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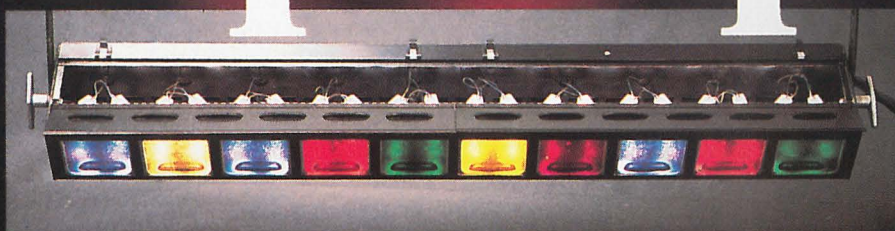
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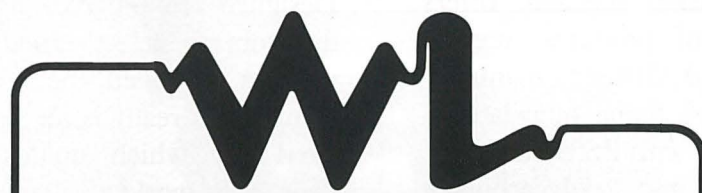
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On the cover:

In designing lighting for The Cure, Roy Bennett was faced with the challenge of creating moods for the band's hard rock 'n' roll, their softer ballads, and their desire not to be seen on stage.

En couverture:

Roy Bennett, l'éclairagiste, fut, pour le concert des Cure, amené à créer une ambiance ambivalente qui pouvait s'adapter à la fois aux musiques rock du concert et aussi aux ballades plus harmonieuses, tout en respectant le souhait des musiciens: ne pas être vus sur scène.

Titelseite:

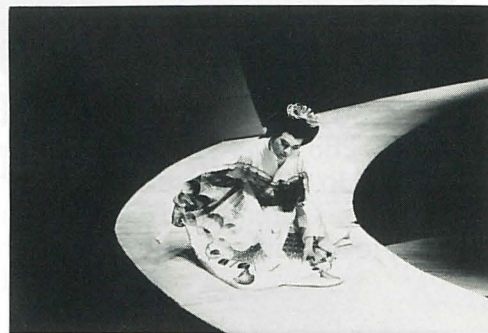
In seinem lighting design für The Cure musste Roy Bennett Stimmungen herstellen, die sowohl den hard rock der Band, ihren weicheren Titeln, und dem Bedürfnis der Band, auf der Bühne nicht gesehen zu werden, Rechnung trugen.

Dans ce numéro:

La tournée européenne des Cure et le travail de leur éclairagiste, Roy Bennett; Andy Phillips, éclairagiste à Broadway et au West End, pour M. Butterfly; un regard sur les activités commerciales de la société Celco; une rencontre avec les derniers artisans londoniens, spécialistes du spectacle.

In dieser Ausgabe:

Eine Europatour mit der Band The Cure und ihrem light designer Roy Bennett; Andy Phillips designet das Licht für M. Butterfly am Broadway und im West End; ein Profil der Firma Celco Lighting und ein Gespräch mit einigen der überlebenden Theaterhandwerker in London.



NOBBY CLARK

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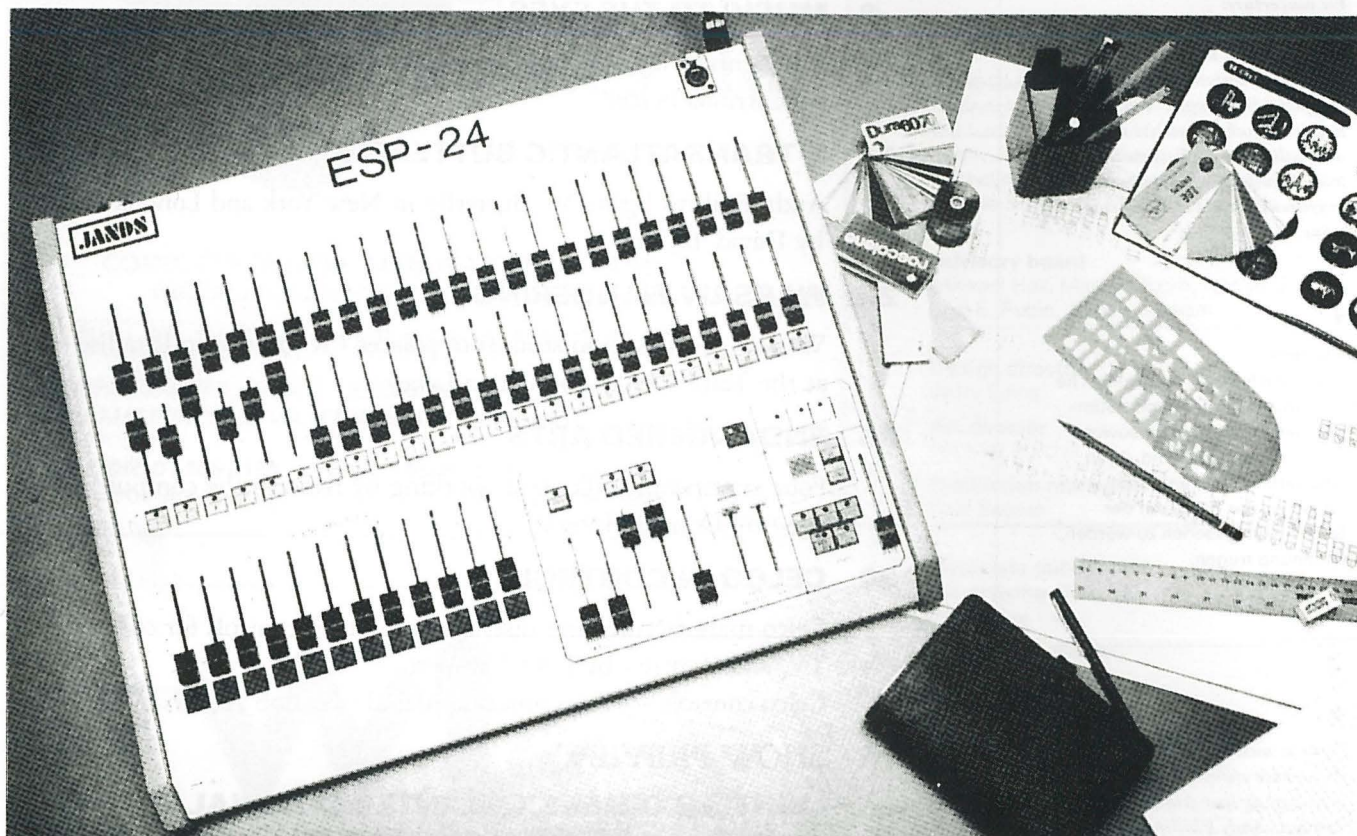
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Global design

In this issue, *Cue International* travels around the world — from Spain, to London, to Warsaw. Catriona Forcer, a free-lance graphic designer and journalist, catches up with rock 'n' roll band The Cure at the Velodrome in San Sebastian, Spain. There she speaks with their lighting designer, Roy Bennett, who boasts among his other clients Prince, Bon Jovi, and Bananarama. London-based lighting designer and consultant David Taylor introduces us to Andy Phillips, designer of the lighting for *M. Butterfly* on Broadway and in London. A conversation with Keith Dale, marketing director of Celco, the British lighting company, reveals their competitive marketing strategy in the rock 'n' roll arena, while lighting consultant Bob Anderson gives us a technical appraisal of Celco products.

Cue then travels to Warsaw, where New York-based correspondent Glenn Loney takes us on a tour of the many theatres in Poland's capital, including the 2,000-seat Teatr Wielki, where Joanna Bruzdowicz's *Gates of Paradise* will be playing for the guests at Poland's 1989 OISTAT conference, running from 27 September to 1 October.

The theme of the Warsaw conference is the preservation of the dying theatre crafts. With that in mind, London-based freelance writer Donald Hutera profiles four British artisans — that special breed of craftspeople who continue to ply their art by hand.

Trade shows on the horizon include Lighting Dimensions International 89, which will be held in Nashville, Tennessee from 17 - 19 November. *Cue International's* associate editor, Andrew P. Shearer, shares up-to-the-minute details on this salon of entertainment technology. In addition, David Taylor offers a report on the 1989 ABTT show in London, and Bonnie S. Schwartz, managing editor of *Lighting Dimensions Magazine*, provides a summary of the activities at Show-light 89 in Amsterdam, two of the recent trade shows where *Cue International* was on hand in order to bring you the latest news on the many new products and innovations on the market.

This is the fifth issue of the new *Cue International*, which means that with the next issue we will have completed the first year of our new endeavor. We look forward to hearing your comments about the magazine, its look, and its contents. Your input can help us design our future.

Ellen Lampert

NETHERLANDS/PRODUCTION

ROBERT WILSON'S DE MATERIE OPENS THE HOLLAND FESTIVAL

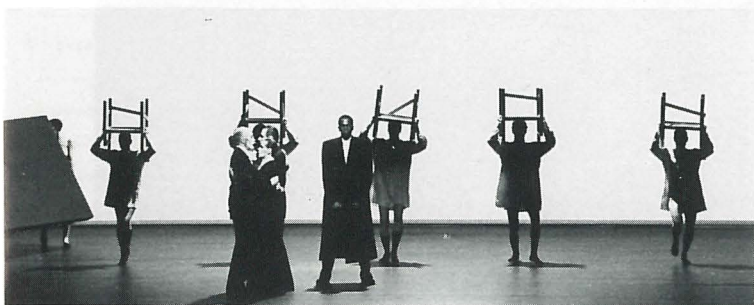
Dutch theatre followers and critics were as divided in their acclaim and disapproval of Robert Wilson's staging of *De Materie* as they were after the European renditions of such Wilson projects as *CIVIL warS*, *The Forest*, and *Einstein on the Beach*.

The world premiere 1 June 1989 of *De Materie*, an opera by Dutch composer Louis

Andreissen, opened the annual Holland Festival (two months of music and theatre) in Amsterdam. Attended, among others, by Queen Beatrix and her husband Prince Claus, it may have been the first time ever that the music made by scratching a balloon with dry fingers (the opening tones of *De Materie*) drew royal applause.

De Materie is a collection of words, sung and spoken, about historical events and people, like 17th-century nuclear theorist Gorlaeus, the building of a wooden ship, Piet Mondriaan, and Madame Curie.

As co-author, director, art director and lighting designer (with Jennifer Tipton), Wilson filled the soccer-field dimensions of the Amsterdam Opera House stage with a carefully designed emptiness. Among the set pieces in the varied scenes were 13 chairs, a hammock five meters above the stage, church pillars formed by hanging stage ropes, and the frame of a wooden ship.



1

Robert Wilson concentrated on straight and diagonal lines in his design of *De Materie* at the Amsterdam Opera House this past June. Among the images he created were 13 sitting ornaments (1, 2) and a hammock suspended five meters above the stage.



2

INTERNATIONAL BRIEFS

MOVERS & SHAKERS

In order to increase production runs, Eurolight has relocated to a new larger factory in Feltham. The new address is Unit 1, Maple Industrial Estate, Maple Way, Feltham, TW13 7AJ, England. The phone number in England is 01/751/6500. Fax is 01/751/3334. Telex is 888941 LCCI G...DHA has also moved to bigger premises. Their new location is 3 Jonathan Street, London, SE11 5NH. Telephone number is 01/581/3600. Fax is 01/582/4779. Telex is 935639 GOBOCO G...Luna Tech, Inc. (USA), manufac-

turer of the stage pyrotechnic system Pyropak, is opening a corporate branch in West Germany. The address is Luna Tech Euro, Schulberg 1, D-2331 Ascheffel, W. Germany. Tel: 49/4353-643. Fax: 49/4353-1014...Kim Little, assistant technical manager of the Barbican Center, has joined the ABTT Council. Miss Little replaces Council member John Toogood who, having served two consecutive terms, was not eligible for re-election. Other Council members Robert Corder, David Edelstein, Philip

Edwards, Robert Longthorne, and James Sargant were re-elected for another term...British lighting designer Chris Parry, who served as deputy head of lighting for the RSC for the past eight years, has been named Professor of Lighting Design for the Theatre at the University of California, San Diego...French signal processing equipment manufacturer SCV Audio has appointed Shuttlesound of London to handle UK distribution of its entire product line.

DATES

SEPTEMBER

Light + Sound Show 89, Olympia 2, London. 10 - 13 September. Contact: David Street, Lighting + Sound International, 10 Barley Mew Passage, Chiswick, London, England, W4 4PH, 1/994-6477, Fax: 1/994-1533.

Euroluce 89, Milan Trade Fair, Milan, Italy. 20 - 25 September. Contact: Cosmit, Corso Magenta 96, 20123 Milano, Italy, 02/4988361. Telex: 02/334394.

International Organization of Scenographers, Theatre Architects, and Technicians Congress, Hotel Warszawa, Warsaw. 27 Sept. - 1 Oct. Contact: Andrzej Sosnowski, OISTAT Teatr Wielki, 00-076 Warszawa, ul, Moliera 5, Poland, 26/30-01-294.

OCTOBER

Electrex Quebec 89, Place Bonaventure, Montreal. 11 - 12 Oct. Contact: Deborah Dugan, Kerrwil Trade Shows, 395 Matheson Blvd., East, Mississauga, Canada L4z 2H2, 416/890-1846.

SMPTE, Los Angeles Convention Center. 21- 25 Oct. Contact: Ann Cocchia, SMPTE, 595 W. Hartsdale Ave., White Plains, NY 10607, 914/761-1100.

ABTT North Trade Show 89, Grange Arts Centre, Oldham. Contact: Ivor Dykes, 6 Back Mount Pleasant, Middleton Old Village, Leeds LS10 3TD, 0532/701281.

NOVEMBER

Lighting Dimensions International 89, Nashville Convention Center. 17 - 19 November. Contact: Paula Harris, Lighting Dimensions International, 135 Fifth Avenue, New York, NY 10010 USA, 212/353-1951. Fax: 212/677-3857.



ALL PHOTOS CATRIONA FORCER

1

■ Set and lighting designer Roy Bennett used a heavy muslin backdrop in his design of The Cure's European tour this past summer (1, 2, the Velodrome, San Sebastian, Spain). This presented a challenge for Bennett, as most of the tour was outdoors and windy conditions prevented the backdrop's use.

● *L'été dernier, le réalisateur des décors et des éclairages, Roy Bennett, a utilisé un tissu brut comme toile de fond pour la tournée européenne des Cure (1, 2, le Velodrome, San Sébastien, Espagne). Ceci représentait un défi pour Bennett, dans la mesure où la tournée se déroulait en plein air et où les conditions atmosphériques empêchaient une utilisation correcte de cette toile.*

▼ Für das Design der Europatour von The Cure im vergangenen Sommer benutzte der set und lighting designer Roy Bennett einen schweren Musselinstoff als Bühnenhintergrund (1, 2, Velodrome, San Sebastian, Spanien). Das war eine grosse Herausforderung an Bennett, da fast alle Konzerte im Freien stattfanden und der Wind die Benutzung des Aushanges oft unmöglich machte.

Music to the eyes

BY CATRIONA FORCER

My lighting of The Cure is a bit like the band," admits rock 'n' roll lighting designer Roy Bennett. "It's a little bit left of center. I've come up with what is best described as a variant of different textures and looks that to me, represent the band," explained Bennett when I caught up with him at the Velodromo in San Sebastian, Spain towards the end of June. "The whole design is very asymmetrical, very disjointed and off to the side." The European tour of The Cure finished on 24 July and is touring the States through September.

Being familiar with The Cure and their eclectic musical style, and their eccentric desire *not* to be seen on stage, Bennett was challenged with creating a lighting system which could create excitement for their hard core rock 'n' roll, and be flexible enough to turn around and create a softer feel for their slower, almost romantic, music. His lighting rig consists of a large amount of trussing with a limited number of lights. He uses 60 PARs, all with colour changers, which are used as a wash. There are 24 other PAR Raylights that are focused on the length of the trussing to illuminate the louvres. "I've used the louvres on the trussing because, nowadays, I have a tendency to try to disguise the lights," admits Bennett. "I don't like to see them on the stage."



2

In the louvered trussing for The Cure design, there are 12 groups of four Raylights all individually patched so that Bennett can do different chases with them. Three 5K fresnels are suspended from the main grid with colour changers and a fan in front to give the effect of "sunlight coming through the ceiling ventilations — like in a warehouse." There are variable speed motors so that Bennett can achieve a strobing effect. Another five 5K's are on the floor, again all with colour changers. Added to this are 24 Molefays with aircraft landing lights in them and colour changers. On the backdrop Bennett uses 15 Strobe ellipsoidals to achieve a stunning lighting effect. The front lenses of these units have been taken out to give a softer and more abstract look. There are also 20 single cell cyc units with colour changers and only one spotlight, to appease the band's

desire to be as invisible as possible. Forty-five Vari*Lites, 39 VL2's, and six VL3's complete the equipment list.

Bennett generally designs with the Celco Gold lighting desk. "I find that the desk gives me a lot more flexibility in the things that I like to do. I use a lot of colour changers and if one goes down during the show, instead of someone backstage trying to find out what the patch is, I can just dial it out without any problem. I like the fact that I can put all of my

**ROY BENNETT LIGHTS THE CURE
A LITTLE LEFT OF CENTER**

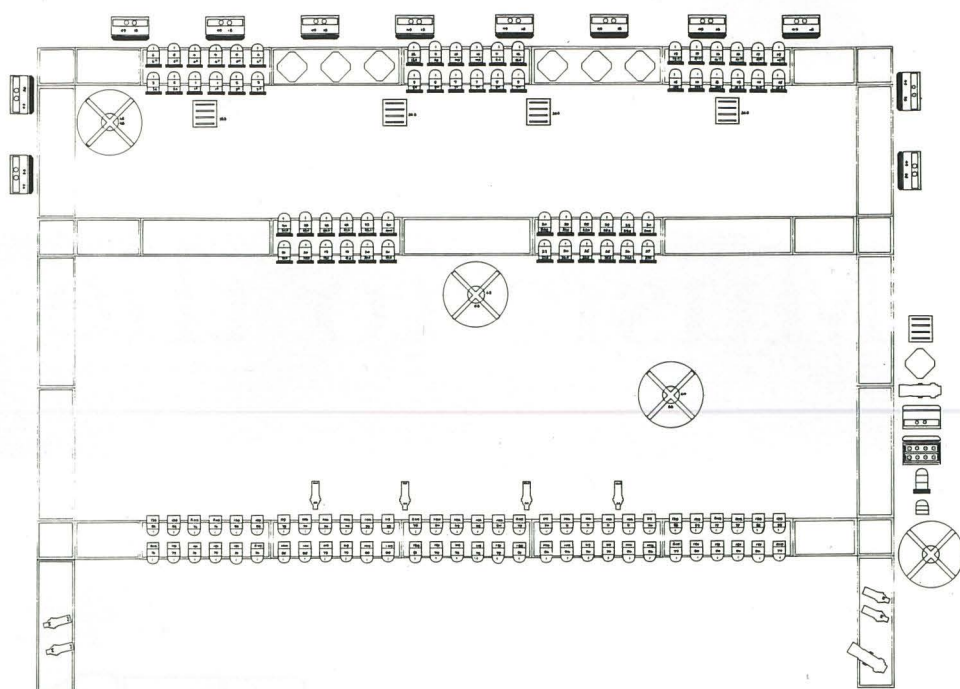


1

"I don't like to see them on stage," Bennett (1) admits, referring to the lights. His lighting rig consists of a large amount of trussing hid by louvres and a limited amount of lights. (3, 4; plots, 2, 5) "I try to find ways of using the lights not only as lighting instruments, but as set pieces."

"Je n'aime pas les voir sur scène," admet Bennett (1), faisant allusion aux projecteurs. Son portique d'éclairage est un grand échaffaudage, caché par des stores et sur lequel se trouve un petit nombre de projecteurs. "J'essaye d'utiliser les projecteurs non seulement comme moyens d'éclairage, mais aussi comme élément décoratifs."

▼ "Ich möchte sie nicht auf der Bühne sehen," sagt Bennett (1), sich auf die Scheinwerfer beziehend. Seine Beleuchtungskonstruktionen bestehen aus einer Vielzahl von Gerüsten mit einer relativ begrenzten Anzahl von Scheinwerfern, die von Blenden verdeckt werden (3, 4; Pläne 2, 5) "Ich versuche Wege zu finden um die Scheinwerfer nicht nur als Beleuchtungsinstrumente, sondern als Teil des sets zu benutzen."



2

chasers into my matrix scenes and that if I want to add to a scene, I can do it while I'm actually running the show."

"I've used the louvres on the trussing because, nowadays, I have a tendency to try to disguise the lights."

For The Cure, Bennett had several gobos custom-made, including raindrops, flowers, fish, and abstract star effects, which he uses slightly out of focus. The backdrop is made of a combination of heavy muslin with silk pieces sewn on it. The silk waves about during the show, giving the effect of either moving clouds or shimmering water. Bennett uses this quite effectively in a scene with gobos of fish and sea-horses.

Lighting the band is a never-ending series of challenges, one of which is the great outdoors. "Playing mostly outdoors makes it hard to program the Vari*Lite, as at least half the show has to be done in the daylight. Also, a good part of this Cure

show depends on the backdrop, and if it is really windy, well, then, we can't put it up." Another difficulty encountered on this tour is that the trim height has changed every day and thus, the Vari*Lite have had to be refocused daily.

Another problem Bennett faced while designing The Cure tour is a problem most lighting designers wouldn't mind having. Bennett was simultaneously designing for Simple Minds, whose tour coincided with The Cure's. "Simple Minds creates heavy images for me. It was a band I had always wanted to design for." His design includes six Genie towers, which dolly from stage left to stage right, each with a Vari*Lite on top. Instead of using louvres like The Cure show, Bennett used trellises for Simple Minds, showing more of the lighting equipment.

The Cure and Simple Minds are only the latest triumphs in Roy Bennett's 11-year career. Like many designers, Bennett started in the lighting business working for local bands in his hometown in Rhode Island. His first tour was as low man on the lighting crew for Boston's 1978 tour. A few years later, he hooked up with a



3



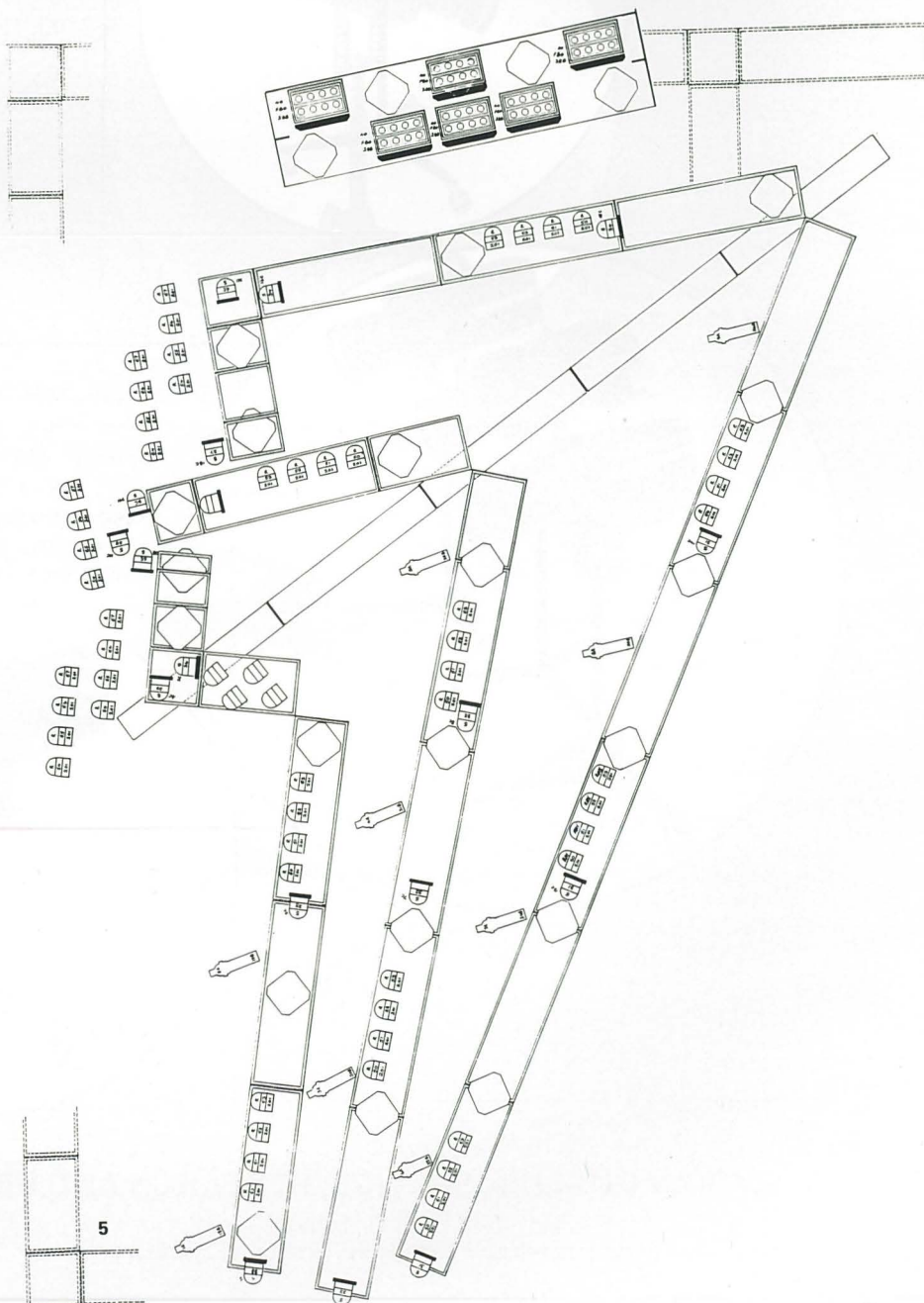
4

rock 'n' roll newcomer. That newcomer was Prince and after the designs for the *Sign of the Times* and *LoveSexy* tours, Bennett's reputation in the industry was soundly entrenched. His resume also includes the tours of Queen, Bon Jovi, Duran Duran, and Luther Vandross. Bennett has very close associations with

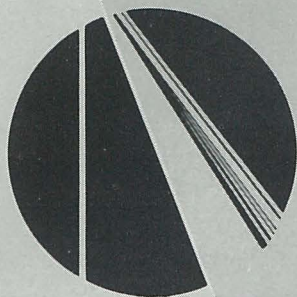
The silk waves about during the show, giving the effect of either moving clouds or shimmering water.

Light & Sound Design of Birmingham, UK, and since the *LoveSexy* tour ended in February of 1988, he has designed four more shows for them, including The Cure, Simple Minds, Brother Beyond, and Bananarama.

Roy Bennett continues to amaze audiences. He remains one of the few rock 'n' roll lighting designers who, rather than just lighting the band, creates drama with his lights and sets. And he'll have an opportunity to show this sense of drama on Prince's upcoming *Batman* tour.



5



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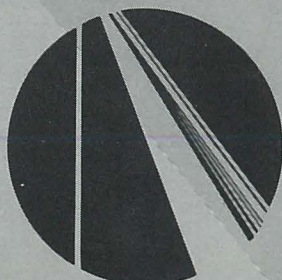
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A Transatlantic Butterfly

BY DAVID TAYLOR

It is a tribute to his totally unassuming nature that Andy Phillips states categorically that his work is usually unseen. For a lighting designer who is constantly held up as an example of lighting style, such invisibility belies the tremendous work and depth of self-criticism that has led to a career for Phillips that includes many of the great smaller pieces of British theatre over the last twenty years. Today, *M. Butterfly*, originally lit by Phillips on Broadway, is running in London's West End to enormous public and critical acclaim.

M. Butterfly at the Shaftesbury Theatre marks the culmination of a varied, but quiet, development from the day Andy Phillips began work in the flies for matinees at the Royal Court Theatre in London. At this time, the early 1960s, he was a prop-maker who had originally trained as an actor at the Florence Moore Theatre Academy on England's south coast.

"It was the time of Paul Scofield's *Lear*," says Phillips. "It was going out to Europe on tour and I was asked if I wanted to become a touring electrician." By 1965, Phillips was the Royal Court Theatre's touring man, but it was his criticism of the rather unadventurous lighting style for the in-house shows that caused him in 1965 to be put on the spot with his first lighting design. He recalls that his lighting around Jocelyn Herbert's austere tree in *The Lion and the Jewel* needed to be re-rigged three times before he was happy.

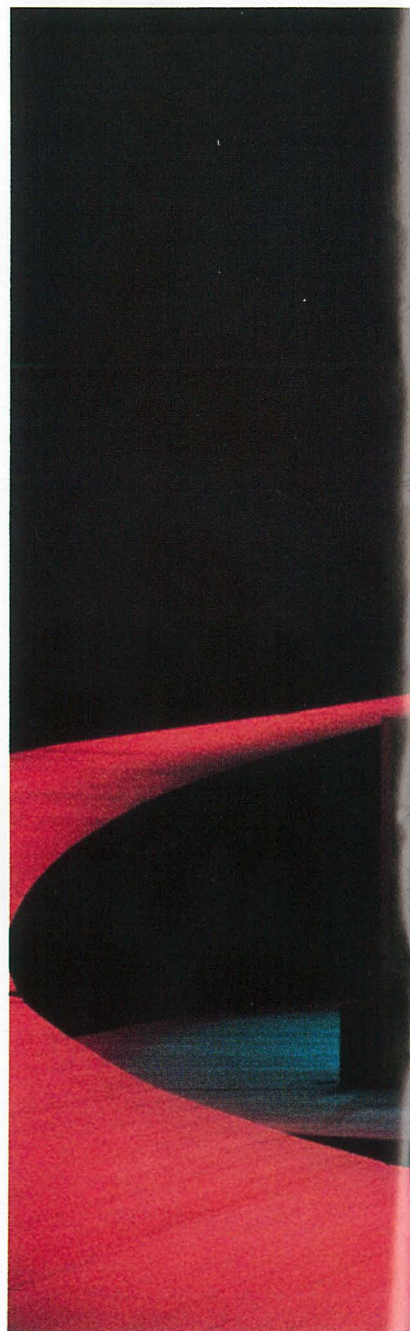
This development-by-experiment has held true throughout Phillips' work to date, and he is happiest when he can get into a theatre to try out his ideas as early as possible. Of course, this requires the benevolence of a trusting director. From his early days, Phillips' collaboration with the director John Dexter has grown stronger with every production. Dexter, who joined the English Stage Company at the Royal Court as an actor in 1957, quickly established his reputation as one of Britain's and America's most innovative directors.

Dexter's acclaimed *Equus* was lit by Andy Phillips on both sides of the Atlantic, yet Phillips describes their relationship as a "love-hate thing." The relationship is the most important element in the production, Phillips believes, and it is obvious that he is John Dexter's favourite visual collaborator. "Dexter has very strong views," says Phillips, "but he does allow a good rein for the lighting designer."

"The process is one of osmosis. We hardly talk, except when he says he doesn't like something, which isn't often. I just do what I think he wants." Such a production relationship is rare in British theatre today, based as it is upon absolute trust between director and lighting designer. *M. Butterfly*, however, is a production which had to develop through trust and experiment.

Despite his belief in the ethos of "the better the text, the simpler the lighting," Philip's guessed early on that David Henry Hwang's play, based on the unlikely, but true, story of a French diplomat's involvement with a young singer in the Peking Opera, who turns out to be a spy for the Communists, would require a very particular style of lighting. Eiko Ishioka's setting, developed in close association with John Dexter, was a triumph of Japanese simplicity — a huge spiralling ramp around a central focal point, wrapped about a vast diorama which was so smooth as to defy one's focussing on it.

It was a highly stylized, yet dynamic setting, and Phillips knew that the need for

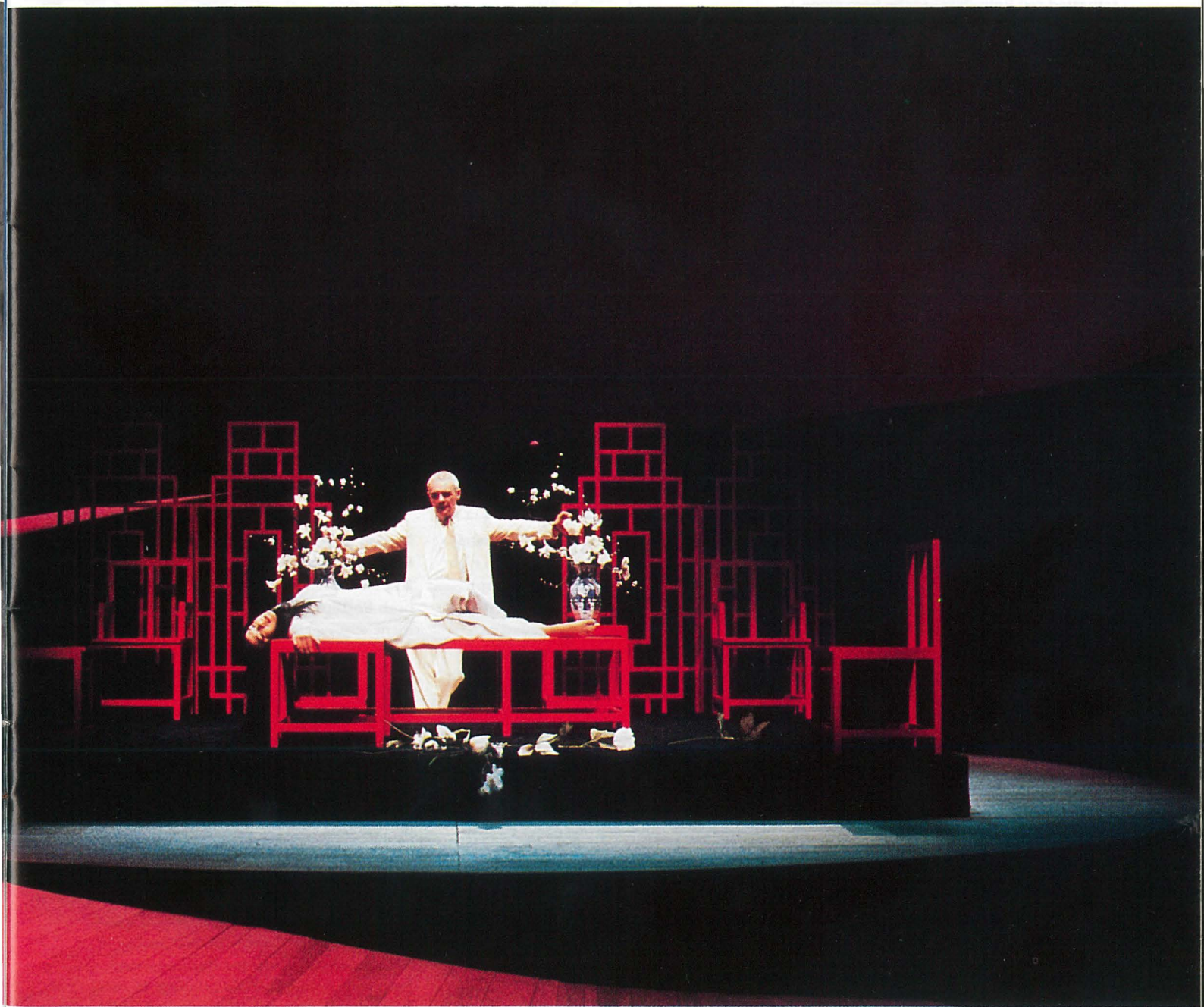


NOBBY CLARK

■ In designing *M. Butterfly*, (below) Andy Phillips was challenged with lighting a series of quickly changing scenes. He solved the problem of differentiating time and location through a complex colour key, a departure for Phillips who is known as a 'white-light man.'

● Pour Andy Phillips, éclairagiste de *M. Butterfly* (ci-dessous), la difficulté était de créer des éclairages qui pouvaient suivre les rapides changements de scènes. Il a résolu le problème en différenciant les époques et les lieux grâce à une palette de couleurs très élaborée. Ceci fut une innovation pour Phillips qui n'était jusqu'alors connu que pour ses éclairages blancs.

▼ Für *M. Butterfly* (unten) hatte Andy Phillips eine Anzahl schnell wechselnder Szenen zu beleuchten. Er machte den Wechsel von Zeit und Ort durch einen komplexen colour key deutlich. Ein neuer Weg für Phillips, der als ein 'white-light man' bekannt ist.



accurate focussing and full control of colour was not helped by the restrictions for overhead hanging in Washington, New York and, eventually, London. Colour, too, was a departure for Phillips, who is often referred to in academic circles as 'a white-light man.' "You are not aware of it as a coloured show," he says, "since the colour moves in blocks." Hwang's play flits from scene to scene, both temporally and geographically, and thus a colour key seemed to Phillips to make sense of the stage, both in parts and in its entirety.

Early on in the play one is taken in a split second from an oppressive cell in a Paris prison to a fashionable French society party. The stage washes with strong, saturated red light, leaving the hero alone in his harsh, white-lit cell. "I didn't see the colour as saturated, originally," says Phillips, as he reiterated that it is not a colour show, "but it developed from the pastels we began with in Washington and became what we have today." On the stage of the Shaftesbury Theatre, *M. Butterfly* is a feast of huge brushstrokes of colour and tiny details of hue. For a 'white-light man' Andy Phillips has given a convincing example of a breakthrough in colour technique.

Achieving control of this colour over such a complicated and dynamic stage led Phillips along another uncharted path. He is a designer who is particularly non-plussed by the junk of modern lighting technology. As a man who cites the Strand Patt. 264 as the perfect lighting instrument, he is unimpressed with the paraphernalia of many of the spectacles on show in London's West End. But the volume of equipment necessary to achieve the colour washes and proper illumination of the play drew him towards the colour scroller as a means to dramatically reduce his instrument count.

The fond memories of the Patt. 264 profile spotlight have remained with Phillips leading him to prefer to work with five feet diameter lighting areas. Twenty-two areas dealt with the curved ramp alone. With colour scrollers he could achieve with a simple double cover what would necessitate at least five times more equipment using conventional colour techniques.

He chose a compact, but relatively new piece of equipment in England, the Rainbow Scroller, marketed by M & M Lighting. This accepts direct control signals from the lighting control board and allows the easy definition of one of 11 user-selected colours on the remote luminaire. Using 60 or so scrollers he

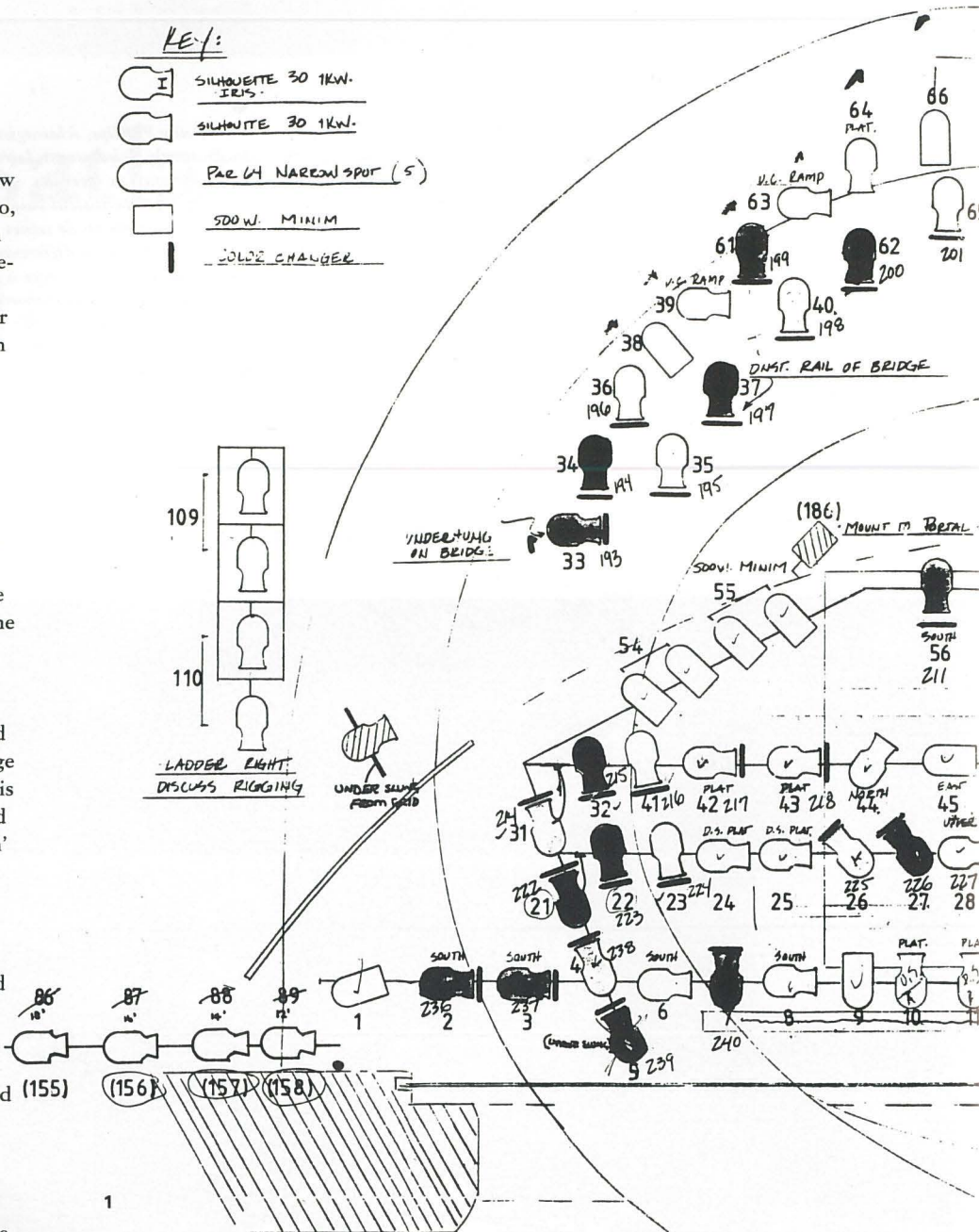
managed to limit the rig to approximately two hundred luminaires, all with the right aspect and angle, and with little compromise in beam texture due to the refinement and rationalization of the layout.

Two CCT Silhouette luminaires cover each area from each prescribed position. At any moment one instrument is lighting the area while the other is quietly scrolling to the colour for its next cue, ready for the cross-fade at the next visible cue point. Thus, the show in performance has a mix of visible and invisible cues. Phillips believes that there is a cue every twenty seconds or so, with some controlled to be longer so as to reduce possible interference from noise. The control desk is an Arri Imagine 250, which is more than happy to accurately memorize both intensities and colour positions.

On Broadway Phillips used 63 Color-Wiz scrollers from The Great American

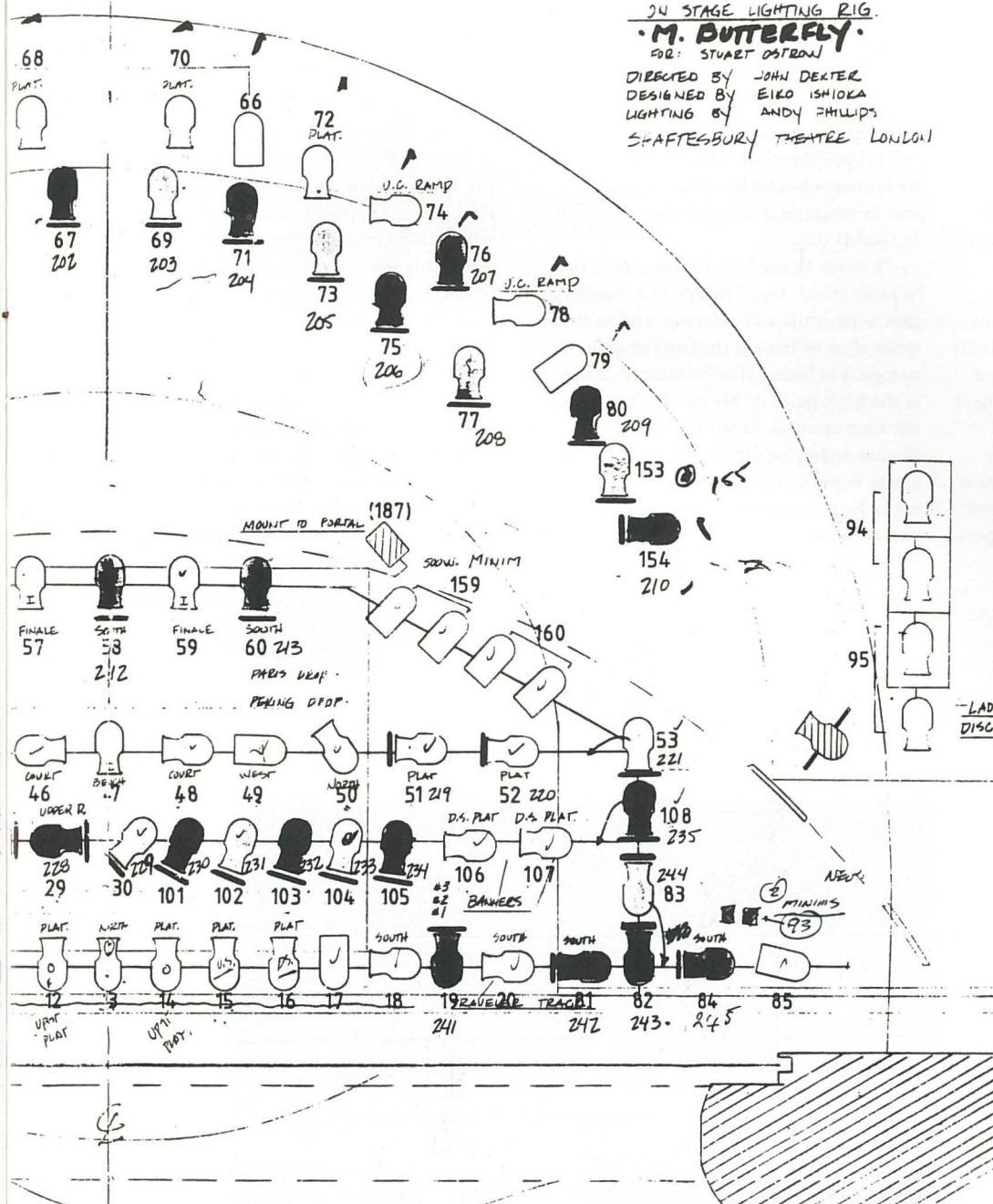
Market to give him the diversity he needed. Central control via a Light Palette and fast, quiet access times convinced both Phillips and Dexter that the equipment was serving them well.

Obviously such a complex lighting technique, where invisible resets of large numbers of instruments are required within a rapid-fire sequence of cues, necessitates a great deal of design discipline. Phillips ascribes this depth of organization to his assistant in the States, and then in England, Brian Nason, whom Phillips describes as "having professionally trained eyes." A bright and highly qualified designer in his own right, Nason soon gained an almost supernatural ability to watch the stage, annotate what was happening and what was needed, and offer succinct developmental ideas that Phillips found both stimulating and disciplining. It took three days to light *M. Butterfly* in London.



FOR: STUART OSTROW

SHAFESBURY THEATRE LONDON



Phillips believes there is a cue every 20 seconds or so in *M. Butterfly* (plot 1, 2). Such a complex lighting technique necessitated a great deal of design discipline, which Phillips ascribes to his assistant in New York and London, Brian Nason.

Selon Phillips, dans M. Butterfly, l'éclairage change environ toutes les 20 secondes (Plans 1 et 2). Une technique d'éclairage aussi complexe nécessite une grande discipline de travail, que Phillips attribue à son assistant, Brian Nason, qui le seconde à New York et à Londres.

In *M. Butterfly* (1, 2) gibt es einen Lichtwechsel alle zwanzig Sekunden, glaubt Phillips. Eine solche komplizierte Aufgabe verlangt ein grosses Mass an Disziplin im Design. Phillips fand diese Disziplin in seinem Assistenten für New York und London, Brian Nason.



Together the pair have prepared the show in three cities (and in a fourth if the planned production in Tokyo goes ahead) and their production style has drawn an enviable bridge between the technology of today and the art of a good lighting designer. Watching the show, I hardly noticed the lighting — but that is how it should be according to Phillips. He usually plots his lighting during technicals since he hates to light empty stages. "Lighting is about painting people," he insists. As Dexter's shows are often blocked at the end of the first week, Phillips' production development relies upon infusing himself with as much of a sense of the play in per-

formance as possible by just sitting and watching rehearsals. Once in the theatre he knows what he has to achieve and moves towards it. Nason's paperwork fills in the blanks.

"I never knew how to use colour in Washington," says Phillips in a manner that is typically self-effacing, and as the quiet man of British theatre lighting design it is fitting that he feels *M. Butterfly* is the high point of his career. Yet he was the man commissioned to develop a "house style" for director William Gaskill at the Royal Court — a style that is nowadays seen as the epitome of accurate and emotive lighting. Andy Phillips is a

lighting designer who works hard at achieving designs that are simply beautiful. He has never repeated himself, and after discovering colour for *M. Butterfly* it will be interesting to see what new field he brings his talents to for *A Threepenny Opera* on Broadway with Sting.

As to his best achievement, says Phillips, "it is allowed me finally to make a living in this business whilst remaining anonymous." For someone whose peers are now at their most visible pinnacles, it is important to note that Andy Phillips has produced a quota of work that in its own quiet way has left more to the posterity of lighting in Britain than any other designer.

Phillips (4) used 60 or so Rainbow Scrollers in his design at the Shaftesbury Theatre (2), allowing him to limit his instruments to 200 luminaires. On Broadway (1, 3), Phillips used 63 ColorWiz Scrollers from The Great American Market to light Eiko Ishioka's set.

Pour éclairer la scène du Shaftesbury Theatre (2), Phillips (4) a utilisé environ 60 Rainbow Scrollers, ce qui lui a permis de limiter le nombre des projecteurs à 200. A Broadway (1 et 3), pour éclairer les décors de Eiko Ishioka, Phillips s'est servi de 63 Color Wiz Scrollers, qui avaient été fournis par Great American Market.

▼
In seinem Design im Shaftesbury Theatre (2) benutzte Phillips (4) ungefähr 60 Rainbow Scrollers, die ihm erlaubten die Scheinwerfer auf 200 Leuchten zu beschränken. Am Broadway (1, 3) verwendete Phillips 63 Color Wiz Scrollers vom The Great American Market, um das Bühnenbild von Eiko Ishioka zu beleuchten.



JOAN MARCUS

1



NOBBY CLARK

2



A SELECTED ANDY PHILLIPS DESIGNOLOGY

UNITED KINGDOM

Royal Court Theatre

Resident lighting designer,
1965 - 1972

West End

Stevie, 1977
Whose Life Is It Anyway, 1980
Rose, 1980
The Cocktail Party, 1986
M. Butterfly, 1989

National Theatre

The Misanthrope, 1973
The Woman, 1978
The Long Voyage Home, 1979

As You Like It, 1979
The Iceman Cometh, 1980
Rose, 1981
Glengarry Glenross, 1983
Golden Boy, 1984

Lyric Theatre, Hammersmith

The Relapse, 1983
Rents, 1984
Infidelity, 1987

Young Vic Theatre

Robin Hood, 1982
*John, Paul, George, Ringo, and
Burt*, 1983

English National Opera

The Mask of Orpheus, 1986

Leicester Haymarket Theatre

Julius Caesar, 1988
Creon, 1988

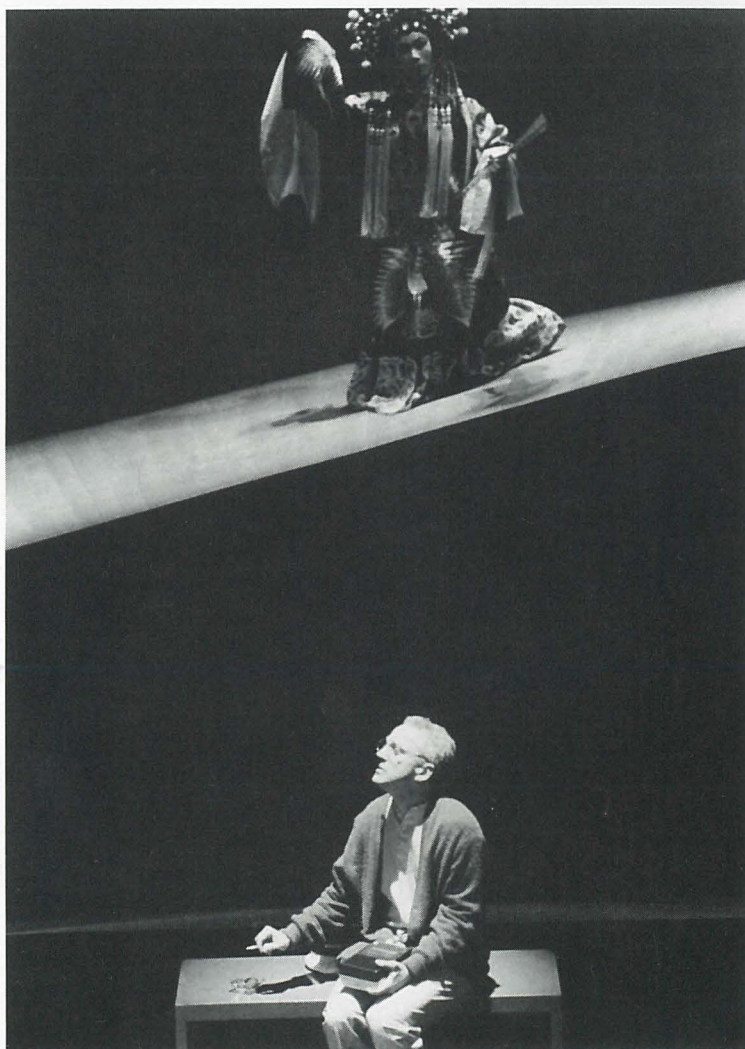
NEW YORK

Broadway

Equus, 1974
The Misanthrope, 1975
The Merchant, 1977
Rose, 1981
The Glass Menagerie, 1983
M. Butterfly, 1988

Off-Broadway

Rat in the Skull, 1985
California Dog Fight, 1985



JOAN MARCUS

■ The Teatr Wielki in Warsaw (below), built in 1825, seats 2,000 in its art-deco auditorium and three balconies. Destroyed almost completely in WWII, the theatre was rebuilt in the 50s according to the original plans, but was updated technically, adding six mainstage elevators, and a revolving stage, among other conveniences.

● *Le théâtre Wielki, (ci-dessous) dont l'orchestre et les trois balcons sont créés dans un style art-deco, fut construit à Varsovie en 1825, avec une capacité d'accueil de 2.000 personnes. Détruit en partie durant la seconde guerre mondiale, le théâtre a été reconstruit dans les années 50, en accord parfait avec les plans originaux. Pourtant il a aussi été techniquement modernisé et on y a rajouté six ascenseurs sur la scène principale, un plateau tournant et de nombreuses autres commodités.*

▼ Das 1825 gebaute Teatr Wielki in Warschau (unten) hat in seinem Art Deco Zuschauerraum mit drei Rängen eine Sitzkapazität von 2000. Es wurde im zweiten Weltkrieg fast vollständig zerstört. In den fünfziger Jahren wurde es nach den Originalplänen wieder aufgebaut. Die Bühnentechnik wurde modernisiert, unter anderem wurden sechs Hauptbühnenaufzüge und eine Drehbühne eingebaut.



Warsaw Wanderings

WARSAW THEATRES FROM STUDIOS TO PALACES

BY GLENN LONEY

From 27 September to 1 October 1989, the Polish branch of OISTAT, the International Organisation of Scenographers, Theatre Architects and Technicians, will host the 1989 OISTAT Congress in Warsaw. The theme of this congress is "The Preservation of the Arts and Crafts of the Theatre." Among the activities of the colloquium will be exhibitions and demonstrations of specialists in various theatrical arts and crafts — costume makers, tailors, shoemakers, scenic artists, prop makers, armourers, and milliners. The five-day conference will include a series of visits to Warsaw theatres. With this in mind, *Cue International* presents a tour of the theatres of Warsaw. — Editor

In a country where recent political events read like grand drama — with the daring challenge of the worker's rebellion in 1980, the imposition of martial law 16 months later, the parliamentary elections, and President Bush's recent visit to the capital — Poland, and particularly Warsaw, has remained one of the cultural centers of Eastern Europe. Live theatre, music, and dance abound in spaces grand and not-so-grand.

And in the heart of Warsaw is the grandest space of them all — the Teatr Wielki. With a seating capacity of 2,000 and a 1,159 square meter stage, it is to Warsaw what the Bolshoi is to Moscow, both in size and in standards of production and performance.

The Teatr Wielki was built in 1825, according to the design of Italian architect Antonio Corazzi. A center for the Warsaw Opera and the Polish National Ballet, the theatre quickly became a major performing arts institution. It was home to the "father of the National Opera" — Stanisław Moniuszko — who, in an era of Czarist censorship, wrote and directed a

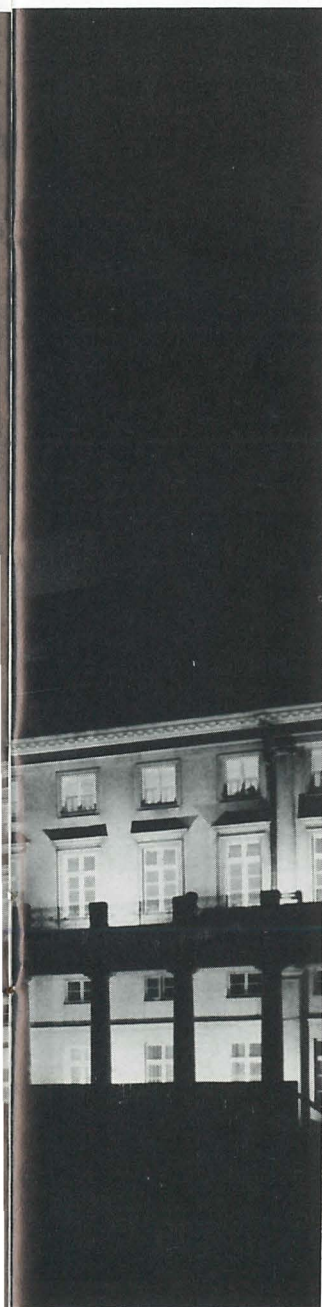
series of operas which were regarded as a testament to Polish patriotism and culture during a period of subjugation. During the beginning of the 20th century, this Warsaw stage boasted such names as singers Jan Kiepura and Enrico Caruso.

During the siege of Warsaw in 1939 the building was severely damaged and was completely destroyed during the Warsaw uprising. The classical façade alone survived. After the liberation, the government of the People's Republic of Poland began rebuilding the Wielki. The first stage of the reconstruction was completed in 1949, and comprised the rebuilding of the Right Wing.

During the remaining 16 years of reconstruction, every attempt was made by architect Bohdan Pniewski and technical designer Arnold Szyfman to make the Wielki the most advanced theatre of its time for its reopening in 1965.

The Teatr Wielki boasts some impressive technology. Its six mainstage hydraulic elevators (23 x 3 meters) easily carry heavy settings on two levels. There is a revolving stage, 21.5 meters in diameter; 56 hydraulic-powered scenery hoists and 48 manual ones; two elevators for the orchestra and two backstage.

Besides the 2,000 seat art-deco auditorium, the Wielki houses the Theatre Museum — two halls on either side of the first floor foyer totalling 855 square meters, with year-round exhibits on the history of Polish drama, opera, and ballet; the Mlynarski Room, a 250-seat theatre; rehearsal rooms; dressing rooms; workshops (flat scene-painting is done in a rotunda atop the theatre); and storage lofts. General and artistic director Robert Satanowski says, "I have here a theatre of 2,000 rooms, of which the stage, the auditorium, and foyer are only three." In addition, the Wielki normally houses the



JULIUSZ MULARZYŃSKI

National Theatre in its vast right wing, but because of recent fire damage, the National has been relocated to a theatre outside of central Warsaw.

After the Wielki, the stages, shops, and technical facilities of most of the other theatres in Warsaw seem limited. *This* is the Warsaw wonder — that stunning stage-images are regularly produced with almost minimal means, especially with the demands of a rotating repertoire.

The 900-seat Teatr Polski, built in 1913 in a mixture of Art Nouveau and Neo-Classic styles, presents Polish dramas and comedies. The home of Poland's first revolving stage, the theatre recently replaced its light-control machinery with a lighting control system manufactured by one of Poland's premiere designers of theatrical machinery, the Factory of Theatre Apparatus (Zaklad Urzadzen Teatralnych).

In business for thirty years, the Warsaw-based Factory of Theatre Apparatus manufactures a wide variety of stage technology — revolving stages, hydraulic lifts, light bridges, mixer consoles, and lighting controls. They supply the majority of Polish theatres, including the Teatr Dramatyczny in Warsaw, the Teatr Wyrzeze in Gdansk, and the Opera-House in Wroclaw. Half of their business is to other Eastern European institutions — the Operetta House in Sofia, Bulgaria; The National Theatre in Bucharest; the Friedrichstadtpalast in East Berlin; the National Theatre in Budapest; the Estonia Opera-House in Leningrad; and the Mayakovski Theatre in Moscow.

Among the other Warsaw theatres worth noting is the Opera Kameralna — the Chamber Opera. Housed in a quaint 18th-century Calvinist church, its stage is tiny, with no flies, but an orchestra pit

with as many as 48 chairs. The attractive auditorium seats only 159.

Many of Warsaw's dramatic theatres regularly present American, British and Western European plays in translations. They include the Atheneum, the Studio, and the Public. In the Atheneum's repertoire are such works as *Jacques Brel*, Erdman's *Suicide*, and Mrozek's *Police*; the Studio's offerings range from *Hamlet* to a lively musicalised production of *Woody Allen*, known in the West as *Play It Again, Sam*; and the Public's repertoire includes the work of Babel, Enquist and even Marsha Norman.

Also notable are the Maly, the Nowy, the Popular, the Rampa, the Contemporary, the State Jewish Theatre, and puppet theatres — the Baj and the Lalka. In spaces that range from black-box studios to grand arenas, the theatres in Warsaw provide a wide range of entertainment.

■ From 100-seat studios to 2,000-seat palaces, Warsaw theatres present everything from Polish classics to Western musicals. (1, *Sarcophagus*, and 2, *Death in the Garden*, at the Teatr Popularny; 3, *Scenes of the Passion* at the Teatr Nowy; 4, *A Threepenny Opera* at the Teatr Studio)

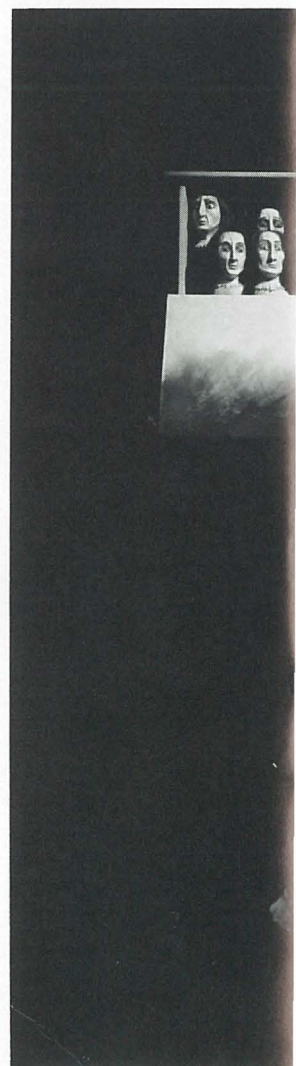
● Des petits ateliers de 100 places aux grands auditoriums de 2.000 places, les théâtres de Varsovie proposent au public une grande variété de spectacles, des classiques polonais aux comédies musicales occidentales. (1, *Sarcophagus*, et 2, *Death in the Garden*, au théâtre Popularny; 3, *Scenes of the Passion*, au théâtre Nowy; 4, *Threepenny Opera*, au théâtre du Studio)

▼ Die Warschauer Theatre umfassen sowohl Studiobühnen mit 100 Sitzen, als auch grosse Häuser mit zweitausend Sitzen, in denen sie einen Spielplan anbieten, der von den polnischen Klassikern bis zum Musical reicht. (1, *Sarcophagus* und 2, *Death in the Garden* im Teatr Popularny; 3, *Scenes of the Passion* im Teatr Nowy; 4, *Threepenny Opera* im Teatr Studio)

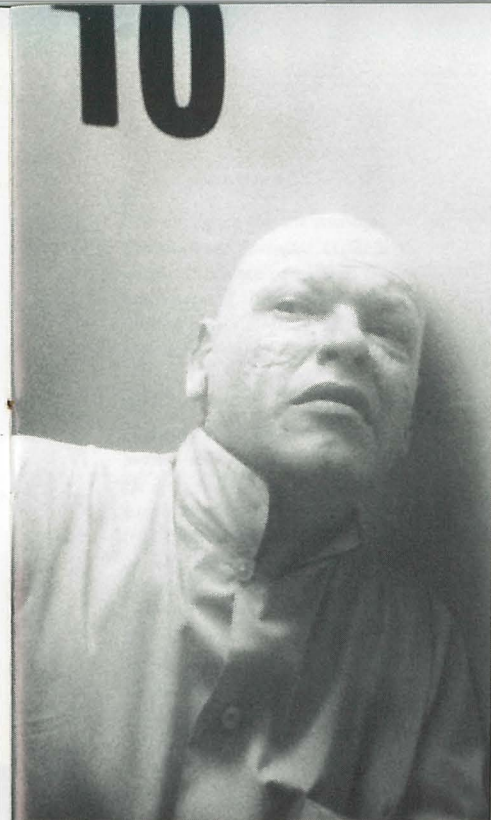


2

ZYGMUNT RYTKA



3



ZYGMUNT RYTKA

1



SZELOCH & WOŁOWSKI

WARSAW THEATRE DIRECTORY

Centrum Sztuki Studio/Studio Theatre

Address: pl. Defilad, Palace of Culture
Seating: 342/ 120-140 (Stage 2)
Artistic director: Waldemar Dabrowski
Technical director: Jerzy Taczalski
Administrative office: 204-770
Box office: 200-211

Opera Kameralna/Chamber Opera

Address: u. Swierczewskiego 76b
Seating: 159
Artistic director: Stefan Sutkowski
Administrative office: 283-096
Box office: 312-240

Operetka Warszawska/Warsaw Operetta

Address: ul. Nowogrodzka 49
Seating: 1,012
Artistic director: Urszula Trawinska-Moroz
Administrative office: 218-037
Box office: 280-360

Teatr Ateneum/Atheneum Theatre

Address: ul. Stefana Jaracza 2
Seating: 402/105-124 (Stage 2)/130 (Stage 3)
Artistic director: Janusz Warminski
Technical director: Antoni Poros
Administrative office: 263-305
Box office: 267-330

Teatr Dramatyczny/Dramatic Theatre

Address: pl. Defilad, Palace of Culture
Seating: 642/168 (Stage 2)
Artistic director: Zbigniew Zapasiewicz
Technical director: Jan Ciarkowski
Administrative office: 262-154
Box office: 200-211

Teatr Kameralny/Chamber Theatre

Address: ul. Foksal 16
Seating: 265
Artistic director: Kazimierz Dejmek
Technical director: Jerzy Zalewski/Leszek Włodarakiewicz
Administrative office: 264-880
Box office: 267-918

Teatr Komedia/Comedy Theatre

Address: ul. Sierpecka 7
Seating: 520
Artistic director: Olga Lipinska
Technical director: Ryszard Hryniewicz
Administrative office: 331-584
Box office: 336-880

Teatr Lalek "Baj"/Storytellers Puppet Theatre

Address: ul. Jagiellonska 28
Seating: 213
Artistic director: Krzysztof Niesiolowski
Administrative office: 199-096
Box office: 198-077

Teatr Lalka/State Puppet Theatre

Address: pl. Defilad, Palace of Culture
Seating: 280
Artistic director: Jan Woronko
Administrative office: 204-960
Box office: 204-950

Teatr Maly/Little Theatre

Address: ul. Marszałkowska 104/122
Seating: 277
Artistic director: Jerzy Krasowski
Administrative office: 320-360
Box office: 275-022

Teatr Narodowy/National Theatre

Address: ul. Kasprzaka 22
Seating: 398
Artistic director: Jerzy Krasowski
Technical director: Euzebiusz Kosla
Administrative office: 320-360
Box office: 322-478

Teatr Nowy/New Theatre

Address: ul. Puławska 37/39
Seating: 533/70 (Stage 2)
Artistic director: Bohdan Cybulski
Technical director: Wiesław Pajewski
Administrative office: 498-491
Box office: 498-021

continued on page 44



WOJCIECH PLEWINSKI

4

A JOURNEY TO PARADISE AT THE TEATR WIELKI

During the September OISTAT conference in Warsaw, the Polish hosts are sharing with attendees one of the most exciting and astonishing productions of the Teatr Wielki. Ironically, it is also one of its briefest. *The Gates of Paradise*, an unforgettable work of modern musical theatre by Joanna Bruzdowicz, spans only an hour or so of stage time, but it encompasses the high hopes and the deep despair of the notorious Children's Crusade. Based on a story by Polish novelist Jerzy Andrzejewski, who also wrote *Ashes and Diamonds*, the sung text is in Polish, but the Wielki's production, staged by Marek Grzesinski with sets by Wieslaw Olko and costumes by Irena Bieganska, is so powerful visually that foreign audiences have no difficulty in following the broad outlines of this parable of a noble cause being perverted by evil human impulses.

At the Wielki, viewers journey alongside the masses of children on their trek. Audiences enter the Wielki's gleaming marble and glass foyers just as they would for a night at the opera in the modernistic auditorium. But that's where any similarities to a typical evening in the theatre ends. Audience members are directed down a long series of confusing corridors. Upon exiting, they are conducted to tiered seating on the huge wagon-revolve of the mainstage. Behind these seats, the orchestra is mounted on a podium so the instrumental music is always coming from behind the spectators, while the vocal

music seems to come from all sides.

Not only do audiences at *The Gates of Paradise* make a real journey as they follow the Children's Crusade, they also have an unparalleled opportunity to see all the Wielki's stage-machinery and lighting in action. This is the Stage Tour par excellence!

As the performance begins, the audience first focuses on an immense projection of a many-towered Paradise, projected on the rear of the vast iron-curtain which divides the spacious rear-stage of the Wielki from the mainstage. Slowly, this rises. Spread in front of the viewers is an army of sleeping children, the valiant Crusaders. As they slowly awaken, an aged monk begins to sing the saga of this heroic enterprise, so horribly compromised by evil. Bruzdowicz and her co-librettist Jerzy Lisowski have also given

voice to five monstrous, terrifying Guardian Angels who watch over the five corrupted children who have inspired this Crusade, which ended gruesomely with the deaths or enslavement of thousands.

Four of the hideous winged creatures are suspended high in the air over the stage as the wagon-revolve begins its movement downstage, following the Crusaders. Once downstage, the revolve rotates the audience to stage right. In the deep side-stage on four of the wagons, seemingly innocent children frolic, watched by another winged Guardian, but they are seduced to join the journey to Jerusalem to free the Holy Sepulchre from the Moslems. The revolve begins to move again, following them. Soon it is facing the stage left side-stage, where a young girl is tied to the mast of a ship sailing with the children toward the Holy Land. But it's clear from the lewd attitude of the boys dancing around her that this is nothing holy.

What soon emerges is that two of the boys on the Crusade have been earlier seduced by a Knight Templar, an adult crusader, now dead, whose spirit still haunts them. And they, in their turn, are pursued by two girls who are infatuated. This vast, hopeless swarm of children, most of them animated by the highest ideals, has been betrayed at the outset by corrupt passions. They will never reach their goal, neither the Holy Land nor the gates of Paradise. In performance, the major youthful roles are danced by out-



ZBIGNIEW FELIKSIAN

■ The audience for the musical, *The Gates of Paradise* (1, 2, 3, 4) sits on the huge revolve of the mainstage of the Wielki and rotates periodically, following the action on stage.

● *Le public de la pièce de théâtre musicale The Gates of Paradise (1, 2, 3, 4) était assis sur un gigantesque plateau de la scène principale du Wielki qui tournait périodiquement tout en suivant l'action de la pièce.*

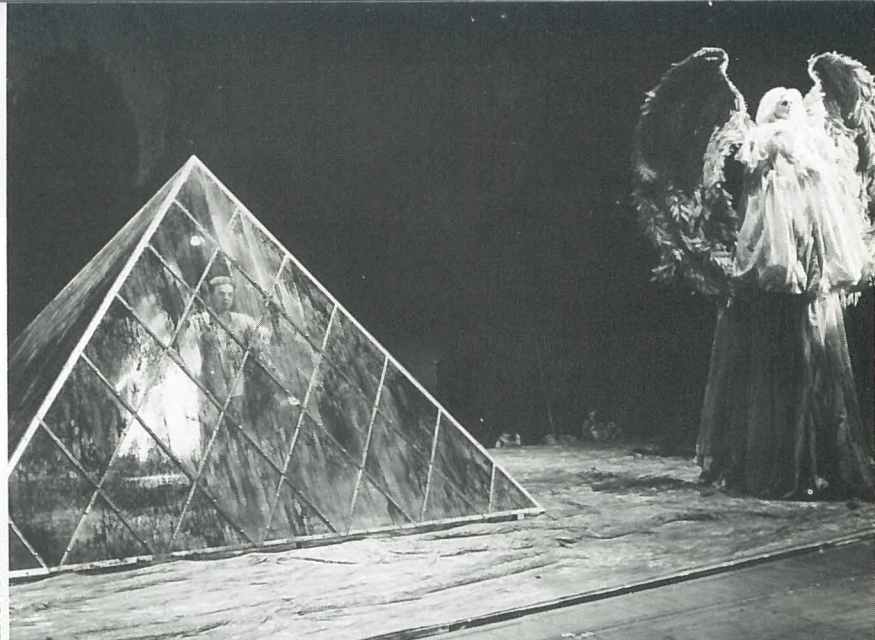
▼ In *The Gates of Paradise* (1, 2, 3, 4) sitzen die Zuschauer auf der Drehbühne des Theatres Wielki, die Zuschauer zum Ort der Handlung rotiert.

standing young dance students. The mass of children is composed of dancers and a Polish Scouts choir.

As the story unfolds, the revolve turns, as the wagon it is on moves forward and rearward through the extensions of both huge stages. At one point, it comes almost to the front curtain, which slowly rises to reveal the auditorium as a strange land of leaping flames. Through the smoke and tongues of red fire, the Knight Templar in full battle-dress rides a white horse down the center aisle up onto the mainstage, riding off with a naked young boy before him in the saddle. Later the front stage elevator rises to reveal the knight and the boy on its lower level. Another startling image is the boy inside a glass pyramid, rather like I. M. Pei's new Louvre construction. A large rose window also descends from the flies just behind the main curtain for another scene.

In staging this as musical theatre, Marek Grzesinski was inspired first by a famous documentary film about the gangs of homeless children who roamed the Soviet Union, after the Revolution had destroyed their families. Some marched south to sunny Odessa, hoping to find a promised land. Another image from modern times was the odyssey of the flower children to California in the 1960s. Only a bare stage with suggestions of time, place, and mood could work for *Paradise*, Grzesinski has said. But it was also a conscious decision, in line with his search for "a new theatrical space" that breaks the barrier between stage and audience.

GLENN LONEY



ZBIGNIEW FELIKSIAK

2



JULIUSZ MULTARZYNSKI

3



JULIUSZ MULTARZYNSKI

4

Endangered Arts

BY DONALD HUTERA

Like most major cities with a thriving, multi-disciplinary cultural milieu, London is littered with artisans. These are the people who honour, practice, and continue to refine the traditional skills — the milliners, scenic artists, shoemakers. The patience and the talent found in their hands and their imagination has not been replaced with automation and computer chips. Clothes are still sewn one stitch at a time, costumes are still created from natural fibres, time is still taken to create products of quality. As the world progresses furiously onward, they remain in place. These craftspeople are part of a lost world — the sort who, in the proverbial olden days, might have taken apprentices, or been apprentices themselves.

The quartet interviewed here satisfy that romantic notion of a true artist — one who works as much for enjoyment of the process as for what he or she earns from it. None is under 30, nor have any of them been pursuing their career for less than five years. They belong less to the world of business than to their particular calling.

Harry Ellam, Embroiderer

Great things can happen in the unlikely places. Take *Little Dorrit*, the 1987 film version of Charles Dickens' novel. This six-hour, two-part epic was conceived, shot and edited over five years by Sands Films, a virtually self-contained movie studio based in a couple of converted warehouses along the river Thames.

Sands is located in Rotherhithe, an area of southeast London that supports a well-balanced mix of artists and craftspeople, young businesses with the accompanying upwardly mobile young businesspeople, and the less upwardly mobile occupants of government housing. Rotherhithe has been Harry Ellam's home all his 55 years. "Where I live, I can see where I was born," he says in a voice resembling Alfred Hitchcock's. Ellam is a warden of the local church, St. Mary's. His sister ran the famous pub, the Mayflower Inn, for 17 years. Both church and pub are within spitting distance of Ellam's 'office,' a well-lit corner of Sands' long, wood-beamed research library. There the former accountant sits and embroiders. He started late — seven years ago — and claims to have had little formal training, but everything he does is a labour of love.

This fits in perfectly with the attitude and philosophy at Sands, where the 25 permanent employees constitute an extended family, and where most tasks are

accomplished by tried and true, non high-tech methods. "We've only got one sewing machine," Ellam confides, adding, "but nobody uses it."

Dorrit entailed making authentic period costumes for some 250 actors with speaking parts, plus an unspecified number of extras, entirely by hand. Although he says he's never signed his work, Ellam's delicate, painstaking signature is visible in every one of the film's frames, in the needle and thread work for countless shawls, waistcoats, purses, braces, flounces, collars, ribbons, and even the slippers worn by Sir Alec Guinness.

Ellam is currently in the thick of Sands' next hush-hush project, another period piece that covers at least a century of historical styles of dress, architecture, and manners. Once again, he is basing his contribution of images from reference books, postcards of paintings, actual clothing, and anything else necessary to truthfully duplicate the subject matter, colours, and patterns of the past. The overriding directive at Sands, he explains, is that everything is "made up exactly as it would have been at the time — not like it, but exactly!

"Embroidery is really painting with threads," Ellam continues, "although unlike brushstrokes, the threads have a nasty habit of going only one way." Rather than experiment with a lot of different materials, he has mostly stuck with silk. He prefers working on "something you



KATIE VAN DYKE

1



2



KATIE VAN DYKE

3



KATIE VAN DYKE

4

Embroiderer Harry Ellam of Sands Films (1), the staff at Wig Creations (2), knitter Gina Pinnick (3), and armourer Terry Keen of the Royal Opera House (4) are a small handful of craftspeople working in London. Despite the onset of assembly lines and computers, these artisans continue to work by hand — one item at a time.

Harry Ellam (1), brodeur pour Sands Films, les perruquiers de Wig Creations (2), Gina Pinnick (3), tricoteuse, et Terry Keen (4), l'armurier au Royal Opera House, représentent une poignée d'artisans qui travaillent à Londres. Malgré l'arrivée des chaînes de montage et des ordinateurs, ces artisans travaillent encore à la main et ne produisent qu'une seule chose à la fois.

Der Besticker Harry Ellam von den Sands Films (1), die Mitarbeiter bei den Wig Creations (2), die Strickerin Gina Pinnick (3), und der Waffenmeister Terry Keen im Royal Opera House (4) sind nur einige der vielen Theatrehandwerker, die in London arbeiten. Unbeeinflusst von Massenproduktion und Computern arbeiten diese Fachleute nach wie vor mit der Hand, Stück für Stück.



KATIE VAN DYKE

■ The staff at the Armoury at Covent Garden (left) is in charge of maintaining the collection of half-a-century-old weapons used for the Opera House's operas and ballets.

● *L'équipe de l'armurerie du Covent Garden (à gauche) est chargée de l'entretien de la collection des armes, vieilles d'un demi siècle, qui sont utilisés pour les opéras et ballet du théâtre.*

▼ Die Mitarbeiter der Rüstkammer in Covent Garden (links) betreuen eine Sammlung von Waffen, die ein halbes Jahrhundert alt sind, und für die Kämpfe und Schlächten im Opernhaus benutzt werden.

can use or wear. I couldn't do embroidery to put on a wall — though I might have a go at the Bayeux tapestry.

"The work doesn't depend on size, but on the amount of pep and go you put into it. You need a frame, a design, and the will to do it. The frame, of course, has to be tight as a drum, or else the work will collapse. It also helps if you can draw well." He says he can't. "But when I do drawings, I use children's crayons." He doesn't mean Crayolas, but coloured pencils dipped in water. "They're more precise than brush or watercolour.

"Embroidery is therapy for me," Ellam concludes, "but it could be terribly frustrating. If I make a mistake, I can't leave it. I just cut it out and start again. It requires patience. I sometimes tell myself, 'Just one more leaf, one more...'"

Brian Peters, wig designer

Wig designer Brian Peters might legitimately claim to know a thing or two about entertainment industry psychology. The walls of his small office in west London, lined with the autographed photos of celebs like John Cleese and Wendy Hiller, are a miniature Who's Who of British show business. After nearly three decades

of handling both hair and egos, Peters pegs most performers as "introverts in an extrovert's job. We've all heard stories about wigs being thrown across the room, costumes being torn. But I find that most people are very easy. In this business, everyone wants to be loved, and one of my tasks is to make everyone happy. The actor wants one thing, the designer something else, and the director doesn't know till he sees it. I help everybody to see everyone else's point of view. It's a lovely way of earning a living, really, because you're manufacturing pretense. You're supplying a very important part of an illusion."

Peters, 52, is one of 25 employees at Wig Creations, located just off Hyde Park. It is one of the largest, most reputable firms of its kind in Europe, supplying wigs — not to mention all manner of facial and body hair — for stage, screen, judicial, and private use.

"We might be working on 10 or 15 different productions at any given time," Peters says, acknowledging how theatrically orientated the business is. Apart from frequent customers, private or professional, whose named, head-shaped wood blocks line the shelves of the workroom, a large part of the trade is conducted by post. Clients from abroad send detailed mail orders consisting of photographs, designs, charts with head measurements and all other manner of specifications, from colour and texture to weight, length and style.

Peters likens wig-making to both

painting by numbers, because of the seemingly infinite possibilities of blending shades and grains of hair, and small-scale rug-making, because of the method of using a hook to knit the nearly invisible strands of hair by hand onto the thinnest of laces. According to him, the profession hasn't altered much, technically speaking, since the 18th century. In his time, the only significant change has been a shift toward different, usually lightweight fabrics (nylon for the hair lace, for example).

Horse hair is used to create legal wigs, and yak hair ("It's quite coarse and retains curl") for beards and moustaches. The human hair is imported from Italy and Eastern Europe, in kilo bundles usually 10 to 24 inches long and costing approximately £1,000 each. At Wig Creations they unceremoniously store the hair — bound into what is known as hackles — in an ordinary two-drawer filing cabinet. Light-colored hair goes on top, with the darker, less expensive hackles below. You can easily discern the difference between artificially and naturally bleached or treated hair, but either way hair is a treat to touch for anyone into tactile sensation.

"It can be very sexy," Peters admits, "but I don't find hair erotic as a substance, maybe because we use it as a fabric and treat it with fabric dyes." He does, however, recognize the intimate nature of what he and his colleagues at Wig Creations do. "How much closer can you get to a person than their hair?"

Gina Pinnick, Knitter

Just down the road from Sands Films — a lane, actually, filled with more warehouses — is Gina Pinnick's studio. She and nearly two dozen other artisans rent space in a cooperatively-run building that is a veritable warren of creativity and craft. 99 Rotherhithe Street contains painters and illustrators, jewelers, prop and lute makers, costumers, and people who specialise in leatherware and textiles, to name a few.

Pinnick, in her early thirties, is a specialist knitter. "I'll knit anything that needs to be knitted," she declares. Although she started out in fashion, her focus has widened to include theatre, film, video, and television, as well as private commissions. "I go round the bend when I finally see my work on stage or screen," she happily admits. By those standards, her life must be a continual revolution. She's only been knitting professionally for about five years, but already her list of credits is impressive — *La Traviata* for English National Opera, *La Bayadere* for the Royal Ballet, *A Midsummer Night's Dream* at the Royal Shakespeare Company, the West End productions of Andrew Lloyd Webber's *Cats*, *Phantom of the Opera*, and the new *Aspects of Love*, and a television special starring ice-skating champs Torvill and Dean.

Pinnick doesn't necessarily design the costumes for a given show, nor does she work on all of them. Instead she contributes particular skills, using both computer-based and hand-operated knitting machinery, and also offering crochet and macrame. Her repertoire of materials encompasses everything from silk and chenille to mohair and lycra. She likes to incorporate lurex, chiffon, suede, and many other substances into her work as well. "People don't realize just what can be knitted," she says. "And it doesn't have to be only clothing that I do. I'd love to work on backcloths, for instance."

A sizable chunk of Pinnick's time is spent making the rounds, calling on contacts, and networking. "I deal with freelance or company supervisors, the people who coordinate the costuming for the designers. They call me, or I call them, and we arrange a meeting where the designer picks out whatever materials he

or she likes from a big bag I've brought. I go away and come up with different samples, then bring them back to be looked at. That's when decisions get made as to what I'll finally do for them and how it'll be done.

"The amount of time I'm given varies. I've had some all-nighters. I once had to do the jumpers for several actors in a musical just over one weekend. Well, I did it, on no sleep, but it was worth it, because each job that comes along is a challenge."

Although she's had no formal teacher training, two years ago Pinnick started passing on her knowledge to others. She teaches knitting at a nearby university. "My students love to hear about what shows I've had a hand in," she says. "They also want to know things about knitting that I've never bothered with, technical and stylistic questions, so in a way I'm constantly teaching myself."

Terry Keen & Jonathan Bray, Armourers

"Bloody hell!" the man in the hall exclaimed in surprised admiration. He'd obviously been going about his business in the basement of the Royal Opera House, Covent Garden when suddenly he came upon a door opening onto a room few people get to see. This is the storeroom of the Opera House's armoury department, a cramped space packed to the ceiling with nearly half a century's collection of weaponry. It's the stuff of an adventurous kid's dreams: breastplates and helmets (both real and fiberglass), genuine Napoleonic polearms, thrillingly heavy spears and dashing lightweight swords, brown muskets and fancy cutlasses. You half expect Errol Flynn or some latter-day movie hero to come charging round the bend with a loyal crew to take up arms.

"We're desperately short of space," department head Terry Keen says, glancing round what is scarcely bigger than a boiler room, "but it's so hot down here that nothing goes rusty. And everything you see gets used." His voice strikes just the right notes of professional pride and boyish enthusiasm. He's been at the Opera House for 22 years, and clearly loves both the old theatre and his department.

Just below the dome at the top of the

Opera House is the department workroom that Keen shares with two assistants. Here Keen tells how the department really got going and organized after World War II, thanks to the efforts of a now-deceased wardrobe department employee, the son of

"Nowadays no theatre could afford to buy or start up an armoury like ours," Keen says. "It's the best- equipped in the country."

a well-to-do military family.

"Nowadays no theatre could afford to buy or start up an armoury like ours," Keen says. "It's the best-equipped in the country. Many of the pieces have been around for a long time. So long, in fact, that their origins are unknown. Anything over 100 years old, which some of our pieces are, is by English law an antique and therefore needs no licence. But if it's a copy, you need one. So we have half a dozen rifles and roughly the same amount of pistols registered with Scotland Yard. They're very, very particular. I think they just like to come and have a look at our stock, really."

"It's quite a nasty trade," Jonathan Bray says of the armoury. "Someone is always getting killed." Onstage, that is. Bray, a former dancer, has been in the department for 16 years. A good deal of his and his colleagues' time is spent on maintenance and repairs. "Some things get dropped deliberately, because that's what the script dictates, and that causes damage. You can ask the performers to do themselves or somebody else in with style — 'Cut your throat and put the knife down gently, please' — but it doesn't always work."

Armoury and wigs are the only two departments in the vast Opera House whose staff crossover between opera and ballet productions. Whatever the show, Keen and his cohorts try to use as much as possible from stock. But sometimes they can't do that and must make new pieces, whether it's weapons or leather goods. Lacking a forge, they must buy blades. Handles — comprised of pommel, grip and guard (or quillon) — are either designed as originals in metal or brass, cast from existing instruments, or cast using wooden moulds. "The craft is in knowing how to use materials," says Bray. "The art is if you do the designs."

CELCO MANUFACTURES AND DISTRIBUTES LIGHTING CONTROLS FOR CONCERTS, TV, AND THEATRE

Celco in control

BY ELLEN LAMPERT

In 1978, 19-year-old lighting designer Keith Dale designed the lighting for Joe Jackson's first tour. Today, Dale is the marketing director for Celco, a British company with an annual business of £2.4 million (US \$4 million).

"For the first Joe Jackson tour I used Strand equipment," says Dale. "After that I began to use equipment by EFS, which eventually became Celco." The company was born in 1981, the profitable merger of Celestial Lighting Company, a hire firm, and EFS Ltd., manufacturers of lighting equipment and controls for the rock 'n' roll market. Celestial was owned by Dale, and partners Tim Bridle and Andy Reed, while EFS was owned by Matt Deakin. With the addition of sales director Colin Whitaker, these five, with Bridle acting as managing director, Deakin, technical director, and Reed, engineering director, make up the principals in today's Celco.

"EFS manufactured pin matrix boards," Dale recalls, "and in those days rock 'n' roll began to develop its own fashion of lighting boards." According to Dale, the rock 'n' roll lighting designer usually operates the board every night, implementing his own design. "In the theatre this isn't usually the case," Dale notes. "The designer doesn't run the show and the cues don't change from night to night. As a result, the boards designed especially for rock 'n' roll leave more room for improvisation and hands-on access."

The Celco boards were designed for dimming the intensity of the lights, but they are built so that the integrity of the electronics allows them to be adapted to other uses. "The boards can be used to control moving lights, like those built by Clay Paky," says Dale, whereas Vari*Lites, which Dale considers to be the market leader in moving lights, have their own dedicated control board. "To do it right, a designer should use Vari*Lites with their own board, and a Celco board for the fixed lights."

Dale estimates that 15 - 20% of the annual budget is spent on the research and development of Celco products. "We take special pride not only in the way our products work, but also how they look." Each board is fully tested before it leaves the factory and each one is documented. Celco offers a service contract, "like routine servicing for your car," and the company

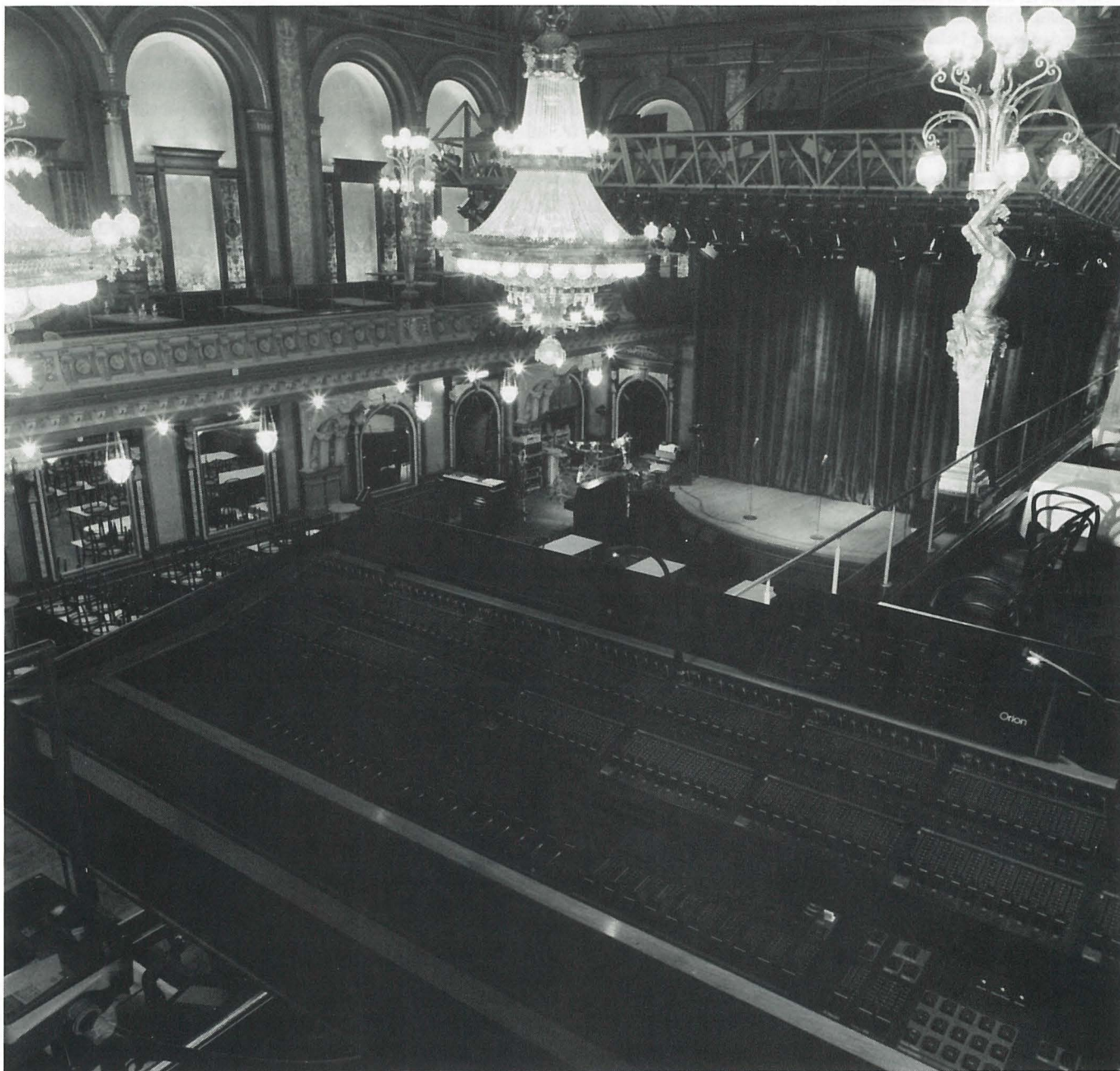
also offers a 24-hour back-up service to provide a replacement board or fly someone out to fix a problem. "Once in New Orleans," Dale recounts with a smile, "one of our boards was flipped 3 meters during a tornado, and it was still working."

One of the company's design goals is to make the technology transparent to the designer. "We are very concerned with the user, with what the designer wants to do. And we think that the Celco board is the easiest to use. The designer can do his work without worrying about how the board works. The technology should not get in the way of the designer."

With a range of lighting control boards designed for jobs of all sizes ranging in price from £2,150 (US \$3,655) for the Celco Baby to £18,750 (US \$31,875) for the Celco Gold, Celco devotes two to three years to the development process of a new board. A team of seven different people usually have a hand in the process. "First we look at what's needed by the market," says Dale, "and then we come up with a solution in terms of what the board will do and how it will do it. We make it as easy to use as possible, and go over and over the operation of the board on paper." Mid-way through the design process, a small model of a new board will be built at the Celco factory in South East London, where the company houses its 32 employees. The security around the research and development department is very tight. "We have real security concerns and visitors are not really welcome," according to Dale.

Matt Deakin builds a prototype with the electronics of a new board, while Dale and graphic designer Catriona Forcer work on the outside design and styling. "We work on the aesthetics," comments Forcer, "choosing the materials we use and the colours for the buttons, that sort of thing. The younger designers who are more design conscious tend to opt for Celco."

The Celco software, such as Celcosoft and Soft Options 88, is also designed in-house to further enhance control of the product and the knowledge of how it works. "We travel to all the trade shows," says Dale, who was seen in the Celco booth at SIEL in Paris and at ABTT 1989. "We know everything about our product, and like to get direct feedback from the users." To further their outreach, Celco has hired on Thomas Reiman,



■ Since its formation in 1981, Celco has become an international manufacturer of lighting control equipment. 64% of Celco products are for the European market, 22% for North America, 9% for Japan and 5% for Australia and the Far East. (above, a Celco Gold at Berns' Salonger, Stockholm, Sweden)

● Depuis sa création en 1981, Celco est devenue une entreprise internationale d'appareils de commande d'éclairage. 64% des produits manufacturés par Celco sont destinés au marché européen, 22% pour l'Amérique du Nord, 9% pour le Japon et 5% pour l'Australie et l'Orient. (Ci-dessus, la Celco Gold au Salonger de Berns, Stockholm, Suède)

▼ Celco, das im Jahre 1981 gegründet wurde ist ein internationaler Hersteller für lighting control equipment. 64% seiner Erzeugnisse werden auf dem europäischen Markt verkauft, 22% in Nordamerika, 9% in Japan und 5% in Australien und dem fernen Osten. (oben, ein Celco Gold im Bern's Salonger in Stockholm)

■ "If it ain't Celco, it ain't rock 'n' roll," is the Celco claim. Among their clients are Joe Jackson (1, 1983 world tour), Eric Clapton, and Prince. Marketing director Keith Dale (2, left, with sales director Colin Whittaker) was the lighting designer for Jackson before merging his company, Celestial Lighting, with EFS Ltd., to form Celco.

● *"Si c'est pas du Celco, c'est pas du rock 'n' roll," voilà le slogan de Celco. Parmi leur clientèle, on peut Joe Jackson (1, Tournée Mondiale 83) Eric Clapton and Prince. Le directeur du Marketing Keith Dale (2, à gauche, avec le directeur des ventes Colin Whittaker) a été l'éclairagiste pour Joe Jackson avant de fusionner sa société, Celestial Lighting, avec EFS Ltd., qui ont donné naissance à Celco.*

▼ "If it ain't Celco, it ain't rock 'n' roll," behauptet Celco. Zu den Kunden gehören Joe Jackson (1, 1983 world tour), Eric Clapton und Prince. Der marketing director Keith Dale (2, links, mit Verkaufsdirektor Colin Whittaker) war, bevor er seine Firma Celestial Lighting mit EFS Ltd., zusammenlegte und Celco formte, der lighting designer für Jackson.

from Switzerland. Reiman, who speaks French and German, will serve as export coordinator and will travel for the company.

"We use top-notch materials," confirms Dale, indicating the natural oak trim on the Celco Gold board, "and the better a board is made, the better its resale value." Dale is aware of the large investment made to buy a board, and although the boards are updated the models do not change very often. "We often sell a board by selling the idea to a designer, who then specifies it to his rental company, who then buys it." In fact, 70% of Celco's sales are to rental companies, while the other 30% go to television studios, discos, cruise liners, such as the QE2, and a small percentage to designers themselves.

Celco boards have also been used for industrial shows, including those for British Airways, IBM, Renault, Porsche, and Volvo. Their products are in use at the Dome in Birmingham, the largest of the midlands discos, Disneyworld in Florida, and will go into the new Birmingham International Convention Center. Claiming "If it ain't Celco, it ain't rock 'n' roll," the Celco roster of rock shows includes Eric Clapton, Rod Stewart, Whitney Houston, Diana Ross, and David Bowie. The spring world tour of Frank Sinatra, Sammy Davis, Jr., and Liza Minnelli traveled with the Celco Gold control board and the equipment of French keyboard player Jean-Michel Jarre's performance at London's Royal Victoria docks was controlled by a Celco Series 2 Gold. At the Sport Aid concert in Hillsborough, the same board controlled 242 Par 64's, 200 ACL's, 20 CCT projects and 8 Iris 4's. Designer Roy Bennett took his two Celco Golds to Japan

for the Prince tour.

Japan is actually one of the biggest single markets for Celco, which sells 9% of its products through H. Ito & Company Ltd. and Technical Supply Japan Co. Ltd. "We may have new competition in Japan," says Dale ironically. "A Japanese rental company gave two Celco boards to Panasonic, and they have built a clone. But the lighting market is probably too small for them to seriously consider."

The other 91% of Celco sales includes 64% in the United Kingdom and throughout Europe, 22% to North and Central America, and 5% for Australia and the rest of the Far East. Celco does not sell to South Africa. In the United States, Mexico, and Canada, Celco sales are handled by Celco, Inc., the American distributor. "Celco Inc. is the only distributor we let use our name, and we have a special relationship with them because America is such a big market," says Dale, "but there are no financial ties." Celco Inc. was once owned by Cerebrum Lighting, and is currently owned by Klark Teknik PLC. This explains the prevailing rumour that Cerebrum owns a piece of Celco.

As of 1 April 1989, the international network of distributors which sells Celco products has been buying directly from Celco. "Until 1989 we were only manufacturers," explains Dale, "but now we have eliminated the middle man." The middle man in this case was Cerebrum, which acted as the sole worldwide distributor for Celco until last April. They will now serve as one of two distributors for Celco products in the United Kingdom, while Celco will sell directly to the distributors around the world. "Until now we preferred to concentrate on design and



1



2

manufacturing, which is what we do best," claims Dale. "Now we will supply directly. This enables us to get better feedback from the different countries, and offer better technical support. Now we are of a size where we can stand on our own two feet."

While Dale claims that Celco has eliminated the middle man in order to be more directly involved with installations on a technical level, and interface with their users worldwide, there is clearly a financial advantage to the new arrangement. Celco will be able to increase its profit margin by approximately 15% by entering into a direct relationship with its distributors — certainly an appealing way to increase annual sales figures, which Dale says are increasing by 40% per year. "Our only competitor in the rock 'n' roll arena is Avolites," says Dale, "and by now we may have a bigger slice of the market." In June 89, Celco shipped board number 1000.

"We consider ourselves part of a worldwide community," says Dale, "and we are ready for 1992." The Celco products already wear a European community badge and the company philosophy is very pro-European. "The logical extension for us is a sales and distribution base on the continent, in order to centralize things," states Dale. "Perhaps Belgium would be the ideal location."

The Celco products adapt easily to the different international standards. Plugs are added in each country to match the wall socket, and the dimmers select the voltage necessary. Since the rock tours are international, the boards have a selector to choose the appropriate voltage. "1992 will be important in terms of meeting international standards," says Dale, who hopes that Eurodollars become a reality for the standardization of prices. "We encourage people to buy our products in the country where they live," Dale continues. "This eliminates parallel importing."

From 1978 through 1986, Dale, who learned lighting at the Ministry of Defence, continued to design Joe Jackson tours. But with Celco continuing to grow, Dale finds himself more and more occupied with the daily operations of the business and with less time to continue as a lighting designer. The 1989 summer Joe Jackson tour was the first to go on the road without Dale. "Maybe I'll go on another tour with Jackson in the future," says Dale wistfully, as he leans against the Celco Gold, the top of the line of equipment born out of Dale's collaboration with Jackson.

CELCO CONTROLS — A TECHNICAL APPRAISAL

BY BOB ANDERSON

There are two categories of professional memory lighting controls. The first, designed for repetitive performances, memorises the details of each scene and each transition between scenes so that the whole procession of cues can be repeated at every performance without variation, and without need for the operator to make any significant decisions, except to adjust the timing of each cue to suit the pace of each particular performance. A digital keypad with channel and memory call-up are usual, with one or two timed playbacks and only one channel controller. Added bells and whistles speed up rehearsal rather than ease performance operations. The second category memorises the look of each effect on separate masters, takes up a lot of space, but expects, even demands, that the operator will exercise judgement to choose and time each lighting change on the inspiration of the moment. Traditionally, theatre prefers the first category and concert music the second. But the distinctions are becoming blurred. Many theatres and television studios are seriously looking at the advantages available to rock 'n' roll-type lighting boards. Celco is amongst the foremost who have developed, perfected, and manufactured the latter type.

A Celco console has two control faders per channel and two presets. A lighting look can be composed on either preset, and preset masters allow the immediate choice of two different looks. Basic presetting, but too simple for modern dynamic lighting. The Celco system also provides ten or more masters with solid state memories to capture a sequence, so that ten looks are available at the movement of a fader, or many more if the outputs of more than one fader are used. But ten master faders are minimal. On all but the smaller boards, 20 or 30 master

faders are provided. In addition, to add a further dimension, the sequences on each fader can be changed up to 15 times on Celco Gold, giving a total of 450 different looks in memory, provided time and inspiration are available for setting up.

The larger Celco board has 30 preset faders each with ten to 15 "pages" of memory to provide up to 30 x 15 looks. For performance, these sequences can have fade-in and fade-out times memorised as well. Snap the new fader to full and the old fader to out, and the cue happens with the recorded times, not instantaneously. Dimmers not required to change, or not to move far from the existing level, must, of course, not dip, and dipless cross fade circuits have to be provided. But all this only happens once the memories have been set up. Balancing a memory needs manual adjustment of the 30 to 120 individual faders controlling the dimmers. If the first attempt is not good enough, corrections can be made. The Celco board allows single channels to be matched to the overall output and then the channel fader takes control automatically so that fine balance or major alteration can be a matter of a moment. LED pilots make clear what is happening. Re-memorise, and the improved effect is captured. Prefer the original, and it too is still available until decisively altered. Complex at first sight, but the top lighting designers of today in rock music will not settle for less.

Of course, there has to be help to keep track of all these effects. Pilot LEDs show the active channels or, if a fader is pressed on to its bottom stop, they show the channels which will be active once the fader is brought into use. Thirty master faders, each with 15 permutations must be labeled. Eight character alpha LEDs above each fader take descriptions from memory to keep track of events. BLUEBACK for

example on page one, REDCROSS on page two, with any of the countless other possibilities set up on a computer keyboard to label each of the remaining pages. If a new lighting sequence is added, then the old ones are shuffled along the line of faders to keep the order of use correct. If a lighting sequence is abandoned altogether then the memories are closed up. Computer logic does all this quite painlessly. Changing pages also needs thought, and ingenious special circuits. It is not satisfactory if the lighting in use changes immediately as a new page is selected. The old effect is held

safely until no longer required, and, of course Celco has found a way to do this, to 24 memories dedicated to chase effects. Even better, memory masters can be chased giving faded chases, again with full memory storage, and the chase effects have their own master so that they can be brought into and out of use independently of the static lighting effects controlled by the designer.

Enough though about front of panel complexity. To go further requires hands-on experiment and reference to the excellent operator handbooks provided by

the manufacturer. But there are many more goodies on offer. How about a 'smart card' memory? This, the 1990s replacement for the floppy disc, provides near-indestructible storage for all system memory and, if needed, rapid up-dating so that

many sets of memorised effects can be stored on card and used in turn on the show. Celco, hearing that the cards were available and believing they offered real advantages, developed their own electronics to use them well before the rest of the industry was able to offer such systems off the shelf. How about cassette storage, the cheap and simple predecessor of the Smart Card? How about the ability to link boards together to double the number of channels responding to one set of master controls? How about optional VDU channel level display? How about paper printout of all cue data? How about an interface to synchronise with the MIDI music protocol? Look at the Celco catalogues. All these options and more are available and not all are restricted to the bigger and more expensive systems.

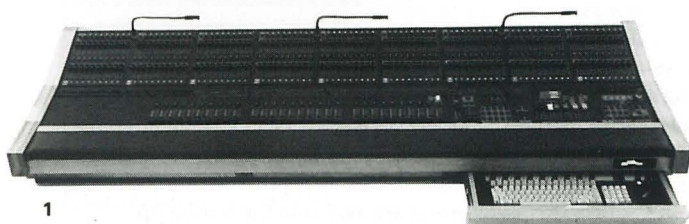
Celco also makes dimmers. Mobile, portable thyristor dimmers, flight-case packaged for secure road transport. The

standard is high, though, and there is a price to pay. Celco dimmers are not cheap. Packages of 12 by 10 amp and 12 by 20 amp are the basic modules, mounted in 3-U panels. Twenty-five amp and 50 amp dimmers take more space. Filtering, by traditional theatre and TV standards is

Celco delivers quality products for demanding customers, and they appear to have mastered their market.

basic, but the rock 'n' roll music industry finds it acceptable. The bulk and weight penalty of anything better would be too great in this essentially mobile market. Conversely, two dimmer laws - BBC 'Square Law' or linear - are available at the turn of a switch, power circuit breakers are provided as standard instead of fuses, and each rack automatically adjusts for the applied main voltage detected and shuts down if a phase is connected to neutral by mistake. Fault finding aids are generously provided and both control patching and power patching are available to give high flexibility for those with the need and time to be precise about their interconnection needs. Smart Card has even been applied to patching, giving, and many alternative proportional patching options. Digital control, using the USITT DMX 512 protocol can be chosen and positive or negative control input or outputs selected to suit available controls and dimmers.

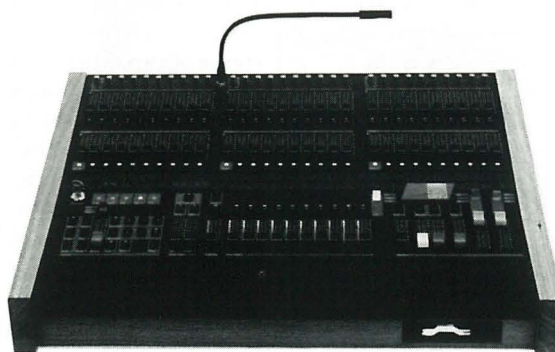
Celco delivers quality products for demanding customers, and they appear to have mastered their market. Twenty years ago colour television was financing the development of new ideas in lighting control. Today it is the big rock bands and the top product launches. Both produce technology to suit their own needs. Other users can enjoy the spin-off benefits. Long may manufacturers with high standards continue to prosper for the overall benefit of lighting users everywhere.



Celco manufactures a range of controls, from the Celco Gold (1) for major concerts and big venues, to the Celco 60 Major and 30 Major (2) for industrial presentations and smaller venues, to the Celco Baby for club and disco lighting.

Divers départements de la Celco produisent une gamme d'appareils de commande d'éclairage: la Celco Gold (1), pour les concerts importants et les grandes manifestations; la Celco 60 Major et 30 Major (2) pour les salons industriels et les petites manifestations; la Celco Baby pour l'éclairage des discothèques et des clubs.

Celco stellt eine grosse Palette von controls her: den Celco Gold (1) für grosse Konzerte und Veranstaltungen, den Celco 60 Major und den Celco 30 Major (2) für Präsentationen der Industrie und kleinere Veranstaltungen, den Celco Baby für Clubs und Discos.





THE EUROPE RANGE

- F101 / Fresnel spotlight 1 KW.
- C101 / Plano-convex spotlight 1 KW.
- C103 / Pebble-convex spotlight 1 KW.
- DS101 / Zoom profile spotlight 1 KW.
- CN101 / Long throw plano-convex spotlight 1 KW.
- F201 / Fresnel spotlight 2 KW.
- C201 / Plano-convex spotlight 2 KW.
- C203 / Pebble-convex spotlight 2 KW.

ADB
lighting systems

N.V. ADB S.A.

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B-1930 Zaventem
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Tel. : +32/2/722.17.11
Tx 22154
Fax : +32/2/722.17.64

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France
Tel. : +33/1/42.53.14.33
Tx 206428
Fax : +33/1/42.53.54.76

ADB-Sofair

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Tx 900264
Fax : +33/72.72.98.20

ADB Sofair

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Fax : +33/91.34.24.70

ADB GmbH

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Main
Deutschland
Tel. +49/6108/66204
Tx 41889103
Fax : +49/6108/66205

LIGHTING DIMENSIONS INTERNATIONAL 89

*A 60% increase in attendees
and exhibit space projected*

BY ANDREW P. SHEARER

Lighting Dimensions International 89, the second annual international entertainment technology trade show for clubs, concerts, theatre, television, and film, is headed to the heart of the country music industry — Nashville, Tennessee — for three days, Friday, 17 November, through Sunday, 19 November 1989. On display will be the latest innovations and products in the fields of lighting, sound, production technology, special effects, rigging and motion control, computer design and technology, atmosphere control and effects, and entertainment technology. Designers, dealers, manufacturers, and working professionals will jam over 7,249 square meters of exhibit and conference space at the Nashville Convention Center.

Centrally located, the Convention Center allows easy access to Nashville's most colourful sights — the Tennessee Performing Arts Center, Printer's Alley, the General Jackson Riverboat, and, of course, the world-famous Opryland and Grand Ole Opry. This fast-growing state capital is also home to a multi-billion-dollar recording, entertainment, film, and video industry. The Nashville Network is America's fourth largest producer of programming — exceeded only by the three commercial networks.

"We're anticipating 5,000 visitors from around the world to come to Nashville," says Jacqueline Tien, vice-president of Events Production Group, organisers of LDI. "That's a 60% increase in attendance over 88." LDI is also expecting to host 150 exhibitors in 370 exhibit spaces for LDI89 — a vast leap from the 110 exhibitors in 230.5 exhibit spaces in LDI88.

The international array of professionals for last year's show included lighting and sound craftspeople from Argentina, Australia, Belgium, Brazil, Canada, France, West Germany, Italy, Japan, Korea, Mexico, the Netherlands, New Zealand,

Sweden, Switzerland, Taiwan, the United Kingdom, and the United States.

A dynamic floor plan of "noisy" and "quiet" zones is planned for LDI89.

Once again, LDI is lining up three days of hands-on professional workshops and seminars moderated by experts in the lighting, sound, and special effects fields. These tightly focussed sessions are designed to update the professional on new products, new applications, outstanding productions. Included in the workshop line-up is a Designer Business Day — a full day of workshops devoted to answering the designer's business problems — patents, copyrights and insurance.

The schedule of events for LDI89 is as follows:

FRIDAY, 17 NOVEMBER

Registration open: 9am - 5pm
Exhibits open: 11am - 6pm

11am - 12:30pm

Opera International. A portfolio of current designs, trends, and techniques.

MIDI Mania. A look at MIDI.

Lighting Country & Western Acts. Getting that look for country acts.

2 - 3:30pm

Designing Casino Showrooms. What you need to know about designing casino nightclub showrooms.

Laser Design Portfolio. Designers and manufacturers talk about the newest laser applications.

On the Road with a Mega-Tour. A look at monster concert tours.

4 - 5:30pm

Entertainment to Architecture. Crossing over from stage to architectural design.

Fog Machine Shoot-Out. What's the right machine for your needs.

Designer/Manufacturer Face to Face: Theatre Speaks. Is speaker design keeping up with the needs of the sound designer?

Nashville by Night. A club crawl through Nashville's nightspots — from high-tech disco to down home country. FREE

SATURDAY, 18 NOVEMBER

DESIGNER BUSINESS DAY

Registration open: 9am - 5pm
Exhibits open: 10am - 6pm

9 - 10:30am

Designer Business. Patents and Patent Infringement. What you need to know about protecting your invention.

Lighting Broadway and the West End. What's the latest in looks, fixtures, and controls.

Planning that New Club. An introduction to selecting the site, planning, designing and installing.

11 - 12:30pm

Designer Business. Copyrights. Protecting your design work. Current copyright law.

Projections. The latest in application technology.

Club Design Italian Style. Sponsored by APIAD, Italian designers present the current state of club design. A luncheon follows.

Theatre: TPAC Walking Tour. A backstage tour of the Tennessee Performing Arts Center. FREE to LDI participants.

2 - 3:30pm

Designer Business. Fees and Marketing. How much should you charge for your services. How to handle your own marketing and publicity.

New Dimmer Technology. Electronic noise reduction. New dimmer design and technology.

Television. Nashville Network Studio Tour. A tour of the Nashville Network television studio. FREE.

4 - 5:30pm

Designer Business. Insurance and taxes. How to protect yourself against the unseen, plus current IRS regulations.

Designer/Manufacturer Face to Face: Interface Technology and Data Portability. Getting equipment to communicate. The latest in DMX interfacing.

Television Hands-On. Problem and solution solving working for TV lighting designers. FREE.

SPECIAL EVENT! Grand Old Opry. A 6:30pm and a 9:30pm show at this legendary country music hall. \$20.

SUNDAY, 20 NOVEMBER

Registration open: 9am - 5pm

Exhibits open: 10am - 6pm

9 - 10:30am

International Club Portfolio. The most up-to-the-minute design solutions from Mexico, Hong Kong, Bangkok, Britain, and Spain.

UL Listing and Approval. Dealing with UL.

Performing Arts Lighting Design. A portfolio of challenges in theatre, dance, and opera.

11 - 12:30pm

Film Lighting. The New Breed of Cinematographers. How do young cinematographers approach their film designs.

Remote Sound. New techniques and equipment for live performance recording.

Rigging. Trusses, hydraulics, and computerized control.

2 - 3:30pm

Moving Lights 89. Moving light solutions for designing awards shows.

Concert Tour Sound. Sound on tour — planning, selecting, packing up, traveling.

Trends for the 90s. Performing art trends for the decade ahead.

Exhibits are free to pre-registered attendees before 20 October, \$25 (£15) afterwards. Individual workshop fee is \$25 (£15) each (except where noted). An all-workshop pass for Friday is \$60, for Saturday, \$85, and for Sunday, \$60 (£35, £50, and £35, respectively). A full conference pass, including workshops, exhibits, and special events is \$175 (£103).

LDI89 is being sponsored by *Lighting Dimensions* Magazine, the magazine for the lighting professional. For further information contact: Paula Harris at Lighting Dimensions International, 135 Fifth Avenue, New York, New York 10010 USA. Phone: 1/212/353-1951. Fax: 1/212/677-3857.

List of exhibitors for LDI 89 as of July 1989:

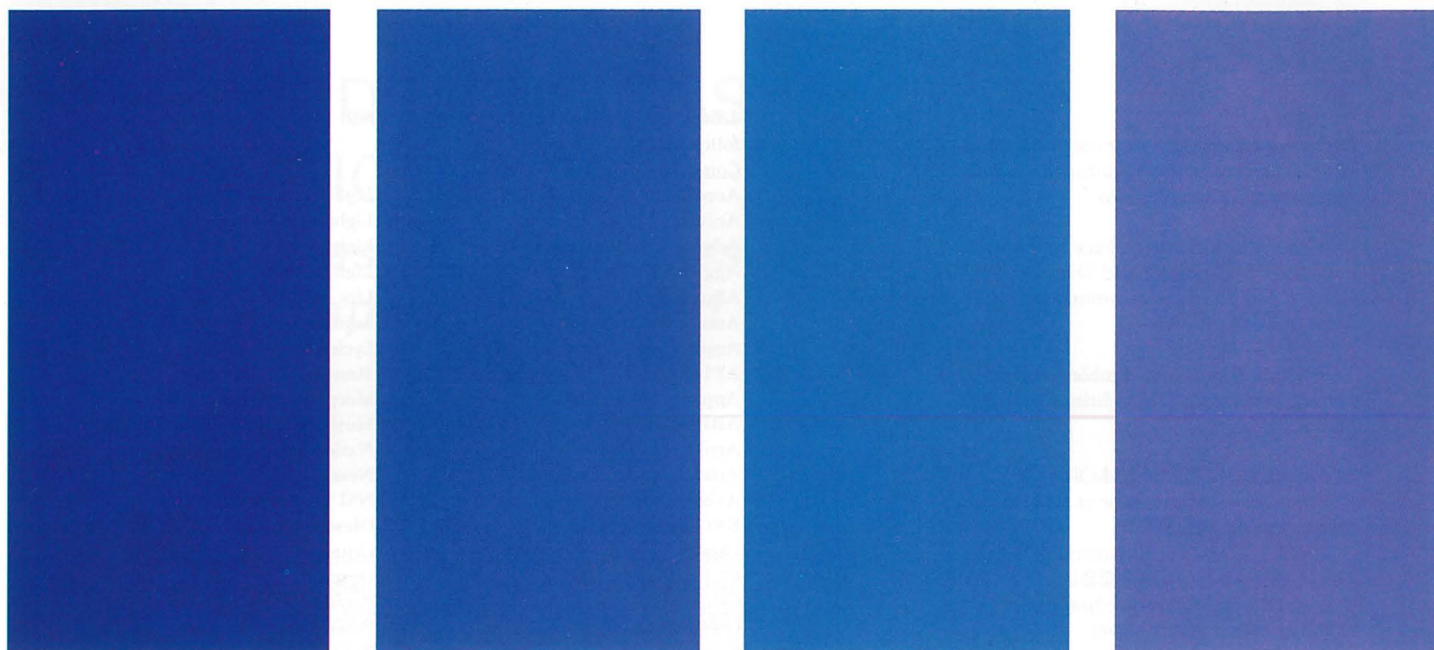
follows:

Company

Acculine
Acculite
Advanced Lighting Systems
Aggreko
Allstar Lighting
American DJ Supply
Anytronics
APIAD
Applied Electronics
ARIS/ETA
Artick
Atlas Specialty Lighting
Avolites
BVC International
Capitol Lighting Products
CCT Lighting
Celco
Cerebrum
Cinemills
Clay Paky
Coemar
Coherent Inc.
Color Pro
Contractors Electronic Supply
Core Systems
CTM
Cue International
Custom Cable
Data Flash
Disco & Club Trade Intl
Disco & Dancing
Disco Mirror
Diversitronics
Electrol Engineering
Electronic Theatre Controls
Elektralite
FAL
Fender/Sunn
Fly SRL
Furse
Global Future Technologies
Goddard Design
The Great American Market
High End Systems
Icelectrics
James Thomas Engineering
Jem Fogger
King's Sound
Kliegl Bros.
Knight Industries
L.E. Nelson Sales Corp.
Laser Chorus
Laser Productions
Laser Rays
Lasermedia
Le Maitre Lighting & Effects
Lee Filters
Leprecon/CAE
Liconix
Lido Computers
Light Force
Light Sales
Light, Sound, & Video

Lighting Dimensions

Lighting Methods
Lightronics
Lightwave Research
Lite Beam
Lumenyte Int. Corp.
Lycian Stage Lighting
Meteor Light & Sound
Morpheus Lights
Music & Light Production
National Specialty Lighting
Ness Imports
NSI Corporation
Olesen
Omnisistem
Optec
Performance
Petes Lights
Phoebus Manufacturing
PLASA
Presentation Consultants
Production Arts Lighting
ProgramSistem
Pular Light of Cambridge
Pyrotex
RMSCO
Raztech
Roctronics
Rosco
Rose Brand
Salvin
Science Faction
ShowTech Berlin 90
Sine Connector
Sky-Tracker
Spatial Sound Inc.
Spotlight
Strong International
Summa Technologies
Syncrolite Systems
Teatronics
Technical Projects
Tecnitron
TEI Electronics
Theatre Crafts
Theatre Magic
Theatre Techniques
Theatrical Dealers Assoc.
Times Square Lighting
TMB Associates
Tomcat
Tracoman
Uni-Par Lighting
Union Connector
Universal Manufacturing
USFX
Ushio America
Vanco Stage Lighting
Vanishing Point Projects
Veam
Vizio
Wybron
Zero 88



The Lavender Gel Mob

Meet the mob that's moved into theatres, opera houses, television and nightclubs everywhere: the nine lavenders from the Supergel colour filter line up.

The lighter members of this mob, Supergel 52, Light Lavender and Supergel 54, Special Lavender, are so flattering to skin tones that they are widely used as lighting washes or as area lighting colours on performers. The cooler Supergel 53, Pale Lavender, is specified by lighting designers to maintain the appearance of "white" light when a fixture is dimmed.

Last year a gypsy joined the mob, Supergel 56, Gypsy Lavender. This vibrant colour is used in theatrical situations where strong, saturated colours are appropriate. It is based on a dye formulation which was originally developed for "Camelot". This year 356 Middle Lavender is added.

The most widely used of the Lavender Mob continues to be Supergel 57A, Lavender and 58A, Deep Lavender. Both are used often in dance and musical theatre to sculpt the performers, add three-dimensionality to the scenery and separate the performers from the background.

With all Supergel filters, the lavenders are body-coloured plastic to ensure stability and durability. They will hold colour longer than surface-coated filters and are truly 'self-extinguishing'.

The Supergel Swatchbook includes the full range of more than 100 colours. . . dye formulations developed with lighting designers and technicians over 76 years. A process which continues today.





SUPERGEL

ABTT 89

Bursting with innovations

BY DAVID TAYLOR

This year, nestled between the Showlight Colloquium and Exhibition in the Netherlands and the NOTT Expo in Copenhagen, the eleventh ABTT show in London became a time to catch up with all those people you had not seen since yesterday and were about to see again somewhere else tomorrow. The Association of British Theatre Technicians' Show, held at the Riverside Studios in London from 18 - 20 May 1989, is the United Kingdom's chance to see and be seen, and although this year's offering seemed a little more subdued than in previous years, exhibitors displayed an impressive array of new products.

Sixty-three quality exhibitors (plus the 29 firms on a stand devoted exclusively to smaller firms) jostled for premium space at the Hammersmith, proving once again that such an important trade show has really outgrown the confines of that old film studio.

Like years past, the major theme this year was moving lights, with most high volume luminaire manufacturers aiming to get their in-development product into the marketplace to fund further research and development. Strand Lighting was showing its PALS (Precision Automated Lighting System) with its resident dedicated controller pod in a vast Galaxy 3 lighting console. The lone profile luminaire moved sedately, but silently, to its predefined cue positions, putting other manufacturer's equipment to shame.

Great American Market's Joe Tawil sees his LightWiz remote control yoke as aiming for a different market altogether. Along with the ColorWiz rolling colour changer, the GAM equipment fulfills a different niche of the market where affordable and cheerful washes of light are useful for the leisure industry. Strand's low-key stand with only three products was a testimonial to their quiet but diligent approach to the development of

theatre equipment.

Joe Tawil's Access lighting control popped up its cute head on a number of stands — the bank of them on A.C. Lighting's large stand attesting to the fact that here is a truly affordable desk. Crammed with features and with a surprisingly well-organized VDU display, this console is ideal for the small leisure

A & B Theatre Services have directly addressed the problem with their portable dry-ice making machine.

venue or school theatre. On Saturday, traditionally schoolboy computer-nerd day, there was a queue behind every one of these friendly consoles as youth after youth realized that Access squeezes grown-up lighting processing power into a book-sized box, and thence into a little credit card for permanent storage. Expect to see these in multiples at a school near you.

True to their policy of supporting an international cast of different luminaires and accessories, A.C. Lighting also showed Strong Supertroopers and Altman Lekos, which are fast becoming the trendy piece of lighting equipment any up-and-coming lighting designer squeezes into his instrument call. Some interesting lighting consoles, including the new Instinct console, were also in evidence from Jands of Australia and a range of Pani scenic projectors completed the truly cosmopolitan range of lighting equipment on offer.

Mike Goldberg of M & M Lighting specializes in creating a British market for the best products from abroad. A new exhibitor this year, Goldberg was showing the Rainbow Colour Scroller from Sweden, currently showing its pedigree in *M. Butterfly* at the Shaftesbury Theatre in

London. I know from experience that getting hold of this product for a show is nigh-on impossible, but Goldberg is bringing more into the UK as fast as he can. Also on the M & M stand was Diffusion — fog in a can — which Goldberg has brought in from California and which offers a cheap, efficient means of getting controllable haze into a theatre or studio atmosphere. This haze hangs around indefinitely due to the "sub-micron sized particles which are actually supported by molecules of air." For most small-scale theatre applications this is a superb product that gives a much easier way to see light beams in the air.

This year saw a number of new smoke and fog machines at the show. A production version of Howard Eaton's famous 'oil-drum' dry ice fog machine was on show on Action Lighting's stand. This massive, but impressive, heavy-duty fog producer utilizes a hot water spray pump to create the vapour, which is then forced into the ducting by a 170 cu.ft./minute fan. Precise fog control is possible via a standard analogue signal from a lighting desk.

Roscolab demonstrated their new fog chiller, a small refrigerator box placed between the conventional fluid-based fog machine and the outlet pipe. Conventional or carbon-dioxide ice is used to cool the smoke vapour on its route to the stage, giving a low-lying fog similar to that produced in more expensive and difficult to operate dry-ice-only machines.

Dry ice in the theatre has always been a nuisance due to acquisition and storage problems, but A & B Theatre Services have directly addressed the problem with their portable dry-ice making machine, winner of this year's ABTT Product of the Year. In 60 seconds this fiendishly simple wooden device will produce a 800 gram block of dry ice from a conventional CO₂ cylinder. The system is safe, easy to

"FADE TO GREY."



And then reverse the process whenever you want and in whatever combination you like.

Again and again and again.

The Celco 30 and 60 Major utilise the latest in technology to provide the creative lighting designer with the opportunity to plot and execute the most complex lighting patterns quickly, simply and indefinitely.

Whats more, the integrity of the electronic design, featuring Absolute Level Programming (ALP), offers a level of accuracy and repeatability that enables the boards to be used to control analogue colour changers and moving lights.

The Celco 30 and 60 Major can store up to 150 and 300 different scenes respectively. And, unlike other systems, the Celco 30 and 60 Major do not use floppy discs. Instead all programs are stored on a unique Q-Card, the size of an every day credit card.

Celco products are manufactured and distributed by: Celco Ltd, 1/3 Bellingham Road, London SE6 2PN, England tel: 01-698 1027 tlx: 927624 (CELCO G) fax: 01-461 2017 and Celco Inc, 30B Banfi Plaza North, Farmingdale, New York 11735, USA tel: (516) 249 3662 fax: (516) 420 1863.

Celco. Enough said.

operate, and will be a godsend to those theatres out of the metropolis where dry-ice supply is difficult.

The news that Modelbox, the theatre CADD company, had been bought by

A good sprinkling of new and useful products marked this year's show.

White Light, has generally been received well by the industry, who acknowledge that the organizational and production skills associated with White Light will allow it to guide Modelbox towards the market it needs. Modelbox already has 100 theatres on file and is expanding this graphic database weekly. At the ABTT show their impressive demonstrations alongside the White Light lighting display gave a neat insight into the potential for computer-aided design development to lead the way into the production processes of the next century. An integrated design system that allows the scenic designer to share a digital drawing with the lighting (and sound) designer cannot help but lead to a more productive design environment.

Tim Burnham and Arri were preaching a similar gospel with their development of an AutoCad programmed for lighting designers that interfaces with their Imagine lighting control console. Burnham's system allows a lighting designer to develop a lighting design (perhaps on a background prepared by the set designer) on a conventional micro-computer. The design and all associated luminaire reference material is then downloaded into the lighting console, while a small, customized lighting plot is printed for the Arri digitizer tablet. Thus, without reference to the conventional keypad or fader wheels, a lighting designer can create the cues for the production by pointing with the digitizer stylus.

The system demonstrated on Arri's impressive stand at the center of the show allowed full and easy control of a bank of Clay Paky Golden Scan remote control luminaires without any manipulation of

the lighting console. One just pointed at the luminaire on the digitizer and then to the function required. This is the direction console manufacturers should be following, to free the designer and operator from the regimentation of the keypad and allow them to paint with light.

Smart control systems were on offer from previous multiple award-winner, Triple E. Having developed the excellent linear motor drive system (demonstrated in previous years by a captivating display as it trundled up and down in the show bar) Triple E showed a sophisticated drive control system as used in *Aspects of Love* which utilizes a computer-generated graphic display to allow for accurate monitoring and placement of a number of moving scenic elements (*Aspects* uses 11 linear motors and eight geared drives all controlled from the new software). Triple E also showed their famous pin hinge and their new versatile Unitruss scenic construction system.

A good sprinkling of new and useful products marked this year's show, and it was encouraging to see a healthy contingent of small firms standing alongside some of the biggest. Del Trew's Cyberdescence shared space with Lightworks and offered a hire service for Strand Lighting's PALS luminaires. A range of high light output data displays on this stand showed a rather dubious selection of erotic prints — but the concept of liquid crystal projection of computer generated images is an exciting one. The ubiquitous Philip Edwards represented his Derbyshire-based facilities company whilst Any Effects offered their comprehensive special effects service. The Association of Lighting Designers had perhaps the noisiest (from a visual point of view) stand in the exhibition.

Off-site CCT had hired the upstairs room of a nearby pub to offer a less-cramped exhibition of their spotlights (including the now fully-developed modular Silhouette profile luminaire), Furse Theatre products, and the ubiquitous Access lighting control desk. A lone Niethammer profile spotlight, the

Rolls Royce of stage lanterns, was also to be seen basking in the sunlight streaming into the pub. Also on display, but swamped with attention, was the new Panache V from The Great American Market and Gordon Pearlman. The Panache is designed for those situations where an Access is not enough. It can control up to 1,000 dimmers on up to 250 channels, and features 10 submasters, six of which overlap.

Back in the main exhibition space Northern Light showed their System 2000, a programmable working light control system that often forms the heart of their numerous and diverse arts installation projects. This system allows for easy selection of user addressed masters for Show, Get-In and Night working and performance lighting circuits in a high-quality integrated rack and panel that

It must be time, however, that a larger and more comfortable venue is found for this important exhibition.

matches their superb stage management desks.

Perhaps the most subdued stand again this year was Teatro Srl, whose low-key approach to selling the extensive range of excellent luminaires did not stretch to switching any of them on. Still, they look almost as good as the light that comes out of the end.

A range of interesting and market-led products were on show at this year's ABTT show. It must be time, however, that a larger and more comfortable venue is found for this important exhibition. The British (and increasingly European) users who patronize this trade show have a good deal of money to spend on the right products. For manufacturers to come up with a supportive range of new products each year requires a forum for user-feedback that allows for relevant demonstration. A larger venue will hopefully allow such a forum next year.

SHOWLIGHT 89

A font of information

BY BONNIE S. SCHWARTZ

Many interesting papers—and one or two not so interesting ones—were presented at the quadrennial Showlight 89 conference, which was held 15 - 17 May at the Hilversum NOB studios just outside of Amsterdam. The event attracted a broad range of lighting professionals across many disciplines, including theatre, film, and a smattering of architecture types.

More than 200 people attended the conference. Overall, the colloquium was extremely well organized, the facility was well set up, and the program offered plenty of distractions from the arduous—though often enlightening—agenda of speeches, of which there were close to 30.

Standout presentations included Max Keller's "How Bright is Cold?"; Christoph Rudolf's "The Application of Entertainment Lighting Techniques in the World of Architecture"; John Henshall's "Wreck-tech Lighting (An Alternative Approach)"; and Joe Tawil's historically oriented "The Development of the Moving Light."

In "How Bright is Cold?" Max Keller, lighting director with the Kammerspiele in Munich, weaved much of his enthusiasm and knowledge into a talk about artificial daylight sources and the effects that can be achieved with them. He discussed the colour spectrum and the Kelvin scale, ways of using diffusion materials and colour filters, and the particularities of various luminaires to convey the many possibilities available to creative lighting professionals in search of ambitious effects.

Christoph Rudolf, head of communications at Erco Lighting, traced the genesis of architectural lighting from the development of the electric lamp onward, linking architectural styles with styles of architectural lighting. After treating his rapt audience with stunning visuals of such structures as Mies van der Rohe's Seagram Building, Le Corbusier's Villa Savoy, and I.M. Pei's new addition to the Louvre, Rudolf concluded with the following obscure quote to shock conference participants into acknowledging ties to their collective past: "The difficulty lies in

distributing the light in such a manner that certain parts appear particularly bright, whilst others are subtly lit and others again are in complete shadow. Just as a painter works with blended tones and shadow in his picture, so the lighting engineer should learn to adopt these lighting techniques." The words of a contemporary lighting designer?" asked Rudolf. "No, not at all. These are the words of Jean-Georges Noverre, a ballet master, born in the mid-1700s. No doubt architectural lighting has quite a long tradition."

John Henshall, a freelance television

"A revolution in the concert industry has changed the way people think of lighting," Tawil said.

lighting director based in the UK and a former BBC lighting director, regaled his audience with very amusing stories. He showed images of how he creatively and successfully operated within an extremely tight budget on an award-winning youth program in Great Britain called Network 7, shot in an abandoned banana warehouse in the Docklands section of London. The lighting plan was as innovative as the show's format. Using mostly found materials (i.e., cheap) instead of conventional lighting instruments, Henshall came up with equipment such as Sunbeds (comprised of nine two-meter fluorescent tubes), Dustbins (literally a 1K wide-angle PAR-64 light set into a trash can), and airport runway lights mounted on motorized scissor trucks to make them into readily mobile lights, able to turn in any direction immediately. Henshall also came up with Ballistas, Shollies (softlights set into movable shopping trollies), antique Lighthouses (circa 1862, fit with 20w, 12v headlight lamps), old naval signalling lamps, Archies (a 500w industrial flood light made from motorcycle parts), and Malcolms (also made from motorcycle parts but sunk into a shopping

trolley). "This is an alternative approach to lighting," Henshall said. "It will amuse you but make you think. It will perhaps inspire you to more adventurous design."

Joe Tawil of The Great American Market gave an interesting overview of the development of the moving light, starting with Jules Fisher's 1960 Fisher Light, one of the first automated luminaires, according to Tawil. He discussed the design and cost problems inherent in the development of automated lighting systems. "A revolution in the concert industry has changed the way people think of lighting," Tawil said, pointing to how, in rock concerts, the lighting is almost as much of the show as the performer—a relatively recent concept. Tawil's prediction for the future: a moving light on a rolling cart grid—perhaps not too different from John Henshall's Malcolms?

Outside of the main studio where the papers were given (beautifully lit and well designed by in-house NOB designers), another studio housed small exhibit stands and a central bar where conference attendees could take their tea and talk to vendors. Included on the roster of exhibitors were Arri (GB) Ltd., CCT Theatre Lighting, DeSisti Lighting, DHA Lighting Ltd., Erco Lighting, Flashlight, GTE Sylvania, Lee Colortran Ltd., Le Maitre Fireworks Ltd., Optikinetics Ltd., Osram, Philips Nederland, Roscolab, Strand Lighting, Siemens Nederland, Telestage Associates, Thorn EMI, Vari-Lite Europe, and Rolight, all in modest nine square meter booths.

Among the most interesting new products displayed at the informal exhibit: Rolight's Masterlite® System, an attachment for PAR-64 units which, when the lamp is replaced with the Masterlite lens system, changes the light beam into a concentrated beam projectable in nine different colours and controlled by any control desk for X-Y movement and colour changing; the unofficial launching of AVAB's Expert control board; and another preview, the Gordon Pearlman/Joe Tawil Panache V control desk.

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continued from page 23

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Box office: 267-992

Teatr Popularny/Popular Theatre

Address: ul. Szwedzka 2/4
Seating: 372
Artistic director: Andrzej Ziebinski
Technical director: Bogusław Lorenc
Administrative office: 196-205
Box office: 192-366

Teatr Powszechny/Public Theatre

Address: ul. Zamoyskiego 20
Seating: 386/149 (Stage 2)
Artistic director: Andrzej Wajda
Technical director: Tadeusz Woznica
Administrative office: 181-575
Box office: 182-516

Teatr Rampa/Rampa Theatre

Address: ul. Kolowa 20
Seating: 331/150 (Stage 2)
Artistic director: Andrzej Strzelcki
Technical director: Henryk Seremak
Administrative office: 193-428
Box office: 198-976

Teatr Rozmaitosci/Variety Theatre

Address: ul. Marszałkowska 8
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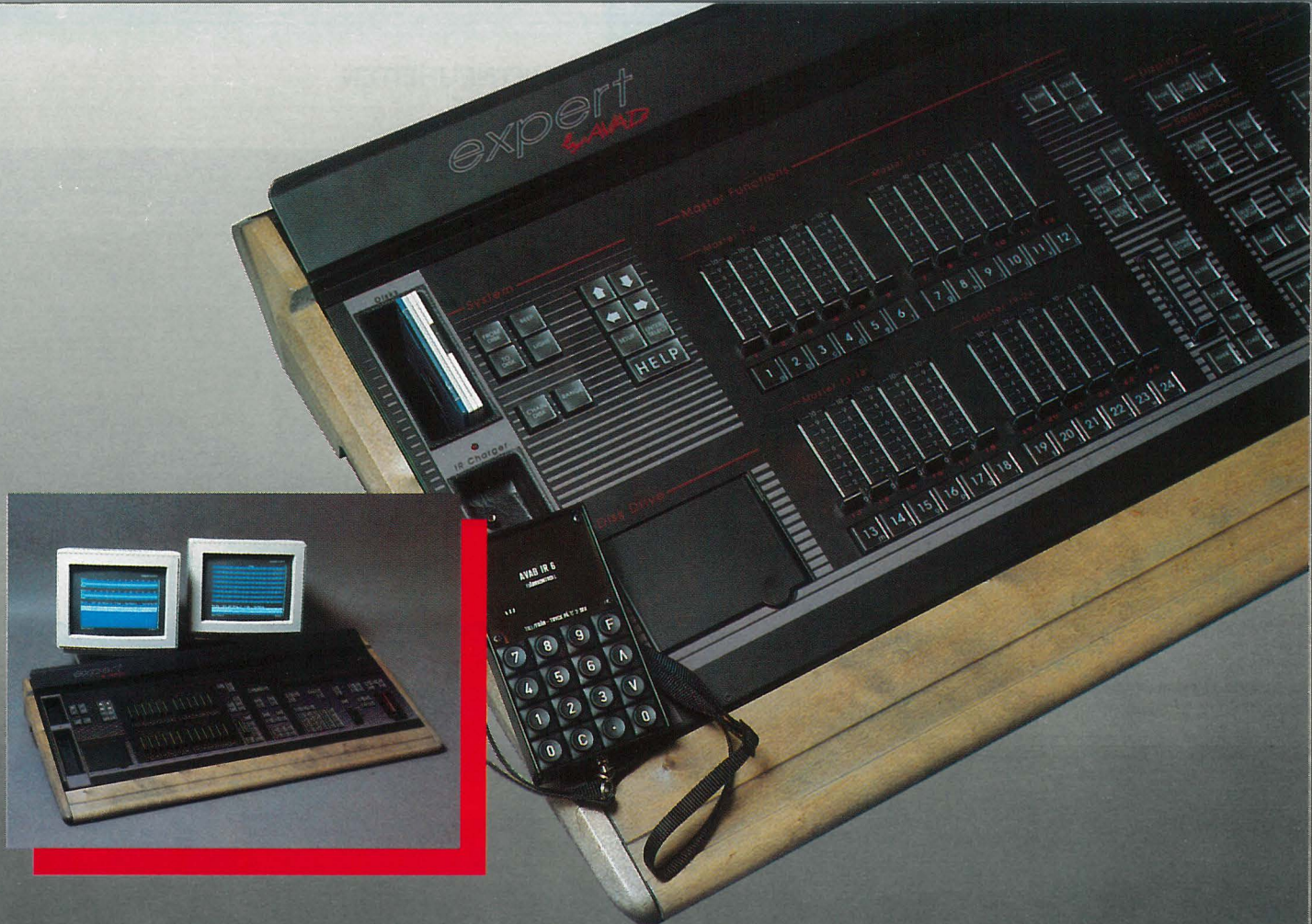
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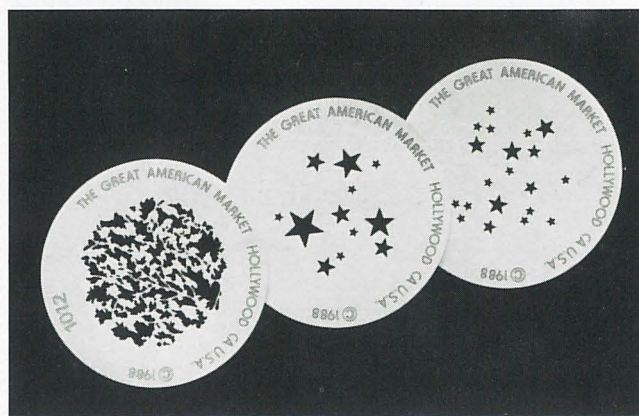
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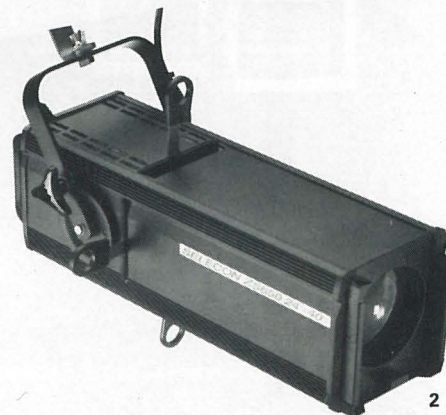
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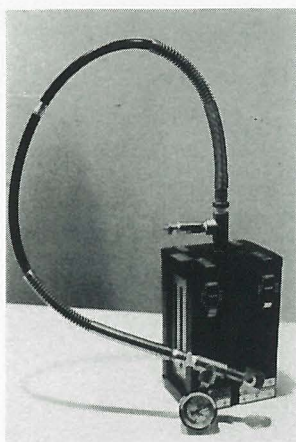
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In the next issue:

A visit with British designer Nick Chelton; Hamburg prepares for *The Phantom of the Opera*; a production notebook of Cameron MacKintosh's new West End musical, *Miss Saigon*; and a behind-the-scenes visit with the keeper of the jewels at the Paris Opera.

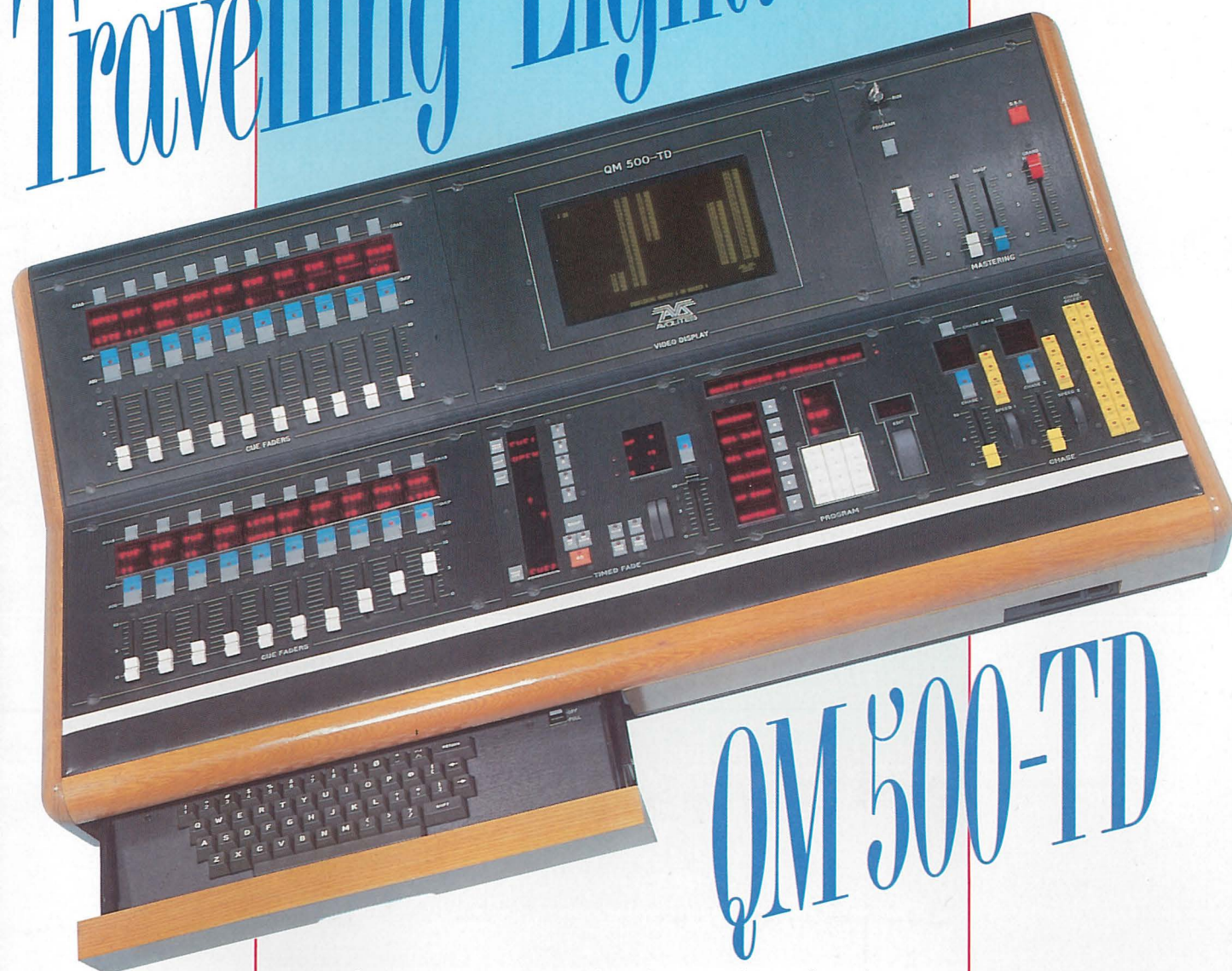
Dans le prochain numéro:

Une visite chez Nick Chelton, éclairagiste; comment la ville de Hambourg se prépare-t-elle à la visite du *Phantom of the Opera*; un dossier sur *Miss Saigon*, la nouvelle production de Cameron MacKintosh; rencontre avec la gardienne des bijoux, dans les coulisses de l'opéra de Paris.

In der nächsten Ausgabe:

Ein Besuch beim britischen Designer Nick Chelton; Hamburg Vorbereitungen für *Phantom of the Opera*; das Notizbuch von Cameron MacKintosh zu seinem neuesten West End Musical, *Miss Saigon*; und ein Blick hinter die Kulissen mit dem Bewahrer der Juwelen der Pariser Oper.

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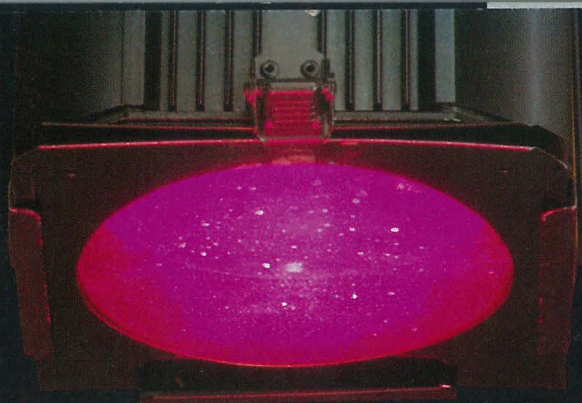
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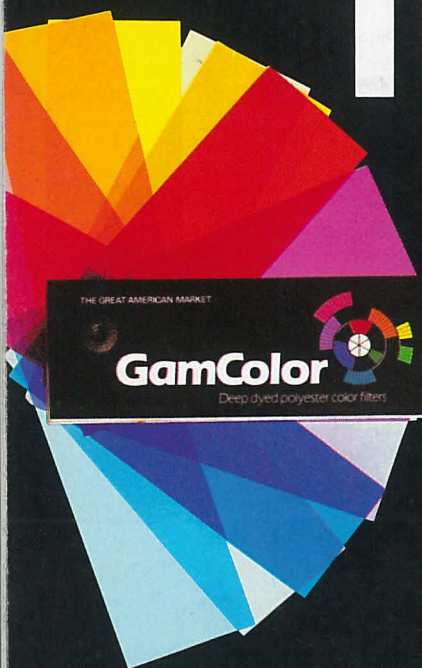


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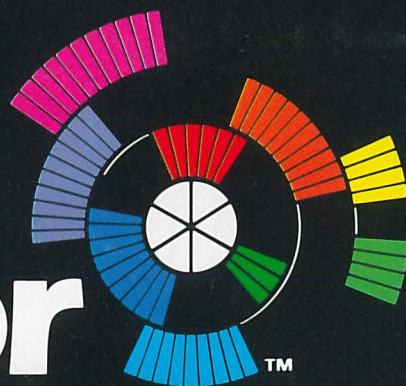


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