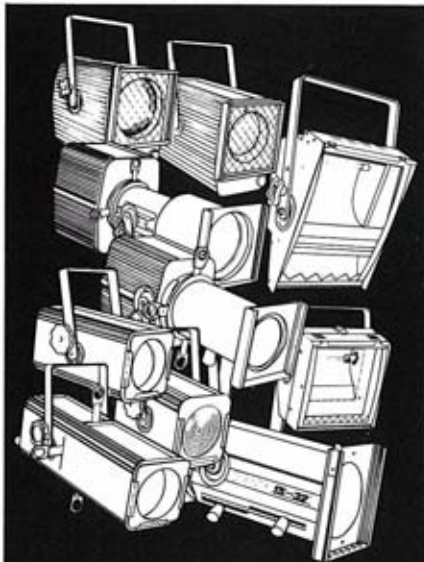
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VIEWPOINT

Norvydas Birulis

Make it Yourself — or Go Without!

When I established the lighting division of the company Centras Entertainment I had to design and make everything from the Par cans, through the control desks, to the dimmers. The process took three years during which time, whilst developing a PC to run a control desk, I became a computer hardware 'expert'. I had to design and make everything, as Lithuanian cash has no direct exchange with hard currency. Access is only available to the Eastern market, and Eastern countries do not produce anything suitable for the lighting industry. There is no choice at all — either you make it yourself or you go without.

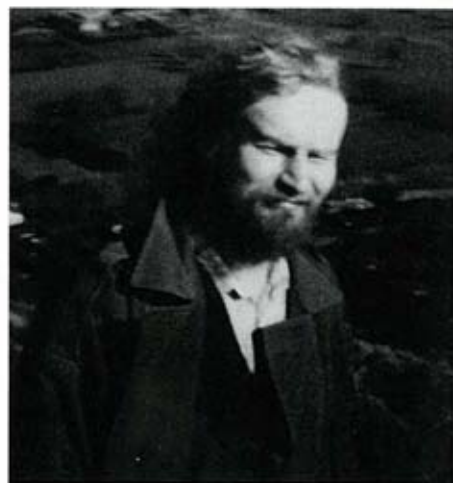
Everything is under-produced in Lithuania and, as money hasn't much worth, it's difficult to persuade someone to do their own job, let alone make something for somebody else — even for incredible prices. We have to bribe every person we meet just to get a tiny bit of anything.

In recent years Centras has invited various British groups such as Sonic Youth and Band of Holy Joy to play in Lithuania. When we received the equipment lists, we discovered that we knew very little about the required products. Visiting the UK is a useful way of familiarising myself with the equipment available, and whilst I am still without it in Lithuania, I, at least, know what it is and what it can be replaced with.

Meeting with companies such as Celco and Avolites has been very helpful from an information point of view. There is Celco equipment in Estonia but it is very expensive. It is an exclusive thing because in Lithuania, the Soviet Union and Eastern Block countries, it is very rare to find any original equipment. Everything is self-made; there is even difficulty getting bulbs.

Problems arise when you are not free to travel and you have no access to information sources. Information has to come from the Government which, frankly, cannot always be relied on to be correct. Private trips are more common in Baltic countries because they tend to have more relatives in the West, and so information is more up to date.

In Lithuania, there is a constant battle with the equipment because I never know up until the last moment whether it will work. If I make it with my own hands I am sure of it because it will have been thoroughly tested. When I hire equipment it's all home made and I can't rely on



Norvydas Birulis runs the stage lighting division of Centras Entertainment, a Lithuanian company also dealing in sound, staging, promoting and other aspects of live entertainment. He was in London for seven weeks as a guest of Supermick Lights where his aim was to gain as much knowledge as possible about Western lighting technology.

anyone else's work as no one has any real responsibility. In the West all the equipment is more or less the same but we haven't any method of standardisation. The principles are all the same, but the components vary a little, and that is why it is impossible to have just a lighting designer. Instead, all groups have their own full lighting systems. It's expensive but they don't have to rely on hire and the problems of compatibility.

The organising and planning is quite different in the UK — and I feel there is an element of laziness. If something doesn't run properly it doesn't occur to anybody to get a screwdriver and manual and start to look at what's wrong with it. Instead, they throw it away, and that's absolutely unacceptable to me. I would learn how to mend it. For example, I've just bought a second-hand computer printer for £8 whereas a new one would cost £150. It had two defects: it was a little bit dirty, and it had a different connector and no one knew what it was designed for or what computer it was to be used with. I unscrewed it, looked at the circuit, and after half an hour I knew what computer it could

connect with. I then bought the required connector for £1.00. In the UK, people seem reluctant to look deeply into anything.

On leaving the UK I will take gels with me as the ones the Lithuanian Theatre Association have been making for years are incredibly thick and dull! The choice is limited to 20 colours and to most people they would not be recognisable as gels! I would like to take some Vari*Lite back with me, but they are very expensive. However, now I have some hints on how such systems work, I think that I will be able to design something similar.

I find UK prices very high. Par cans cost between £60 and £80 but, in Lithuania, they can be made for a fraction of the cost. Hire prices are only slightly higher in the UK.

Centras is starting to expand towards the West and we have joint ventures in other departments with certain companies. Hopefully, more people will be able to learn about Western technology, but the political events of the past few weeks have made things more difficult. We had a large concert recently and one of the guests was to be a group from Finland, but Moscow wouldn't give them visas. Our company will suffer because, at times like this, no one is interested in entertainment.

We are planning a big event on June 9th/10th but we're not sure if Moscow will now permit anyone to get into Lithuania. To get in a special visa is required.

However, I'm an optimist. Times are changing, and borders may disappear one day.

Norvydas Birulis was interviewed for L+SI by Catriona Forcer.

VIEWPOINT

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

Send your Viewpoint to:

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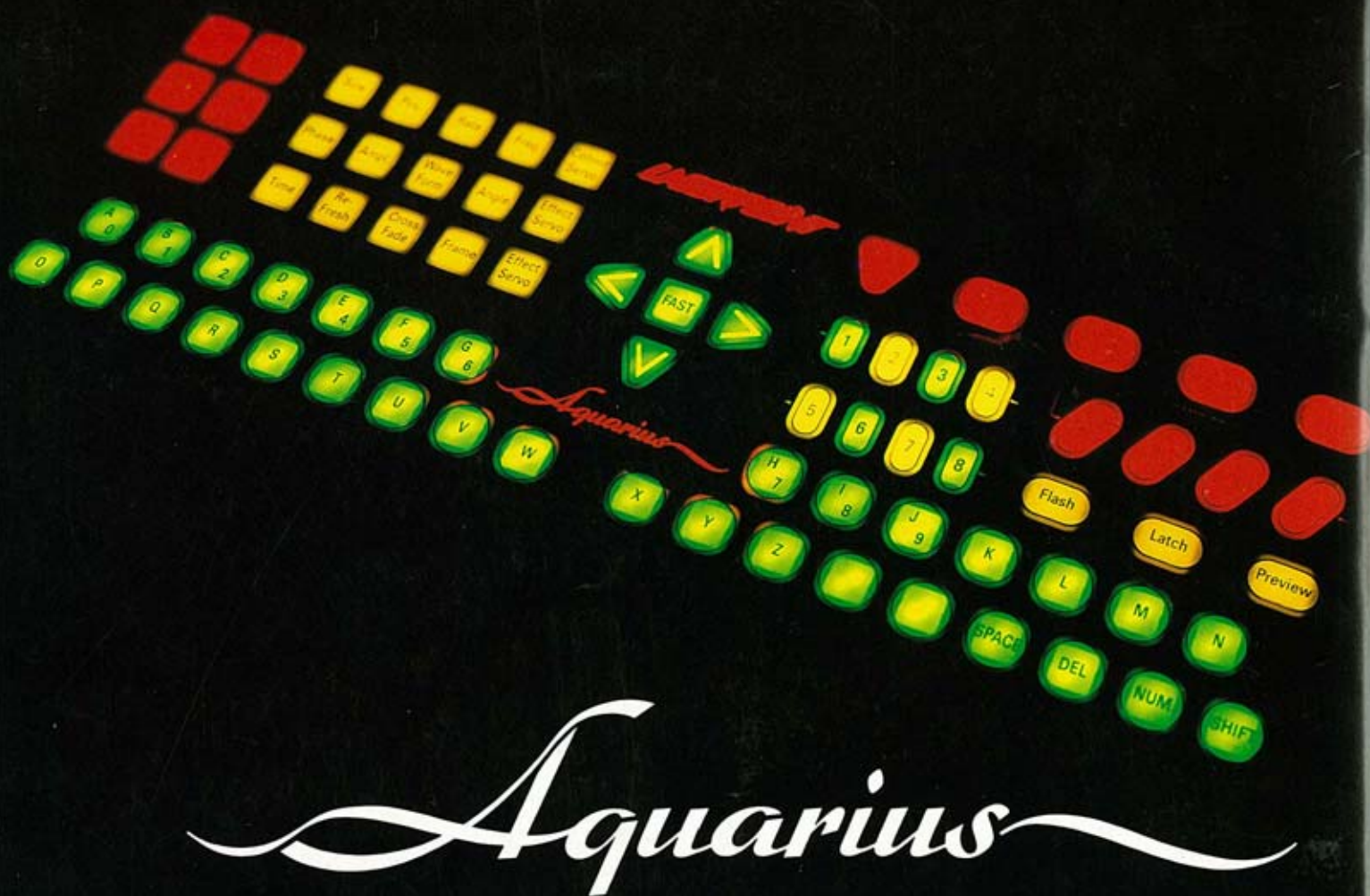
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