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**Designing  
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**Colomer lights  
Maguy Marin**

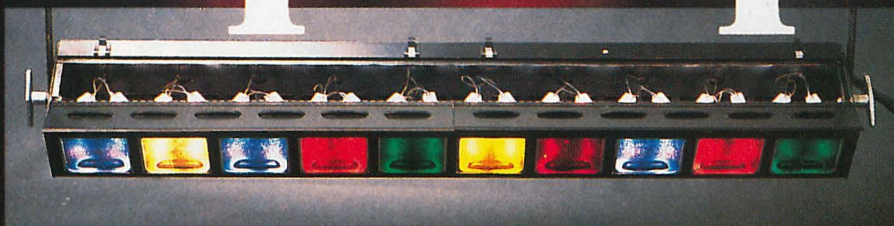
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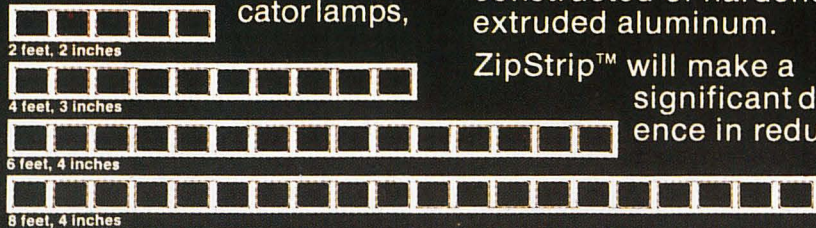
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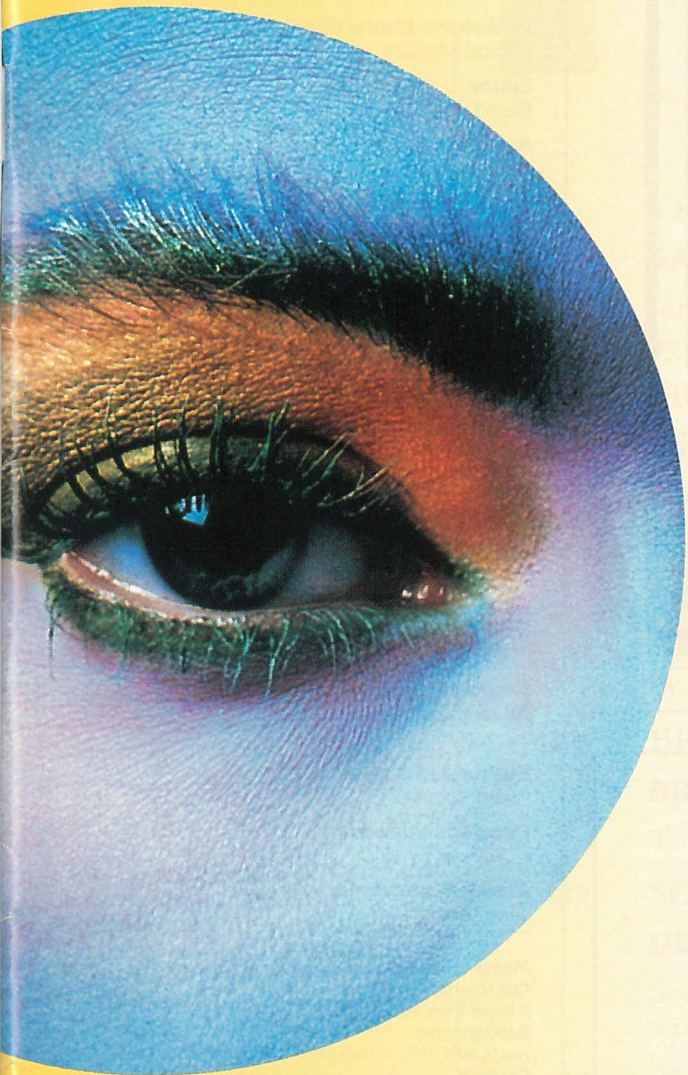
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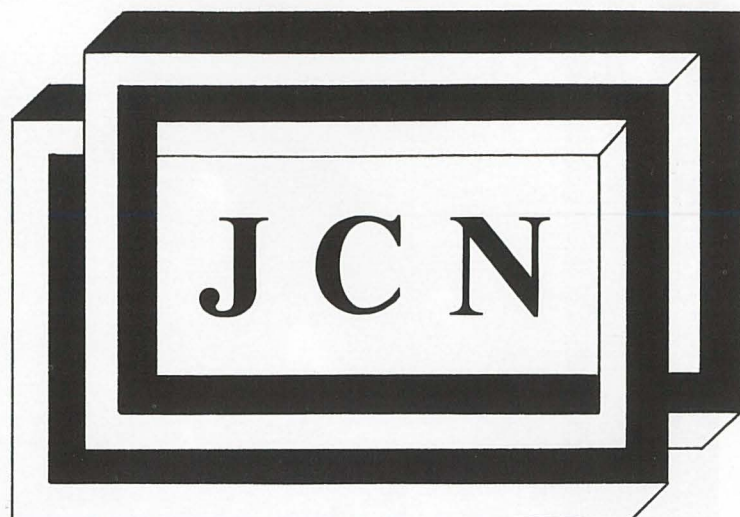
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The magazine of international design, technology,  
and business for the performing arts and enter-  
tainment industry.

Theatre Opera Dance Film Television  
Clubs Concerts

NOVEMBER/DECEMBER 1989 NUMBER 62

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Annual subscriptions are £10.50 within the UK,  
£13.00 elsewhere. Airmail, outside of Europe,  
£17.95.

Cue International is published bi-monthly by Cue  
Publishing Ltd. The contents of this publication  
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Sydenham, London, SE26 5AQ England  
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90/83.90.99 FAX: 90/83.98.39

© 1989 Cue Publishing Ltd. ISSN 0144-6088.



14

**CONTENTS**

On the cover:

John Napier's latest mega-musical design is the West End production of *Miss Saigon*. Two new lighting products, the Light Curtain Scroller and the Follow Spot Scroller, were developed specifically for the show for use by LD David Hersey.

*En couverture:*

*Miss Saigon, au West End, le tout dernier "super spectacle" décoré par John Napier. Deux nouveautés dans l'éclairage the "Light Curtain Scroller" et "The Follow Spot Scroller," des changeurs de couleurs automatiques, ont été créés spécialement pour les besoins de l'éclairagiste David Hersey.*

Auf dem Titelbild:

John Napiers neustes Mega-Musical Bühnenbild in der West End Produktion von *Miss Saigon*. Zwei neue Beleuchtungsprodukte, Light Curtain Scroller und Follow Spot Scroller, wurden speziell für die Vorstellung für den Lichtdesigner David Hersey entwickelt.

Cover photo:

MICHAEL LE POER TRENCH

*Dans ce numéro:*

*John Napier nous parle de ses décors pour le "super spectacle" Miss Saigon; Pierre Colomer illumine un regard sur la Révolution Française, créé par Maguy Marin; la naissance de PALS, système d'éclairage automatisé de haute précision et une interview avec son créateur, Charlie Paton; une visite dans les coulisses, guidée par le gardien des bijoux de l'Opéra de Paris, et la participation de Cue International au salon PLASA 89.*

In dieser Ausgabe:

John Napier redet über sein Design für sein neustes Mega-Musical *Miss Saigon*; Pierre Colomer beleuchtet Maguy Marins Tribut an die Französische Revolution; die Geburt des automatischen Beleuchtungssystems PALS und ein Gespräch mit seinem Erfinder Charlie Paton; ein Besuch hinter den Kulissen beim Bewahrer der Juwelen der Pariser Oper; und *Cue International* besucht PLASA 89.

8

**THEATRE DESIGN  
SAIGON REVISITED**

John Napier designs intimate musicals and mega-spectacles/  
by Michael Romain

14

**LIGHTING  
REVOLUTIONARY LIGHTING**

Pierre Colomer lights the French stage/by Ellen Lampert

22

**BUSINESS  
MOVING LIGHTS**

Charlie Paton on the evolution of PALS — and beyond/  
by Bob Anderson

26

**BRITISH DESIGN  
BRITISH STAGES**

The latest report from London/Spring 89/by David Fingleton

32

**SCENOGRAPHY  
DESIGNING FOR THE 90S**

Scenographers Malina and Dusek at work in today's  
Czechoslovakia/by Jarka M. Burian

38

**SHOW REPORT  
PLASA 89**

Dancing to a disco beat/by David I. Taylor and Ellen Lampert

4

**FROM THE EDITOR**

7

**DATES**

6

**NEWS**

46

**PRODUCT NEWS**

48

**DESIGN SKETCHBOOK  
Christian Lacroix**

**INHALT**

- FROM THE EDITOR
- LE MOT DE LA REDACTRICE
- ▼ REDAKTIONELL

## Expect the unexpected

Sometimes when familiar themes are dealt with in a new way, the results are unexpected. Such is the case with the new mega-musical, *Miss Saigon*, a high-tech update of *Madame Butterfly*. *Cue International's* London-based correspondent Michael Romain talked with set designer John Napier, while Theatre Projects consultant David I. Taylor investigates the lighting innovations David Hersey brought to *Miss Saigon*.

Also unexpected is Maguy Marin's treatment of the French Revolution in an evening-length work lit by French lighting designer Pierre Colomer, who shares his design techniques and the technical problems encountered in taking such a large production on a worldwide tour.

Lighting consultant Bob Anderson takes a step-by-step look at the development of Strand Lighting's PALS, in a conversation with the system's slightly mad-cap inventor Charlie Paton, who has moved on to inventing some unexpected projection techniques.

In a more traditional vein, Professor Jarka Burian, author of the only English-language book on Czechoslovakian designer Josef Svoboda, examines the work of two members of the younger generation in Czechoslovakia -- Jan Dusek and Jaroslav Malina.

Highlights of last spring's season by David Fingleton, a regular *Cue* contributor, include design-worthy productions in both London and New York, as well as at the 1989 Glyndebourne Opera Festival.

Costume sketches by Christian Lacroix's *Carmen* close this month's issue and open a new finale to each issue — Design Sketchbook — showcasing past, present or future productions.

Both David I. Taylor and I bring you news from the 1989 PLASA show which proved to be an international gathering of the industry as well as a glimpse at the next generation of lighting and sound controls, lasers and fibre-optics — the unexpected technology of the future.

*Ellen Sampaio*

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**FRANCE/SPECIAL EFFECTS**

**FIGHTER SPIDER**

When French filmmakers Anita Assal and John Hudson needed an electronic robot/spider for their five-minute short *Cyclope*, they turned to Sylvain Nibart, a specialist in unusual special effects. "I work mostly for television spots," says Nibart, "because the financial situation in France doesn't allow for many special effects in the cinema." For *Cyclope*, Nibart was commissioned to create a mobile spider robot with a video camera for its head. The process of designing and building the two spider robots used in the production spanned a two-month period. "I worked from designs drawn by a graphic artist," comments Nibart, who designed the robots to move either independently by remote control or pulled by strings. Nibart built two different robots since the spider is involved in a one-on-one battle with the actor. The robot motivated by remote control has six different motors, and was considered too expensive to risk in a battle that might injure its moving parts, so a second one was built for the attack scene. "The only thing the remote control robot couldn't do was actually descend the wall," says Nibart, in describing the movement of his creation, "and since we couldn't afford animation, that scene was cut." The second robot, with two motors, is held on strings, like a puppet, "in

order to give it life." The limbs on this model are more articulated and better defined in their design as the camera comes in for extreme close-ups during the attack.

The more complicated robot spider is built from a mechanical base which allows for the synchronization of its walk. The legs are made of jointed aluminum tubing, and connect to an armour-like body with a stomach of soft mousse-like polyurethane. Attached to the back of this sci-fi creature are its lungs. The head/camera has a styrofoam shell covering a motor which allows the head to turn from side to side, and little lights which blink electronically for eyes, while another motor is concealed in the neck allowing it to move up and down. The beast is decorated with electronic elements giving it an extra-terrestrial quality. "We wanted the mix of a mechanical robot and an organic spider," says Nibart, whose spider has only six legs instead of nature's eight. In this case, Nibart's robots were a gift to the filmmakers, but had they been commissioned for a television commercial they should have been priced at 50,000 francs (UK £5,000; US \$8,500). *Cyclope* was made as part of a 90-minute series for the French cable television Canal +, with images by Bernard Cavalie and sets by Jean-Pierre Camus.

ELLEN LAMPERT

For the film short *Cyclope*, special effects designer Sylvain Nibart created a remote-controlled mobile spider robot with a video camera for its head. The six legs are made of jointed aluminum tubing, and connect to an armour-like body with a stomach of soft mousse-life polyurethane. There are six motors in the creature, allowing the head, neck, and legs to move independently of one another.



PHILLIPPE GABEL

**UK/ARCHITECTURE**

**YORK'S GRAND OPERA REOPENS**

Thirty-three years ago the curtain went down at the Grand Opera House in York, plunging the theatre into a prolonged 'dark' period. During those 33 years it followed the fate of many regional theatres in the 1950s, gradually resorting to a life of wrestling and bingo, saved only by periodic one-night appearances in the 1960s by such groups as the Beatles and the Animals.

In 1985 the theatre was up for sale. York City Council decided against the purchase because of the enormous cost of repairing and restoring the building and it fell to a private company to take on the £4 million (US \$6.8 million) restoration work.

Developers India-Pru have turned the decaying theatre into a turn-of-the-century copy of the 1902 original, complete with art deco furnishings, art nouveau light fittings, plus state-of-the-art theatre technology. It's grand re-opening was 26 September with *Macbeth*.

The theatre seats 1,028, in-

cluding 269 in the dress circle 320 in the upper circle. The 12.75m wide by 10.2m deep by 13.25m high stage is flanked by 4.8m wide wings and equipped with a white cyclorama. There are 33 hemp sets with 12 speed control 500 kg. motorised bars. An unusual feature is the paint bridge which still links the two sides of the stage at the rear.

Front-of-house is lit with 24 1.2kw Rank Strand Cantatas 11/26. Stage lighting consists of Cantata 11/26, 18/32, Cantata fresnels, and Punchlites. There are 96 Rank Strand Permus dimmers controlled by a 96 channel Rank Lightboard M.

The sound system is made up of various TOA speakers throughout the house, including the upper and dress circles. The house is amplified with Shure and AKG microphones.

On top of all this, the Grand Opera distinguishes itself by receiving no grant support or subsidies, hoping to be self-financed through box office revenue and a range of enterprising commercial ventures.

**INTERNATIONAL BRIEFS**

**MOVERS & SHAKERS**

Lawrie Taylor-Duncan, currently director of Light Force, is leaving the United States and returning to the UK to form a new company, Jem Theatrical & Special Effects Ltd. Taylor-Duncan and Nigel Moris of Jem Smoke Machine Co., will start the new company to handle a new range of Jem manufactured products, mainly for theatrical

application. The company plans to begin trading by January 1990...Under the auspices of OISTAT, 16 British theatre designers, led by John Bury, visited Mexico for three weeks in October, visiting archeological sites and local theatres. The tour group was organised by Ariane Gastambide of the UK and Antonio Lopez Mancera of Mexico.



**UK/ARCHITECTURE**

**THE DRAWINGS OF INIGO JONES**

Beginning 14 December, the Royal Academy will host an extraordinary display of the work of Inigo Jones, considered the greatest royal architect England ever produced. In the first major exhibition of the drawings of this master draughtsman, "Inigo Jones: Complete Architectural Drawings" consists of 100 drawings by the renowned Elizabethan architect.

Designer, painter, mathematician, engineer, and antiquarian, Jones guided English architecture out of its Elizabethan mannerisms. He led it into an Italian grandeur, based on Roman and Venetian models, but with its own distinctive qualities. During his quarter-century of service as Surveyor of the King's Works (from 1615 under James I and from 1625 to 1641 under Charles I), Jones created a classical body of work. Among

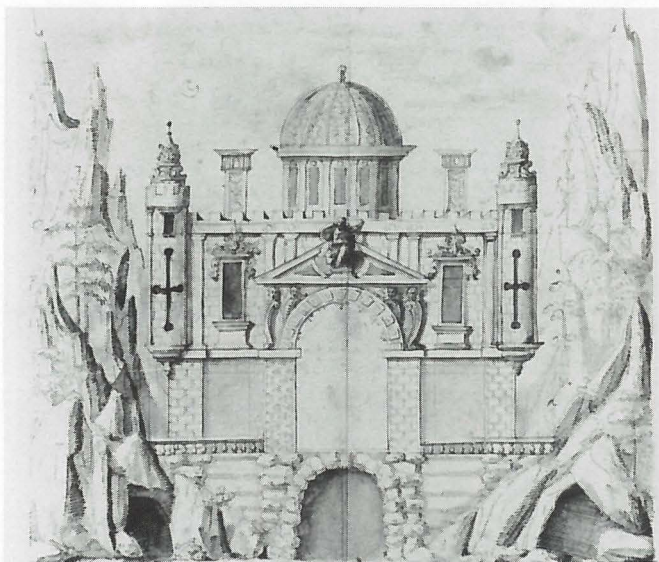
Considered the greatest royal architect England ever produced, Inigo Jones (1573 - 1652) also revolutionized the English stage, giving it, for the first time, elaborate scenery, complete with backdrops and sliding flats. His drawings are on display at the Royal Academy beginning 14 December. (right, Scenery design, *Oberon and the Fairy Prince* [1611])

his still-standing achievements are the Queen's Home in Greenwich, the Banqueting House in Whitehall and the Queen's Chapel in St. James's Palace.

But Inigo Jones first found fame as a theatrical designer. Between 1605 and 1640 he designed more than 50 court entertainments, masques, and plays. Some of these designs are included in the current exhibition. Jones revolutionized the English theatre by giving it, for the first time, the elaborate scenery with backdrops, revolving screens, and sliding flats that had been de-

veloped in Italy.

The works have been assembled from Worcester College and the Ashmolean Museum, Oxford; the Royal Institute of British Architects, London; the Duke of Devonshire's collections at Chatsworth and the Pierpont Morgan Library, New York. It was conceived by Martha Beck, the director of New York's Drawing Center, where the exhibit premiered in June, and is curated by British architectural historian, John Harris. It is accompanied by a 336-page illustrated catalogue written by Harris and Gordon Higgott.



THE DUKE OF DEVONSHIRE AND THE TRUSTEES OF THE CHATSWORTH SETTLEMENT

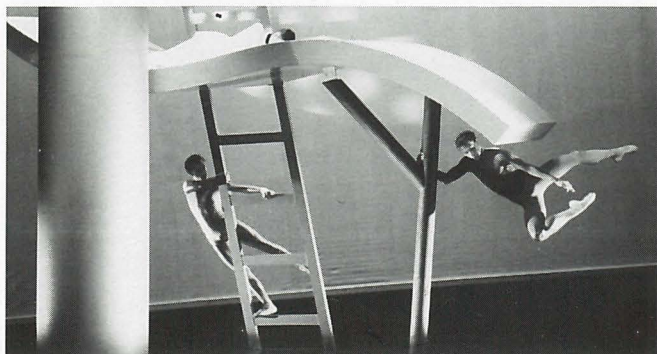
**UK/PRODUCTION**

**THE RAMBERT GOES A-RAMBLIN'**

The Rambert Dance Company, currently on the road with a series of world premieres and requested revivals, has borrowed its designers from

the word of art. From 22 - 25 November, the Rambert will be at the Apollo Theatre in Oxford performing one of their more visually entertaining

pieces, *Cinema*. Sculptor and painter-turned-designer Allen Jones has created an oversized keyboard for the choreography of Richard Alston. Also included in the program, which then moves to the Theatre Royal in Glasgow (28 November - 2 December) and the Theatre Royal in Newcastle (5 - 9 December) is *Soldat*, (left) designed by Scottish sculptor and performance artist Bruce McLean. Both of these works are lit by Peter Mumford.



CATHERINE ASHMORE

**DATES**

**NOVEMBER**

**Discotec**, Dusseldorf Fairgrounds, Dusseldorf, West Germany. 5 - 9 November. Contact: Manuel Matare, NOWEA, Stockumer Kirchstrasse 61, Post Sach 320203, D-4000, Dusseldorf 30, West Germany. 02/11/456001. Fax: 02/11/4560668.

**International Association of Lighting Designers Awards Presentation**, Parker Meridien Hotel, New York, NY, USA. 10 November. Contact: Robert Newell, IALD, 18 East 16 Street, Suite 208, New York, NY, 10003, USA. 212/206-1281. Fax: 212/206-1327.

**Entertainment & the Arts 89**, Southport Theatre/Floral Hall, Southport, UK. 15 - 17 November. Contact: Bert Sharples Promotions, 3A Stanley Street, Southport, UK, PR9 0BY. 0704/42991.

**Lighting Dimensions International 89**, Nashville Convention Center, Nashville, Tennessee, USA. 17 - 19 November. Contact: Paula Harris, Lighting Dimensions International, 135 Fifth Avenue, 5th Floor, New York, NY, 10010. 212/353-1951. Fax: 212/677-3857.

**JANUARY**

**Lightshow**, National Hall, Olympia, London. 7 - 11 January. Contact: Decorative Lighting Association Ltd., Bryn, Bishops Castle, Shropshire, UK, SY9 5LE, 058/84658. Fax: 058/84669.

**Paris International Lighting Exhibition**, Porte d'Versailles, Paris, 12 - 17 January. Contact: Servcies Exposants, CFE-Neuble, 22 Avenue Franklin-Roosevelt, 75008 Paris, France. 1/40764500. Fax: 1/45637824.



JOHN NAPIER DESIGNS INTIMATE MUSICALS AND MEGA-SPECTACLES

# Saigon Revisited

BY MICHAEL ROMAIN

John Napier admits that he rarely uses much scenery when designing for theatre or opera. But his design for *Miss Saigon* (left; model, right) is different — “the wings of the theatre are absolutely jammed with the stuff,” says Napier. The stage is relatively simple, but Napier says that “underneath is an underground mass of hydraulics, pipes, and switches. It’s pretty complex down below!”

*John Napier admet utiliser rarement de nombreux décors quand il crée pour le théâtre ou l’opéra. Pourtant ses décors pour Miss Saigon sont différents (à gauche; maquette à droite). “Les coulisses du théâtre sont pleines à craquer,” dit Napier. Le plateau est plutôt simpliste mais Napier dit, “un labyrinthe souterrain est bourré d’hydrauliques, de tuyaux et d’interrupteurs. Et c’est assez complexe, là dessous!”*

John Napier räumt ein, dass er kaum ein Bühnenbild gebraucht, wenn er für Theater oder Oper designet. Aber sein Design für *Miss Saigon* (links; Modell, rechts) ist anders — “die Gassen des Theaters sind absolut vollgestopft mit Dingen,” sagt er. Die Bühne ist relativ einfach, aber Napier sagt, dass “darunter eine unterirdische Masse von Hydraulik, Röhren und Schaltern ist. Es ist ziemlich komplex da unten.”

“People keep accusing me of ripping theatres apart,” protested John Napier. “That is entirely untrue — I have never ripped a theatre apart in my life!” Napier’s designs have, nevertheless, shattered audience preconceptions of theatre space, often breaking down the dividing line between stage and auditorium in spectacular fashion with shows such as *Nicholas Nickleby*, *Cats*, and *Starlight Express*, realigning the whole spectator/performer relationship.

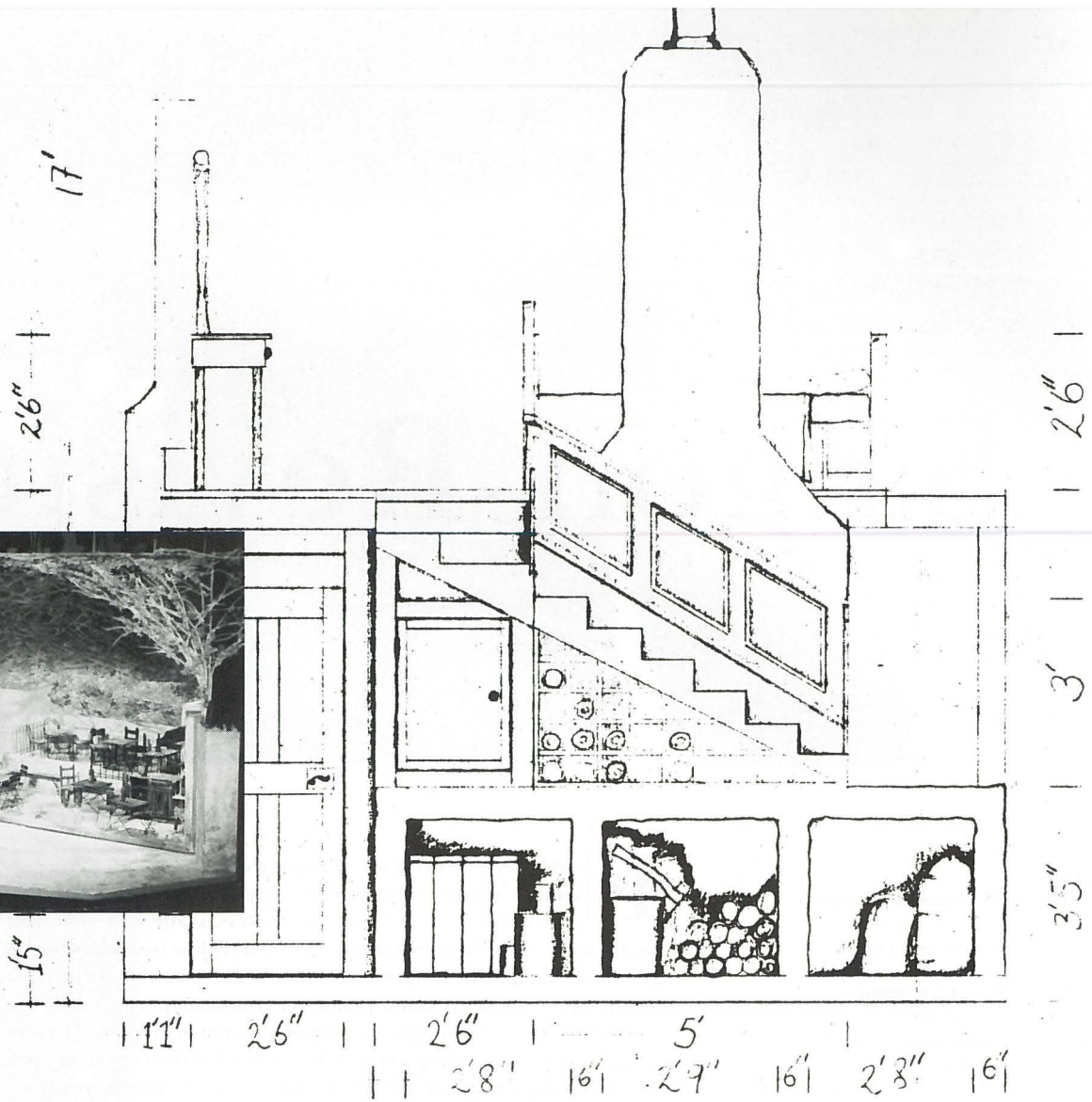
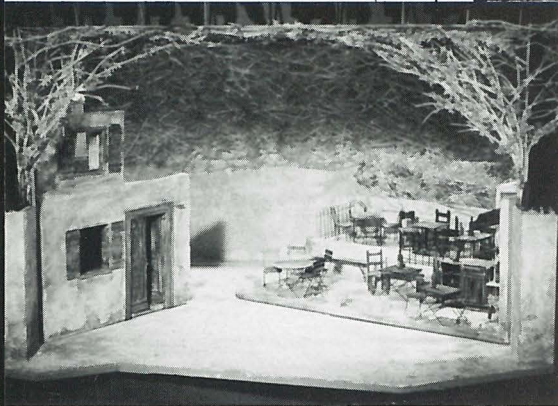
His latest project, though, *Miss Saigon*, is a much more conventional piece of work — operatic even — requiring a very different kind of dynamic than previous mega-musicals.

A love story set against the fall of Saigon in 1975, *Miss Saigon* is a new musical from the creators of *Les Misérables*, Alain Boublil and Claude-Michel Schönberg. Directed by the prolific Nicholas Hytner, with sets by Napier, lights by David Hersey, costumes by Andreae Neofitou, and sound by Andrew Bruce, it opened at the Theatre Royal, Drury Lane on 20 September.

When he began thinking about his designs for the show, Napier had to take into account the unique atmosphere of Drury Lane, which for the past 40 years has generally housed spectacular musicals, as well as the building’s vast structure and 2,238 seats. “I had to respond to its scale, and work within the framework of its elegant neo-classical architecture. The environment inevitably affects the design style. You can’t, for example, put a postage-stamp set onto the Drury Lane’s large stage. I love doing intimate, small-scale work, but it has to be in the right venue. It’s not that you have to fulfill glossy, tacky expectations when you work at Drury Lane. What you have to do is to deliver in a bigger way, so it can reach to every seat in the house.



MICHAEL LE POER TRENCH



"*Miss Saigon* is a big show with a big company, and I had to evoke every aspect of the fall of Saigon, from the background of sleazy clubs and hotels, to the sheer desperation of people needing to escape. Like any other story, this one boils down to three or four protagonists. Consequently, I've tried to achieve a balance between the epic and the intimate, so we can focus it down onto the relationships and then open it out to take in more spectacular action."

Drawing on his experience designing opera at Glyndebourne and Covent Garden, Napier approached *Miss Saigon* much more as an opera than as a musical. "I wanted a background that glows and shimmers as the music swells — one that feels the music and reflects it, rather than just providing a setting for a lot of people to sing on."

"The show has about 25 different scenes," Napier says, "so its locations are constantly shifting. I've tried to center things around one basic design — that's the way in which I often work, as I primarily use space as a sculptor rather

than as a painter. It's the idea of bringing objects to the space that interests me."

"Basically, the set consists of a big box of gauzes and other things that are brought to the stage space to identify what is happening. I hope they operate as part of the rhythm of the whole thing, rather than as effects in their own right. They come in from every direction. I very rarely use much scenery, but this time the wings of the theatre are absolutely jammed with the stuff."

"The technical side of things involves a lot of hydraulics, but the audience won't see any of them. There are 38 different hydraulic functions, in fact, and they all work off one big manually operated desk, where you just punch in the configurations you want or work them from joysticks."

"Viewed from the auditorium, it looks like a plain, simple raked stage, but underneath it is a subterranean mass of conduits, oil-flow pipes, winches, limit-switches, and so on. So it's pretty complex down below, but relatively simple up on

stage. It certainly doesn't look mechanical to the audience. We use film projection at one point, not as anything other than graphic information as part of the storytelling — original footage of real, harrowing events."

Compared to his previous designs, which have ranged from the ancient Greek classic to the modern mega-musical, Napier regards *Miss Saigon* as the most naturalistic work he has done for many years. "Most of my recent designs have been rather joyful artifice, like *Time*, or epic tales, like *Les Misérables*, which allow a large degree of poetic license. With *Miss Saigon*, I had to make each situation that the characters find themselves in first and foremost realistic, which is extremely challenging. I had to find a way of creating the right atmosphere for each scene, and that's not something that can be done on this show with one chair and a set of blacks."

"What we've tried to get is a more documentary type of realism. There are several coups that take place in the course

■ Napier (right) most recently designed *The Baker's Wife* (sketch, left; model shot, inset left), opening 17 November. Napier found it a nice change from the mega-musicals he has become known for. "It's about ordinary people, simple people, and needs a gentle, humble style of design. It's nice to work on that hand in hand with something as spectacular as *Miss Saigon*."

● *Les derniers décors réalisés par Napier (à droite) furent pour la pièce The Baker's Wife (sketch, à gauche; maquette, insérée à gauche) dont la première aura lieu le 17 novembre. Napier a trouvé un grand changement par rapport aux "supers spectacles" qu'il a l'habitude de faire. "Il s'agit de gens ordinaires, de gens humbles et j'ai donc recours à un style simple. C'est sympa de travailler de pair sur une production telle que celle-ci et sur une autre si spectaculaire que Miss Saigon."*

▼ Napier (rechts) hat kürzlich *The Baker's Wife* designet (Skizze, links: Modellaufnahme, Einschub links), mit Premiere am 17. November. Napier fand dies eine schöne Abwechslung von den Mega-Musicals, für die er bekannt ist. "Es geht um gewöhnliche Leute, einfache Leute und benötigt deshalb einen sanften, bescheidenen Beleuchtungsstil. Es ist angenehm, gleichzeitig daran und an etwas so Spektakulärem wie *Miss Saigon* zu arbeiten."



KATIE VANDYCK

### A SELECTED JOHN NAPIER DESIGNOLOGY

- |  |   |
|--|---|
| <i>A Penny for a Song</i> , 1967                   | <i>Much Ado about Nothing</i> , 1976                                  |
| <i>Fortune and Men's Eyes</i> , 1968               | <i>The Comedy of Errors</i> , 1976                                    |
| <i>The Ruling Class</i> , 1969                     | <i>King Lear</i> , 1976*  |
| <i>The Fun War</i> , 1969                          | <i>Macbeth</i> , 1977   |
| <i>Muzeeka</i> , 1969                              | <i>A Midsummer Night's Dream</i> , 1977                               |
| <i>La Turista</i> , 1969                           | <i>As You Like It</i> , 1977  |
| <i>Cancer</i> , 1970                               | <i>Kings and Clowns</i> , 1978  |
| <i>Isabel's a Jezabel</i> , 1970                   | <i>The Traveling Music Show</i> , 1978                                |
| <i>Mister</i> , 1971                               | <i>Lohengrin</i> , Royal Opera House, 1978*                           |
| <i>The Foursome</i> , 1971                         | <i>The Merry Wives of Windsor</i> , 1979                              |
| <i>The Lovers of Viorne</i> , 1971                 | <i>Twelfth Night</i> , 1979   |
| <i>Lear</i> , 1971                                 | <i>The Three Sisters</i> , 1979                                       |
| <i>Jump</i> , 1972                                 | <i>Once In A Lifetime</i> , 1979                                      |
| <i>Sam Sam</i> , 1972                              | <i>The Greeks</i> , 1980  |
| <i>Big Wolf</i> , 1972                             | <i>The Life and Adventures of Nicholas Nickleby</i> , 1980            |
| <i>Equus</i> , 1973                                | <i>The Life and Adventures of Nicholas Nickleby</i> , Broadway, 1981† |
| <i>The Party</i> , 1973                            | <i>Cats</i> , 1982  |
| <i>The Devils</i> , English National Opera, 1973   | <i>Cats</i> , Broadway, 1982†   |
| <i>Knuckle</i> , 1974                              | <i>Starlight Express</i> , 1984                                       |
| <i>Equus</i> , Broadway, 1974                      | <i>Les Misérables</i> , 1985  |
| <i>George Friedric</i> , Ballet Rambert, 1974      | <i>Captain EO</i> , The Disney Co., 1986                              |
| <i>The Devils of Loudon</i> , Sadler's Wells, 1974 | <i>Time</i> , 1986  |
| <i>King John</i> , RSC, 1974                       | <i>Starlight Express</i> , Broadway, 1987†                            |
| <i>Richard II</i> , RSC, 1974                      | <i>Les Misérables</i> , Broadway, 1987†                               |
| <i>Cymbeline</i> , RSC, 1974                       | <i>Miss Saigon</i> , 1989   |
| <i>Macbeth</i> , RSC, 1974                         | <i>The Baker's Wife</i> , 1989  |
| <i>Richard III</i> , RSC, 1974                     |   |
| <i>Lohengrin</i> , Royal Opera House, 1975         |   |
| <i>Hedda Gabler</i> , 1975                         |   |

\* SWET Award

† Tony Award



1

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2

MICHAEL LE POER TRENCH/BOB MARSHAK



3

MARTHA SWOPE

Among his awards for design, Napier earned a Tony in 1982 for *Cats* (3), and in 1987 for *Les Misérables* (2). His diverse career includes theatre, opera, film, and television, including the 1986 3-D video for Disney, *Captain EO* (1).

Parmi les prix qu'il a remportés pour ses décors, John Napier a gagné un Tony en 1982 pour *Cats* (3), et en 1987 pour *Les Misérables* (2). Tout au long de sa carrière très diversifiée, il a travaillé pour le théâtre, l'opéra, le cinéma et aussi une vidéo en relief de Disney en 1986, *Captain EO* (1).

Napier erhielt verschiedene Auszeichnungen für Design, darunter den Tony im Jahr 1982 für *Cats* (3) und 1987 für *Les Misérables* (2). Seine vielfältige Karriere umfasst Theater, Oper, Film und Fernsehen, darunter 1986 das 3-D Video für Disney, *Captain EO* (1).

of the show — the evacuation of the American Embassy, for instance. I had to find a theatrical way of staging it, yet still retain its nightmarish essence."

Napier spent fifteen months working on *Miss Saigon*. He sees it as a love story in the great tradition of romantic literature about two people who completely misunderstand each other. "What's interesting to me about *Miss Saigon* is the way that it takes the idea of *Madame Butterfly* as its lead — though with several structural changes along the way — and builds an entirely believable and realistic story around it. That makes the piece all the more effective and disturbing.

"*Miss Saigon* was actually inspired by a photograph the composers saw of a mother in Saigon desperately trying to give her baby to one of the departing Americans, with anguish on her face and tears in her eyes. She just wanted her child to survive, and probably subscribed to the

romantic illusions of the West and America common among her people."

During a short hiatus in preparation for *Miss Saigon*, Napier had the chance to design a revival of the Joe Stein/Stephen Schwartz musical, *The Baker's Wife*, which opens at the Phoenix Theatre on 17 November, reuniting him with director Trevor Nunn. "*The Baker's Wife* certainly has been more relaxing to work on than *Miss Saigon*. It's not a mega-musical, just an intimate piece, and Trevor came up with some brilliant ideas for it — a gentle, humble style of design.

"After *Baker's Wife*, I'll be doing another absolutely gigantic show in Las Vegas — the new Siegfried & Roy Show, which will premiere in January 1990. I've been working on it for over three years, and I'll be using all the major mechanics to play with space and create illusions. By designing this, I'll finally be able to get everything out of my system."

# A NEW BREED OF SCROLLERS IS DEVELOPED FOR MISS SAIGON

BY DAVID I. TAYLOR

**O**ne of the side effects of the high-design, big-budget West End musical, apart from the warm feeling that British theatre is back on its feet, is that inventions and leaps in equipment technology can take place in a research and development environment that is adequately funded, and, above all, market led.

*Miss Saigon* offered the potential for this year's big push in equipment development, and in the field of lighting, the gauntlet was taken up by Mike Goldberg of M & M Lighting. Goldberg created two superb new products for David Hersey's *Miss Saigon* lighting rig.

Goldberg was approached by Hersey, who was very impressed with M & M's Rainbow Scroller in use on many shows around Britain (including the high-density *M. Butterfly*) and its popularity, despite only being launched in 1988. Goldberg was presented with the task of producing a wide colour change unit for Hersey's design that utilized Rainbow scroller technology but that fitted Hersey's backlight

## **It means an end to lighting designers using the dimmer curve for colour control on their single gel light curtains.**

workhorse, the Thomas Light Curtain.

Goldberg developed the Light Curtain Scroller -- a 1.8m wide colour change unit which allows remote controlled colour selection of one of 11 user-selected gels. The unit will move to any of the colours at random according to its control signal in less than 1.5 seconds, and is completely silent when in use.

Says Goldberg, "The brief was very

concise. Hersey was impressed with the conventional Rainbow scroller (there are 40 standard Rainbows in the production as well) and wanted similar parameters for colour selection on his famous light curtains." The Rainbow system is manufactured by Camelont AB in Sweden. Goldberg maintains strong bi-directional communications with the Swedes allowing for a very smooth and productive development of the new product from conception to installation — essential on a Hersey production where such complex units are only a small part of an even more complex lighting scheme.

There are 20 Light Curtain Scrollers in the rig for *Miss Saigon*. They allow for precisely controlled broad washes of top light and linear backlight in strong and pastel shades. It means an end to lighting designers using the dimmer curve for colour control on their single gel light curtains and offers a cheaper, simpler, and less dense in-road to the European school of epic illumination, where vast colour washes are spread over the stage and keyed into with white accent light.

Control of the conventional scrollers and the new light curtain scrollers is by DMX512 digital protocol signals interfaced via an Arri Connexion unit to the Vari\*Lite console that controls all the effect elements of the show. The ease with which M & M's equipment can be linked together, to other Rainbow equipment, and to other lighting technology is a major reason for its respect within the market today.

Hersey's light curtains also tilt by remote control so that the same band of instruments can be a high front light at one moment and a low-angle backlight at the next. There are four cross-stage bands of five instruments each, and since the Rainbow scrollers can be loaded with any

gel, the addition of diffusion media will permit a certain amount of beam angle control in addition to the tilt and intensity manipulation. Thus Hersey can concentrate on his precise accent lights whilst the bulk of the stage picture is accurately covered by the light curtains with colour scrollers.

However M & M Lighting also had the answer for Hersey's requirements for accent lighting with their new Follow Spot Scroller, developed for *Miss Saigon* to a similarly tight schedule. Hersey, who championed the low-voltage beam light as a soft followspot in the United Kingdom,

## **M & M Lighting also had the answer for Hersey's requirements for accent lighting with their new Follow Spot Scroller.**

has often been cursed by his operators who have had to fumble with the heavy, noisy, and awkward colour frames during an in-show colour change. Goldberg's answer to the line operator's nightmare is a seven colour scroller with a local controller for the operator to select colour and change the speed of cue (necessary for control of noise in the very quietest moments).

The followspots are yoke-mounted Reich and Vogel Beam projectors using the 1kw mirror-capped lamps. The scrollers are a slightly larger modified version of the conventional Rainbow Colour Scroller. "The system works like a dream," says Goldberg. "We will have the system with eleven colours later, but the units at present are light years on from the user-unfriendly frames normally found on Reich & Vogel's."

# Revolutionary Lighting

■ Pierre Colomer believes lighting should work with the set, not upstage it. "If the decor in any production is ugly, the lighting cannot work." The set for Maguy Marin's *Eh, Qu'est Ce Que Ca M'Fait a Moi!?* (right) is a series of gray cubes in various sizes. The challenge for Colomer was making these flat cubes seem alive and three-dimensional.

● *Pierre Colomer croit que l'éclairage doit compléter le décor, et non pas le reléguer au second plan. "Si le décor est laid, l'éclairage ne peut pas marcher." Le décor pour le spectacle de Maguy Marin, Eh, Qu'est Ce Que Ca M'Fait a Moi!? (à droite), est constitué d'une multitude de cubes gris de différentes tailles. Le défi pour Colomer était de rendre ces cubes tri-dimensionnels.*

▼ Pierre Colomer findet, dass die Beleuchtung mit dem Bühnenbild wirken muss. "Wenn das Bühnenbild in einer Produktion hässlich ist, kann die Beleuchtung nicht wirken." Das Bühnenbild für Maguy Marin's *Eh, Qu'est Ce Que Ca M'Fait a Moi!?* (rechts) ist eine Serie von grauen Würfeln in verschiedenen Größen. Die Herausforderung für Colomer lag darin, diese flachen Würfel lebendig und dreidimensional erscheinen zu lassen.





## PIERRE COLOMER LIGHTS THE FRENCH STAGE

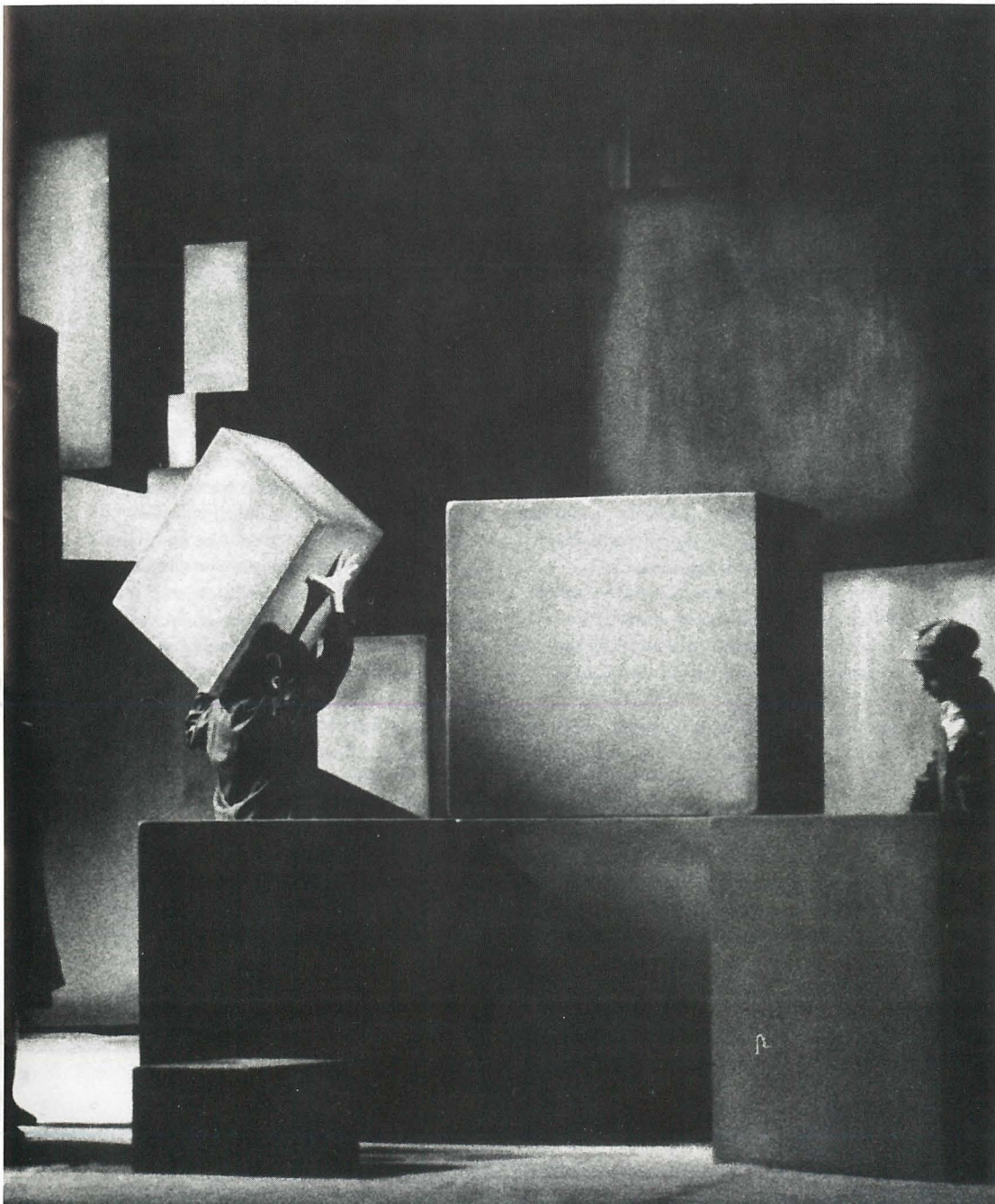
BY ELLEN LAMPERT

I never stop looking at light, wondering how it happens naturally and how to recreate it on stage," says Pierre Colomer, who serves as both lighting designer and technical director for the Paris-based Compagnie Maguy Marin. Marin's most recent work, *Eh, Qu'est Ce Que Ca M'Fait a Moi!?*, (*Hey, What's All This To Me?*) is the company's most expensive work to date, and also the most technically demanding. Marin's response to the Bicentennial celebration of the French Revolution, the work premiered in July 1989 in the Cour d'Honneur at the Avignon Festival, and toured throughout the late summer and fall to Spain, Sicily, Switzerland, Germany, and the United States, before returning to France. From 8 - 20 December, the company will perform at Creteil, at the Maison des Arts in sub-

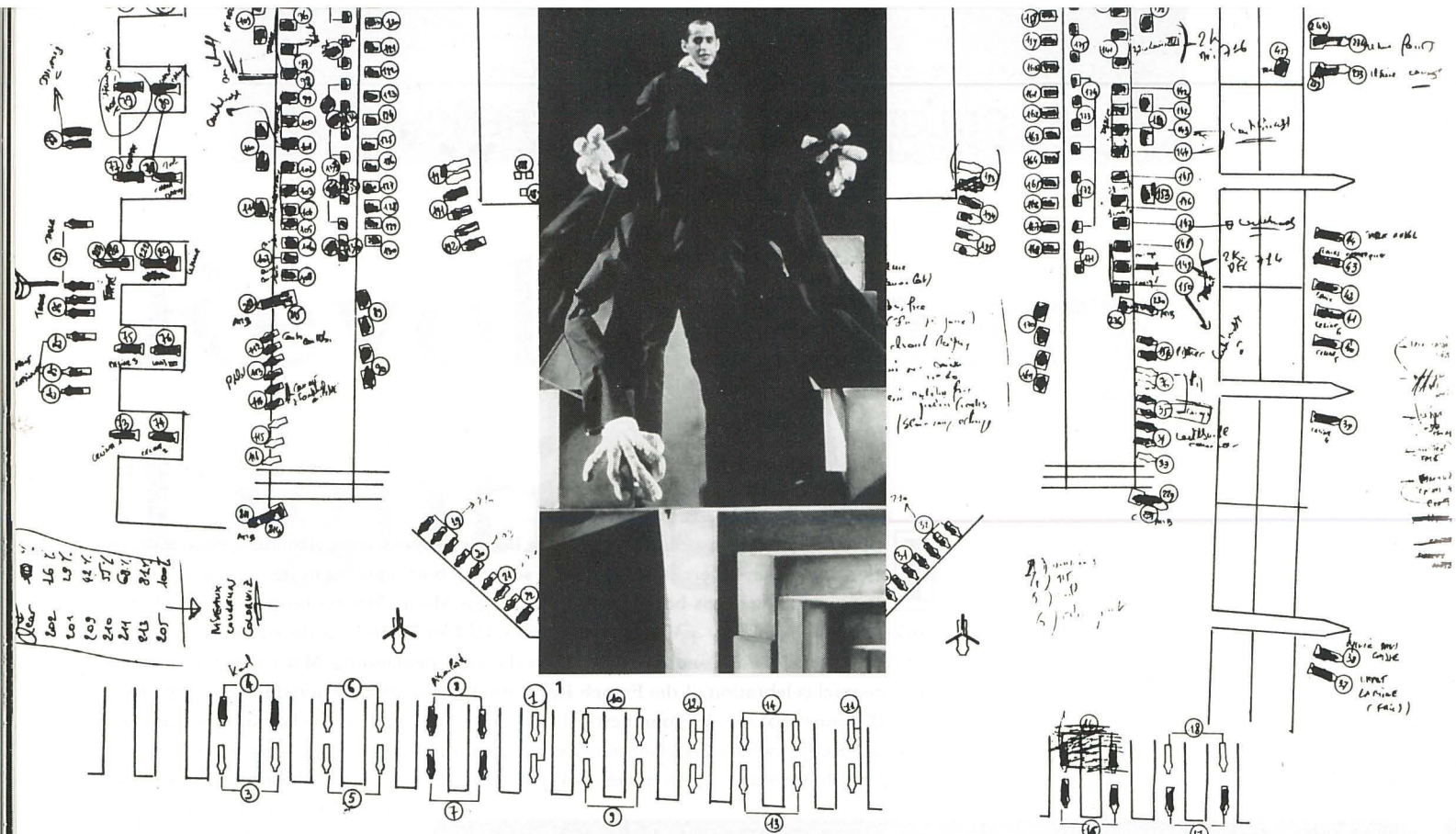
urban Paris, before going on to dates in Amsterdam and Glasgow, undertaking a French winter tour, and finally moving on to Japan.

*Eh, Qu'est Ce Que Ca M'Fait a Moi!?* is Marin's ironic look at the lives of men and women 200 years after the bittersweet victory of the French Revolution. It is made up of a series of vignettes, punctuated with brief musically political interludes accenting the ongoing struggles for liberty in such places as China, Palestine, and Africa.

Colomer was confronted with lighting the massive outdoor stage of the Cour d'Honneur — 28 meters wide by 17 meters deep with five meters of wing space on each side. "The space in this theatre is enormous," according to Colomer, "but one does not feel lost in it. You can give the idea that it is an intimate space." The basic decor for this production is a series of gray cubes in various sizes, many of which are pushed against the back wall, and need to be lit apart from the action of the stage itself. "The decor is the most important element," says



CLAUDE BRICAGE



Colomer used 300 instruments in his design of *Eh, Qu'est Ce Que Ca M'Fait a Moi?* (lighting plot, above; 1, 2). His choice of instruments was determined by the nature of the space — the outdoor Cour d'Honneur in Avignon. "If this was an indoor situation I would have used Color Max colour changers on the high powered HMI's," he says. "But outdoors, the heat and wind cause too much disturbance for the computers."

*Colomer a utilisé trois cents projecteurs pour Eh, Qu'est Ce Que Ca M'Fait a Moi?! (plan d'éclairage, dessus 1, 2). Son choix a été déterminé par la nature de l'espace — La Cour d'Honneur d'Avignon, en plein air. "Si c'était en intérieur, j'aurais du utiliser des Color Max, changeurs de couleurs automatiques sur les puissants HMI's" dit-il, "Mais à l'extérieur la chaleur et les vents provoquent trop de perturbations pour les ordinateurs."*

Colomer benutzte 300 Scheinwerfer für sein Design für *Eh, Qu'est Ce Que Ca M'Fait a Moi?* (Beleuchtungsplan oben; 1, 2) Seine Wahl der Scheinwerfer wurde von der Art des Raums bestimmt — der Hof des Cour d'Honneur in Avignon. "Wenn dies nicht im Freien wäre, hatte ich Color Max Color Changers auf den Starkstrom HMI benutzt," sagt er. "Aber draussen verursachen Hitze und Wind zuviele Probleme für die Computer."

Colomer. "If the decor in any production is ugly, the lighting cannot work." The challenge for him in lighting this work was to "make these flat gray boxes look alive, and give them a three-dimensional look in a compact space.

"The Cour d'Honneur had a reputation, for being hard to light, where designers tended to use limited positions and the same angles. But after years of experience, designers now put their lights everywhere and at all angles." One thing that helped Colomer achieve his desired effects in this space is the recent renovation of the lighting systems by Robert Juliat. Rather than have all the dimmers in one location, there are now a series of portable Juliat Digiracks, each housing an electronic digital system of 12 circuits, for a total of 240 circuits. These can be moved anywhere in the theatre, thus avoiding the miles of cable that were needed before. The theatre, like several others used for the Avignon Festival, is equipped with an Avab 202 board.

Colomer's design uses 300 instruments, including two HMI 2.5kw fresnels, 14 Juliat HMI double lens profiles with Color Wiz colour changers, ten Halogen 5kw fresnels, 150 2kw profiles from Juliat and Scenilux (Levron), 40 2kw plan convex halogen lamps, and 40 "low tension" instruments with 24 volt lamps and a

transformer inside. These last lights use a mirror instead of a lens in order to achieve an extremely white light, for what Colomer describes as "a mysterious look." Some of his choices were determined by the nature of the space. "If this was an indoor situation, I would have used Color Max colour changers on the high powered HMI's," says Colomer. "But due to the size of the gel surface this was not possible in the outdoor Cour d'Honneur. The heat and wind cause too much disturbance for the computers."

Doubling as technical director for Marin's company, Colomer is also faced with the problem of touring this technically mammoth production. The company itself consists of 12 dancers, two singers, and eight musicians. In addition, ten technicians accompany the tour, including Colomer, two sound operators, an assistant technical director, one wardrobe person, one stage manager, and four stagehands. "This set is very complicated technically. For example, the musicians rise up out of four of the larger cubes, which are equipped with electric motors to open the tops, and elevators inside to lift the musicians," says Colomer, who has worked with set designer Denis Mariotte to eliminate some of the cubes, and reshape the set for each tour stop, as well as design special tour plots for the



CLAUDE BRICAGE

2

lighting. The 300 lights used in Avignon have been reduced to 180 for touring purposes, including four Juliat HMI profiles with Color Wiz colour changers that travel with the company.

The 37-year-old designer began his collaboration with Marin in 1984, when she was looking for a technical director for her company, as well as a lighting designer. He first redesigned the lighting for several earlier Marin works, including *May B.*, *Babel, Babel*, and *Hymen*, then in 1985 designed the lights for *Calambre*, the first new work he did with the company. He has since designed many of Marin's works, including *Eden* (1986), *The Seven Deadly Sins* (1987), and *Coups d'Etats* (1988). Colomer appreciates the fact that Maguy Marin is more than "just a choreographer" and describes her as "the director of a company that does large-scale theatrical works incorporating dance and music."

Colomer had been working as a lighting designer for both the theatre and film since the early 1970s. "My great-grandfather was an opera director," he explains, "and that gave me the bug for show business." With no formal training in lighting, Colomer met Gérald Gelas, the director of a resident theatre company in Avignon, whom he describes as "one of the few directors who at that time was concerned with the lighting on the stage."

With Gelas, Colomer began to work as an administrator and impresario, but, as he admits, "Gelas saw that I was better suited for lighting, and after one week of on-the-job-training, he gave me pretty much total independence.

"Gelas was very concerned with the quality of the image on the stage, and spent six to eight months in rehearsal with the lights, costumes, and decor," says Colomer, who once designed as many as 300 light cues for a 90-minute production. "No one has the luxury to work like that today." Colomer describes the seven years he spent working with Gelas as "a gold mine in terms of trial and error."

Having studied art history and painting, Colomer uses the palette of an artist in his designs, and feels that his love for painting was the best training for lighting design. For several years he strayed from the theatre into the cinema, which turned out to be another valuable experience for his career. "I met a Turkish cinematographer, and began working with him as a director of photography, doing camera work, lighting, as well as some editing and directing." When Colomer returned to the theatre, he brought techniques of film lighting to the stage, and feels that French lighting is generally more cinematic in atmosphere. He is one of the few French designers to use high wattage

HMI lights with cinema gels. His palette includes Lee filters in gray (211, 210, 209), chocolate (156, 230, 231), blue (201, 202, 203) and Rosco 114 for frost. "Gray in front of a high power HMI is more interesting. It makes just one shadow instead of many," says Colomer, who uses fewer, but higher powered light sources to create his effects. "One or two powerful lights create more magical shadows."

When Colomer accepts a design job, he first looks at the maquettes for the decor and the costumes in order to get a feeling for the atmosphere of the piece. "For me," he notes, "the decor is the most important element. Once that is lit, you can add the actors, the costumes, the music." For Colomer, time is the challenge in any new project. "The time allotted gets shorter and shorter," he notes. "For Maguy's new piece we only had four days on the stage of the Cour d'Honneur. We had to treat it more as a tour." Fortunately, the company had rehearsed for months at the Maison des Arts in Creteil, where Colomer was able to complete his designs.

"When I enter a space for the first time, I choose a colour and choose an angle. Confronted with the time problem, there is no room for error, everything has to be ready when you get on stage. I work in my head and on the plot. The number of risks taken is in relation to the time allowed."

*continued on page 20*

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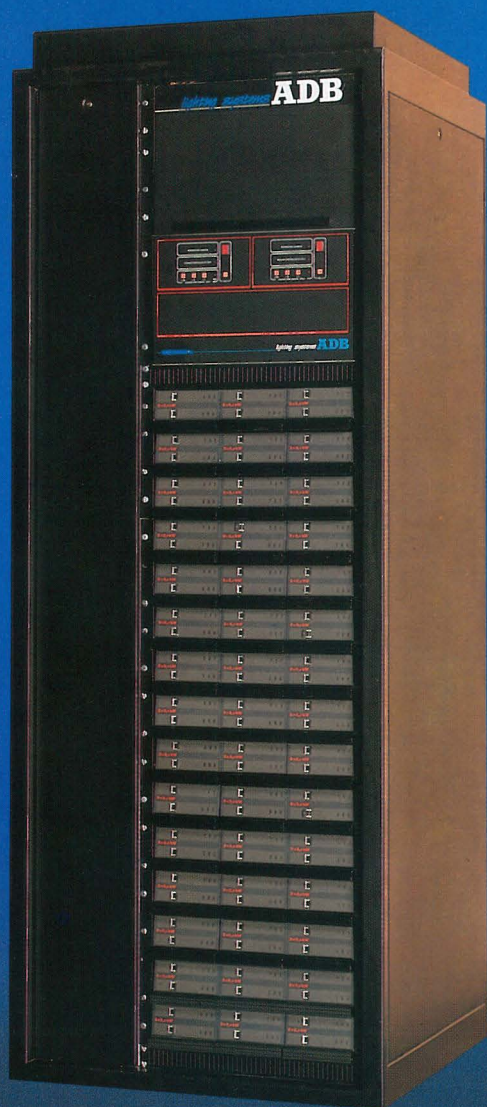
FEATURE			DESCRIPTION
Fading color		•	Fade or bump color. Fades directly from one color to another.
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Mixing gobos		•	Create new gobos by mixing existing gobos.
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Colomer (4) began his collaboration with Marin in 1984. Besides lighting many of the company's works (3, *Eden*, 1986), Colomer serves as the company's technical director. He continues to work with other directors, including Pierre Puech, for whom he designed *Canta Oedipae* in 1984 (1, 2). "Here I used very few lights, maybe 50 at most, many with gobos, but no direct light. Everything was reflected."

*Colomer (4) a commencé sa collaboration avec Maguy Marin en 1984. Il crée les éclairages pour la plupart des spectacles de la compagnie (3, Eden, 1986) et occupe également le poste de Directeur Technique. Il travaille aussi avec d'autres metteurs en scène tels que Pierre Puech, pour lequel il a réalisé, en 1984, des éclairages pour Canta Oedipae (1, 2). "Pour cette pièce, j'ai utilisé très peu de projecteurs, une cinquantaine environ, beaucoup avec des "gobos," aucun éclairage direct. Tout se réfléchissait."*

Colomer (4) begann seine Zusammenarbeit mit Marin im Jahr 1984. Neben seiner Beleuchtungsarbeit für viele Werke der Truppe (3, *Eden*, 1986) ist er auch ihr technischer Direktor. Er arbeitet weiterhin mit andern Regisseuren, unter anderem mit Pierre Puech, für den er 1984 *Canta Oedipae* entwarf (1, 2). "Hier benutzte ich nur sehr wenige Scheinwerfer, höchstens 50, viele davon mit Gobos, aber kein direktes Licht. Alles war reflektiert."



1

*continued from page 17*

With his two jobs for the Marin company, Colomer prefers to work on his lighting plots at home, and save his administrative duties as technical director for the office at Creteil. In the past five years, Colomer has traveled extensively with the company, and goes on the majority of the tours, sending his assistant, Alex Bene-teaud, when necessary. In describing his relationship with Marin, he notes, "Maguy is very interested in the sound and the music, and concerned with the sets and costumes. Perhaps a little less concerned directly with the lighting, so she must trust me." For the new piece, Colomer spent two hours discussing his ideas for the lighting with Marin and Mariotte, and only made a few small changes at the end.

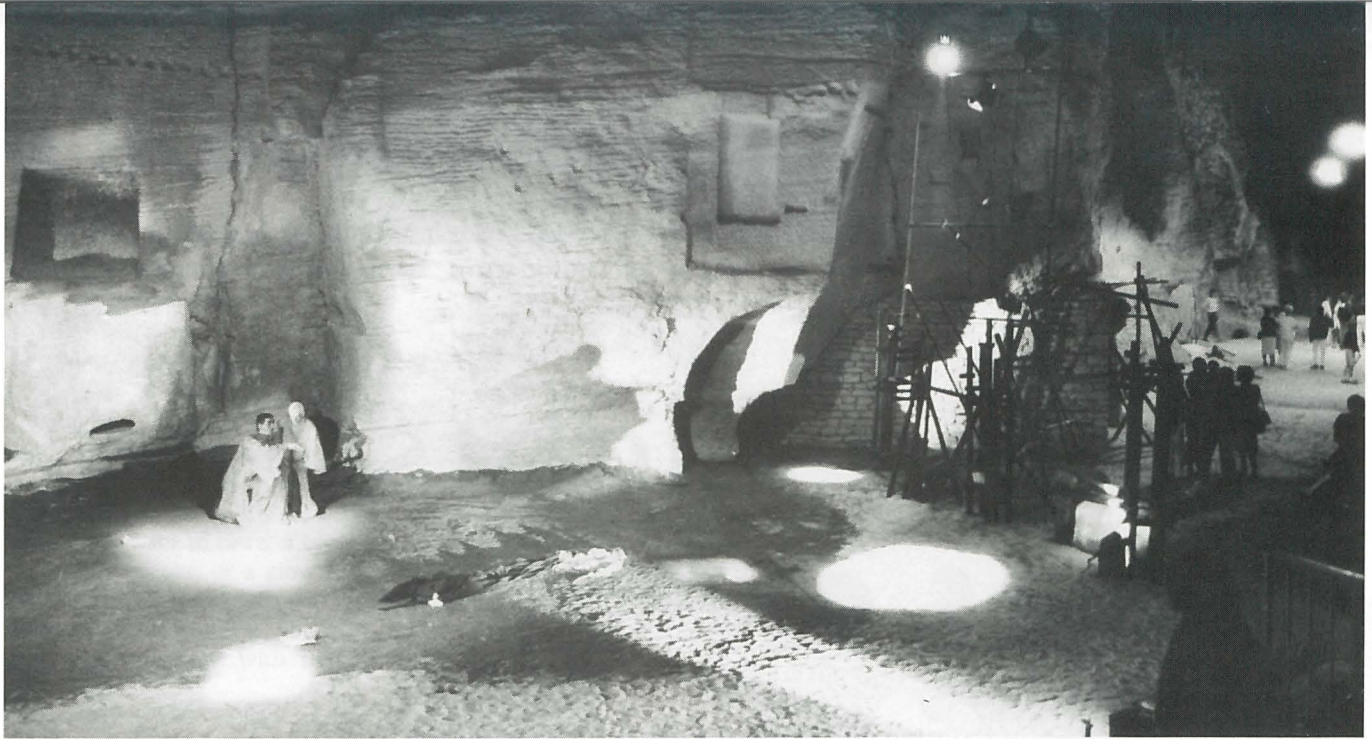
Colomer has continued to work with other directors as well, most notably Gérald Gelas, for whom he designed the lighting for a bicentennial production of *Marat/Sade* in Avignon this past year. "The decor for *Marat/Sade* was easier to light," says Colomer, in describing a set with large blackened walls and high, grilled windows, which created a closed, basement setting. "I wanted to create a very cold, raw light," for which one 4kw HMI fresnel, two 2.5kw HMI fresnels, four 1.2kw HMI fresnels, and four 1.2kw profiles with Color Wiz colour changers were employed.

Avignon seems to provide fertile ground for Colomer's creativity, as among his past designs he seems to be particularly proud of his lighting for *Canta Oedipae*,



CLAUDE BRICAGE

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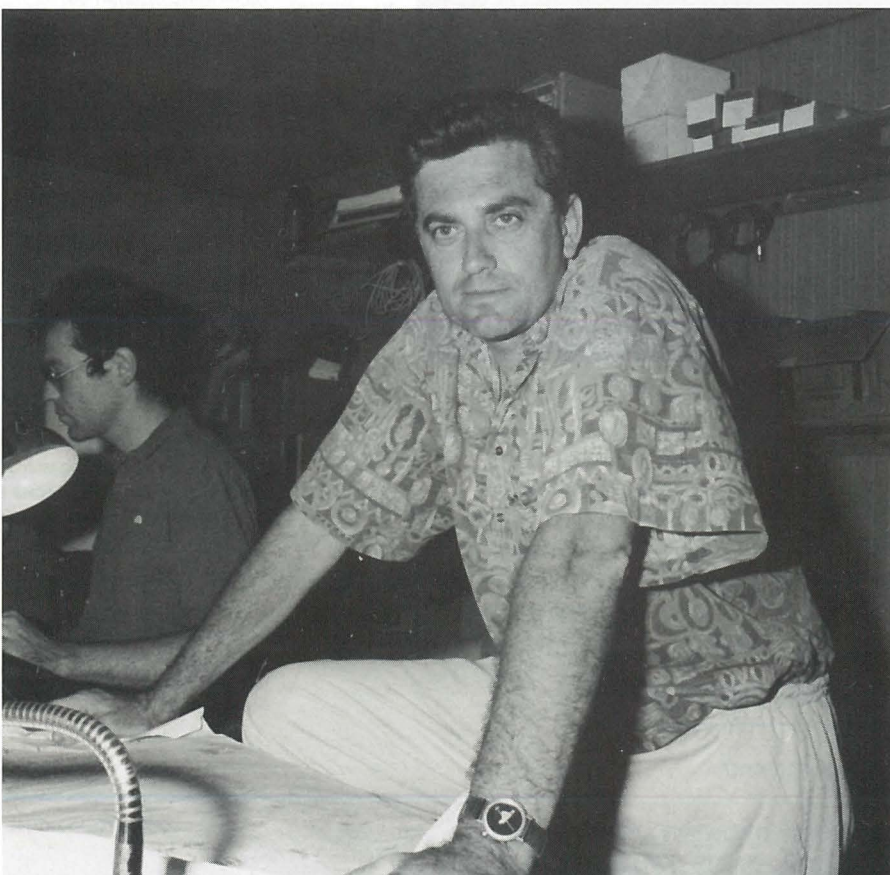
for which director Pierre Puech was awarded the Grand Prix of the Avignon Off Festival in 1984. Colomer describes this decor as “a floor of black and white sand with lunar-like craters, accented with brass plates. Here I used very little lights, maybe 50 at the most, many with gobos, but no direct light. Everything was reflected from the brass plates and from various coloured reflective metal panels, a technique borrowed from the cinema.” As the performance took place in another of Avignon’s many outdoor courtyards, this one the Cour de l’Archévêché, Colomer was able to hide all of the lights in the trees, or behind the set pieces, for what he

calls a “mysterious light — light with no apparent source.

“Only recently,” says Colomer, “has there been a real interest in lighting on the European stage, with the exception of directors like Giorgio Strehler and Robert Wilson, who exercise direct control of the lighting.” As for designers, he feels that the decor and the lighting are two separate entities, and that the set designer should not light his own work. “When the set designer lights the stage, the sets are usually overlit, and the decor becomes too present,” he feels, “whereas the lighting designer lights the ensemble, not just the decor.

“Today many of the good technicians come from professional training programs, such as the ones in Avignon and Strasbourg,” says Colomer, who feels that in addition to practical experience, a lighting designer needs to cultivate his intellect. “Painting, culture, and literature are essential.” In terms of student designers, he would advise them “to take any given situation. Is it night or day, winter or summer, sunny or raining? These elements determine the light. Now we have to be realistic — what means are available to us? What is the most efficient way to find the desired feeling — colours, angles, intensity?” For Colomer, this becomes a question of juggling the variables of situation X, lighting available Y, and the time allotted Z.

“Not everyone sees in the same manner,” he says, “so lighting is a subjective matter. One can be detail-oriented and look closely to see how things are made, or look at the ensemble from afar.” Colomer, who likes to look at the whole from afar, has often been criticized for lighting which is too sombre. “Take the cemetery scene in *Eh, Qu’est Ce Que Ca M’Fait a Moi!?* It is twilight so there are a lot of shadows to create the atmosphere. For someone who wants to see the dancer’s faces, the lighting is too dark. But I don’t think you need to see everything in the most minute detail all the time. For me, too much light means no magic — there’s nothing left to discover.”



THIERRY PETRONE

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21

## CHARLIE PATON ON THE EVOLUTION OF PALS — AND BEYOND

# Moving Lights

BY BOB ANDERSON

**T**oday, to think of motor drives for pan, tilt, and focus is to think of the multitude of moving lights used in ever increasing numbers at disco and rock concert venues. But the scene in the late 70s was very different. PARcans were in use and in large numbers, and pulsed and flashed in response to the new memory control desks. But lights did not move unless physically pushed and shoved by a human operator. Inevitably, someone would change this.

At the time, Charlie Paton was a young lighting designer in his mid-20s working in London. Also somewhat of a mad inventor of the old school, Paton had been a theatre design student at the Central School of Art and Design, where his masterpiece was a full-sized replica of a hang glider, vintage 1900. Bamboo, canvas and string were the main ingredients, muscle power launched it, and it flew briefly. Charlie survived unhurt to look for new challenges, and it is no surprise to find that he turned his hand to the moving lantern challenge and solved it with another contraption of wire and strings.

In 1976, Paton was designing the lighting for a standard rock 'n' roll tour. "It seemed so much effort climbing on the trusses everyday," recalls Paton, "and after we had a near-accident, I came up with the Light Scan idea, to be able to re-focus from the ground." With Light Scan was born Paton's company, Light Works.

His invention consisted of two motors, linked by Bowden cable to 15 PARcans clamped to a bar in such a way that all tilted together in response to one motor. The second motor was used to converge or spread the beams of light. Control provided proportional speed, analogue presetting for position and on-board eight-bit digital processing at the motor drive units. The effect had immediate appeal.

"In 1976, I built one prototype, and one production version," says Paton, who then patented his idea. "I got half of the money, or £11,000 (US \$18,700), from the National Research and Development Corporation (now part of British Technology Group). The other half I scraped together myself." The result was launched at the British Design Center in 1980, where it was on display for three months. "Perhaps it was a combination of bad judgement and bad luck, but there were no orders," Paton notes, "and I was naive about marketing."

*continued on page 24*



CLIVE BARDA

Strand's PALS automated lighting system made its West End debut in *Aspects of Love* (left) in April 89. LD Andrew Bridge was confronted with 60 different scenes, each with its own lighting needs, and no space for a massive lighting rig. His answer was 26 PALS units — 13 Cantata PC's and 13 Cadenza PC spots. The rig has 65 PALS colour changers on the front-of-house Cantata profiles.

*PALS, le système d'éclairage automatisé de haute précision, de Strand, a fait ses débuts au West End dans Aspects of Love (à gauche) en avril 89. L'éclairagiste Andrew Bridge a été confronté à soixante scènes différentes dont chacune avait ses exigences, mais il n'avait pas de place pour une importante installation. Sa solution au problème fut d'utiliser 26 projecteurs PALS, 13 Cantata PC's et 13 Cadenza PC spots. La rampe d'éclairage comportait 65 changeurs de couleurs automatiques sur les Cantata découpes.*

Strands automatisches Beleuchtungssystem PALS hatte seine Premiere im West End in *Aspects of Love* (links) im April 89. Lichtdesigner Andrew Bridge war mit 60 verschiedenen Szenen konfrontiert, die jede ihre eigenen Beleuchtungsansprüche stellte ohne genügend Platz für eine massive Beleuchtungsinstallation zu haben. Seine Lösung war 26 PALS Einheiten — 13 Cantata PC's und 13 Cadenza PC Scheinwerfer.



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continued from page 22

The Light Scan idea, although insufficiently flexible to permit much variation on the basic theme, provided an introduction to the problems of control and a clear glimpse of the effects that should be available once motorisation could be fitted to more lamps in the rig. The problem now was to find more financing and therefore, a customer.

In the meantime, Paton continued to work as a free-lance lighting and special effects designer, and rented the one existing Light Scan system for a Who Tour, to London Weekend Television, as well as to several other small shows and concerts. "I earned a few bob and some exposure," says Paton, who became aware of the problems and benefits of such a system through its use. The problems, according to Paton, were caused from "theatre technicians who are fairly brutal. They think lights are made to be thrown in the back of a truck. This system was more delicate and needed tender care. It often needed to be rehung and readjusted, often through simple carelessness."

On the other hand, designers appreciated the effects of the Light Scan system, which allowed lights to slowly creep up with perfect timing. They were also virtually silent when in motion. "Slow movement worked very well with these

lights," says Paton, "while Vari\*Lite concentrates on fast movement. I like the magic created through a slow cross-fade."

Although interested in the concept of moving lights, theatre, television and concert managements were not ready to finance an R & D project. Surprisingly, Concord, the shop and display fittings manufacturer, was both interested and ready to provide the necessary money. In 1982, working with Michael Frye and the Concord production engineers, Charlie Paton engineered reliable pan and tilt yokes for track mounting PAR fittings taking power and data from the track itself. "This was an intelligent moving light system," Paton recalls, "designed for architectural lighting, hotel lobbies, and atriums. But at £300 (US \$510) per unit, it was too expensive and the project was scrapped. They wanted a unit £100 (US \$170), but it was too expensive to tool it. I recognize now it was too early."

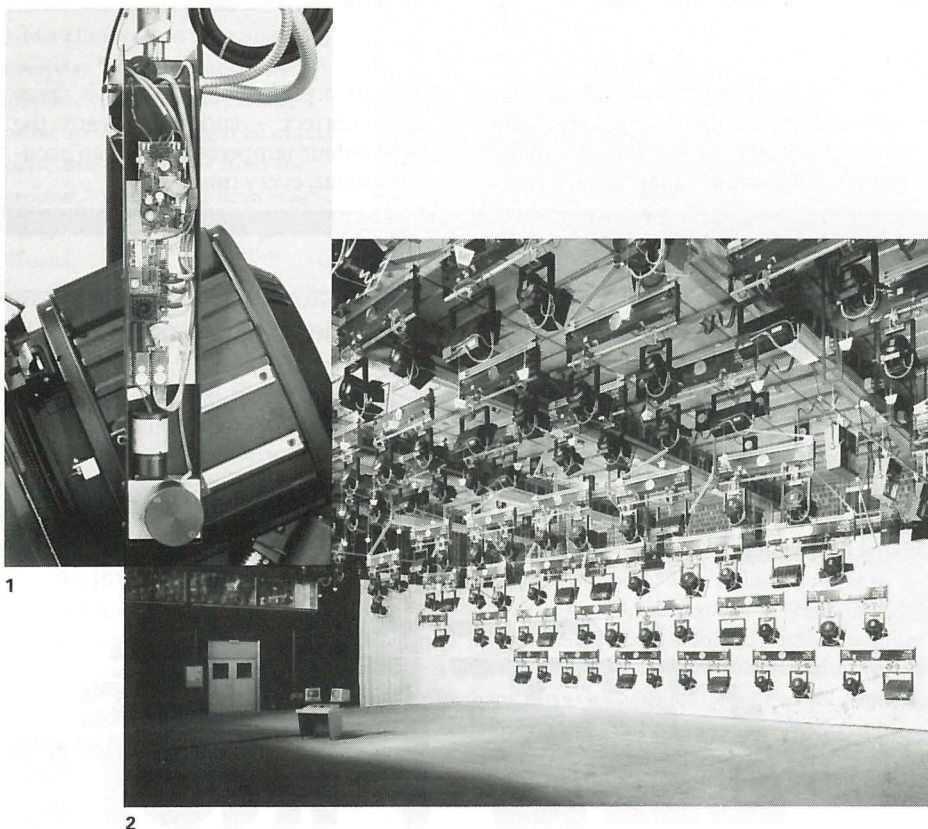
Although this project was never launched, the enterprise provided Paton with the know-how to see his way to the next step, a modular system designed for all types of theatre, television, and concert applications using coded data and on-board memory as has now become normal practice. So Paton was prepared when lighting designer David Hersey asked

Light Works to provide motor drives for lights and TV cameras for *Starlight Express*, which opened in the West End in 1984.

"Hersey knew about Light Scan," says Paton, "and put together several rotating rows of light curtains, with motorised cameras, lekos, PARcans, and colour scrollers." In all, 60 drives were supplied, together with Apple IIE computers, for which Kevin Neville designed the software.

The next step for Paton was to refine the design of this system for cost effective quantity production and off-the-shelf sales. Paton realized that he needed a faster control system than the Apple IIE, and moved to an IBM PC adapted with colour display and a dedicated keyboard. "At this point I needed sophisticated engineering development," says Paton, "and the last 10% of the project took longer than the first 90% to develop." Paton then received £20,000 (US \$34,000) from the Department of Industry for development of the MRL system, which made its debut at the 1987 ABTT Trade Show.

The MRL — Motorised Remote Lighting — system designed by Light Works was a modular system suited to any type of lantern and any type of performance. At the drive end, a single co-ordinated PCB (printed circuit board) and motor provided near silent rotation to an



Charlie Paton (3) developed the PALS system through his company, Light Works. After its acquisition by Strand, the first major installation was for a TV studio in Hannover, West Germany (2). The system can be adapted to anything that sits in a yoke. (1, inside a PALS yoke)

Charlie Paton (3) a inventé le système PALS avec l'aide de sa compagnie, Light Works. Après l'acquisition du système par la compagnie Strand, la première grand installation fut pour un studio de télévision en Allemagne de l'Ouest (2). Et ceci est adaptable à tous les projecteurs utilisés avec une porteuse. (1, la porteuse PALS)

Charlie Paton (3) entwickelte das PALS System mit seiner Gesellschaft Light Works. Nachdem Strand es erworben hatte, wurde die erste grössere Anlage in einem Fernsehstudio in Hannover, Deutschland, installiert. (2) Das System kann allen Beleuchtungsbedingungen angepasst werden, solange ein Rahmen vorhanden ist. (1, das Innere eines PALS — Rahmen)

accuracy of one part in a thousand over a wide range of speeds. An appropriate choice of gearing coupled the standard motor to anything from a PARcan to a television 5kw luminaire. The servo, basically digital with analogue potentiometer position measurement for economy, received coded digital position information from an IBM PC and stored last, current, and next cue data in on-board

## Essentially out of the moving light business, Paton's inventor instinct recently took him back to the drawing board.

memory. Go signals were transmitted separately. Data transmission was at 9600 baud via screened twisted pair parallel distribution using a form of RS 485 from the PC. The system was flexible, robust and its specially designed software was user friendly. "The MRL covered the whole industry," says Paton, "and moved everything from PAR 56 beam lights for discos, PAR 64 rock 'n' roll lights, 1kw and 2kw theatre lights and 5kw for television.

"During the 1987 ABTT show," Paton reports, "Marvin Altman of Strand Lighting had been to see me and expressed some interest in the system." Strand had already bought other moving lights, but then-Strand employees David Brooks and Andy Collier felt that Paton's system was right for the market. For Paton, who had developed the system and demonstrated it on various lanterns from Strand and Colortran at ABTT, the question still remained how to make money from the idea.

In late 1987, Strand bought the marketing and manufacturing rights for the MRL system from Charlie Paton's Light Works. Paton continued to serve as consultant, fine-tuning the system and providing extra features such as iris, focus, and colour changers. Shortly thereafter, Strand took on full responsibility for the further development of the rechristened Precision Automated Luminaire System, or PALS for short.

The first major installation for PALS was arranged by Strand's German office for a Hannover television station, completed in March 1988, which Paton terms

"a very successful marriage of Italian lights (Janiro's Quartzcolor) and English-built electronics and mechanics." Strand also enhanced their Galaxy control system to include control of PALS. An up-to-date version of PALS is in use in Andrew Lloyd Webber's *Aspects of Love*, incorporating 65 colour changers and 26 moving lights in a design by Andrew Bridge.

Although Paton has agreed not to compete with Strand in developing other moving light systems, Light Works owns one PALS rig with pinspots, profiles, PC's, punchlights and Pollox 5kw, which is available for hire through Cyberdescence Lighting. Essentially out of the moving light business, Paton's inventor instinct took him back to the drawing board where he developed a series of new products unveiled by Light Works at the ABTT show in May 1989.

These reflect Paton's interest in new light sources, such as the Philips MSR lamp, which he has built into a Kodak carousel slide projector in order to double the light intensity and offer true daylight colours. Originally invented for film and television lighting, Paton had the idea to put it into a slide projector to match the daylight colours of transparency film.

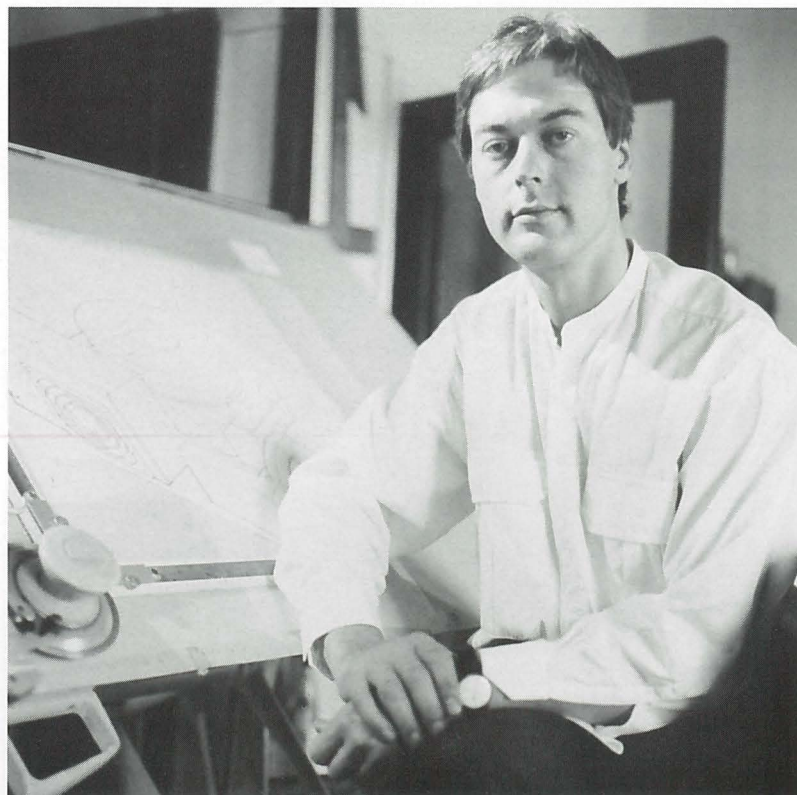
"People in the audiovisual business are always looking for sharper brighter light,"

says Paton, whose Daylight Carousel uses a 400w MSR lamp. This lamp has a life ten times that of a standard 250w tungsten lamp.

Also introduced at ABTT 89 was Paton's 6 x 6 Format Effects Projector, which offers a choice of tungsten halogen or MSR light sources from 650-1200w and lenses from 90-400mm focal length to control brilliance and colour reproduction.

The third new development from Light Works is a Data Projector which allows high resolution computer-generated images to be projected on a screen. Using the MSR lamp and high density liquid crystal displays make it possible to project VGA standard (640 x 480 pixels) images straight from a personal computer, with a clear, sharp image even in conditions with high ambient light.

There seems to be no end to Charlie Paton's good ideas, and his ability to realize the equipment needed to turn fantasy into fact. Yet, Paton still works on a drawing board at home, and builds his prototypes in a workshop around the corner, where he works with technician Merlin Milner, and software expert Kevin Neville, on his new inventions. Where Paton is concerned, the technology is ready, only the wider applications remain to be recognized.



KATIE VANDYCK

# British Stages

BY DAVID FINGLETON

**O**pera as large-scale, lavish mass entertainment seems to have become the vogue in Britain. Following Egyptian entrepreneur Fawzi Mitwali's highly ambitious and surprisingly successful presentation of Verdi's *Aïda* on the site of the Temple of Luxor in Egypt in May 1987, British pop impresario, Harvey Goldsmith, staged that same opera in London's vast Earls Court Stadium in the summer of 88 to audiences of 14,000 a night. I found this an altogether less satisfactory production of *Aïda* in an unimaginative staging with lamentable sound. Nevertheless it sold out, so this year, from 5 - 11 June, Mr. Goldsmith and Mark McCormack of Classical Productions decided to use Earls Court again and to present Bizet's *Carmen*. But, learning from

last year's experience, he changed the theatrical format and decided to present *Carmen* in the round, even though that meant reducing his seating capacity to a mere 12,000 per performance.

To this end, he engaged talented young British director, Steven Pimlott, highly experienced opera designer, Stefanos Lazaridis, and top lighting man, David Hersey. This team was remarkably successful. With tiered and cushioned seats all around a huge circular stage area which supported a set measuring over 61 meters end to end and 30 meters side to side, there was, surprisingly, none of the feeling of remoteness, nor the poor sightlines, found in last year's *Aïda*.

Pimlott and Lazaridis, with predictably meticulous and impressive lighting by

Hersey, had devised a staging of considerable intelligence and flair. The circular stage evoked a bull-fighting ring which, appropriately enough was used just for that — without the bulls — in the final act. Around this was a revolving outer stage, most strikingly used for paseados by the populace of Seville, walking in order to appear standing still. In Act III, the suspended rope stairway, swooping from the furthest corner of the roof down to the smuggler's mountain hideout on stage, made a brilliant coup de théâtre, and time and again there were similarly successful theatrical effects.

The sound, however, remained a problem. The noise that emanated from the loudspeakers way above our heads was crude and constricted. There was no

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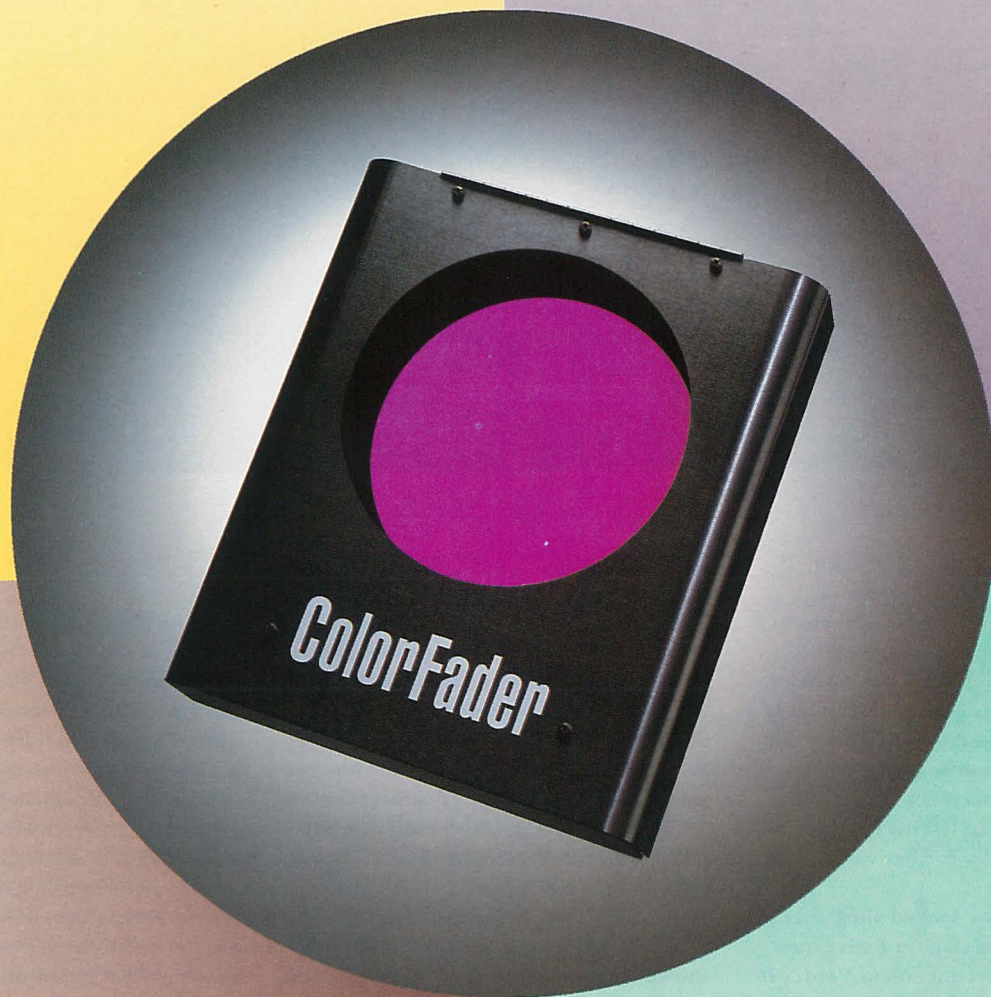


■ The spring 1989 production of *The Ring* at the New York Metropolitan Opera (left), designed by Gunther Schneider-Siemssen and lit by Gil Wechsler, was operatic design at its best.

● The *Ring* (à gauche) produit par le New York Metropolitan Opera au printemps 1989, décors de Gunther Schneider-Siemssen et éclairages de Gil Wechsler, reste comme l'un des meilleurs décors du genre.

▼ Der vollständige *Ring* (links) in New Yorks Metropolitan Opera, wurde bei Gunther Schneider-Siemssen ausgestattet, mit Licht-Design bei Gil Wechsler. Die Inszenierung war ein hervorragendes Beispiel für Opernausstattung.

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GUY GRAVETT

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continued from page 26

directional sense, it was hard at times to tell who was actually singing, and the orchestral sound was like listening to an old mono LP. If this large-scale format of operatic presentation is to continue, then something must be done about the sound.

Nevertheless, this was a triumph of theatrical design that left me eager, rather than my surprise, to see further ventures in the genre.

Certainly *Carmen* looked altogether more convincing on stage at Earls Court than did the new production of Verdi's *Il Trovatore* at the Royal Opera House, Covent Garden this past June. Italian Piero Faggioni is responsible here for production, design, and lighting, and it has been indicated that this is the first of four Verdi operas with a Spanish setting that he will stage at the house, of which *Ernani* and *La Forza del Destino* are to share the basic setting of *Il Trovatore*. If second and better thoughts do not prevail, I'm afraid we are in for a gloomy Verdi series over the coming seasons, for Faggioni's single, unified setting, based on a primitive mountain cave of volcanic origin on the slopes of Mount Etna in Sicily, constructed in black fibreglass, is dim, awkward, and ineffective. It abounds in deep steps, precipitate ramps, and obstructive rocks, serving, with much implausibility, for interior as well as exterior scenes. It is not

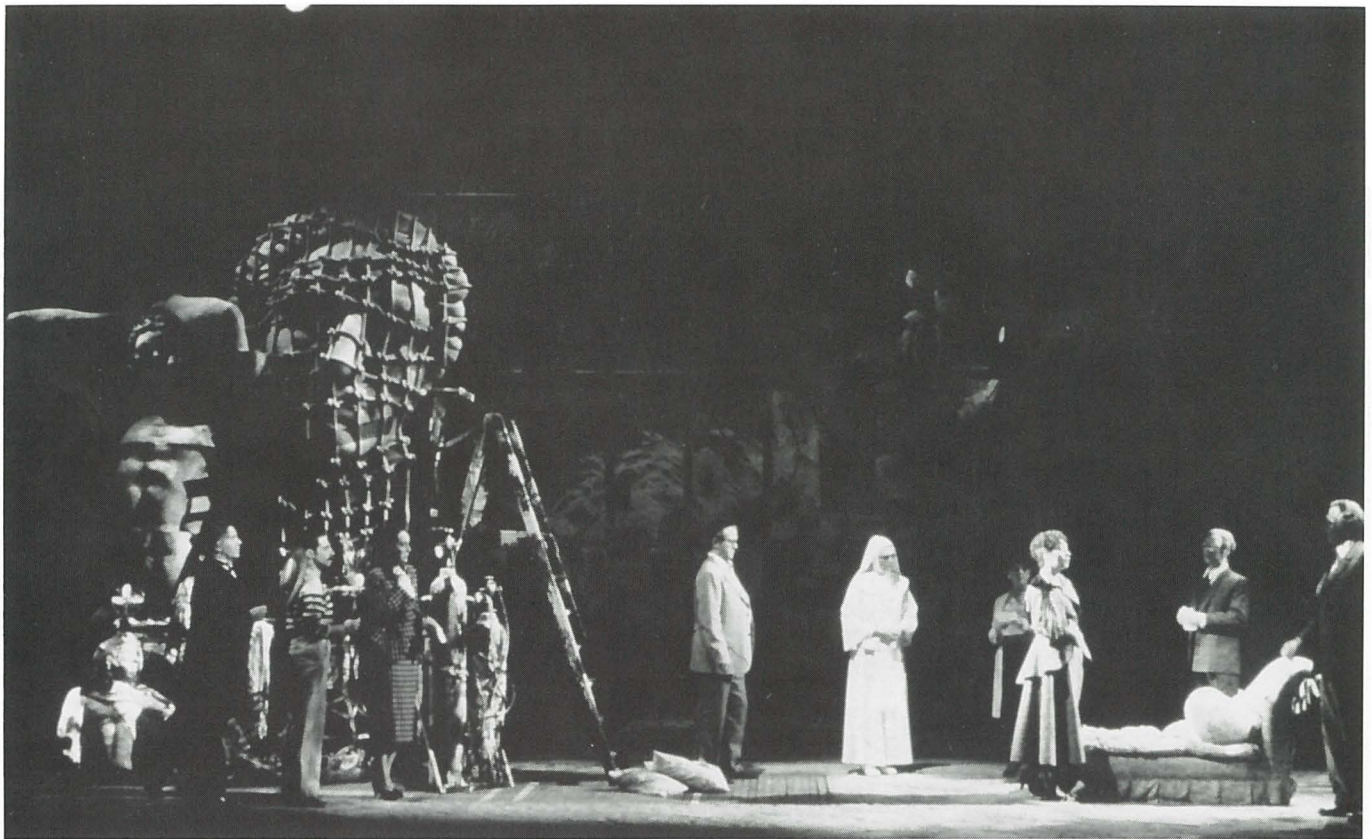
helped by Faggioni's highly arbitrary lighting. The inappropriateness and impracticality of the design is compounded by the stand-and-deliver style of production which has singers addressing the audience rather than each other. Altogether a sorry affair and a distinct step backwards from the 25-year-old magnificent Visconti/Sanjust staging of *Il Trovatore* which it has replaced.

They do things better down at Glyndebourne where the standards of direction and design during the summer festival are consistently high. This year's opening production of *Jenufa*, which opened in May, is no exception. Indeed it would be hard to imagine a staging of Janacek's opera that has more atmosphere and dramatic energy than this one, directed by Nikolaus Lehnhoff, designed by Tobias Hoheisel, and lit by Wolfgang Gobbel, the team responsible for the almost equally fine production of Janacek's *Kat'a Kabanova* at Glyndebourne last year. Their basic style continues to be expressionist, with primary colours and strong perspectives. The opening act of *Jenufa* has the crucial mill-wheel slowly rotating stage left, a pair of deep red barn doors stage right, a cyclorama in between — all simply and strongly drawn. The interiors of the following acts, with their strong perspectives, particularly the church hall for the

wedding party with spring sunlight pouring in through its row of windows, are no less powerful. Hoheisel's meticulously accurate costumes and Gobbel's stylised lighting, vividly denoting changes of mood and circumstance, created operatic stage design at the highest level.

At the New York Metropolitan Opera, design of a similarly high standard could be enjoyed during Wagner's *Ring* cycle. But the excitement of this *Ring*, which was presented throughout the 88 - 89 season, lay not in any directional or design concept by Otto Schenk and Gunther Schneider-Siemssen, but in the fact that instead of setting it in modern dress, in a factory, or an autobahn, they presented Wagner's great work as originally written, honouring his stage directions to the letter. This naturalist *Ring* was thus a constant joy to look at and was thrillingly achieved on the Met's comprehensively equipped stage, with immaculate lighting by Gil Wechsler. Many of the stage pictures bore an uncanny resemblance to the set models and drawings you see in the Wagner Museum in Wahnfried at Bayreuth, as well as frequently reminding you of the fine series of drawings that Arthur Rackham made for *The Ring*.

Moving from the sublime to the not-quite-ridiculous, it is good to be able to report that for once the pre-first night



2

hype of an Andrew Lloyd Webber musical was lived up to. *Aspects of Love*, which opened at London's Prince of Wales Theatre on 17 April, is a skillfully constructed, expertly written, absorbing, and even moving work. It also has the enormous advantage, in Trevor Nunn's incisive production and Maria Björnson's extremely skillful designs, of avoiding the blockbuster approach of previous Lloyd Webber musicals and relying instead on imagination and skill. Björnson's basic setting is no more elaborate than a set of large, slatted wooden doors on revolves. The purpose of these are twofold — they are used both as scenery and to mask scene changes. She achieves a wonderfully swift and varied series of settings, evoking maximum atmosphere with minimum scenery. Two examples will suffice — the façade of a French country house is achieved by suspending window frames in front of a painted flat, covering it with a sparse creeper, and flying in some twigs and branches from the proscenium. An attic is evoked by using one of those doors as a backdrop and poking up a ladder through a small center stage trap. Rather than expensive razzmatazz, this is what good stage design is all about.

Further power through simplicity is to be found at the Barbican Theatre in the Royal Shakespeare Company's latest

staging of *The Tempest*, which opened May of this year. Directed by the wonderfully intelligent Nicholas Hytner and admirably designed by David Fielding, with skillful lighting by Mark Henderson, the play was performed on a white oval disc, quite steeply raked, with a curved back gauze behind it. Towards the disc's centre was a sizeable trap, the entrance to Prospero's cell, and stage left of it was a large, egg-shaped rock that represented Caliban's abode. This simple scheme allowed for great variety and inventiveness, and the rear gauze could become transparent to allow images to appear behind it with stunning effect. Henderson's stark, white lighting added much to the atmosphere, and Fielding's costumes of nondescript period were of a similar inventiveness and intelligence.

Commercial Shakespeare in the West End also had much to offer. Peter Hall's production of *The Merchant of Venice*, opening in June, with Dustin Hoffman playing Shylock, did not disappoint. Chris Dyer's elegantly enclosed setting consisted of a Venetian colonnaded portico, which could remain enclosed for the interior and courtroom scenes, and then open to reveal blue sky and foliage for the charms of Belmont. Mark Henderson supplied a handsome lighting plan, and costumes were Venetian, of Shakespeare's own time.

Design highpoints in the spring 89 season included the May 1989 production of Janacek's *Jenufa* at the Glyndebourne Festival Opera (1), designed by Tobias Hoheisel and lit by Wolfgang Gobbel, and *Aspects of Love* (2), designed by Maria Björnson and lit by Andrew Bridge.

Parmi les décors les plus remarquables durant la saison du printemps 1989, on peut compter *Jenufa* de Janacek, présenté au festival de l'opéra à Glyndebourne (1), dont les décors étaient signés Tobias Hoheisel et l'éclairage Wolfgang Gobbel, et *Aspects of Love* (2), décors de Maria Björnson et éclairages de Andrew Bridge.

Unter den Design-Höhepunkten der Frühlingssaison 1989 waren Janacek's *Jenufa* in der Glyndebourne Festival Opera (1), Bühnenbild von Gunther Schneider-Siemssen und Beleuchtung von Wolfgang Goebel, und *Aspects of Love* (2), Bühnenbild von Maria Björnson und Beleuchtung von Andrew Bridge.

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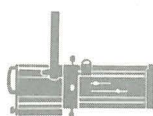
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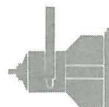
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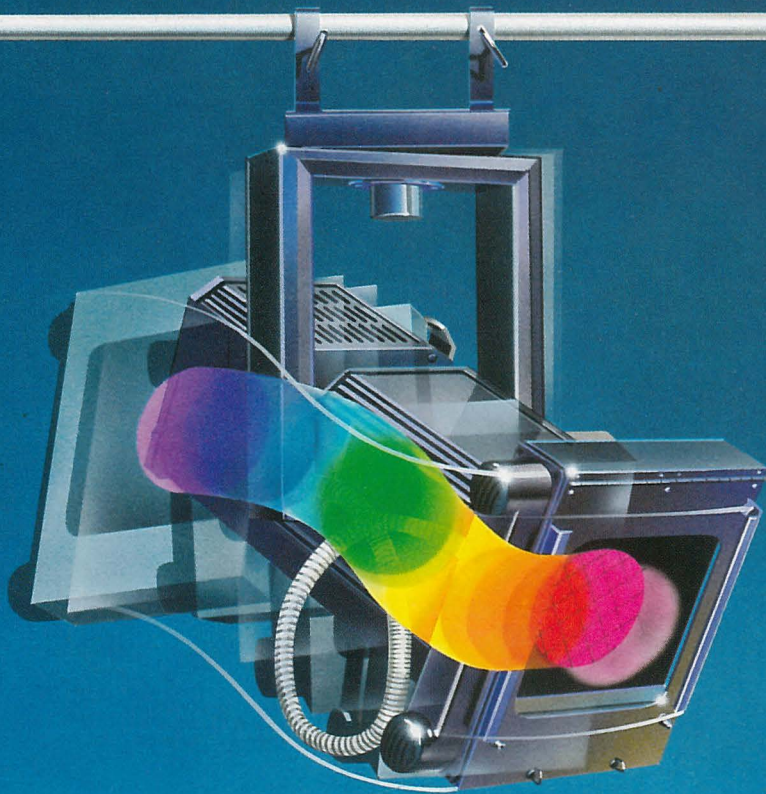


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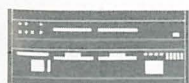
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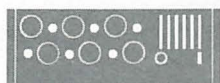


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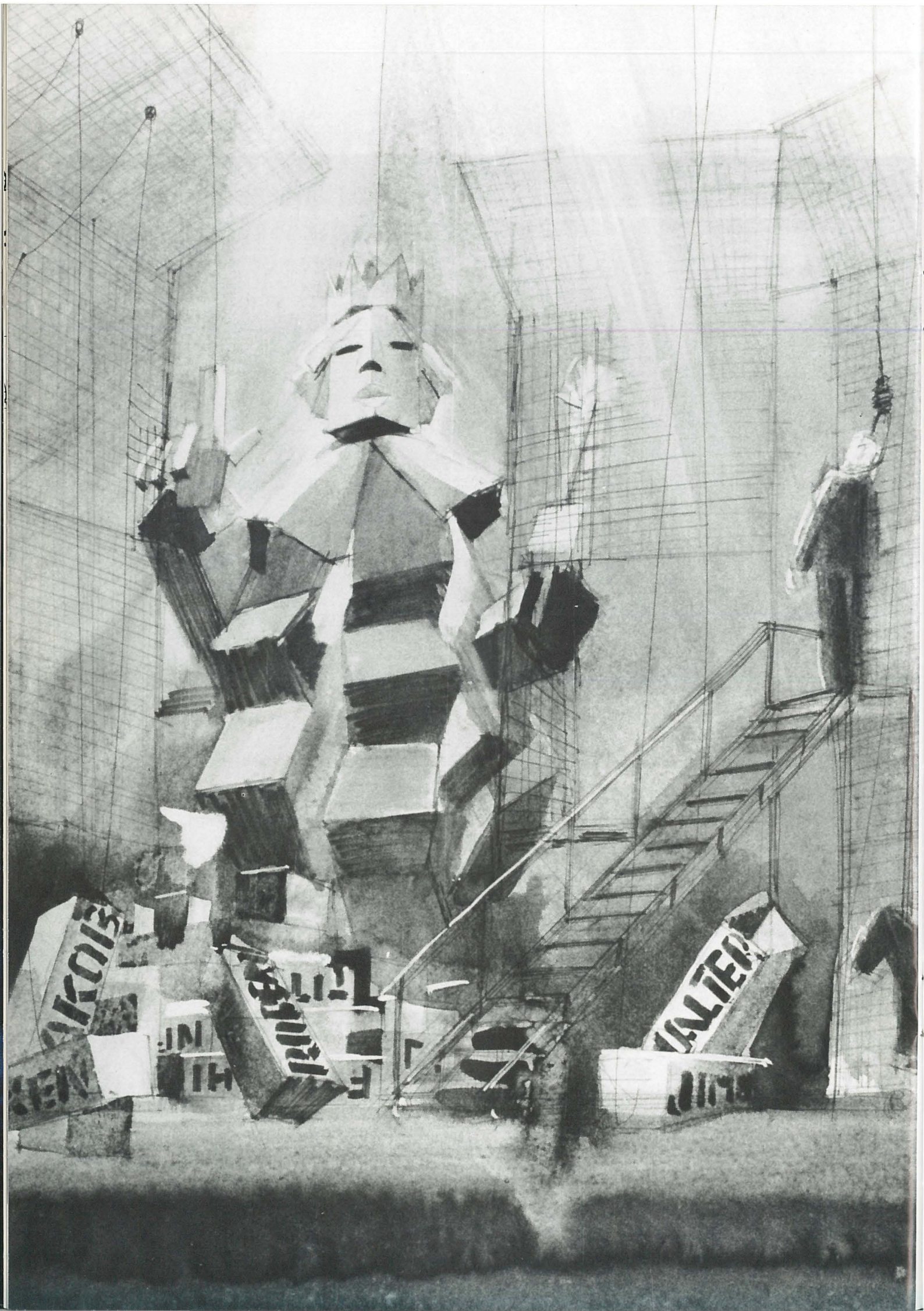
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## SCENOGRAPHERS MALINA AND DUSEK AT WORK IN TODAY'S CZECHOSLOVAKIA

# Designing for the 90s

BY JARKA M. BURIAN

■ The work of Czech scenographers Jaroslav Malina and Jan Dusek reflects an attempt to create a more expressive theatre environment in reaction to the repressive society created by the Soviet invasion of their homeland in 1968. (left, Dusek's design for *Threepenny Opera*, 1987)

● *L'oeuvre des scénographes tchèques, Jaroslav Malina et Jan Dusek, reflète une tentative de créer un environnement théâtral plus expressif, ceci en réaction à la société répressive issue de l'invasion soviétique de leur patrie en 1968 (à gauche, maquette de Dusek pour Threepenny Opera, 1987).*

▼ Die Arbeit der tschechischen Bühnenbildner Jaroslav Malina und Jan Dusek stellt den Versuch dar, auf die repressive Gesellschaft, die durch die sowjetische Invasion ihres Heimatlandes 1968 entstanden ist, mit einem ausdrucksstärkeren Umfeld auf dem Theater zu reagieren. (links, Duseks Entwurf für die *Threepenny Opera*, 1987)

**S**cenography has been esteemed as a significant element of theatre in Czechoslovakia for most of the 20th century. Since the late 1950s, it has been associated with the work of Josef Svoboda and, to a lesser degree, Ladislav Vychodil. Both of these senior artists are still active, but younger generations have been making their mark as well. These younger designers reflect broader movements and changes in theatre practice within Czechoslovakia as well as in the world beyond its borders.

The history of Czech scenography can be divided into two eras, delineated by the 1968 Soviet invasion. Those designers who reached artistic maturity before the 1960s saw their craft as an art which, while part of a theatre event, could also be appreciated for its own values of line, colour, pattern, and individual statement.

As the 60s ended, Czech theatre underwent a radical change. Not only was the basic repertoire curtailed to safe classics or works of neo-socialist realism, but staging practices also reverted toward a neo-conservatism. Reacting to this tendency, theatre artists who were not tied to the mainstream of institutionalized repertory theatres deliberately pulled back to the most basic, human-centered elements of theatre, as if rejecting the officially sanctioned forms associated with a repressive political and cultural system. Those Czechoslovakian theatre artists, including stage designers, who did not begin their careers until the late 60s are more likely to think of their work as an opportunity — using socially relevant motifs — to create intimate contact with their audience.

Needless to say, the work of this group of younger stage designers also reflected movements in theatre and art beyond the boundaries of Czechoslovakia during the 60s. Happenings, environmental theatre, pop art, found art, and Grotowski's "poor" theatre all contributed to influence a worldwide shift in scenography away from large scale spectacle and complex technology. The move was toward simpler, non-technological methods of staging in which the actor would dominate and traditional scenography would either be eliminated or become minimal.

It is in this context that two Czech scenographers, Jaroslav Malina and Jan Dusek, worked.



1



2

Malina allows the transparency, the colour, the texture and the drape of cloth expanses to create a variety of dramatic moods. (1, *A Midsummer Night's Dream*, 1984; 2, *The Claw*, 1985)

*Malina utilise la transparence, la couleur, le tissage, le drape et des bandes de tissu pour créer une variété d'ambiances théâtrales* (1, *A Midsummer Night's Dream*, 1984; 2, *The Claw*, 1985).

Bei Malina schaffen die Transparenz, die Farbe, die Struktur und der Fall der Stoffbahnen eine Vielfalt dramatischer Stimmungen. (1, *A Midsummer Night's Dream*, 1984; 2, *The Claw*, 1985)

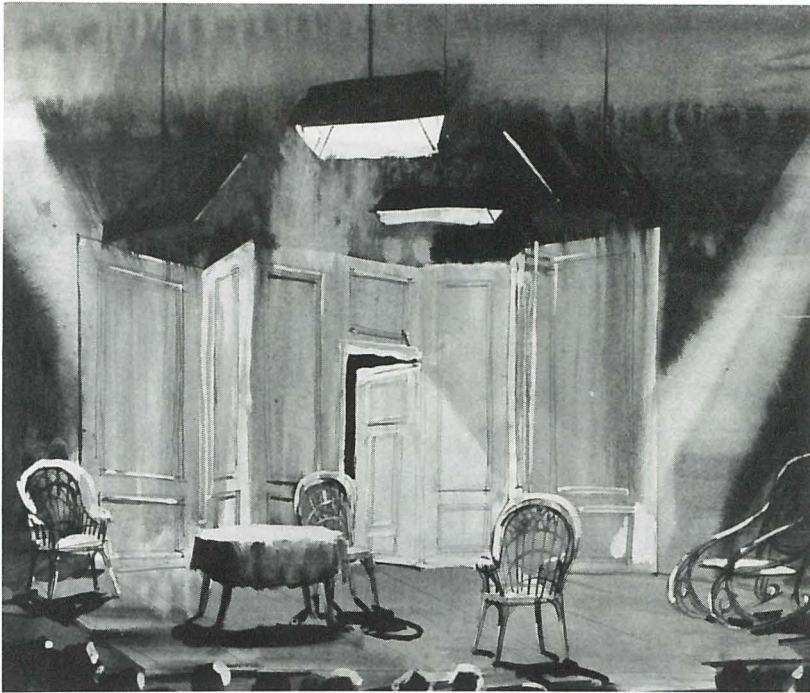
Jaroslav Malina was born in 1937 in Prague. His work retains some qualities of expressive design while turning to untraditional materials and stressing function over decor. At first a student of painting and ceramics, he went on to formal training in scenography under Frantisek Tröster at Prague's theatre academy DAMU in the early 1960s. Tröster, the leading scenographer of Czechoslovakia during the 1930s and 40s, and briefly a teacher of Svoboda, was the inspiration and guide for most of the post-Svoboda generation. Until 1980, Malina was primarily associated with the regional theatre at Liberec; then, after two years at Hradec Kralove, he began to operate freelance. He was a gold medal winner at the Novi Sad Triennial (Yugoslavia) in 1984, and has participated in several Prague Quadrennials.

Central to Malina's work is the principal of contrast, especially between the real and the artificial. He tries to create a heightened theatricality by calling attention to discrepancies between natural objects and their conscious manipulation on stage; for example, making use of real tree trunks and branches, but painting them a decidedly non-natural colour.

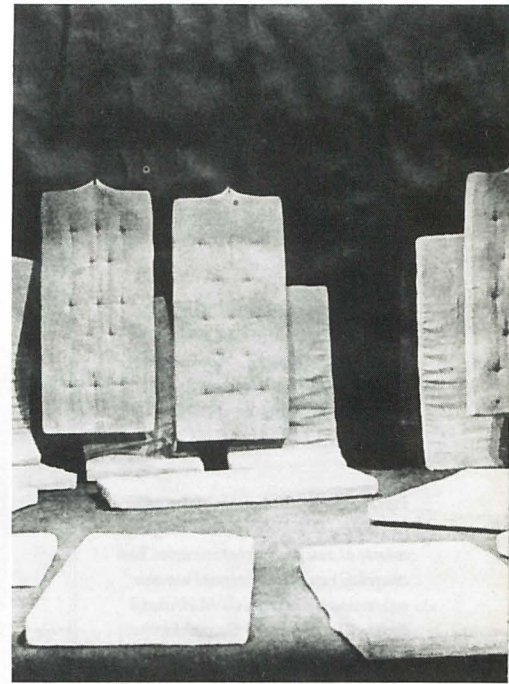
For years he has created set after set out of ingenious, functional exploitations of cloth. For the non-musical dramatization of *Jenufa* (1986), he placed slim, artificially coloured birch trunks on stage and then

created the different scenes by stretching a long, wide band of cloth in varying configurations around the trunks. A greater ocean of cloth — painted, translucent, and often back lit — formed the concave surfaces for Dostoyevsky's *The Insulted and Injured* (1984). Cave-like alcoves were created, as well as floor, ceiling, and walls, stretching out into the audience, attached to the balcony lighting units. In contrast, cloths tautly stretched by cords attached to iron frames formed the oppressive walls of *The House of Bernardo Alba* (1980). Alternately, cloth was not only tautly stretched over the stage to form ceiling pieces, but two layers of cloth also covered a thick plastic foam sponge floor for *A Midsummer Night's Dream* (1984), with holes in the top layer of cloth allowing characters to crawl between the layers and emerge from them.

In most of these examples the cloths were either undyed or lightly painted to create some texture, but in Nezval's *Manon Lescaut* (1982), seven huge silky drapes, each of a different intense color, were suspended over a pyramid construction of basic platforming assembled in view of the audience; scene changes consisted of the separate cloths being dropped down to cover the platforming. In *Leonce and Lena* (1976), brightly painted soft cloths billowed over frames to enclose the various scenes. Malina's own comments on his attraction to cloth are found



3



4

in an exhibition catalogue — “I regard cloth as closest to man... the intermediary between the human body and the external world. It’s pliable but it can also be stiff, transparent, or opaque; it can merge things or be wrinkled, be beautiful, or repellent. And it’s actually relatively inexpensive and storable.”

Not that Malina is addicted to novel applications of cloth. In two productions at Prague’s National Theatre, Malina used very traditional stage flats and drew on his painter’s love of colour in striking ways. For *Love’s Labour Lost* (1987), he assembled as a background a series of tall, mobile flats with irregular shapes suggesting the crowns of trees. The tops of the flats, however, were of plain translucent canvas to suggest something like clouds, while obviously remaining flats; the lower sections were covered with vividly painted papier mache in the form of floral reliefs. In *Miss Julie* (1988), similar but lower and even more vividly painted flats formed the encompassing background to a wall-less kitchen. According to Malina, the background created the floral atmosphere of midsummer eve in the manner of the youthful work of Edvard Munch.

In these and other works, Malina makes no effort to hide the necessary technical components. These are usually rather simple — almost as if deliberately homemade — in contrast to the usually elaborate, sophisticated equipment of

many theatres, which he finds too standardized. Ideally, he says, he would like to design settings that could exist anywhere, independent of stage technology.

As if to demonstrate that he cannot be pigeonholed, he took a new turn in one of his more recent productions. *Merlin* is a metaphysical fantasy by the East German writer Tancred Dorst. For the 1988 production, cloth gave way to oxydized metallic walls and a very large, kinetic metal ring with lighting units (à la Steven Spielberg’s film *Close Encounters of the Third Kind*), which also served as King Arthur’s roundtable. Talking about the production, he says, “The tendency for years has been to do simplified theatre in reaction against grandiose theatricalism and imitative decoratist. By now it has perhaps become too simplified, even boring. Here in this production we could again attempt a great theatricality, theatre of greater effect, greater show.”

If Malina incorporates both traditionally expressive and more recent minimalist tendencies, Jan Dusek, born in Prague in 1942, leans more consistently toward the latter. Dusek came to formal scenographic study after five years of very practical experience as a scene builder and painter for Prague’s famed Barandov film studios and also for one of Prague’s municipal theatres. At DAMU he was one of the last to complete his studies under Tröster, in

■  
Dusek’s minimalist environments stress function over decor. His stages are designed to work with the dramatic context of the work, rather than to stand alone. (3, *Long Day’s Journey Into Night*, 1983; 4, *MacBeth*, 1981)

●  
*Les environnements minimalistes de Dusek sont plus fonctionnels que décoratifs. Ses décors sont d’avantage construits dans l’esprit dramatique du texte que pour eux-mêmes.* (3, *Long’s Day Journey Into Night*, 1983; 4, *MacBeth*, 1981).

▼  
Duseks minimalistische Bühnenbilder betonen das Funktionelle gegenüber der Ausstattung. Seine Bühnenentwürfe sollen weniger für sich allein stehen, als im dramatischen Kontext des Werks wirken. (3, *Long Day’s Journey Into Night*, 1983; 4, *MacBeth*, 1981).

Changing its colour and shape, the ease in its storage, and its relative inexpensive cost makes cloth one of Malina's favourite materials. (right, *Troilus and Cressida*, 1979)

*Le changement de sa couleur et de sa forme, l'aisance de son rangement, et son cout relativement bon marché, rendent le tissu l'un des matériaux préférés de Malina (à droite, Troilus and Cressida, 1979).*

Tuch, dessen Farbe und Form sich ändern, das leicht aufzubewahren und relativ billig ist, ist eins von Malinas Lieblingsmaterialien. (rechts, *Troilus and Cressida*, 1979)



1967. (Tröster died in 1968). Dusek then spent six years in Ostrava theatres, before moving on to Brno and eventually freelance work since 1974. In 1972 he won the gold medal for scenography at Novi Sad, and for the past ten or more years he has been on the scenographic faculty at Prague's DAMU, thus carrying on the tradition established by Tröster. Still another of his activities is exhibition designing, which has taken him to many parts of Europe.

Most of Dusek's work places greater emphasis on functionality and relatively less on expressive decor than Malina's designs. Dusek focuses on the reality of the stage and strives, as he puts it, "to create space for play, for drama." He likens stage action to the play of a child with wooden blocks, with the wooden blocks taking on an infinite number of identities and functions. He rarely creates scenography that can stand on its own as an indication of environment, much less as stylized decor; instead, he prefers scenography that forcefully interacts with the actors. Two things continue to fascinate him: "using ordinary things with traditional associations in new and striking ways," and scenography "that

can't be totally planned in advance, only prepared to a certain extent," the rest evolving with the dramatic action. By the same token, he likes to work with directors who try to maintain something of the relatively unfinished quality of rehearsals within the performance itself.

His production of *Hamlet* (1978) illustrates this bare bones approach. One set consisted of vertical panels of buckram material lining the three walls of the stage and providing ideal positions for eavesdropping that would be evident to the audience; the panels were progressively torn down during the performance as visual reinforcements of the action. Only two other scenographic elements were used: a number of skeletal cubes were stacked in a variety of ways to function as furniture and even Ophelia's grave; and a camouflage net hung above the stage for most of the play, which was yanked down to form a shroud over the dead bodies at the final curtain.

Somewhat more elaborate was a production of *Mother Courage* (1986). On a small turntable Courage's wagon itself remained stable but served different functions when disassembled for certain scenes. Toward the end of the play it

becomes the hut onto which Katrin climbs. Similarly, in a production of *War and Peace* (1986), the tall backs of chairs were painted to represent soldiers; knocked over in the battle scenes, they became casualties of the war.

Like Malina, Dusek also feels that the time may be ripe for scenography to become more visually expressive again, to play a greater role in a performance. Particularly in light of the prevailing literalness of television scenography, Dusek feels, theatre should be more imaginative and bold. By the same token, although much of his work stresses the virtues of minimalism, Dusek enjoys working with productions demanding a larger scale. For the surrealist opera by Martinu, *Julietta* (1982), he created a large ship's profile out of latex stretch cloth and attached it by ropes to other objects on stage, again creating a setting that could readily change during the flow of the action.

Even in his more minimalist vein, Dusek often seizes on a stage image that is not only functional but richly metaphoric and thereby visually striking. For *Long Day's Journey Into Night* (1983), Dusek constructed a simple framed background

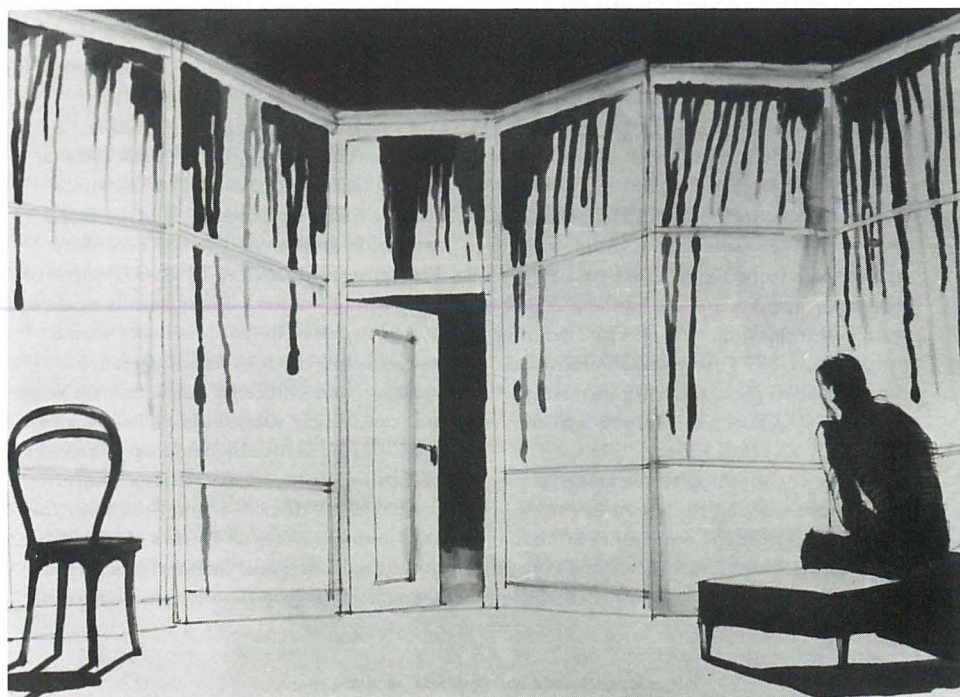
of panels and a doorway. But each panel consisted of transparent plastic with several layers of irregularly torn, soaked paper lightly pasted to the back of the plastic. Testing revealed that the paper would gradually dry and peel away from the plastic, with one panel being bare by the end of the first act and the rest by the end of the play, thus graphically reinforcing the progressive stripping of the souls and defenses of the characters. An added dramatic touch was the mirror effect created by the bared panels as well as the ability to see the characters before they entered the main acting area.

The designs of both Malina and Dusek reflect new directions in Czechoslovakian scenography, as well as hint toward future tendencies. While much of the recent scenography in Czechoslovakia serves as a mainly functional element, its distinctive identity subordinated in order to facilitate the work of directors and actors, these designers appear to be moving toward reaffirming a stronger, more expressive role for scenography in the theatre production process.

■  
Dusek occasionally uses back-grounds to augment dramatic tension on stage, as in designing opaque surfaces that slowly clear as the drama unfolds. (left, *The Duck Hunt*, 1985)

●  
*Dusek utilise de temps en temps des arrieres plans afin d'augmenter la tension sur scène, comme dans les surfaces opaques qui s'éclaircissent lentement lors du déroulement de la pièce (à gauche, The Duck Hunt, 1985).*

▼  
Dusek benutzt gelegentlich den Hintergrund, um die dramatische Spannung auf der Bühne zu erhöhen. Dazu entwirft er undurchsichtige Flächen, die allmählich durchsichtig werden, während sich das Drama entwickelt. (links, *The Duck Hunt*, 1985)



## DANCING TO A DISCO BEAT

# PLASA 89

BY DAVID I. TAYLOR AND  
ELLEN LAMPERT

**A**s one entered the Olympia 2 Exhibition Hall in West London for the annual Professional Lighting and Sound Association Trade Show, 10 - 13 September, it was immediately apparent that the themes of this year's show were "Big," "Bright," and very, very "Loud." More than 150 companies from around the world were exhibiting at the show and each vied for visual and acoustic space with their dazzling, noisy neighbors. The show hosted 5,510 visitors. Seven hundred of these were from overseas — a 100% increase from last year. PLASA represents the effects end of the entertainment equipment market with sound system, discotheque paraphernalia, and concert lighting system manufacturers filling its membership.

However, the Light and Sound Show is now an integral part of the launch programme of many major companies, as well as being a forum for picking up remarkable gems — great little ideas from the back room of a two-man operation in the wilds of England that solve a myriad of lighting, sound, and presentation problems.

Michael Goldberg of M & M Lighting is somewhere between the two, with some superb market-led additions to his Rainbow Colour Scroller range in the Light Curtain Scroller and the Follow Spot Scroller. Both were available for close-up inspection at the show to the delight of many visitors who saw how simple, but practical, the units are.

Whilst Jem, the smoke machine manufacturers, and others had "Crackers," — cracked oil mist machines — visible on their stands, the only one I saw demonstrated, Reel EFX Junior, was by Goldberg. Cracked oil produces very fine, quickly dispersed mist that lingers evenly in the air from high up to the floor, not as thick as fog, but very practical in allowing light beam paths to show up in the air.

Rosco was on hand to introduce their

new 1300 economy model fog machine, using the same non-oil fluid as the 1500 and 4500 models.

Strand Lighting was offering the new Gemini 2 Plus, with control of 360 channels, facilities for two monitors and a link to an IBM PS/2 computer running Strand's PALS software for initiation of remote-control luminaire cues. The ability to receive dimmer profiles from Galaxy consoles and patch as non-dim features makes this a useful addition to the middle market of lighting consoles. Losing Lightboard M's manual faders, the

### **Zero 88's massive stand dominated the ground floor with a huge three-story towering rig designed by Pyrarig.**

Lightboard M Junior, also new at the show, is a cut-down version aimed by Strand at the disco and music markets.

Avolites has created the QM 500-TD Theatre Board, launched at the exhibition and developed from the famous QM music touring console. An integral intelligent display, 600 memories, 180 desk channels outputting through two DMX 512 ports, 40 dipless fade stacks, 3 1/2" disk drive and a very high standard of construction make this a serious contender in the theatre light console war. Avolites also presented a fully digital cross-patching terminal, a smart answer to the pin patch with 180 input channels and 512 dimmer outputs to USITT protocol all crammed into a 19-inch rack. Offering 26 custom curves, the Q-Patch is a superb addition to the sturdy Avolites range.

It was encouraging to see DMX 512 equipment arriving for use in Great Britain, and perhaps none more so than LMI's L86/IR and L86/15M digital control signal processors soon to be handled in the

UK by CCT. These superb products remove the need for hard patching, breakout panels or any of the paraphernalia associated with mixing consoles and dimmers — particularly in a touring situation. CCT/LMI also proudly showed their ultra-high density dimmer racks as a viable option for extending the European distributed dimmer approach into the United Kingdom. The racks will support 192 twenty amp dimmers or 384 ten amp dimmers in a dual chassis, and complement LMI's small, compact low-profile packs. CCT also introduced the Avab Expert board to PLASA.

Zero 88's massive stand dominated the ground floor with a huge three-story towering rig designed by Pyrarig. Beneath this high-tech super-structure were a pair of Mega Mag Colour Changers by Colour Mag, as created for use by lighting designer Patrick Woodroffe on the current Rolling Stones tour. This giant colour changer with 12 colour positions holds an entire 8 foot by 4 foot sheet of colour media, for large one-colour washes on stage. Among the Zero 88 products on display was the updated version of their Sirius 48 control desk, which now has 398 cue memories and a pocket-sized memory card.

New disco lighting from Coemar includes the Jupiter, which uses 700w or 1200w MSR lamps, as well as the Brio, Jupiter's smaller brother. But the real attraction at Coemar was the Live Wire Performer. Introduced by Nick Bourne of Live Wire Systems, this system is made up of a network of invisible sensors which can measure the movement, speed, location, and voice of a performer on stage and can trigger sound, lights, lasers, and video. It is essentially made up of sensors of input devices, an interface, a computer, and an effect device — a light or laser for example. A variety of sensors are available, including individual infrared beams that are velocity sensitive to locate a performer



in space; an infrared grid that can be two or three dimensional and locate to a particular position; speed sensors that measure the speed of movement; acoustic and MIDI inputs to detect a voice or music command; and SMPTE/EBU time code reading to trigger from a videotape. There was a lively demonstration at the PLASA show. Drum music from a synthesizer was heard when a drummer used drumsticks to break the infrared beams and, thus, activate the synthesizer. Voila! Drum music sans drums. The system uses the Archimedes, a high-speed microcomputer built by Acorn, and is used for editing effects, keeping performance files, and complete synchronization of multiple effects.

At Pulsar, the Clay Paky Golden Scan is still a winner, having garnered the 1989 Award from Disco and Club Trade International. The Golden Scan is now available for hire in the UK from Mushroom Lighting.

APIAD, the Association of Italian Discotheques and Theatre Equipment Manufacturers, once again showed the high quality and performance of Italian disco lighting. The APIAD-affiliated companies present included Programsistem, which premiered a series of new disco lights. Especially worth noting is the Samauri, a high-powered 400w light. Spotlight srl showcased their new MSH 1200 follow-spot, which gives 50% more light for the same power. Litebeam displayed their new Bunny — eight turning lights with colour changers, Technitron introduced their Confetti Light, complete with 100 small mirrors, and King's Sound demonstrated the integrated Team System disco lighting.

The rest of the show featured mainly hypnotically gyrating disco lights, although Oxtron's Light Conductor — an RS232 addressed architectural lighting controller — was excellent, along with their compact VCA1, a stereo voltage-controlled attenuator allowing quality volume adjustment from a lighting console signal.

A.C.T. Publications, whose Big Lighting Book is still eagerly awaited by many designers in Europe, announced The Big Control Book, a regularly updated information file of control and dimmer units available in the entertainment industry. Alan Chamberlain plans a similar revision service with new information every two months included in the purchase price.

Laser equipment is not often used in the theatre, but the leisure industry generally has now accepted laser installations as an established part of a design scheme rather than a risky new idea. Laser System's range of multi-colour laser controllers has been integrated with their new intelligent light fittings, the Minilight, Coloursweep, and Gyrolight — all use a common data format and may be controlled from central consoles. And when the laser dies, Laser Technics is an independent company which will repair or refurbish the equipment on site or in their workshops, utilizing a vast resource of technical knowledge and operational experience of laser sources and accessories for large and small lasers.

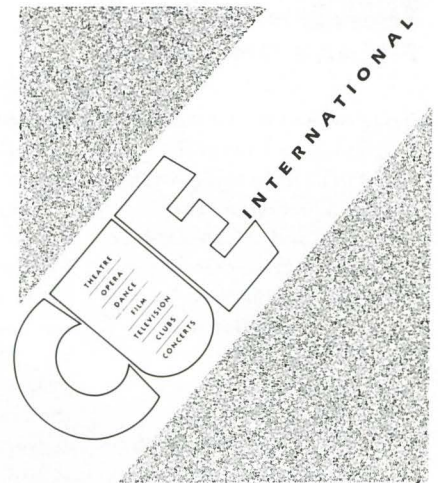
The huge array of equipment on show

### Light and Sound 89 proves that the leisure industry is willing to provide ever-increasing budgets to gain the attention of their clientele.

at PLASA Light and Sound 89 proves that the leisure industry is willing to provide ever-increasing budgets to gain the attention of their clientele. It is a pleasant side effect that some of this equipment provides exactly the solutions theatre professionals have been searching for as theatre production grows increasingly technical.

PLASA 89 also introduced a series of seminars on issues relevant to the lighting and sound industries. Experts from the field commented on such subjects as new equipment for disc jockies, the advent of the moving light, trends and new techniques in visual presentation, technology for touring productions, sound installations, and trends in interior design. These seminars offered show attendees an opportunity to meet and question industry leaders, as well as to see new equipment not on the exhibition floor. Peter Wynne Willson won everybody's heart with a small pair of prototype periscope fixtures. Almost like puppets, they move with a decided personality of their own, and can be controlled at will by a remote joystick. A human touch to today's technology.

P.S. Dates for PLASA 1990 — 9 - 12 September at Olympia 2.



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**FRANCE/PRODUCTION**

**FREAKS ON STAGE**

Based on Tod Browning's 1932 film about the lives of the characters in a circus sideshow, a stage production of *Freaks* premiered at the 1988 Avignon Festival. From there it moved to the Bouffes du Nord in Paris, the space that designer Laurence Forbin had in mind when creating the sets and costumes. According to Forbin, the idea to adapt the film for the stage was that of director Geneviève de Kermabon, who is comfortable working in the universe of the circus. "We have known each other since school," says Forbin, describing her relationship with de Kermabon, "and we often create projects together." For Forbin, the challenge in designing the 20 costumes for *Freaks* was to find the natural beauty in each of the characters, many of whom are played by non-actors in order to create the illusion of a real sideshow. "There is a beauty in each different morphology," says Forbin, "and even though some of these actors are missing arms or legs, they each have a personal beauty. This is what I

worked to bring out." A mainstay of any circus sideshow is the fat lady, for whom Forbin created a special costume to transform an actress to look like a woman weighing 400 kilos. "The actress had to be on the large side in order to carry this costume which is very heavy," says Forbin, who used multiple layers of polyurethane and latex mousse to pad the body, while the dress itself is made of satin and lace. The decor for *Freaks* evokes a circus atmosphere, although Forbin was careful to design a theatre piece which takes place in a circus and not simply replicate a circus ring. "We worked with lighting designer Alain Poisson to create a lunar effect in the lighting," comments Forbin, who wanted a night-like atmosphere with a certain feeling of obscurity, provided by light whose source is unseen. In accenting the most inventive, extraordinary elements in a circus, Forbin was able to let her imagination solve such problems as locomotion for a legless man. The production has toured

worldwide and continues this winter with dates in Naples, Italy (16 - 27 January) and additional engagements into the spring, including Glasgow in April of 1990.

ELLEN LAMPERT

■ Designer Laurence Forbin created a special costume for the fat lady in the stage production of *Freaks*. Multiple layers of polyurethane and latex mousse padded the actress' body, covered with a dress of satin and lace.

BERNARD GILHODES

**AUSTRALIA/OISTAT CONFERENCE**

**STAGE AS SPACE: OISTAT IN SYDNEY**

"Stage as Space," held 7 - 11 June, 1989 in Sydney, was the first OISTAT function to be held in the Southern Hemisphere. It attracted a wide range of speakers and delegates from all States, plus invited speakers from overseas, including Roderick Ham and David Cockayne from the UK, George Howard from the USA, Istvan Szlavik from Hungary, and Ernst Geidelbreht from the USSR. Over 100 Australian delegates were present, covering a wide range of occupations and interests.

An unusual feature of the conference was the use of a different venue for each of the three working days, each reflecting the theme for that particular session. This successfully gave all present an opportunity to see for themselves an example of each type of space being discussed.

Kicking off the conference, N.S.W. Minister of Arts Peter Collins announced the granting of A\$103 million (UK £42 million; US \$74 million) for the maintenance of the Sydney Opera House and talked of the government's support for the proposal to build a 1,600 seat opera/ballet theatre for the city. "I'm tired of hearing about professional companies bypassing Sydney because of the lack of a large lyric theatre," he told the crowd, adding that he hopes to see two such theatres in the city by 1993.

During the working session entitled "Contemporary Theatre Buildings", held in the Guthrie-style York Theatre at the University of Sydney, lecturers such as Serge Tampalini, John Morphett, Roderick Ham and Byron Harford spoke on a variety of topics including the psychology of productions, theatre marketing strategies, alternatives to traditional proscenium design, and the politics of regional theatre construction. After the

lectures, three set designers made presentations — Anne Fraser reviewing her 30 years of work for drama, opera and ballet companies; Casey Van Seville describing the difficulties of designing for a touring company; and Ernst Geidelbreht giving an eye-opening description of life in subsidized theater.

Day two was devoted to "Technical Theatre and Education." Held at the new home of the National Institute of Dramatic Arts, speakers included NIDA theatre designer Peter Armstrong, David Cockayne on British design training, Michael Pearce on audience viewpoint, and Mitsuru Ishii from Japan on theatres built in commercial buildings. Still others spoke on the difficulties of meshing building concerns with theatrical requirements.

"Recycling Old Buildings," the theme for the session held on the harbour at Wharf Studio, featured a speech by Vivian Fraser, who was responsible for the conversion of the wharf into an open stage auditorium for the Sydney Theatre Company. He was followed by Carrillo Gantner and John Beckett of Melbourne's Playbox Theater, who are currently converting an old malthouse into two theatre spaces; George Howard's descriptions of American theatres; this correspondent's speech on the trials of theatre consultancy in Australia; and acoustician Peter Knowland on the value of silence as a starting point.

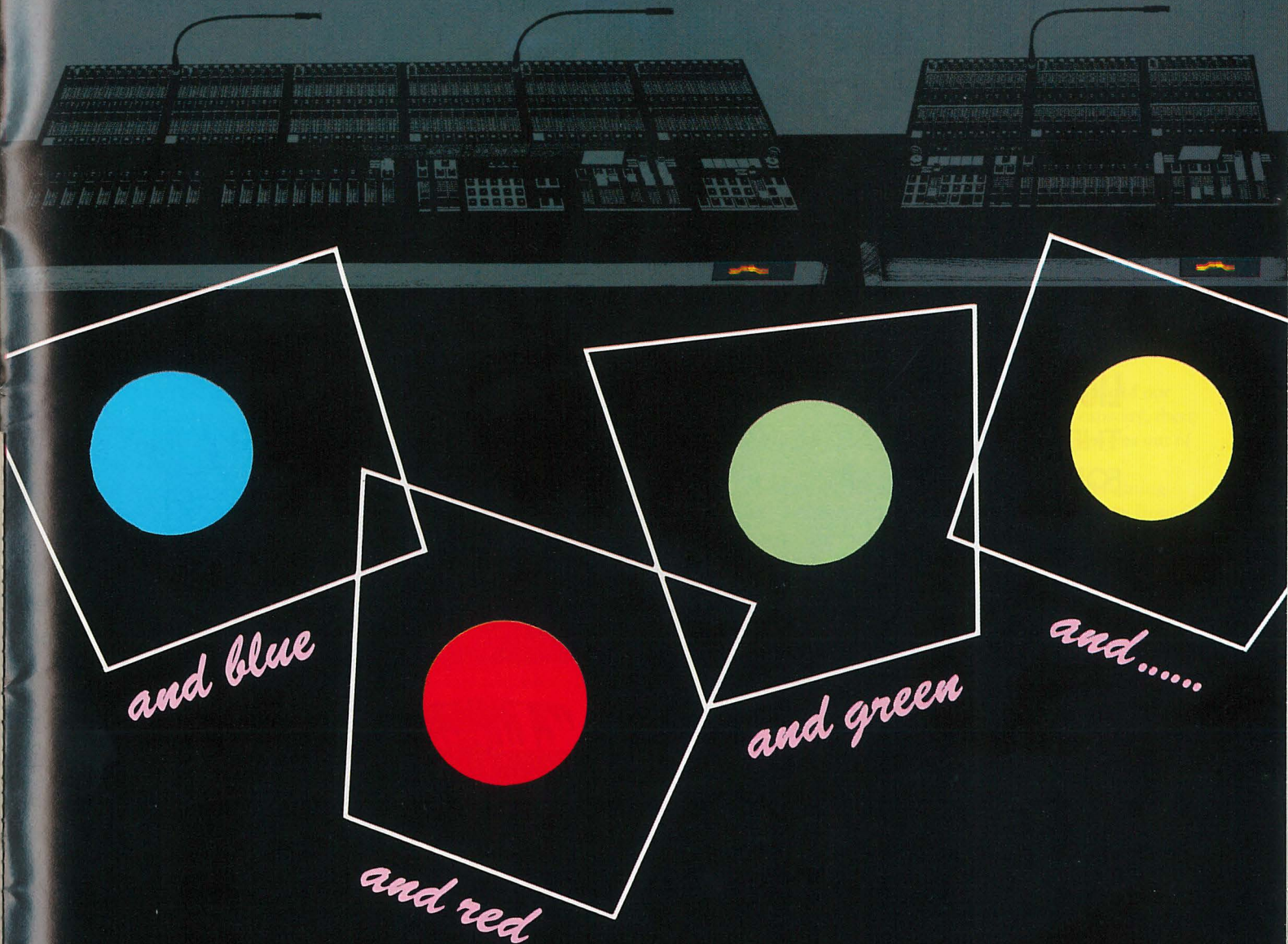
Summing up the four days of work, Christopher Allen addressed the continuing dilemma of economics vs. aesthetics — whether architecture should lead or follow and the difficulties of design briefs.

It can be reported that the conference was a success and that Australasia would benefit from more of these exchanges.

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*Celco. Enough said.*



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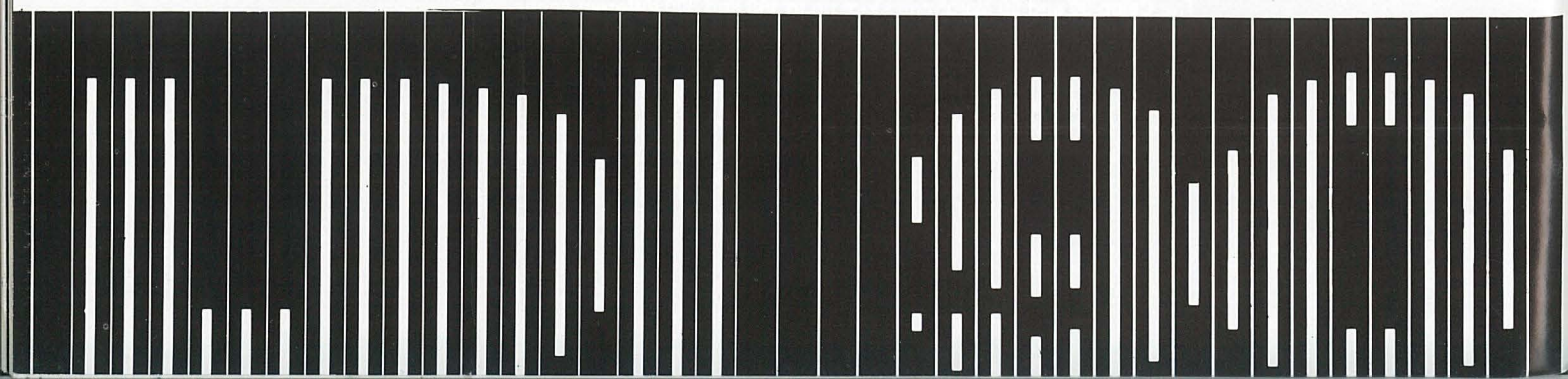
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**UK/ARCHITECTURE**

**DARLINGTON CIVIC THEATRE CLOSSES FOR EXPANSION**

The 82-year-old Darlington Civic Theatre, County Durham, has, for the past several years, been plagued with the kind of problem most theatres pray for. With average attendance running at 98%, and the highest average attendance of any theatre outside the West End, the 600-seat touring house is simply too small for its needs. Every week around 1,600 people are turned away from the box office. So, with a motto of "900 seats for the Nineties," the Civic is doing something about it.

Beginning February 1990, the theatre will close for ten months for a £1.4 million (US \$2.4 million) expansion. "We are adding 315 seats, new bars and cloakrooms, improved facilities for the disabled, a computerised box office, revamping the circle seating, and reopening the gallery, which has been closed for 20

■ Turning away 1,600 people a week, the Darlington Civic Theatre will close for ten months beginning February 1990 for a £1.4 million expansion (US \$2.4 million), adding 315 seats. Artistic director Brian Goddard hopes this will attract larger productions.

years," says executive director Brian Goddard. "We're simply doing such good business we need the seats!

"In addition, we're building an expansion to the building, demolishing five adjacent houses. We'll put a theatre entrance, the cloak room, restrooms, and the bar in this new wing." The design was conceived by the Durham County Council, who is

financing the project, in cooperation with Goddard.

Besides the obvious financial rewards to be reaped by a larger auditorium and larger ticket sales, the improvement will "increase the possibility of larger, more expensive productions coming in," says Goddard. "I think what I should be doing is bringing the widest possible range of entertainment to the

theatre, and because of our present seating capacity, there are classical companies out of our reach."

The sound and lighting control box will move from the gallery to the rear of the stalls. Improvements to backstage, which were part of a £2.5 million (US \$4.2 million) plan rejected by the Council, are not included in the present plan.

APS



**INTERNATIONAL BRIEFS**

**INSTALLATIONS**

Lighting Technology Group has supplied the lighting and special effects for MD's, a new disco in Belgium. Included in the package is rigging by Trilite, 16 Colour Pros from High End Systems, four PAR 56 Scanners, 80 meters of neon, a Jem heavy fog machine, a laser system with a 360 degree scanning head...Arri Ltd will be supplying 1,500 dimmers, one 500 channel and two 250 channel Arri Imagine control systems, and two Celco boards, to the Birmingham Convention Centre...Bangkok's newest nightclub, the Inter-Theque, has installed 14,000 watts of Celestion SR sound systems, including eight Celestion SR1 enclosures and eight SR2's.

**INTERNATIONAL/1992**

**EUROPEAN OPERA ASSOCIATION BORN**

United technical standards and the training of technicians for the lyric theatre are among the goals of a new pan-European Opera organization, The European Association of Lyric Theatres, which has charter members in 13 different countries. To best face the new united Europe of 1992, this new organization looks to define the function of opera, considered to be a universal language, in the Europe of the future, while at the same time propose a unified system of legislation and technical standards for Europe. The members will also seek to find concrete solutions to the problems of training of artistic and technical personnel for opera,

and facilitate the touring of works to different theatres.

After two preliminary meetings in September 1988 and February 1989, the new organization was born in Montpellier, France on 3 June 1989, with Henri Maier, general manager of the Montpellier Opera, as president. Other members of the board, elected for a one-year term, include vice-presidents José Antonio Campos of the National Lyric Theatre in Madrid and Tobias Richter of the Freien Hansestadt Theatre in Bremen, Germany. The next meeting of the organization will be held on 4 and 5 November 1989 in Lisbon, and the general assembly and annual board

meeting will be held in Madrid in January 1990.

Charter members include: the Welsh National, English National, and Scottish Operas, along with the Dublin Grand Opera Society; the Montpellier, Nantes, Lyon, Nancy, Rhin, Nice, and Marseille Operas in France; the Freien Hansestadt Theatre, Buhen der Stadt, Hamburg State and Badisches State Operas in West Germany; the National Opera in Brussels; the Kongelige Theatre in Denmark; the Liceu Grand Theatre and the National Lyric Theatre in Spain; the Théâtre de la Scène in Greece; and the Opera Theatres in Italy.

**YUGOSLAVIA/PRODUCTION**

**HEAVENLY PERFORMANCE**

When performance artist/director/designer Ping Chong decorated the stage of the theatres in Belgrade and Skopje, Yugoslavia this past September during his European tour, the critics credited his magical images to more than the workings of up-to-the-minute stage technology. While he makes his art out of the elements of sound, light, settings, and movement common to all theatre, the results are attributed to a brilliant imagination.

Chong was in Yugoslavia performing *The Angels of Swedenborg*, a theatricalization of 18th-century philosopher Emanuel Swedenborg's visions of Heaven and Hell, realized in a combination of dance, theatre, music, and audio/visual elements.

In *Angels*, a 20th-century yuppie, entrapped by technology, dreams of Heaven and fulfillment. Most of the play is

devoted to his visions. Chong has filled his stage with his idea of Heaven — a wooden corral filled with clouds of hundreds of feathers which stir and float when disturbed. A pack of angels, looking as if they had escaped from a 14th-century Italian painting, dressed in warm pink-brown costumes with laced-up cummerbunds, full-sleeved blouses, and skirts, and wearing wings and sweet-faced masks, enact little celestial dramas, disturbed occasionally by the wily advances of a huge green reptilian devil. In the end, our protagonist leaves his electronic workshop for the feathery world.

The sights and sounds are designed by Blu (lighting), Jan Hartley (audio/visual design), Brian Hallas (sound engineer), Mel Carpenter (costumes), and Chong and John Fleming (direction and choreography).

Director/designer Ping Chong created his idea of Heaven in *Angels of Swedenborg*, — a wooden corral filled with hundreds of feathers, and angels wearing billowing shirts and skirts and sweet-faced masks. His devil is depicted as a huge green reptile. The show toured Yugoslavia this past September.



JOE M. JEFFCOAT

**AUSTRALIA/SEMINAR**

**ISSUES IN DESIGN**

As Australia continues to build world class performing arts spaces, builders, architects, designers, and users are learning that the key to a successful facility is proper planning. That was the topic of conversation at the seminar, "Theatre Spaces: Issues In Design," held on the campus of the Australian National University in Canberra on 16 June 1989.

Principal speakers included architect Roderick Ham, Sue Natrass, general manager of the Victorian Arts Centre Trust, and myself, theatre consultant George Thomas Howard.

"Designing User-Friendly Theatre Facilities," which I presented, outlined essentials of both the backstage and front-of-house facilities and how they are interrelated; the advantages of different sized spaces; the relationships between various activities within the theatre; and the use of manual, semi-automated, and fully automated stage

equipment.

Ham's presentation, "The Theatre Design Team — How Does It Work?," discussed the relationship between clients, users, architects, and consultants. Both my and Ham's presentations stressed the importance of communication from client or user to the architect and consultant. If you want windows in the dressing room, say so. If you do not want windows in the dressing rooms, again, say so.

Natrass' presentation, "Arts Centers and The Community — The Benefits and Costs," described the operation and operational problems associated with arts centers — various uses of the spaces within an arts centre and their funding possibilities; the benefits to a community; government funding; attracting traveling bookings.

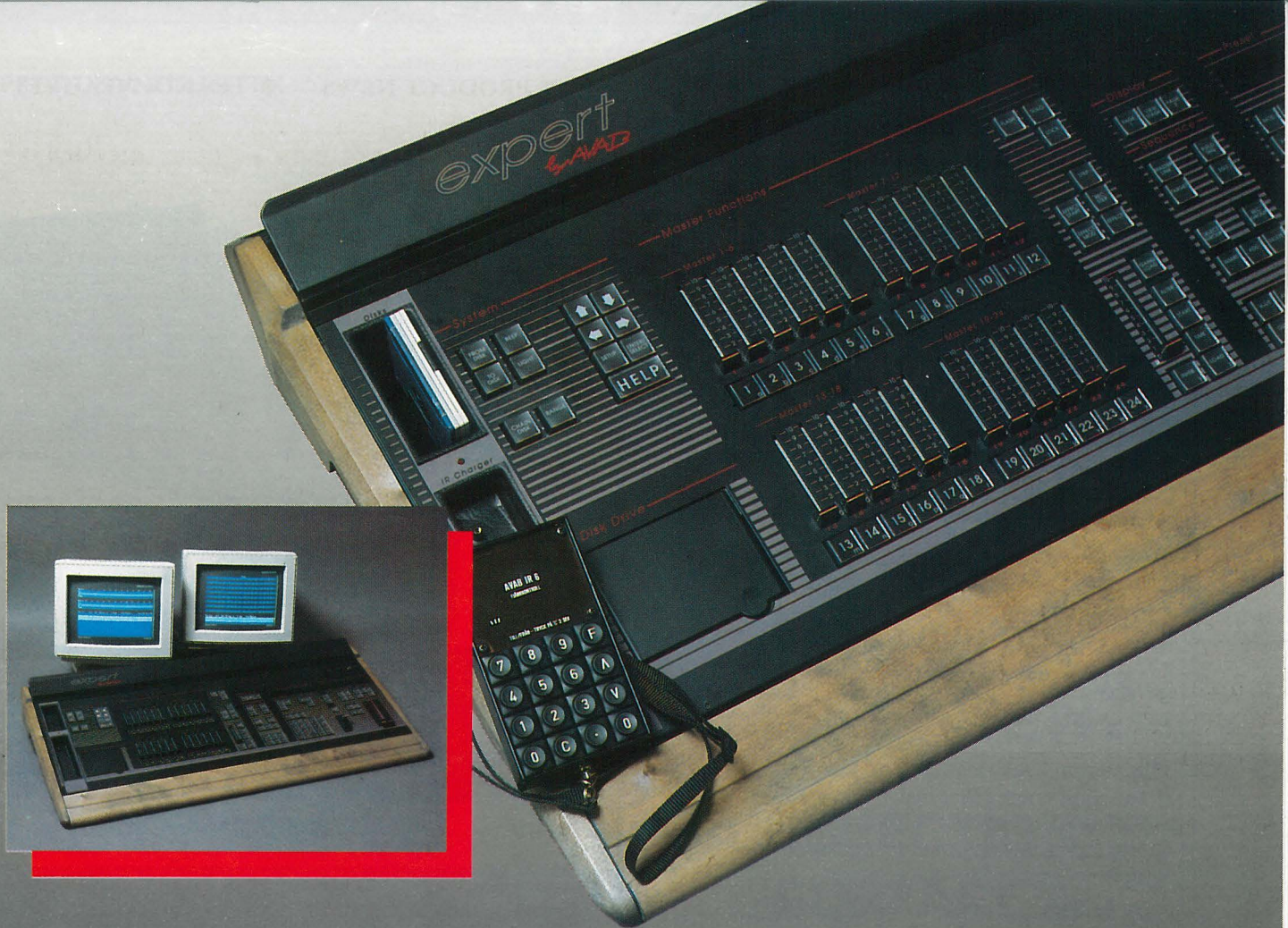
Each presentation was followed by lively and very beneficial audience discussions.

GEORGE THOMAS HOWARD

**UK/PROMOTION**

**ZERO 88 SENDS DINES TO NYC**

Imagine the surprise of Rick Dines from the BBC Lighting Department when he learned that he will be spending a weekend in New York City as the winner of a Zero 88 drawing at the 1989 ABTT Trade Show last May. Zero 88 teamed up with Virgin Holidays to offer a Broadway Break Weekend for two as a special introductory promotion for Zero 88's new Beta collection of power packs. Dine's December 1989 weekend in New York will include tickets to a Broadway show. *Cue International* editor, Ellen Lampert, drew the winning ticket.



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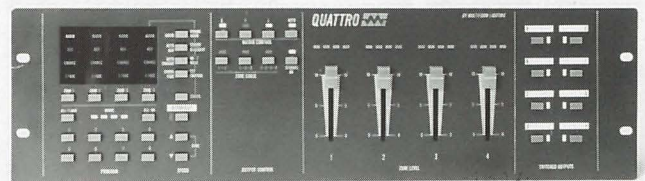
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3



5

1

#### 2000 - a lighting odyssey

Northern Light has launched their new Working Light Control system, System 2000. It is fully programmable and has been designed for use in stage areas and conference halls, to provide full control of all working and general lighting circuits. There are two standard racks with either 14 or 22 output contactors. Each rack is fitted with a logic controller programmed to client requirements prior to delivery. NORTHERN LIGHT, 39/41 Assembly Street Leith, Edinburgh EH6 7RG, UK. 031/553/2383.

programmable runs available with 16 steps each case. NEXON ELECTRONIK, Staatstrasse 64, 8888 Heiligkreuz, Switzerland. 0041/8527675.

3

#### A self-powered monitor

Carlsboro Electronics has introduced the PM65-100 self-powered monitor. It combines a 100w power amplifier, 6-band graphic equalization, and volume and input gain controls with a single 12" dual cone, high frequency range performance loudspeaker, to deliver 65 watts RMS. CARLSBORO ELECTRONICS, Cross Drive, Kirkby-In-Ashfield, Notts, NG17 7LD, UK. 0623/753902.

2

#### Twist and shout

Nexon Elektronik's Twist controller allows easy programming of spotlight position and on/off switching. A joystick brings the spotlight to the requested place. Data can either automatically or manually be recalled and executed. There are 16 freely

4

#### Product of the Year

Making dry ice is no longer the work of an alchemist, since Roger Ashcroft of A & B Theatre Services has started





2

distributing a portable dry ice maker, which was named as ABTT 89's Product of the Year. The machine turns liquid CO<sub>2</sub> into dry ice. The CO<sub>2</sub>, which is readily available in cylinders, is pumped at the rate of 50 lbs per square inch into a box. When the pressure ceases, the liquid turns into a gas which creates a cold atmosphere which turns it into a solid block of dry ice, ready for your favourite fog machine. In 40 - 60 seconds this device, without electricity or batteries, will produce a 800 gram block of dry ice. A & B THEATRE SERVICES, 4 Norwich Road, Wheatley Park, Doncaster DN2 4QD, UK. 0302/364808.

**5**

**Quattro means four**

The Quattro is a microprocessor based 4-channel, 4-zone lighting controller with low voltage outputs to drive Multipac and Switchpac slave packs. There are 16 output channels grouped into 4 dim-

mable zones of 4 channels. Each zone can run a different chase pattern. It contains an Autopilot button, allowing the Quattro to run automatically. MULTIFORM LIGHTING, Bell Lane, Uckfield, East Sussex, TN22 1QL, UK. 0825/3348.

**6**

**I'm floored**

Harlequin has come up with a cellular sprung floor, the Harlequin Allegro. The Allegro provides a considerable cushioning effect yet is firm enough for heavy use. It is constructed of a slip-resistant wear layer, a support layer that helps spread point load, a woven glass fibre reinforcement for strength and dimensional stability, and a tough cellular backing to absorb shock. It plays the dual role of a sprung floor and vinyl floor which quickly rolls out and lays flat. HARLEQUIN, Kent House, High Street, Farningham, Kent, UK, 0322/865288.

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# CARMEN A LACROIX

**P**erhaps the 150th anniversary of Bizet prompted the numerous productions of *Carmen* as "super-opera" during the summer of 1989. Following productions at Earls Court, designed by Stefanos Lazaridis, and at Bercy, designed by Pier Luigi Pizzi, a third larger-than-life production took place in the 1st-century BC Roman arena in Nîmes, France. Two thousand-year-old stone walls set the stage for a *Carmen* with sets and costumes designed by French style-setter Christian Lacroix, who created over 300 costumes including flamingo-pink toreador capes and flamboyant red flamenco dresses, with layers of lace appliquéd for a three-dimensional look. For Lacroix, designing for this large-scale production meant more attention to the shape of the silhouette rather than to the detail he puts into his *haute-couture* collections. Seamstresses Patricia Morin and Anne Carbière supervised the construction of the costumes in the Nîmes workshops of the Cacherel clothing company, whose owner, Jean Bousquet, is also the mayor of this Provençal French town. After just three performances in the Nîmes arena, Lacroix's costumes are in storage, and their fate is as yet undetermined. But *Carmen* has been a tradition in Nîmes since 1901 when the productions were complete with a staged bullfight, so 1990 might just see Lacroix back in the arena.



■ In the next issue:

A visit with British lighting designer Nick Chelton; news from Sweden's Avab lighting; the 1990s — a preview of the decade ahead; Hamburg prepares for *The Phantom of the Opera*.

● *Dans le prochain numéro: Une visite chez Nick Chelton, éclairagiste britannique; la luminescence nordique d'Avab; comment la ville de Hambourg se prépare-t-elle à la visite du Phantom of the Opera; les années 90 — la prochaine décennie.*

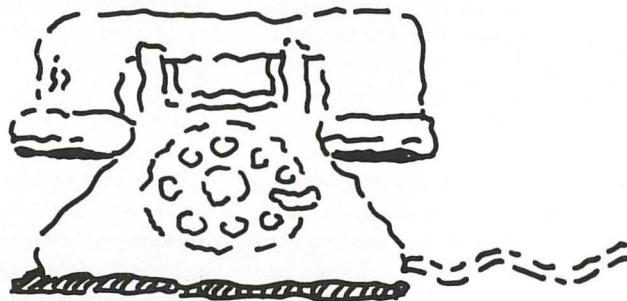
▼ In der nächsten Ausgabe: Ein Besuch beim britischen Lichtdesigner Nick Chelton; Neuigkeiten von Schwedens Avab Beleuchtung; die 90er Jahre — eine Vorschau auf das kommende Jahrzehnt; Hamburg bereitet sich auf *Phantom of the Opera* vor.

## AD INDEX

ADB Lighting Systems.....	19
Altman Stage Lighting...CV2	
Avab.....	45
Avolites.....CV3	
Butterworth Scientific Ltd.46	
Celco Ltd.....41	
Gerriets.....47	
The Great American Market.....5	
JCN.....2	
Lee Filters.....23	
LDI90.....42	
Morpheus Lights, Inc .....1, 18, 27	
Pan Command Systems Inc.....1, 18, 27	
P & G Draperies Ltd.....2	
Strand Lighting.....30	
Theatre Projects.....CV4	
Universal Manufacturing Co.....4	
White Light.....4	

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2. AEROSMITH ✓	115	1,379,912	\$22,096,003
3. GRATEFUL DEAD ✓	67	1,165,151	\$21,529,265
4. VAN HALEN'S MONSTERS OF ROCK ✓	18	783,143	\$19,843,283
5. DEF LEPPARD ✓	83	1,122,642	\$19,047,747
6. GEORGE MICHAEL ✓	47	548,700	\$17,341,073
7. BRUCE SPRINGSTEEN ✓	43	776,045	\$16,994,425
8. 'SOUTH PACIFIC' ✓	245	519,504	\$12,890,051
9. AC/DC ✓	68	769,152	\$12,519,305
10. WHITESNAKE ✓	60	715,918	\$12,033,353
11. BARRY MANILOW ✓	119	463,274	\$10,186,351
12. STING ✓	50	504,515	\$ 9,057,774
13. ROBERT PLANT ✓	45	529,183	\$ 9,056,011
14. INXS ✓	45	528,901	\$ 8,873,463
15. AMNESTY INTERNATIONAL: HUMAN RIGHTS NOW! ✓	6	265,632	\$ 8,744,784
16. MICHAEL JACKSON ✓	21	354,252	\$ 8,357,424
17. JOHN COUGAR MELLENCAMP ✓	27	419,341	\$ 7,337,372
18. MOSCOW CIRCUS ✓	109	509,748	\$ 6,932,368
19. ELTON JOHN ✓	17	287,856	\$ 6,361,084
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