

LIGHTS!

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JOHN HURT - SOUNDING OUT THE LIGHTS

**OPERA, ROCK, TOURS AND LIGHTS
NEW LIGHTS FOR A MODEL THEATRE**

 Strand Lighting

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NO TROUBLE AT T'MILL — THANKS TO NEW STRAND CONTROLS

Amateur dramatics at Banbury's re-vitalised Mill Theatre have taken on a professional new look, following the installation of Strand Tempus dimmers and an Act control desk.

The theatre forms part of the Spice Ball Arts Centre, owned and operated by Oxfordshire County Council, and based on a former water mill building.

It provides a permanent venue for local amateur operatic and dramatic groups. One of its main features is removable seating, to allow theatre-in-the-round and audience participation.

The lighting installation was carried out by Strand's local dealer, C. J. Swain of Banbury, who installed 15 bars, plus house lighting, dimmers and stage lighting.

Controls are by way of a 12-way ACT 6 desk, running a Tempus 6 dimmer pack, five 15-metres long 16-way integrated bars, each with nine 15A sockets and seven 5A sockets, hung from the theatre ceiling.

LIGHT GOES OUT FOR MR. BROADWAY

One of the great characters of modern theatre, Edward F. Kook, who died last September at his home in Manhattan will be particularly remembered with affection by Strand.

For not only was he known as the man who lit more than 1000 Broadway productions but he also 'donated' the letters 'ko' from his name to the famous Leko luminaire.

Mr Kook's connection with Strand was through the company he founded in the United States, Century Lighting — now owned by the Rank Organisation and known as Strand Lighting Inc.

He will also be remembered in lighting circles for his textbook *Images in Light for the Living Theater*, published in 1963.

NEWS IN BRIEF

BOOST FOR LIGHTING DESIGNERS

A training seminar at London's Half Moon Young People's Theatre in November for lighting directors and designers, and sponsored by Strand, featured guest speakers David Taylor, Rick Fisher, Dee Kyne, Nick Malliammoir, Jane Linz-Roberts, Michael Walling, and was chaired by Chris Corner.

CLIFF LIT UP PLASA



Looking fresh and tanned from a holiday in Portugal, Cliff Richard officially opened this year's PLASA exhibition at Olympia. The exhibition saw the launch of a number of new products from Strand, including MX, the Quartet range, and Premiere.

STRANDBOOK 2

Issue two of *The Strandbook*, is available price £5.00, plus £0.90p p&p from Strand Lighting (see insert order card). This offer applies to UK readers only. Overseas readers please consult your nearest Strand dealer or agent.

A UNIQUE TELEVISION THEATRE NEAR LONDON BRIDGE IS NOW 'HOME' TO A CHAT SHOW HOSTED BY THAT RISING STAR AMONGST PRESENTERS, JONATHAN ROSS (AND IF OVERSEAS READERS HAVE NOT YET HEARD OF THE PERSONABLE MR ROSS, THEY SOON WILL). HERE WE SEE HOW IN EVERY SENSE 'THE GREENWOOD' IS A FULLY...

OPERATING THEATRE

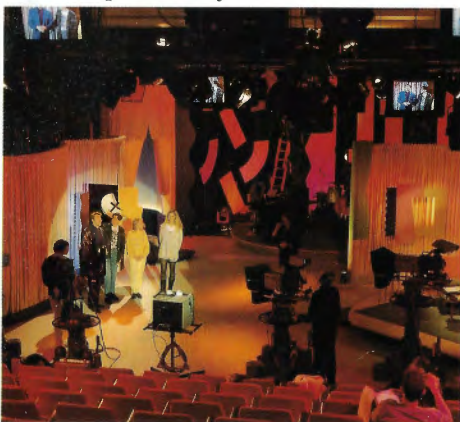
The story goes that when a wealthy benefactor of London's Guy's Hospital left money in his will for a new theatre, what he meant was a new operating theatre. What the hospital got, thanks to a liberal interpretation of his last request, was *The Greenwood*, one of Britain's most up-to-date television theatres.

That the late Sir James Mantle Greenwood, CBE, JP — a former Governor of Guy's — was also a theatre buff, suggests that the story is apocryphal but it makes a nice little tale, nonetheless. Sir James, who died in 1969, would no doubt be thrilled at the way *The Greenwood* has shaped up.

It is now a base for Jonathan Ross (he of the trademark speech impediment), whose live chat show *Tonight with Jonathan Ross* is broadcast three times a week on Channel 4. What Mr 'Woss' is no doubt untroubled by is the knowledge that, in TV circles, he is unique in having both a Galaxy and an MX24, working in unison to control his studio lights.

Although still within the limits of Guy's, and formerly used by medical students for their own amateur dramatic productions, *The Greenwood* was acquired by the BBC for *Question Time* and transformed into a TV theatre. It later served as a chat show home for the late Russell Harty. Now it is operated by Network One on behalf of the Guy's Trustees and forms an additional studio to Network One's other studio in Gillingham.

■ All set-up and ready to run.



■ Jonathan Ross on stage.

Technical Manager, Andrew Dixon, first came to *The Greenwood* in its BBC days, and has since returned. In the way that modern TV production works, Jonathan Ross's show is produced by an independent production company, Channel X. One of Channel X's stipulations for using *The Greenwood* was that studio facilities should be of sufficiently high standard for a 'flagship' production. As a result, new cameras were brought in and the sound system upgraded.

Andrew explained, 'I was very worried that with the sound and camera departments being up-graded, it would highlight the fact that the original lighting controls — not Strand — were clumsy to operate and did not have the facilities for producing rock shows when the company wanted them.'

The industry 'standard' for studios being the Galaxy 3, this was mentioned to Mike Sutcliffe, Channel X's lighting director. Mike felt that the Galaxy might limit his plans for rock lighting, and wanted to bring in a huge 'rock board' console — which again, would not be suitable for some of the other types of production under consideration.

The market was tried and tested for

the most suitable lighting control systems. Fortunately for *The Greenwood* and for Strand Lighting, a meeting between Andrew and Strand's Alan Luxford brought the new MX system into the conversation.

As a result, Andrew and Mike Sutcliffe compromised and now feel they have the best of both worlds from Strand Lighting — a Galaxy 3 system and an MX24. Both boards are used on their own merits for various phases of lighting design, but the MX is used additionally as a back-up for the Galaxy.

Andrew explained, 'MX was a gift at the right time. I went to the PLASA exhibition and saw what MX could do. It came in the nick of time.'

'I was concerned that MX might be limited. But at the PLASA exhibition I was shown how you can take in more channels on the board by means of a soft patch.'

'The fact that it was capable of doing chases and that you can flash channels individually was also very much in its favour.'

■ Galaxy and MX.



For Jonathan Ross's show, the Galaxy is used for interview lighting and the MX board for the show's music acts.

With professional operational staff at *The Greenwood* there has been no need to use a MIDI interface with the MX. Besides, the lighting team prefer to carry through the 'live' feel of the show by running chases manually when they can — when end credits are rolling, for example.

TO SEVERAL GENERATIONS, NORMAN HUNTER IS THE CREATOR OF THE DELIGHTFUL CHARACTER PROFESSOR BRANESTAWM AND AUTHOR OF A SERIES OF CHILDREN'S BOOKS CHRONICLING HIS ADVENTURES. BUT IN LIGHTING CIRCLES, HE IS THE PROPRIETOR OF THE OTHER THEATRE ROYAL, DRURY LANE — A FULLY OPERATIONAL SCALE-MODEL OF THE REAL THING.



■ Interior of the Theatre Royal, Drury Lane.

PROFESSOR BRANESTAWM'S MAGIC THEATRE

Norman Hunter, a sprightly 91-year-old, has now retired from writing, so maintaining the Theatre Royal, Drury Lane for the benefit of family and friends is more or less a full time job. But this theatre is no mere toy, and has recently been brought up-to-date with new Strand Lighting.

The 'three-eighths of an inch to the foot' scale model occupies what used to be the study at his home in Staines,

■ Norman Hunter with dimmers.



Middlesex. The 'auditorium' is in the entrance to the room and the 'backstage' area is every bit as complex as in a full-size theatre. For this theatre includes six bridges, two traps and 14 gridlines.

The dimmers may fall a little short of EC90 standards but they do the job they are intended for. As for the lighting, the theatre is spot-on. The latest acquisitions have been two items from Strand Lighting's architectural range — a Minicube and a Minispot — both of which are now serving as stage lighting.

Norman's love of theatre, stems from his first visit to the Theatre Royal in 1913 to see the pantomime, *Sleeping Beauty Reawakened*, with Will Evans and George Graves. In the 1920's, he returned to the theatre with his wife to see *The Decameron Nights* but he confesses that he has never actually been backstage at the theatre.

Instead, working from photographs of the interior he decided to build his scale model as a hobby, while he was working as a copywriter for an advertising agency in South Africa after the war.

The theatre he built is as it looked after refurbishment in the 1920's (*Decameron Nights* was the re-opening production). Norman's construction programme, working from his photos, and architectural drawings reproduced

in *The Builder*, began in 1950. The bulk of the work was finished by 1954, then it had to be dismantled in 1970 when he retired and returned to England. Reconstruction began in 1979, when he stopped writing, and since then there has been a constant programme of maintenance and repairs.

He explained, 'I have been interested in the theatre, and model theatre in particular, for as long as I can remember. The strange thing is that it is no different to the real thing, in lighting terms. You can rehearse a show and everything will go smoothly. If anything is going to go wrong you may be sure that, without fail, it will happen in the middle of a performance.'

The little Theatre Royal's repertoire — all of them with properly planned lighting cues, realistic theatre sounds, music and scene changes — includes Gilbert and Sullivan, and Wagner.

Performances are given of established classics such as *The Mikado*, *Iolanthe*, *The Ring*, *Das Rheingold*, *Die Walkurie* and *Siegfried*.

All the scenery and figures of the cast are to scale but the only problem comes in *Siegfried*.

As Norman explains, 'Unfortunately, the dragon is rather on the large side, so when Siegfried slays him there is not a lot of room on stage for much else to happen'.

THE IDEA OF MATCHING MUSICAL NOTES TO LIGHTING IS NOT NEW. IN THIS SPECIAL FEATURE WE SEE HOW THE CONCEPT HAS BEEN REFINED OVER THE YEARS. BUT FIRST WE TAKE A LOOK AT THE VERY LATEST STRAND TECHNOLOGY.

MUSIC, LIGHTS, ACTION

The latest abbreviation to enter the lighting designer's dictionary of cryptic terms has arrived by a circuitous route from the sound business. MIDI is becoming the buzz-word of lighting designers, technicians and operators, and with the announcement of Strand's MX lighting control in September, MIDI is set to enthral, enthuse or just confuse even more lighting people all over the world.

So, what is it? Something to do with musical instruments, surely, as anything with the title of Musical Instrument Digital Interface should be. But what has that got to do with a lighting rig, a control desk, a straight play, when the nearest musical instrument is an upright piano in the rehearsal room?

MIDI has been not so much a 'thing' more a way of life for musicians since about 1984. It is a communications protocol (a code by which equipment can transmit and receive messages) which enables electronic instruments to be connected together and controlled from either a central timing computer, or linked directly to each other.

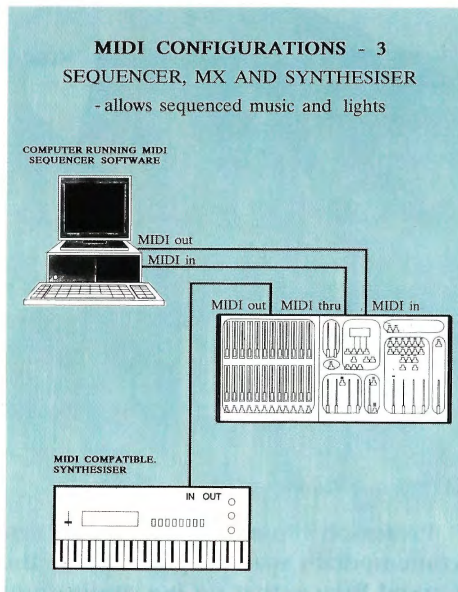
The protocol describes specific messages that are transmitted to say a particular musical note has been hit, or released, or to say that a switch or keyboard control has been altered. If several instruments are linked together (synthesizer, electric piano, drum machine etc). the protocol enables these messages to be addressed to each instrument individually so that a 'master' instrument can control the others directly.

It is possible for a single musician to 'play' many keyboards, each with a different voice and tone, by playing one keyboard only and using the MIDI linking system to play the other instruments at the same time.

Now put a computer in the system which can record all the key depressions and volume changes as a sequence of instructions whilst the music

is played, and the MIDI system expands to the point where the computer (or, sequencer as it is known) can reproduce the effect with typically computerised precision. This is not intended to replace the human element of live music, but simply to augment the sound as played live by the musicians.

Enter the lighting controls. The data flying back and forth along the MIDI link (a very friendly 5-pin male DIN plug on each end of a twin-screened data cable), is not a million miles away from the information needed by a lighting control to function. For keyboard notes read faders; for switches read push buttons; for instrument addresses read control desks... and there it is — a compatible system.



Well, not quite. Although the MIDI protocol defines each musical note as a code (middle C is 3C in HEX if anyone's interested), and although an International MIDI Association (IMA) and MIDI Manufacturers' Association (MMA) exist, regrettably there is no commonality in MIDI lighting codes from different control desks. Strand, as a member of MMA, is involved in discussions to create a standard for defining control functions, but for now, each manufacturer makes his own decisions of what means which.

For the present, we have a system which enables the MIDI link to do just about everything except talk between MIDI-equipped lighting desks of different manufacturers. This is but a small limitation in comparison with the power of MIDI for lighting.

Systems have been developed which use the output of a sequencer to control dimmers directly. This has many uses in the special effects market, but the limitation of 128 dimmed levels (MIDI has an 8-bit protocol, 7 bits of which are available as 'levels', whereas Strand's MX control calculates to 32 bits, rationalised to 8 bits or 256 levels), and the relative complexity of programming the sequencer will limit the effectiveness of this system.

The use of MIDI in lighting control has grown into remote fade execution, the synchronized control of bump buttons, control of effects and automated, repetitive audio-visual controls.

This is where the MX comes in. Strand's latest manual/memory control desk has caused something of a stir with its new approach to lighting control. The simplified 2-preset manual desk concept has been enhanced with the latest microprocessor memory control to give not one but *four* overlapping and interactive control systems.

Whilst the two preset manual system is used to give the 'hands-on' feel to the lighting, there are dedicated memory submasters alongside to add previously recorded scenes. This leaves the memory section to supply some timed crossfades, with the special effects package completing the picture with up to six running effects at the same time.

For the high-tech band on the road. MX links in to the music sequencer in the same way as another synthesizer. When the sequencer is switched to run, it can reproduce the backing sounds and rhythms whilst the lighting designer uses MX to create effects.

Cross fades, builds, flashes, snap cues can all be performed and memorized with split-second accuracy in the sequencer. Switch the MX from MIDI 'out' to MIDI 'in', and when the sequencer is re-started, the lights will follow the music as precisely as when it was performed live.

MIDI control is not reserved just for the live bands. For the less energetic performances in theatres and on tour, MX's MIDI link can be used to join desks together so that one 'master' desk can control many more MX desks (each one controlling up to 48 channels and 512 dimmers using either one of the two software-controlled proportional patches), or to link MX into other non-musical forms of MIDI, like SMPTE time code for example.

COLOUR MUSIC WAS ONE OF THE WONDERS OF THE WORLD BEFORE THE FIRST WORLD WAR. DAVID LAZELL RECALLS THE IDEAS OF PROFESSOR ALEXANDER WALLACE RIMINGTON AND SUGGESTS THE REVIVAL OF INTEREST MAY BE LONG OVERDUE...

COLOUR MUSIC LIGHT (AND A HINT OF BRITISH ECCENTRICITY)



■ Professor Rimington.

If ever the stage lighting business needs a patron saint, it need look no further than to Professor Alexander Wallace Rimington. He was an advocate of Colour Music and a sort of roving ambassador for lighting effects in that halcyon period prior to the First World War.

Strangely enough, there was an awakening public interest in stage effects then, even though mains electricity, like the telephone, was still rumoured to be dangerous. But Professor Rimington determined to show the possibilities, not least by his domestic conversions to the Colour Organ apparatus which he designed and largely made.

Sarah Tooley, a magazine journalist of the time, wrote that the Colour Organ would 'flood the most prosaically dull room in London's murky atmosphere with vibrating rainbow hues which will bring music to the soul of those cultivated to receive these impressions'.

Professor Rimington's life was almost contemporary with the great days of the Crystal Palace, that *ad hoc* auditorium in south-east London. Here, too, the early stage lighting effects had been subject to experiment by popular lecturers like the Rev. John Wood.

Wallace Rimington was born in 1854. As a young man, he had studied art, later exhibiting at the Royal Academy and the Royal Society of British Artists.

Inevitably, given the discoveries of the time, he became interested in photography and music, bringing to both a growing vision for lighting effects. His Colour Music idea probably grew from discussions found in late Victorian magazines, namely that colour and sound were two aspects of the same reality, i.e. the music of rhythm of the universe.

VIBRATIONS

This is probably 'old hat' now, but at the time, it seemed a novel enough idea

for Professor Rimington to explore further. He believed that sound (music) and colour were both due to vibrations that stimulated the optic and aural nerve endings. So if one could perform music whilst creating lighting effects that, metaphorically speaking, were on the same wavelength, it would be possible to capture more realistically the composer's intentions.

Stage drama might be enhanced, too, and in this sense there was perhaps some influence from *Bayreuth*, for Richard Wagner was certainly interested in colour, as Professor Rimington well knew.

Experimenting with electrically driven gadgetry and other marvels, Professor Rimington devoted much of his London residence — in Pembridge Crescent, W11 — to his Colour Music installation. Many celebrities came to see it, one being Sir George Grove.

Basically, the equipment projected varying hues onto a curtain or a screen,

the varying effects expressing the 'idea behind the music', so that those present would receive audio and visual interpretation of the composer's ideas.

Writing about this art form, in the first decade of this century, in his book 'Colour Music: The Art of Mobile Colour', Rimington offered general guidance on the way that standard works in the repertoire might be expressed in colour. Of course, he hoped that composers would in the future write their scores in dual form, for conventional sound expression, and for visual or light effects.

HARMONIC

A Wagnerian trumpet blast, he suggested, might be accompanied by intense orange effects, 'which palpitates with the harmonic colours corresponding to a subordinate passage on some of the other orchestral instruments. The blast ceases; there is a faint echo of it upon the violins, while the screen pulsates with pale lemon and saffron hardly discernible. Again comes the blast of trumpets, and once more the screen flames with orange modulations'.

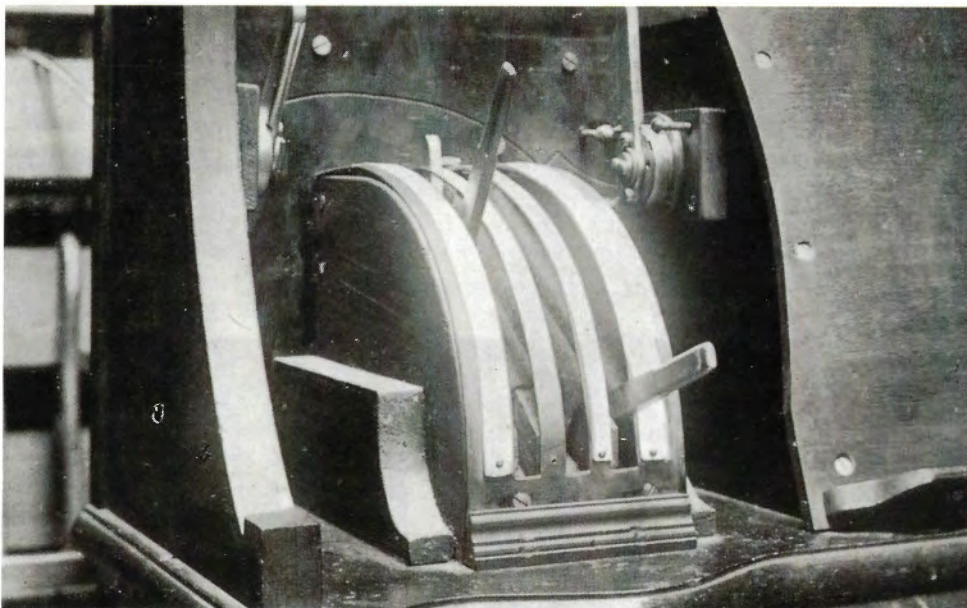
Professor Rimington's home demonstrations must have been unforgettable. The Colour Organ was some ten feet high, with a five octave keyboard which was similar to that of a church organ, being controlled by stops. A line of 'colour keys' was situated above the conventional (sound) keyboard, and connected to a lens-and-filters system, so that 'colour' was 'played'. Best effects were secured when the sound and colour were played from separate keyboards.

The person 'playing the colours' was able to monitor the effects, by looking through a strategically placed mirror, but inevitably a good performance demanded a great deal of rehearsal not to mention luck, remembering the limited potential of mains electricity.

A 'swell' pedal could heighten or diminish the colour effects, whilst keyboard stops provided the elements of control for brightness, into and out of the other colours, dissolve effects and so on.

There seems little doubt that Professor Rimington's keyboard concepts were forerunners of the Strand keyboard controls for theatrical lighting, coming years later. A power supply of 150 amps was required to power the lighting source, arc lamps mainly, and the colour dyes used on the filters were developed after considerable research.

Contemporary photography, *circa* 1912, of the in-house electric fittings

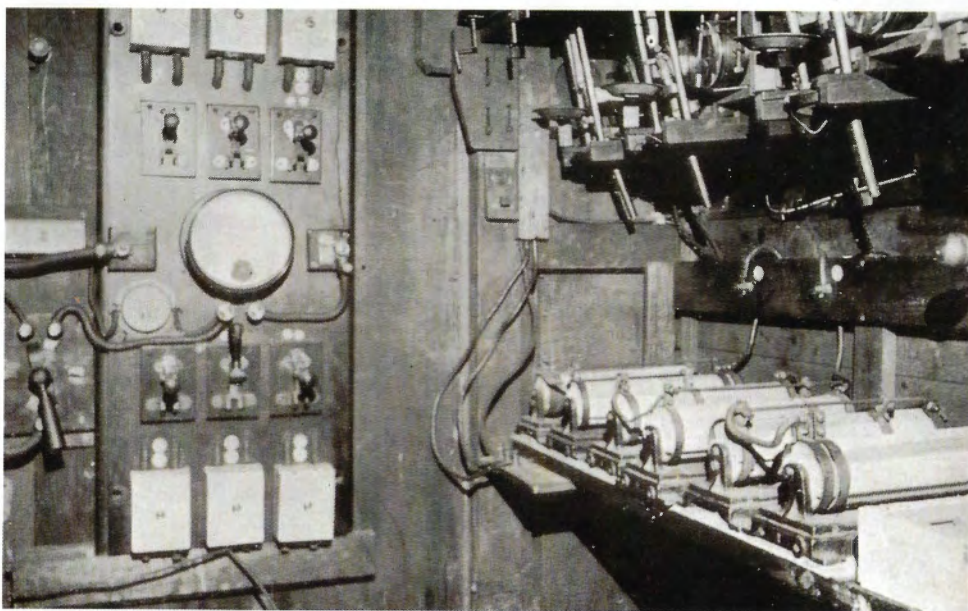


■ Lighting controls for the three-colour organ.

gives the impression that the wiring was intended to supply a local airfield or factory. Readers were assured that the Colour Organ consumed thirteen hundred candle power, though candles were not used, nor were nightlights for the quieter passages!

He was by all accounts an earnest and interesting lecturer, but must have been aware that composers might have their own idea of colour interpretation of their work, not to mention the stated preferences of orchestral conductors.

In his sixtieth year when war began



■ The 1300-candlepower light source for the organ.

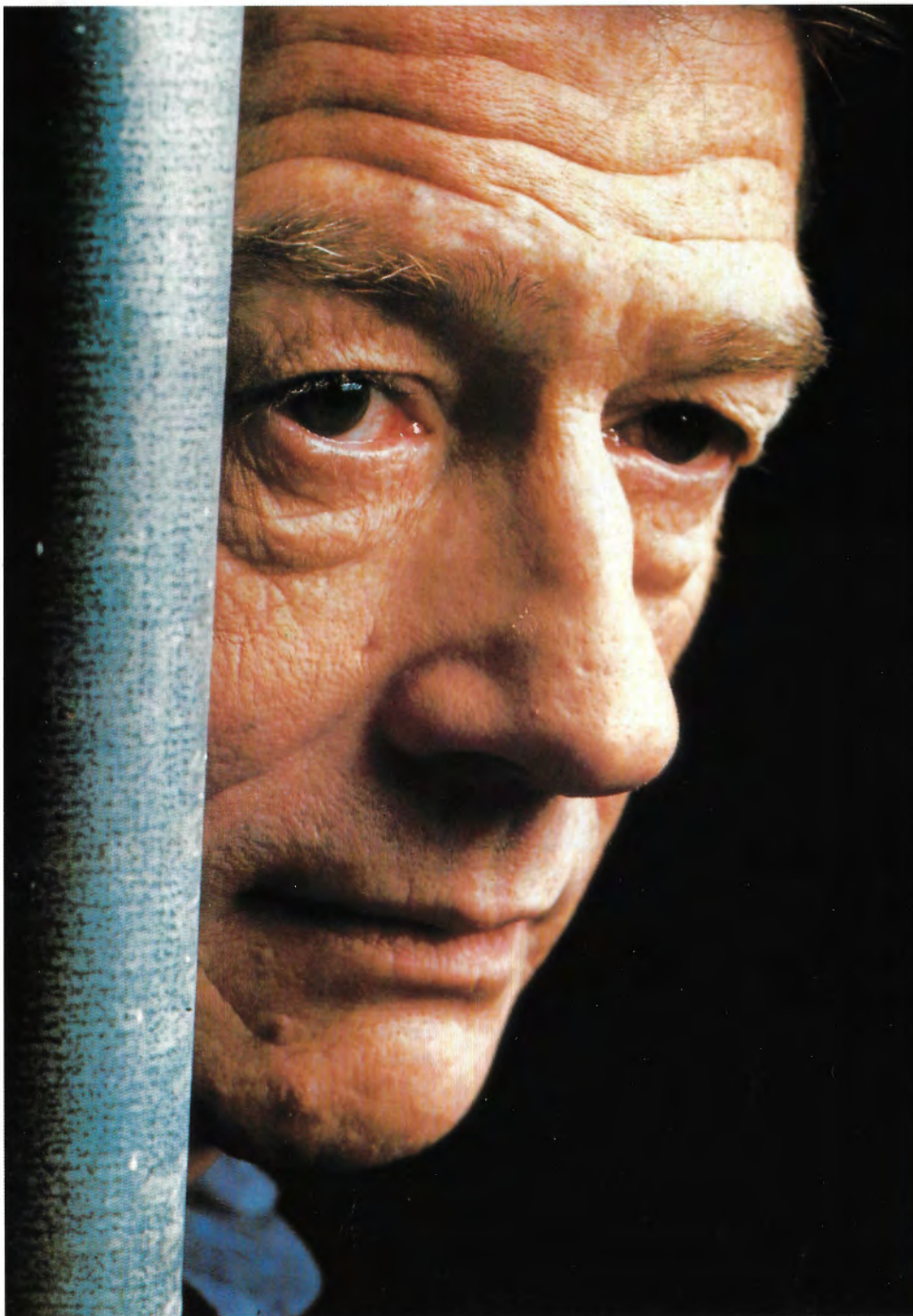
Theatre specialists were interested in these ideas, but Professor Rimington tended to lecture on social realities when he appeared on platforms. He believed that Britons had lost 'that fine sense of colour they possessed in medieval times', and thought that the daily round of most people was so in-artistic in nature as to prohibit any real appreciation of colour. Colour Music could act as a bridge between the everyday and a sense of enhanced awareness of the world, whilst psychological medicine might similarly make use of the insights derived.

in August 1914, Professor Rimington had been anticipating a public demonstration of Colour Music, which, better than anything he wrote, might persuade the public of his case. Alas, the event was abandoned.

By the time Professor Rimington died in 1918, there was a new interest in presentation of musical performance, aided lighting and other somewhat neglected aids.

Had he lived into the 1920's, it seems likely that a School of Colour Music would have been established in London.

SOUNDING OUT THE LIGHTS



Since the 1960's John Hurt has built-up a considerable international reputation as a dramatic actor, having appeared in films as diverse as *Midnight Express* and *The Elephant Man*. And who, since seeing *Alien* has experienced even a mild stomach-ache without fearfully anticipating a similar alarming fate to that befallen by the hapless Mr Hurt?

All of which means that one of cinema's most instantly recognisable 'faces' has developed some very firm ideas of his own on dramatic lighting over the years.

He said, 'I think that lighting is something that a performer must know about. It is one of the essentials.

'Sadly, nothing at all was taught about lighting at RADA. Oddly enough you are taught everything but lighting.

'All kinds of things were taught in terms of stagecraft but there was little else when I was there. Very little was taught about film or television for that matter.

'They have more in the curriculum now but I very much doubt whether there is anything to do with the technicalities of lighting.'

John was speaking at his temporary home in Dublin, where he and his family are anxiously waiting to move into the house they have just bought in County Kildare.

◀ LIGHTING IS SOMETHING A PERFORMER MUST KNOW ABOUT. IT IS ONE OF THE ESSENTIALS. ▶

As a highly respected performer, with an enviable clutch of acting awards to his credit, he feels that personal attention paid to the lighting of a film or TV set helps him to turn in a notable performance when the cameras start rolling.

He explained, 'Obviously there are lighting men that one gets to know over the years and you can tell that the more they work with you the more they understand your face. That's one side of things.

'The film which stays in my memory for dramatic lighting was *The Elephant Man*. I think that was a piece of genius lighting. It was lit by one of the greatest black and white lighting men we have. Freddie Francis.

'Lighting was extremely important for me to understand what was going on. For me to make any sense with particular movements, I had to understand the lighting and the lighting had to understand me.

'Certainly lighting for black and

Photo: Retna Pictures.



■ With Veronica Cartwright in *Alien*.

white is infinitely more complicated than colour. But I think that lighting is something you have to learn to live with. You learn to live with that which is going to make the best effect.'

Did the quality of lighting, for better or worse, affect his acting performance significantly?

He went on, 'I think it does in several ways. For instance, just as an example, a particular kind of lighting can require a particular kind of voice, because one will suit the other.'

'If there is a particularly moody kind of lighting, you are not going to want to destroy that mood by using a noise that is not going to be compatible.'

'Unfortunately I don't think lighting is talked about enough at the rehearsal stage.'

'There are lighting men that I get to know well, like Mike Molloy, who you can talk to — if you get him on a good day — and one or two others, but that is by fortune of being able to work with somebody more than two or three times.'

'But I don't think that is enough. You are very rarely asked for an opinion but I do take a look.'

'If I notice that for me the lighting is much too 'toppy', then I have to have a



■ As John Merrick the Elephant Man.

word because I know that that is not going to work for me at all on a personal level. I know that it ain't going to suit my physog.

'I personally do it because I know what works for me and what doesn't work. I know that if the lighting is too 'toppy', then you are not going to see my eyes. And if you are not going to see my eyes, then I might as well go home.'

The ravages of time and life have given John what are politely described as 'character lines' in abundance. Did he feel that they made an actor's face more interesting visually?

IT WOULD MAKE A LOT OF SORRY STORIES A LOT SHORTER IF YOU KNEW MORE ABOUT LIGHTING TO BEGIN WITH.]

He said, 'I think so, yes. How much difference that makes to the lighting I am not quite sure. It is difficult achieving the right balance with skin tones. There is also the big difficulty when you have a black actor with a white actor. That is tricky in anybody's book, but has to be taken into account.'

'There is also quite a difference from the actor's point of view in theatre and film lighting in as much as that theatre is constant. In film it is much more varied, from long-shot to close-up. Each set-up is a new one.'

'In the theatre, once you have made the design and once you know your stage spot, when you know where you are and you can feel the light, it is very much clearer. What is more, you can see all your key lines. It is not quite so evident in films.'



■ In a Turkish gaol in *Midnight Express*

'Over the years I have worked with so many lighting men. They all have their own attributes. They are all extremely good and they are all extremely different.'

For established actors like John Hurt, developing a close working relationship with lighting designers and technicians over the years gives their own professionalism an added dimension. However, experience is still no substitute for the lack of basic training in lighting

techniques at the start of an actor's career, he feels.

He added, 'I would like to see lighting being given more attention. Obviously, with experience you do pick things up.'

'But it would make a lot of sorry stories a lot shorter if you knew more about lighting to begin with.'



■ As Richard Rich in *A Man For All Seasons*.

During his career, John Hurt has picked up a string of acting awards for his performance on stage, TV and film. His list of film credits includes: *A Man For All Seasons*, *Forbush and the Penguins*, *10 Rillington Place*, voiceover for *Watership Down*, *Midnight Express*, for which he won a British Academy award as Best Supporting Actor, A Golden Globe award and an Oscar nomination; *Alien*, with Sigourney Weaver; *Heavens Gate*, *The Elephant Man*; Mel Brooks' *History of the World Part 1*, *Champions* in which he played the part of jockey Bob Champion; *1984*, in which he played Winston Smith; *White Mischief*, *Scandal*, and the much-acclaimed TV productions, *The Naked Civil Servant*, and *I Claudius*. He has twice been voted Best Film Actor by the Variety Club of Great Britain.

Footnote: Since John Hurt's days as a drama student, more thought *has* been given to lighting. See our next issue for an update on RADA.

Photos: Ronald Grant Collection.

MAKING LIGHT OF HEAVY METAL

When top-selling rock band *Iron Maiden* takes to the road, a specially-designed touring rig, featuring Strand luminaires, moving lights technology and controls, goes with them.

The touring rig was designed by Paul Devine, Ronan Willson and Geoff Benson of Borehamwood based hire company Meteorlites. As Geoff Benson says, 'Providing the lights for a tour takes you into a completely different dimension. You have to think of literally everything.'

This is partly because with a rock tour, the venues may range from a medium-sized theatre right up to an outdoor arena. No matter where the band is playing, the light show has to remain similar. The fact that at some of the venues there may be no suspension points for lighting means that such eventualities (plus, of course, unknown quantities of additional cabling) have to be taken into account by the hire company in the very early stages.

The other factor is a familiar problem for anyone who has to take a show on the road.

'A lighting problem is posed. They want something which looks like a million dollars but they have a fixed budget and crew to work with it and in any case, everything must fit inside a given truck space.'

Finding the answer to such problems has been the key to Meteorlites success over the years.

Acts and shows the company has been responsible for lighting have included Jason Donovan, the now-legendary *The Wall* concert in Berlin, Phil Collins, Joan Armatrading, the *Proms* at the Albert Hall, the *Antiques Roadshow*, Fleetwood Mac, Chris de Burgh, the Beach Boys, Prefab Sprout and numerous television productions.

Geoff Benson, one of Meteorlites' production managers explained, 'In general we specialise in 'event' lighting. If there is a quantity of lighting equip-



■ *Iron Maiden* — taking to the road with a Strand-influenced touring rig.

ment, you can hire it to a variety of different markets. We don't just restrict ourselves to one market.

'In our type of business there is a great deal of cross-fertilisation going on and this originates from the demands of the clients. The client wants to achieve a certain effect and it is up to us to come up with the equipment to allow him to obtain it. Occasionally this will mean combining components in a way which I am sure the manufacturers never foresaw.'

In the case of *Iron Maiden*, the lighting designer was Paul Devine, who has had a close working relationship with Meteorlites for many years.

The touring rig devised by Paul Devine and Ronan Willson for another client, *Marillion*, employed a good deal of Strand's moving lights technology.

This included Parscans, Parscrollers, two Cadenza profiles with colour changers, Iris colour changers and a specially-developed 'Proscan' hybrid profile spot, based on a Parscan.

Geoff explained, 'They wanted a dynamic show and the show that was developed was really stunning. There were so many 'looks' available from the rig.'

When it came to the *Iron Maiden* project, this was expanded to include over 100 Parscans, 68 Parscrollers, also aircraft 'landing lights' with colour changers and some other colour changing devices, all controlled by two Taskmasters.

'What we have done is to take Strand technology and add on to it. The cabling and distribution system for the Strand equipment is customised to

integrate with Meteorlite's lighting rigs.'

One of the secrets of a successful touring rig is the basic flight-casing.

Geoff said, 'We look at how you flight-case something and we have special flight-cases built if necessary. If you don't flight-case something properly it will be damaged.'

'Also, when you are sending a rig off on tour you have to take repairs into account. How easy is it to repair? Is the device so unreliable that you need a spare one, just in case it breaks down?'

'And once you get into colour-changing technology you are in a new area of repair altogether.'

'You also have to develop cabling routines and systems to enable you to isolate any faulty items. There is also the added problem that different products have different failure rates. For example, a Mark II Parscroller has had significant improvements which resulted in increased electronic and mechanical reliability.'

'Like all other branches of the lighting industry, you have to work on the assumption that if something can go wrong, it will.'

'One point which is often overlooked is that in lighting, every job you do is unique. No two jobs are ever the same. People do expect a great deal from their lighting company. They expect us to solve a lot of their problems.'

'It is in the lighting designer's brief to do things that haven't been done before. Everyone wants something new.'

'And of course a rock band will take a great deal of interest in its lighting. What our industry comes up with determines the quality of their show.'

OPERA TAKES THE ROCK ROUTE



■ Taking a tip from the rock world, Glyndebourne Opera is now geared up for frequent touring.

The world famous Glyndebourne Opera has developed a unique way of taking its show on the road — unique, that is, for an opera company.

For at the suggestion of Strand Lighting's customer, Zenith Lighting, the opera company has taken a leaf from the book of rock supergroup *Genesis* and streamlined the lighting aspect of its touring operation.

Now, instead of each luminaire travelling individually, lights are all pre-rigged on bars and transported in specially-built flight-cases the width of a Patt 243 and the length of a Cantata hung on a Glyndebourne clamp.

■ Perfect setting-up each time.



Since all theatres have ramps for scenery, it is now a simple matter to wheel in the cases, line up the boxes, fly in a bar, chain the rigged bar to the flying bar, then fly the luminaires to a standard height of 20 feet.

Each section of the bar has a socapex multicore, labelled and connected. Each flight box is accompanied by a large black plastic dustbin which contains the cable. Cable is connected, and as the bar flies out, the cable unwinds like a snake from a basket.

The system means that one person can precede the lighting team, and then he and the local crew can fly six spot bars and flash out within two hours. At the end of the run, three members of the team stay behind to run the last show and the get-out takes an hour. Glyndebourne's Lighting Manager/Chief Electrician, Keith Benson feels that Glyndebourne electricians are now better organised for their five weeks of touring per year than most touring companies who are on the road for upwards of 26 weeks a year.

FOCUSING

Glyndebourne's repertoire is so extensive that they will produce a different show every evening and usually a dress rehearsal for another opera during the day. The normal method of refocusing would take too long, so Glyndebourne

have adapted a unique focusing method for use during the festival and tours.

The Glyndebourne method is ludicrously simple. Two white roller towels are marked off in two-foot increments. One — the Setting Line — is rolled down the centre of the stage. At Glyndebourne it is 60 feet long, but touring depth used is 32-feet.

The second towel is marked off L1-10 for left of stage and similarly R1-10 for right of stage. The set does not change, except that it might get smaller at Oxford, Norwich and Southampton.

The lamp is focussed using the coordinates so that the set does not need to be in situation at the time. Two tallescopes are used at once for speed.

Colour is cut longer than the light so that it can easily be pulled out. This is slotted in behind the frame for speed because quite often it is necessary to colour-up three times a day.

Each opera has a colour envelope which has the circuit number, colour and gobo on the outside. At the end of the performance, the colour is removed and stored in the envelope in the correct order. The company always tours with a box of rolls, just in case.

CONTROL BOARDS

When touring, Glyndebourne provide every piece of lighting equipment needed from the orchestra pit backwards. Therefore, 80% of the lighting is already stored in memory and all they have to do is put in the FOH circuits.

For ten years, Glyndebourne had a Strand MMS, which they were very happy with, since it did 'sterling service' and they only had to run one performance on backups. However, they needed a memory board, so they purchased a Q file but since this did not tour well, they bought a Gemini from Strand which is now used as the main festival board. According to Keith Benson, Strand's service has been 'second to none', so now Glyndebourne have bought a Galaxy 3 system for touring and another Galaxy 3 has been permanently installed at the Opera House.

DIMMERS

Strand's dealer, Luff Light and Sound, supplied 16×Act 6 and 2×Act 3 dimmer packs.

The mux cable comes into an auxiliary panel. Every plug and socket is numbered; everything stays plugged in the flight-cases, which travel on their backs, with a trap door at the back for the mux cable. Each individual rack has its own breakers — mux links from rack to rack and two fans with indicators for cooling.

**GERMANY'S
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WE DISCOVER HOW
STRAND LIGHTING,
THROUGH ITS
LOCAL OFFICE,
PROVIDED...**



■ *The Gemini 2 control desk and an impressive battery of luminaires in the Dr. Straube studio.*

LIGHTING AT THE FLICK OF A SWITCH

A PALS automated lighting system has just been installed in the new studios of the Dr. Straube media group in Erlangen — the second time that Strand Lighting GmbH has supplied a fully computer-controlled system to a film and television studio in Germany.

The Dr. Straube media group has been equipped with professional-level studio technology since 1983. 'House' specialities are video, film and TV productions.

A regular production feature is the 90-minute further education video magazine, *Puls* (circulation 15,000). A subsidiary company, IMPULS TV Filmund Fernsehproduktionsgesellschaft GmbH produces industrial and advertising films, plus documentaries, to order.

The client list is impressive, including companies such as Siemens and Daimler Benz, and government bodies such as the Federal Press Office, and radio and TV stations including Bayerischer Rundfunk and Westdeutscher Rundfunk.

So successful had the company become that the old studio was virtually bursting at the seams. A second

studio of 200m² was added, designed as a universal production and broadcasting facility for up to four cameras, plus the latest TV, video and audio technology.

The new studio is of two storeys, with a ceiling height of 6.8 metres. An extendable stand provides seating for up to 100 people. Lighting is placed in such a way that at any given point throughout the studio there are sufficient Fresnel spots and soft spots available. Vertical positioning is via motor-operated hoists distributed at regular intervals throughout the studio. These support not only the cyclorama lights but also the entire set lighting.

This hanging system is especially suited to the studio, since when not in operation, its overall depth does not exceed that of the recessed ceiling beams. This means that the studio height is always fully used to best advantage. Nevertheless, the lighting rig can be lowered to as little as 150 centimetres above the studio floor.

Hoists for the set lighting support a Polaris Fresnel spot, with a 1kW lamp, a Castor Fresnel spot with a 2kW lamp and an Arturo soft spot with 2x1250W input.

All spotlights are motor-operated for angle and rotation. In addition, the Fresnel spots have motor-operated focussing. The special feature of the equipment is that all parameters set for each individual spotlight can be stored in the computer and reproduced as often as required.

The positive effect on studio operation was noted soon after installation. For regular monthly film productions, IMPULS TV now needs a considerably shorter period to make basic lighting settings.

All positioning data for spotlights is stored, available for recall. Only the positioning of barn doors, light diffusion media and coloured lighting effects have to be set by hand.

PALS — Precision Automated Lights, gives the studio additional versatility when it comes to slotting one-off programmes into a long-running series, for example. A series with unchanging sets can simply have lighting cues recalled from memory when necessary.

One idea being explored by the studio is for producing game shows for private TV stations, and also a monthly information programme covering the technical and scientific fields.

SPOTLIGHT ON GERMANY

HEAD OF OUR PROJECT TEAM AT MANNHEIM NATIONALTHEATER, BERND RATZMER EXPLAINS HOW PROVIDING 'REMOTE CONTROLLED BACKLIGHTS' MEANT ONE THING...

DEAR OLD PALS

After being a power plant technician responsible for lighting tasks for many years I couldn't really imagine what sort of light had to be used for stage lighting.

The simple requirements of industrial illumination are easy to solve technically. There are straightforward formulae for calculating lighting for halls, offices, machines and the like.

The technological requirements for stage and studio lighting opened up a completely new field for me and enlightened me in the true sense of the word. I was to learn that light bulbs, HMI and halogen spots mixed on a frame and remotely controlled could provide the answer for anything.

For example, in the Mannheim Nationaltheater, for safety reasons the theatre personnel there were not allowed to stand on the lighting frame. This was easier said than done.

The spots fitted on the lighting frame were in use in most of the plays and it was not possible simply to replace them with other equipment. The spots would have to remain. Nor was it possible to equip and reset the lighting with the frame lowered. A solution had to be found — fast and, above all, a feasible solution at reasonable cost.

Strand Lighting had the answer — PALS. PALS stands for precision automated lighting system, a system to operate all kinds of spots by remote control. With the flexible possibilities offered by this system, it was the solution.

Although not all the equipment required was immediately available, the

modular PALS concept facilitated design and production of all equipment in only four months.

A total of 13 low-voltage 'contre jour' ramps, probably better known as Svoboda ramps, six low-voltage Beamlite 1,000 spots and two HMI, 2,500W Sirio Fresnel spots equipped with PALS remote control was provided. In addition, three Fresnel Pollux 5kW spots and two Zoom profile Cadenza 12/22 spots were supplied and fitted from factory production. In the meantime, most of the spots for theatres and studios are immediately available as PALS equipment.

All this is computer-controlled by the lighting director. Each spot is brought into the required position via a keyboard. All control directions are transmitted to the spots via one single line. The control computer in the spot yoke then carries out these instructions independently. Position data, light cues and additional aids are displayed on the screen for the information of the user.

After the 'setting process' of all the equipment involved has been completed, the entire adjustment is stored as a cue and can be reproduced at any time extremely accurately.

As head of the project, I was responsible for both the technical management and fitting the new Strand Lighting PALS spots in the Mannheim Nationaltheater. All in all an interesting project.

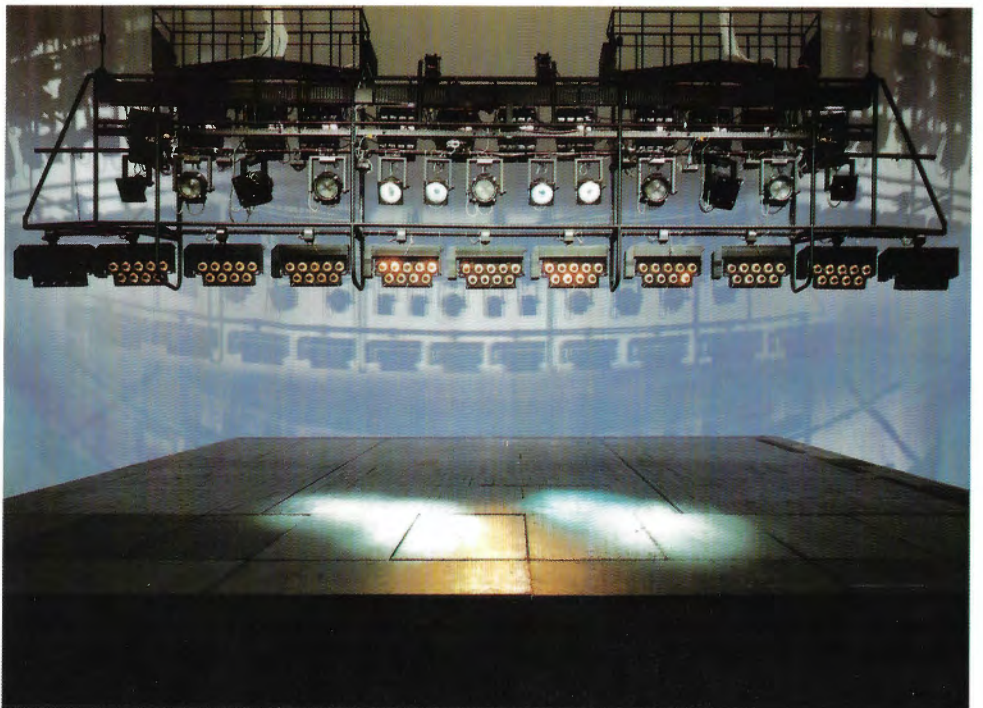
Now that the PALS system has been in operation at the Mannheim Nationaltheater for several months, it is no longer possible to imagine the theatre without it. It has been used in more than 20 plays, and saved the personnel intricate and above all, acrobatic lighting operations at dizzy heights on the lighting frame.

In spite of the sensitive mechanics and electronics in the spot yokes the system works reliably and satisfactorily. Resetting the spot positions is often done while performances are in progress on the stage.

It is true that this may not be possible in all plays as when spots are moved by motor, this naturally makes a noise.

It would, of course, be desirable to have an even quieter system in the future although a noise level of under 60dB when moving spots fast almost qualifies for the German 'Blue Angel' environment award.

■ *The impressive array of automated lights at the Nationaltheater.*



A DOUBLE BILL PRESENTED LIGHTING DESIGNER TREFOR ROBERTS WITH A PROBLEM IN THIS PRODUCTION AT HEMEL HEMPSTEAD SCHOOL. HERE HE EXPLAINS HIS SOLUTIONS TO LIGHTING...

'DRACULA SPECTACULAR' AND 'PINEAPPLE POLL'

Two very different productions were chosen for this double bill, one being a musical, the other a classical ballet. They both required very different lighting styles.

The ballet needed to be bright and airy, and modelling of the dancers was high on the list of priorities, whereas the musical had to be predominantly dark and gloomy throughout. Due to restricted hanging space (even after rigging three extra bars!) we were forced to use liberal amounts of, in Douglas Adams' words, 'the answer to everything', Surprise Pink.

For the ballet there were only two dancing areas, in front of the gauze, and behind the gauze. For Dracula there were three main areas. Behind the gauze, just in front of the gauze, and downstage. So the areas corresponded favourably between the two shows.

Three cross washes consisting of four 500W Fresnels, one for each area, made up the general dance illumination, which was used throughout both pieces. These were gelled with Surprise Pink. For 'Poll' these provided the dimensional modelling required, and in Dracula, gave us the spooky hollow eye socket effect that we were looking for. I must say that it was more effective than we originally imagined.

Colour was added by three 1kW Zoom profiles, in the wings on either side, with colour wheels to change between the pinks and ambers of the ballet, and the blues of the musical. Four more Zoom profiles were located

■ Pineapple Poll



■ *Dracula Spectacular. Surprise Pink gave a spooky hollow eye socket effect.*

FOH on saddle brackets right on the edge of the proscenium, also with colour wheels. These provided colour, and facial fill light, without being too flattening in the process.

We did what the text books decreed and I got 8 500W floods lighting it from an extremely steep angle. However, this only made the top half of the gauze go opaque. Those 1kW profiles that we had in the wings came to the rescue. I noticed, while setting, that the gauze went opaque when light from two of the profiles, just by the gauze, skimmed across it, so I deliberately set them to skim the gauze when it was in place and it just about worked, with the floods.

Four 1kW Fresnels were employed as actor 'bash'. These again were gelled with Surprise Pink and were set straight in, rather than crossed, because when they were in use they were there to provide as much light as possible, no matter how flattening it was.

These were very useful in the finales of both productions when over one hundred performers were on stage.

In addition to the cross washes, six Pattern 23's were used to provide top/back light for the ballet and were gelled up with rose.

I used six Pattern 23's from a bar light upstage, so that they backlit the dancers, arranged as two sets of three, one gelled in red, the other in green.

I then manually faded up to about half, for illumination, the four Zoom profiles FOH with blue/green gels selected, and this stayed 'constant' for the rest of the song until the end, when I soloed the red Pattern 23's as the dancers froze, the cue finally ending with a DBO. The red 23's provided a stark and effective effect which rounded the song off nicely.

Footnote: Originally Strand's No.36 Cinemoid, 'Surprise Pink' was officially described as 'Pale Lavender' and gained the 'Surprise' name from the apparent change from what appeared to be a lavender gel to produce flattering pink tones to performer's faces when used in front of a spotlight. The effect changes noticeably with variations in intensity.



■ Strand Lighting has opened a new office in Berlin, establishing further our presence in Europe.

The Berlin office, at Helmholtzstrasse, has a small display of architectural lighting, stage and studio equipment. It is staffed by Karl-Heinz Richter, former editor of the East German magazine Podium, and Frau Sabina Schroter.

The picture shows the showroom interior.

COMPETITION

Were you proud of that little effect you created for the school play? Did you forsake modern gadgetry for some good old-fashioned ingenuity? Did you modify that old floodlight for the rising moon in Act 2? Did you use fluorescent tubes to create lightning? Did you fit a continuous colour wheel to give a gaslight flicker? Tell us about it, and you could win a book!

The twenty most ingenious entries will receive a copy of Terence Rees' book *Theatre Lighting in the Age of Gas for*

their school library.

Send a description of your effect, telling us what you wanted to achieve, and what you used to create the effect, with sketches and a photograph if possible. Mr Fred Bentham has kindly agreed to judge the entries for us, and the results will be published in the next issue of *Lights!*

Entries, please, to:
The Editor, *Lights!*,
c/o Strand Lighting, Grant Way,
Isleworth, Middlesex, TW7 5QD
by 4th March 1991.

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Put yourself in 'Lights!' — or at least, a *Lights* sweatshirt — with this special offer.

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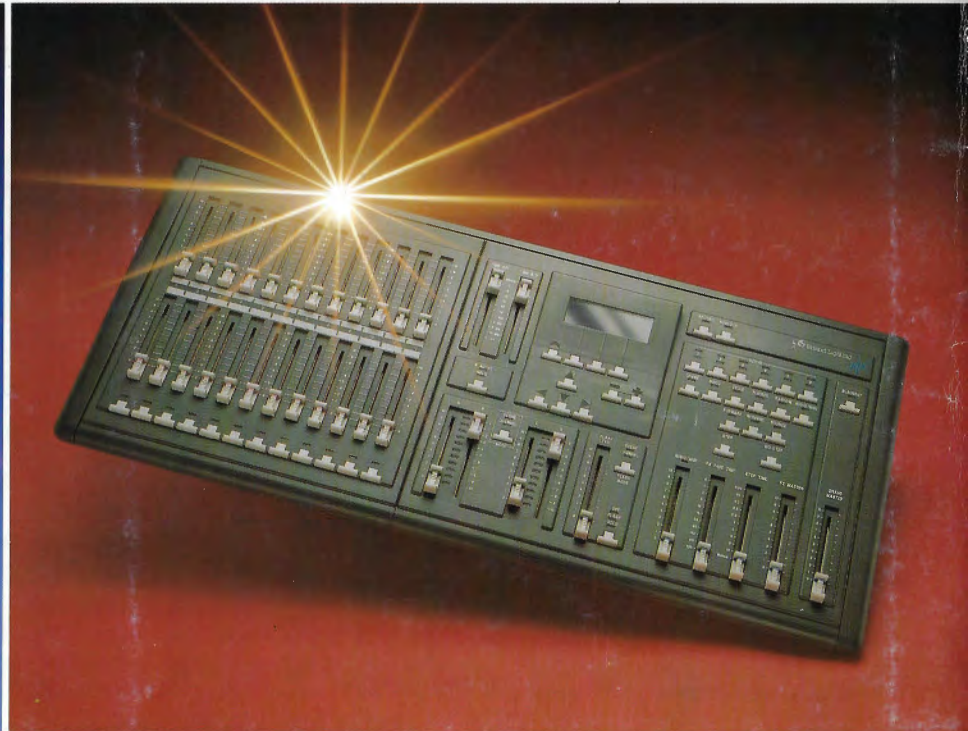
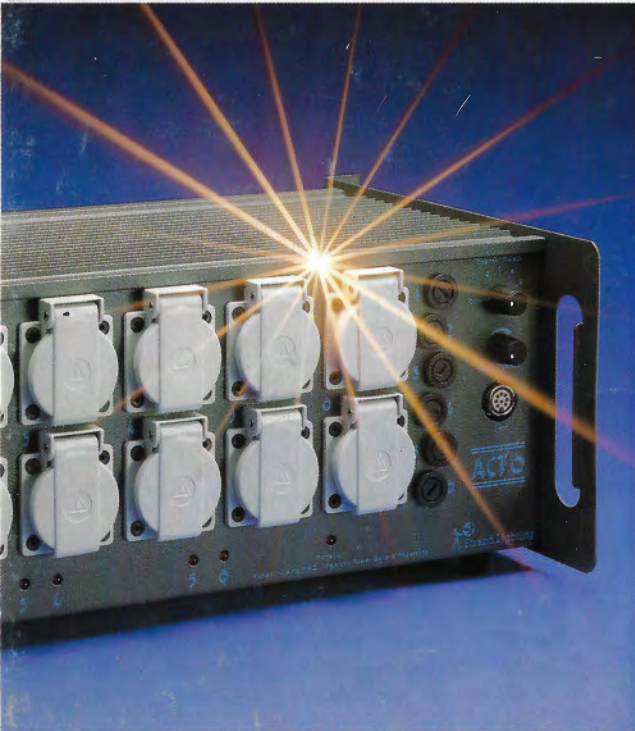
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