

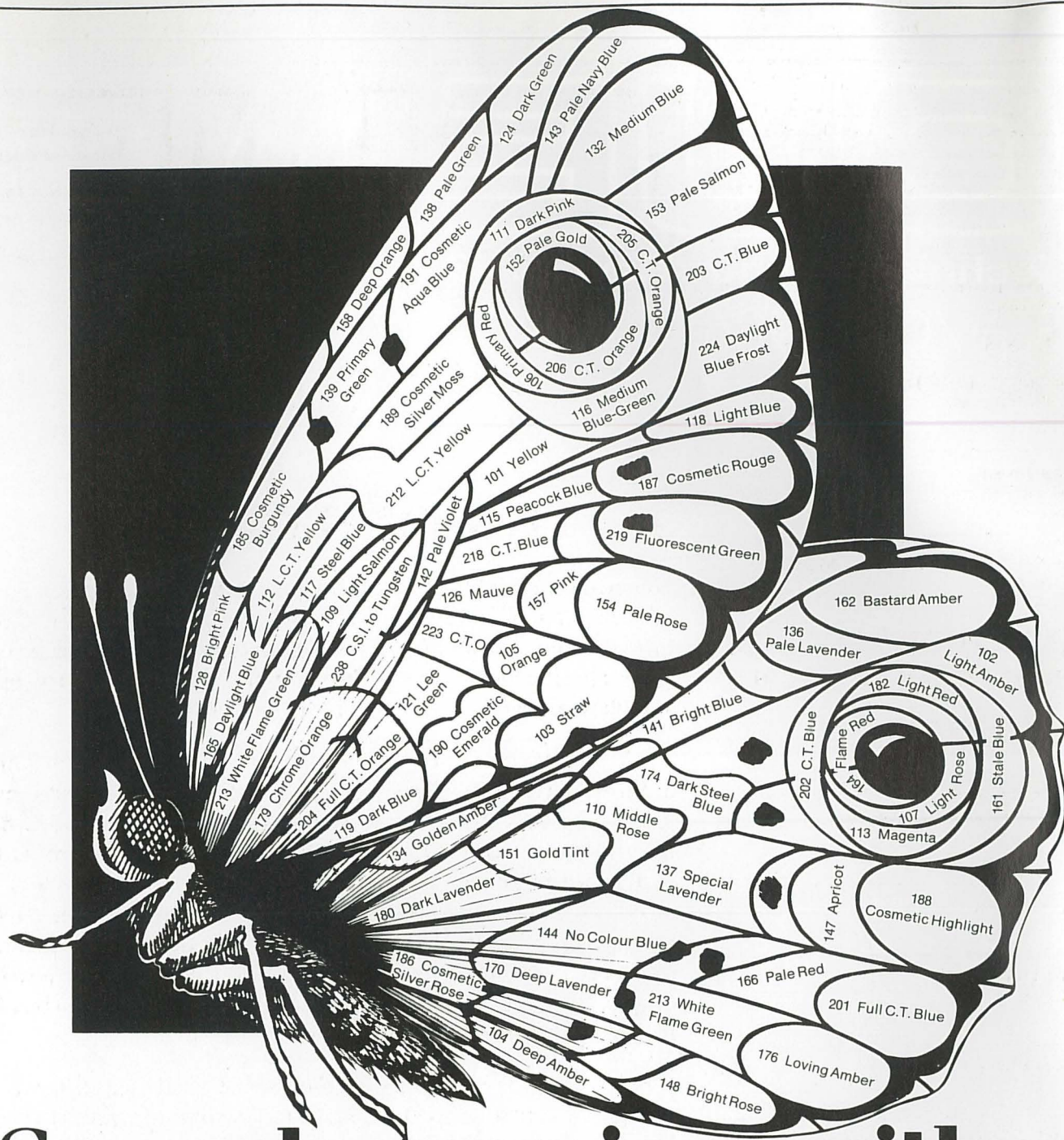
CUE

Technical Theatre Review 43

Sept/Oct 1986

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COVER

In the 4th scene of *The Rheingold* the rainbow, which is painted on a black scrim, magically appears when lit by a series of sharply shuttered ellipsoidal spotlights. The gods exit walking up an unlit hidden staircase behind this scrim rainbow, to their new home Valhalla. This final moment of the opera is very effective and it is nice to see the gods ascending through space in a believable and realistic manner. Photographs on cover and pages 29 and 32 by Siegfried Lauterwasser, courtesy of the Bayreuth Festspielleitung.

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COMING OF AGE

Somewhen around the turn of the sixties, the BBC produced a trio of specifications based on ideal rather than current realities. Carefully tailored to explore the feasible rather than merely fantastical, these specifications were offered to the lighting industry as a stimulant to their research and development.

Effects projectors, follow spots and profile spots were the three areas of challenge. While longer established firms could only discuss the schedule for incorporating this BBC initiative within their future research and development programmes, there was a firm down in Surrey who were young enough to be able to start prototype tin bashing immediately. They were already in the effects business, particularly with a spinning polarising disc which put movement into static polarised slides. This gave them access to the 'Top of the Pops' studio who were happy to be used as a test bed for pioneering experiments with CSI discharge lamps.

But it was their response to the profile challenge that was to change the course of spotlighting history so dramatically. Once the benefits of uncoupled zoom optics had been demonstrated, shrieks of *me too!* were heard from every corner of the international lighting industry—both makers and users. Soon Silhouette profiles, pioneering variable angles in their optics and extrusions in their mechanics, were to be seen festooned around our theatres; and the firm went on to pioneer everything from linear halogen floods to the Minuette fresnel, still unbeatable because everything about it is to the right scale.

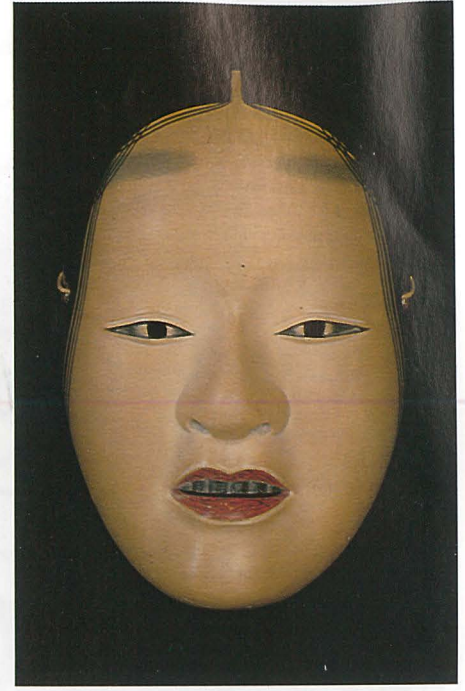
Well done, C.C.T., Cue congratulates you on your 21st Anniversary.



SHITADASHI-JIDO, a mask for youthful supernatural beings.



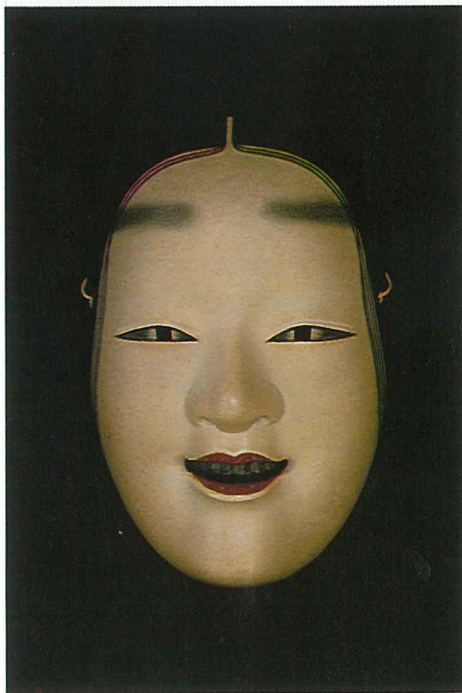
O-JISHI, a mask used for the golden maned legendary lion.



YASE-ONNA, a mask of an emaciated woman.

The Noh theatre of Japan

JOHN M BLUNDALL



MAGOJIRO, a mask of a young woman named after its creator.



HANNYA, a mask of a jealous woman who has become a demon, her intense rage symbolized by the horns on her forehead and her large mouth.



The Noh theatre is a highly stylised form of expression which is a composite of several elements, music, song, dance drama, scenic elements and props, exquisite brocade costumes, and haunting masks. The plays themselves are very simple and usually revolve around plots which include subject matter like love, revenge, pity, jealousy, and samurai spirit. In many cases the plots lack coherence and avoid the usual dramatic contrasts found in plays performed elsewhere.

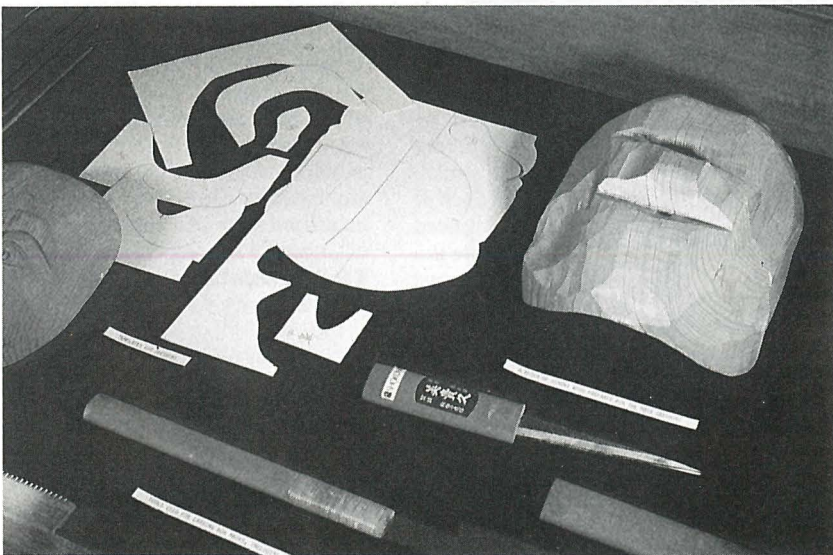
The Noh theatre is unique and it was Zeami Motokiyo (1363–1443) who brought Noh theatre to its flowering. Zeami was able to transform what had been essentially a country form of entertainment possessing ritual overtones into a remarkable total theatrical experience.

Zeami later went on to produce a series of documents in which he discusses the principles of the Noh. Not only do the documents tell us much about the early develop-

ment of the Noh during the middle ages, a development well grounded in all aspects of Japanese life and culture at that time, but they clearly outline the nature of the actors craft.

Despite the generally low status of the actor during the period, Zeami became a great celebrity. Very little is known about him except that he was a child actor in his fathers troupe, and by the time he was twelve, his talents were well developed and recognised. The recognition came from the Shogun Ashkaga Yoshimitsu (1358–1408) who was an important political figure and patron of the arts, and supported Zeami in his work.

Zeami's father died when he was twenty-two, leaving him to continue the family tradition. It was at this time that Zeami set down the experiences of his father and extended them with his own observations as a performer. The troupe enjoyed the patronage of the Shogun Yoshimitsu until his death



in 1408. After this time Zeami lost favour and problems continued until he was banished to the island of Sado in his seventy second year, in 1434. Just before his death in 1443 he was allowed to return to the mainland.

His writings were only intended for a small circle of his collaborators with the sole function of ensuring the passing on of professional matters from one generation of actors to another. He could never have realised therefore how widely read they would become so far beyond his homeland.

Noh as a classical dramatic art is often seen as being little more than a frozen tradition, and an ancient museum piece. But after six centuries it has slowly evolved into a major classical art form.

The Noh is performed on a special type of stage unlike any other. In the early days it was performed in temples and shrines and later a special stage was built out doors with the seating area for the audience in a separate building with an open area in between. Modern Noh stages are built with the stage area and the seating for the audience under the same roof, even so the white gravel area which separated the stage and the auditorium remains as a reminder of the original.

Noh dramas are depicted in song and dance combining a number of different elements. There is vocal music in the form of chant. Instrumental music provided by an orchestra composed of flutes and drums. Acting techniques consisting of actions, posturing and dances. The simple symbolic setting elements and props, exquisite brocade costumes and the haunting masks combine to provide a form of theatrical expression which is ancient and timeless.

Due to the complexity of the Noh drama it is best to respond to Noh drama on an emotional level and without intellect.

Thus for many it is the magnificent costumes and the inanimate yet infinitely expressive masks that will provide the greatest enjoyment.

It is Zeami's writings which provide the most substantial basis for research on mask carvers and the classification of masks. The Noh mask is an object of great beauty and value, and treasured by the great Noh families and institutions. Many of the masks used today date back several centuries, being handed down from one generation to another. The masks are unique and considered to be major achievements of Japanese art and culture, superior to any other type of theatre mask to be found anywhere else in the world.

Although Noh actors respect the nature of the mask as a work of art in its own right, they consider it wrong to treat it as something only to be preserved in glass cases in museums and temples. Noh masks are not mere objects and in no way can they be considered complete and effective until the actor works with the mask onstage, in performance, and with all other elements of the Noh performance. The more the mask is used in context, the more spiritual depth it acquires.

Over the years many great masks have been copied, in some cases to a degree where it is difficult to distinguish the original from the copy. Inevitably there have been poor copies but there have been cases where the skill of the copier has exceeded that of the original creator. It has always been a practise to make copies and it matters little if the copy or the original is used providing that it is totally expressive on stage, in performance.

Masks have been used in Japan throughout the ages in religious festivals and ceremonies and it is important to consider the various types of mask which led to the development of the Noh masks. The wearing of masks is generally believed to metamorphose the wearer into supernatural entities and deities, and endowing him with powers of a supernatural nature, both mental and physical. Gigaku is an ancient form of mask drama which came to Japan from China sometime during the 7th century. Some two hundred of the masks exist in Japan to this day. The masks cover the head completely and are carved from camphor or paulownia wood, or made from dry lacquer. The Gigaku was superseded by Bugaku, a dance drama performed with or without masks. The masks of the Bugaku are smaller than those used in Gigaku, they cover the front of the face but are larger than the Noh masks. Paulownia, Japanese cypress or cherry wood is used, and a higher degree of carving and finishing is seen.

The next development is seen in the Buddhist style faces of saints and deities of Gyodo, a ceremonial Buddhist procession using masks of a finer quality and their influence is most clearly seen in the masks of the Noh.

Another form of performance is known as Mibu Kyogen and found in the Mibu Temple in Kyoto and uses masks similar to those in the Noh. The temple possesses a fine collection of such masks, some of them created in the fourteenth century.

There are some two hundred and fifty types of Noh masks divided into five main groups—vengeful spirits, deities, men and women and demons, the demons, literary demons—symbols of human passion, expressing the essential traits of the character that they represent. There are times when the mask is not used, in which case the actor—there are no females in the Noh—must keep his face completely immobile and expressionless—it is the mask and not the actors face which is the essence of the character.

A variation of main types is the Okina mask, which is said to have existed in the tenth century. Okina masks have a special name 'kiri-ago'—cut jaw and differ from the Noh mask, which is one-piece and inaminate, by being constructed in two pieces that are divided at the mouth line and joined with rough string. Some also have pompom like eyebrows and long wispy beards, all of them have expressions of happiness and contentment. The Okina mask is the only mask in the Noh theatre which is put on while on the stage.

Some of the most beautiful masks are those of the female characters. The faces of the young and middle-aged women superficially appear to be the same, on closer examination it is six different hairline styles which distinguish one from another.

At the present time there are many professional and amateur sculptors of Noh masks, some of them priests, all of them devoted to the preservation of an art form which reflects the highest achievement in Japanese art and culture. The master Ujiharu Nagasawa is the leading influence on many of the new generations of masters, among which the most important are Hisao Suzuki and Nohzin-Kai. This group under the leadership of Suzuki is devoted to the preservation, development and popularisation of the Noh masks internationally, and it is the work of Suzuki and his students which is currently touring the UK after its opening at the Midlands Art Centre in Birmingham.*

The carving of the Noh mask or, as the masters prefer, the striking of the mask, starts with the selection of the wood. The word to 'make' is never used. The Japanese word used is 'utsu' meaning to carve and imbue one's spirit into the mask being created. The carving and painting of the mask creates a unique object which is the product of a strict discipline following traditional laws—it is a strenuous and demanding experience, fulfilling and rewarding.

The selection of the wood is of prime importance. Most of the masks are carved from the rare Japanese cypress—hinoki. It is used due to its great durability, its fine grain, and light colour. The wood must be well seasoned but not completely dry. Careful selection is critical to avoid later warping which would distort the expression of the finished mask. It is not uncommon for the master to carve the mask allowing for possible warping, particularly in the delicate female masks. Hinoki possesses a remarkable fragrance which, in itself, gives pleasure and inspiration during the carving of the mask.

Many of the tools used are peculiar to Japan and made of a special alloy of soft iron and steel made only in Japan, often by masters of national importance. Then there are long handled, double edged saws which cut on the back stroke and eliminate much of the strain and energy wastage experienced using conventional Western saws. There is a vast range of chisels used, each one sharpened to a highly polished, razor sharp finish on Japanese water stones.

First the general shape of the mask is cut with a saw and large chisels, this is followed by the roughing out of the features with medium sized chisels, the small detail is

then cut with finer chisels. At this stage the inside of the mask is hollowed out. The earlier stages of carving the mask are carried out with the master sitting on a based board to which a block of wood is fixed, the block of hinoki is gripped against the wood with the feet. During the carving a series of card templates are used to check the mask at the various stages of development, this is to ensure the preservation of the correct shape and character of each feature and the mask as a whole.

The Noh mask can take as long as three months to make. On completion of the carving process and before painting the master will contemplate the mask, looking at it from various angles and drawing in the detail for the final painting.

The painting of the mask begins with the preparation of a unique form of gesso which is made by finely crushing oyster shells and mixing the powder with a refined glue made from the bones of a small Japanese deer. Some thirteen coats of this mixture is applied to the mask laying it on with a wide brush moved across the face in one direction. This base, when completed, must be allowed to dry thoroughly. It is at this stage that hammered out brass eye and teeth covers are made and carefully applied to the masks of characters requiring this type of detail.

Final colour and detail painting is now applied. Some masks require an additional coloured ground, this is produced from traditional pigments and metallic additives. Hair, whiskers and other black details are painted on with ink produced by grinding ink sticks in water on an ink stone.

The long process of producing the Noh mask is now complete. A fine silk cord is attached to the mask through specially prepared holes in the side of the mask, this will be used by the actor to tie the mask onto his head. Finally the mask will be carefully put into a fine brocade bag and additionally a wooden box. Now the mask is ready for delivery to the actor.

The forty masks which make up the current exhibition are fine examples of an ancient art preserved with great understanding and respect. The Nohzin-kai hopes that it will contribute to the greater understanding of Japanese art and culture by British people. At the closing of the exhibition at the Japanese Gallery in London all of the masks are to be auctioned, this is the express wish of the Master Suzuki and his pupils. The proceeds of the sale will be donated to a British charity for children.

*The exhibition was organised by John M Blundall, Director Cannon Hill Puppet Theatre, The Midlands Arts Centre, Cannon Hill Park, Birmingham 12, himself a student of Suzuki, and Chris and Mieko Wertheim, The Japanese Gallery, Camden Passage, Islington, London.

STAGE DESIGN

DAVID FINGLETON

The Bolshoi Ballet brought over their less exciting designs this summer
□ Leningrad's visit to Edinburgh lacked a suitable theatre to display their wares □ A genuinely Japanese offering by the Banyu- Inroku at the ICA □ Michael Clark and Company, inventive and depressing by turn
□ Atmosphere and drama in the land of the Snow Queen □ Two lavish revivals at the National Theatre.

With the Bolshoi Ballet at Covent Garden and the Opera Company of Leningrad's Maly Theatre at the Edinburgh Festival, this was a distinctly Russian summer. But sadly neither company was seen to best advantage on their visits here, though for different reasons. The Bolshoi, led by their Artistic Director Yuri Grigorovich, brought four full-length ballets to Covent Garden — *Ivan the Terrible*, *Raymonda*, *Spartacus*, and *The Golden Age* — all choreographed by Grigorovich and designed by his regular collaborator, the venerable 77-year-old Georgian, Simon Virsaladze. Thus there were no examples of their more exciting modern repertoire of short ballets, such as the two I saw when I was at the Bolshoi in Moscow early last year, both of which offered modern, excitingly stylised design and highly enterprising lighting.

In London I saw *Raymonda* and *Golden Age*. *Raymonda* had all the hallmarks of Virsaladze who was Chief Designer at the Tbilisi Ballet over half a century ago. It was hard to believe that this production, with its permanent and depressingly heavy painted backcloth of a French chateau had first been seen in Moscow as recently as June 1984. It may have evoked the spirit of the great Marius Petipa who first staged the ballet at the Maryinsky in Leningrad in 1898, but today it lacked style, grandeur and any spirit of adventure: a depressing affair.

The *Golden Age* was a rather better example of current Bolshoi design. Dating from 1982, this Grigorovich scenario replaced Vainonen's original which set Shostakovich's fine, early score to the story of a Soviet football team on a visit to a trade fair in Western Europe. The new version is firmly restored to the Soviet Union, in 1923, and concerns a young fisherman at a seaside resort who falls in love with the lead dancer at a decadent local night-club. But at least this scenario gives Virsaladze the opportunity to evoke his own period, the Twenties, and to present scenery, again comprising painted cloths, imbued with the spirit of cubism and early surrealism. They made a strong impression, as did his admirably accurate 20's 'flapper' costumes, and bobbed hairstyles. But it would be agreeable to hope that next time the splendid Bolshoi company come here they might bring some works with choreography and design by other hands than those of Grigorovich and Virsaladze.

The Maly Theatre of Leningrad's visit to this year's Edinburgh Festival was unhappy for different reasons. The company's stage in Leningrad is double the size of the King's Theatre's in Edinburgh, and that theatre is in any case clearly hopelessly inadequate for the staging of three different operas in one week. But until Edinburgh's city fathers finally decide to fill the hole in the ground behind the Usher Hall with a new opera house — and it's a decision which becomes infinitely more expensive the longer it's delayed — opera and ballet companies will continue, if they are prepared to come, to have to use such manifestly unsuitable auditoria as the King's, or the even less practicable Playhouse, a converted cinema, to attempt to display their wares. The result, as far as the Maly was concerned was total confusion: botched scene changes and lighting cues, shaky hand-held follow-spots, blind areas of the stage, in fact everything to reduce appreciation of their

productions to a minimum. Yet two of the operas they brought, Tchaikovsky's *Queen of Spades* and *Eugene Onegin*, had fine imaginative productions from the Maly's current director, Stanislav Gaudasinsky, and interesting settings and costumes from Simyon Puskukh and Galina Salanyova. *Eugene Onegin* in particular, with its fine gauze curtains superimposed with Pushkin's manuscript of the original poem, was a splendidly imaginative staging, with Tatyana's letter-scene in her bedroom spied on through a semi-circular upstairs window: a masterstroke. Costumes too were admirable: impeccably in period for Pushkin and immensely sensitive to social hierarchy and town and country. Given a suitable theatre I have little doubt that both productions would have been acclaimed instead of receiving the almost universal condemnation that was their undeserved fate. The finest opera house in the world could have done little or nothing for Sergei Slonimsky's truly



The Maly Theatre of Leningrad's production of Tchaikovsky's *Eugene Onegin* at the Kings Edinburgh. Director, Stanislav Gaudaskinsky. Settings and costumes by Simyon Puskukh and Galina Salanyova. Photo, Alex Wilson.

dreadful *Maria Stuart*, over which it is kindest to draw a veil.

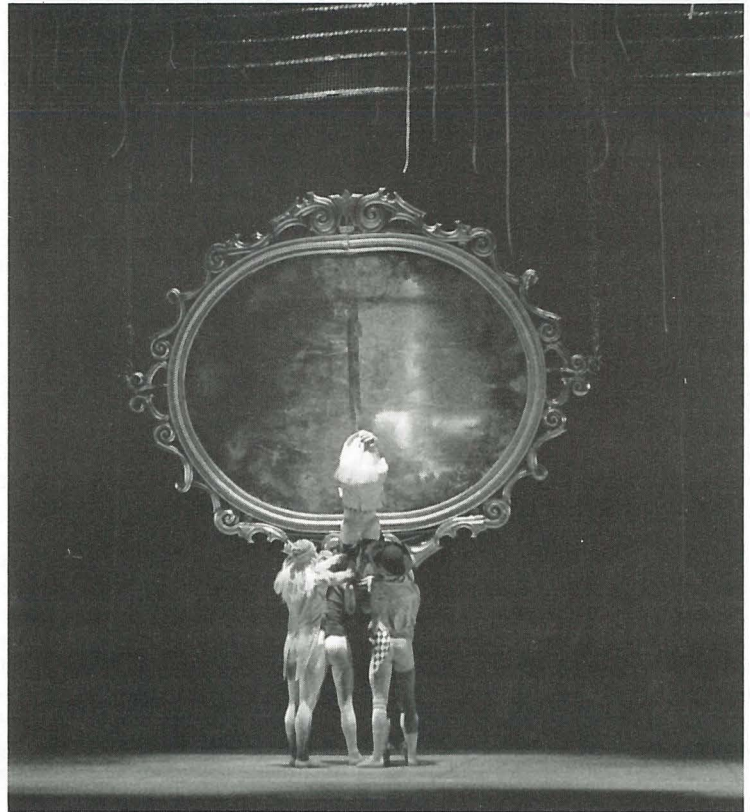
At the Playhouse the visitors were from Poland: the Ballet Company of Warsaw's Great Theatre in another less than happy visit. Here we had to contend not only with the wide, but hopelessly shallow, stage, but also with the fact that this was one of the company's less successful productions of a full-length ballet. They would have preferred to have brought their *Swan Lake* or *Giselle*, but the Festival management had insisted on *Sleeping Beauty*, whose designer, Jadwiga Jarosiewicz, has not worked with the company either before or since. The result was that some of the scenery got left behind in Warsaw, and what was brought to Edinburgh was pretty ordinary, clumsy and unsubtle. The production aimed at a return to Petipa, and certainly we saw a 19th century narrative ballet, rather than a late 20th century blockbuster, but the whole enterprise seemed to lack style, which had, I suspect, also been left in Warsaw.

Back in London a visit by the Tokyo Ballet to Covent Garden brought Maurice Bejart's *The Kabuki — 47 Samurai*, based by Bejart upon traditional Japanese kabuki, but using one of his regular European designers, Nuno Corta-Real whose Japonaiserie came across as thoroughly ersatz. The designs, like Bejart's choreography, missed both the delicate precision of Japanese art and the extravagant thrust and splendour of Bejart at his best: there is little to be gained from going only half-way over the top. Far more exciting, and genuinely Japanese, was *Suna*, brought to the ICA from Edinburgh's Assembly Rooms by the Banyu-Inroku experimental theatre group. This non-stop 90 minute melange of Kabuki and avant garde, tradition and high-tech offered one thrilling stage picture after another, backed up by some magnificently inventive lighting,

superb projections and a literally stunning sound system. One had to keep eyes and ears pinned back to catch everything, and it was worth it.

Avant garde design for dance was also to be found at Sadler's Wells Theatre to which Michael Clark and Company brought his latest work, *No Fire Escape in Hell*. Clark,

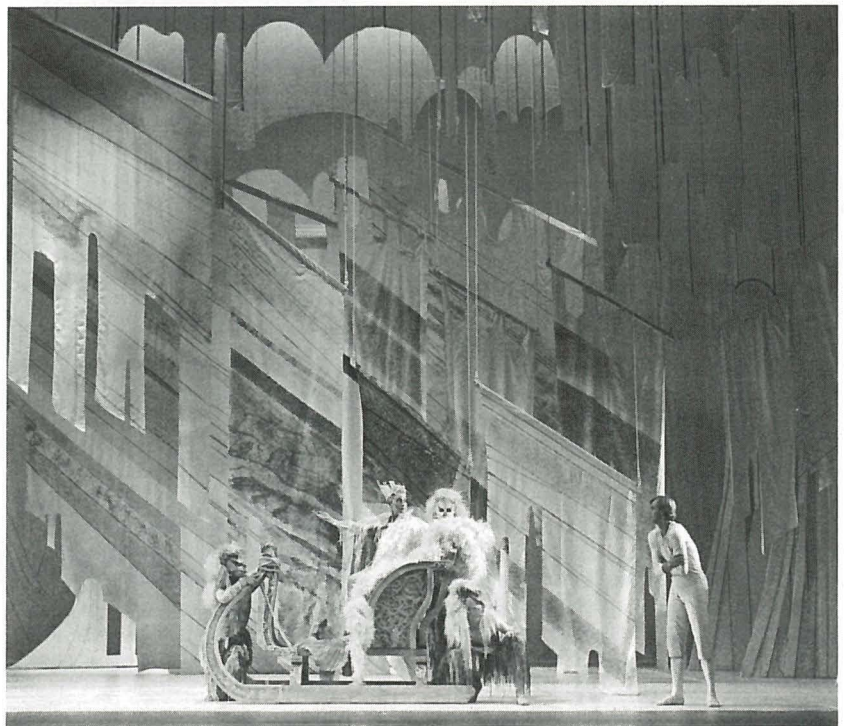
like his designers, BodyMap and Charles Atlas, is a maddening mixture of inspired inventiveness and depressing juvenility. Some of the costumes and concepts, such as a dancer in tutu with four legs, or a tent-like woman giving birth to a succession of children, are brilliant, dildoes protruding from skirts and pudenda crudely painted

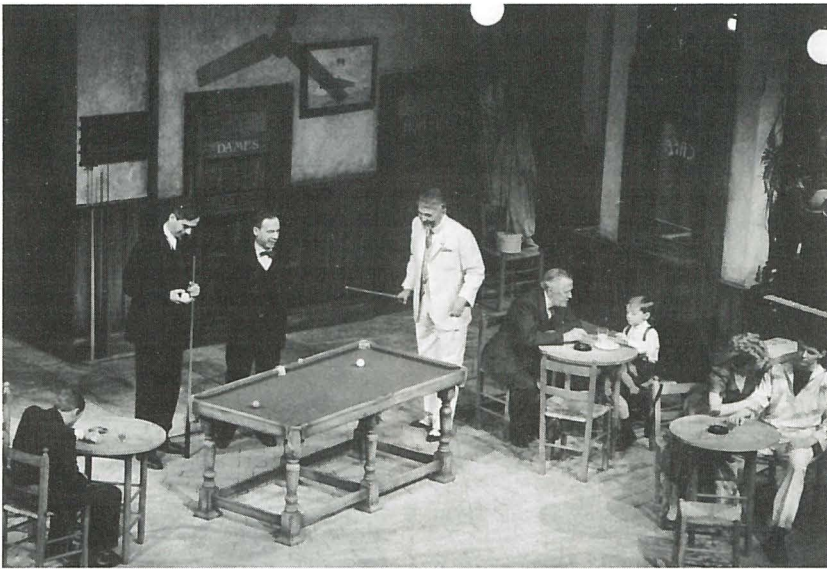


David Bintley's full length ballet *The Snow Queen* by Sadler's Wells Royal Ballet at Covent Garden. Designer, Terry Bartlett. Lighting by John B Read Photo, Leslie E Spatt.

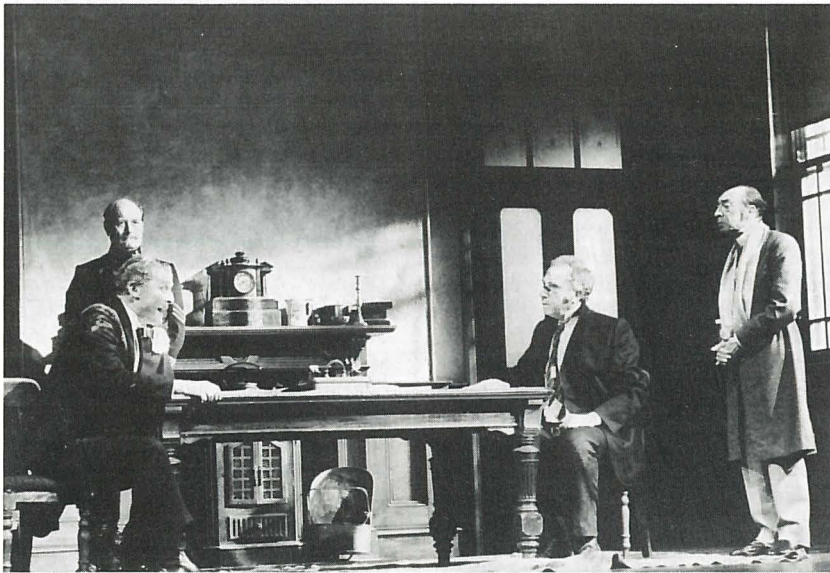


Avant garde design for dance at Sadler's Wells. Michael Clark's latest — *No Fire Escape in Hell*. Designers, BodyMap and Charles Atlas, Photo, Richard Haughton.





Jacobowsky and the Colonel at the Olivier. Directed by Johnathan Lynn, Music by Frederick Chopin. Designer, Saul Radmosky. Costumes, France Tempest. Lighting, Robert Bryan. Photo. Ivan Kyncl.



Pinero's *The Magistrate* at the Lyttelton. Director Michael Rudman. Designer, Carl Toms. Lighting by Leonard Tucker. Photo. John Haynes.



on leotards altogether less so. Much of the dancing, especially Clark's own, and Charles Atlas's lighting, were excellent, and Clark himself is still very young. When he grows up I have no doubt that he will have even more to offer.

Sadler's Wells Royal Ballet had a season at Covent Garden during which a first London showing was given to David Bintley's new full-length ballet, *The Snow Queen*, premiered earlier this year in Birmingham. Clearly the combination of Bintley and designer Terry Bartlett is a highly effective one, and this is their fourth collaboration in the past five years. The three act, plus prologue, ballet is based on the Hans Christian Andersen story and Bartlett has provided it with four different settings, all with a highly persuasive Russianness, which could fairly be called the stars of the show. There is a feeling of Petrouchka and Goncharova about the first act Winter Solstice Fair, and of Nijinska's *Les Noces* in the betrothal party at Garda's home in the second, but neither are the worse for that, detail is admirable, planning of space exemplary and costumes striking. Then comes the land of the Snow Queen herself, where Bartlett speaks entirely with his own voice, and to enormous effect: his striking assembly of flown cloths around a central throne is magnificently atmospheric and dramatic, and exquisitely lit by John B. Read. This is a production that will undoubtedly give immense pleasure as SWRB tour it around the country, and the team of Bintley and Bartlett deserve congratulations.

At the National Theatre Saul Radmosky has provided half a dozen impressively detailed, highly naturalistic settings in the Olivier for the revival of Werfel and Behrman's *Jacobowsky and the Colonel*. They are all good to look at, and, apart from the odd schoolboy error in French spelling and genders, convincing down to the last detailed trimming. But for what, one wonders; does this amiable but rather ordinary 1940's Broadway comedy really merit a revival at all, and if it does, does it need to be in the vast Olivier auditorium and at such obvious expense? It must leave directors and designers in small theatres where subsidies are measured in hundreds, rather than hundreds of thousands, grinding their teeth in despair. Similarly lavish, but better justified, is the recent revival at the Lyttelton of Pinero's *The Magistrate*, for at least it is a superb farce, and part of our national dramatic heritage. Carl Toms' lovingly detailed and accurate designs of a Bloomsbury drawing room, a louche Mayfair hotel, and the Magistrates' room at Mulberry Street Police Court never put a foot wrong, are impeccably lit by Leonard Tucker, and inhabited by people on whom Toms' costumes sit as though they wear them every day. This a masterly revival which gives immense dramatic, as well as visual, pleasure.

The Royal Shakespeare Theatre Museum

FRANCIS REID

The creation of the **Swan Theatre** within the shell of the original Memorial auditorium has brought a renewed vitality to what was once known as the **Gallery** but has become the **RSC Collection**. Anywhere else in Europe it would be called the **RSC Museum** but our institutional theatres, in their desperation to mirror contemporary life rather than question it, are obsessed with the hocus pocus of marketing—to whose strategies the use of euphemism is fundamental. But, fellow theatric tourists who like museums and galleries, do not be put off by the attempt to make history sound more lovable—this collection is a jolly interesting museum.

The gallery formed a foyer for the original Memorial theatre but escaped the fire; it has now been incorporated into the approaches to the new Swan. This brings a renewed focus to the Victorian Gothic frontage of the original building. Indeed, on non-matinee days, this rather than the art deco facade of the main house is the centre of activity. The main foyer is basic stuff: box office and current publicity. But the Swan/Collection foyer has a browser's bookstall and there is a dressing up skip to transform young Damien into Hamlet—one for the family album, even if Trevor Nunn does not happen to pass through and spot the talent.

Stages and Staging is the theme of the current exhibition assembled from the RSC archives. It is intended for a longish life—just how long will doubtless depend on response and finance. Logic would seem to favour maintaining the current historic journey through the development of Shakespearean staging, with perhaps some changing seasonal emphasis towards the plays currently in the repertoire.

With restricted space, the demands of circulation, and a legacy of paintings with an established right of wall, there must have

been some temptation to adopt a display technique based on a few evocative significant objects. (This, after all, has been the basis of fashionable scenography in recent years.) However curator Brian Glover has wisely opted for a montage of details which are individually interesting yet also build up into an overall atmospheric impression. As a result the display offers satisfaction to a wide range of visitors from the casual wanderer to the browsing buff.

The route of this historic journey through stages and staging is described as 'from Mediaeval booths to the revival of the open stage in our own Swan theatre'. Wherever possible it is a Stratford story. Quite right. When one is in Stratford, one is focussed on their relationship with Shakespeare. The more parochial the exhibits, the more interesting they are—with just enough of the outside world to fill out the story prior to Shakespeare and between Shakespeare and Flower. However the exhibition does include, as a reference framework, an encapsulated general history of our theatre—mostly conveyed through photocopies of the main standard images familiar from the theatre history books.

There are coloured markers to guide the visitor through the exhibits. They did not work very well for me—my eye kept catching sight of interesting artefacts that I just had to dart off to see. Which theatre archaeologist could fail to be excited by the brass plate from the control panel for the 1932 machinery for the lifts and rolling stages. That these rolling stages were miscalculated in relation to the wing space just makes them even more interesting. And I am always ready to accept captions like 'These were presented by David Garrick in the belief that they were Shakespeare's Gloves'. After all, Garrick was born only a century after Shakespeare's death whereas over two



centuries separate us from Garrick's death.

But the formal path through the exhibition starts with *Mediaeval Europe* whose pageant wagons, jugglers and acrobats provided the basis for Shakespeare's growing up in *16th Century Stratford* close to the religious plays in Coventry and the lavish entertainments in honour of Queen Elizabeth's visit to Kenilworth. When Shakespeare went to the capital, the great playhouses like the Swan and the Globe shared *London's Bawdy Bankside* with taverns, brothels and bear baiting pits. But this was for *London's Open Air Stages—A Golden Age* with their large stages jutting out into a circular building, open to the sky, attracting audiences from all walks of life to the afternoon performances. The exhibition's model stage illustrates the close



CCT at 21

BOB ANDERSON

Twenty one years ago, on the 6th September 1965, Colin, Colin and Terry put their initials at the head of their notepaper and registered themselves as a limited company to formalise their hopes of finding fame and fortune hiring out stage lighting equipment in south London. They found the going was tough and before long, with liabilities mounting steadily, they had to bring in outside help. The result was that, somewhat to his surprise, Don Hindle left the world of publishing and became Managing Director of CCT Ltd. This happened in June 1968 and, whether by luck or judgement, Don was able to reverse the company's fortunes and bring it into profit inside 18 months. Don has been Managing Director and firmly in control of everything the company does ever since.

Halostar

Lighting hire and designing contract exhibition stands remained the company's basic business for some time but, realising the fickleness of production managements and the strength of the competition, Don soon decided that CCT should try its hand at manufacturing. Experience had shown them that a better, brighter scene projector would be widely welcomed and they also knew that Thorn were looking for uses for their newly developed 400 watt CSI lamps. So, in the back of the lock-up garage where most of their lighting stock was stored, Bob Deichen put together the Halostar, the first and still the only low cost lamphouse for these lamps for scene projection. Designed to use the range of Strand lenses and effects, the extra light available from this projector, now updated to 1000 watt, was immediately welcomed by the television companies and so began a long and profitable life on regular rental.

Silhouette

Following this success the CCT team turned to mirror spots. Back in 1971 the best known 1000 watt mirror spot was the 20

degree Strand Patt 264 using the T4 cap-up lamp. Again, CCT spotted the imminent arrival of new technology from the lamp industry, the T9 halogen lamp, and added ideas of their own, a simple zoom lens, interchangeable lens tubes and a pull-out lampholder. The result was the Silhouette family. These first Silhouettes were painted blue and had a perforated sheet metal lamphouse with a deep parabolic reflector shaped to a patented design. The lamp, one of the first quartz halogen lamps to be used in theatre, had a GX 9.5 miniature base that fitted into a holder that pulled out from the bottom of the lamphouse, disconnecting itself from the mains supply by means of a simple plug and socket in the process. The zoom lens used pairs of standard plano-convex glasses with separate focus adjustment to give hard focus over an angular range of about 1.5 to 1. Different lens tubes offered four basic angles from 15° through 20° and 30° to 40°. The field was evenly illuminated and gobos focused fairly well over the full 3 inch diameter gate. Squaring shutters were either detachable with handles that stuck out at top or bottom only or, for special customers, a cassette containing locked-off shutters could be used for repertoire work. Naturally, not everybody welcomed such an innovative design but television found the even illumination and zoom focusing ideal for gobo projection and this, again, was the market that nursed the fortunes of the new range and also those of the fast growing young company.

National Theatre

Another 'godparent' for CCT's fortunes at this time turned out to be the National Theatre. In 1975, with the building nearing completion, the order for lanterns had been put out to tender against a specification from theatre consultants, Theatre Projects led by Richard Pilbrow. The bids and TP's recommendation favoured the CCT offer and the contract for over 300 Silhouettes complete with repertoire cassette shutters was awarded accordingly. The following year CCT won the contract for the Sydney Opera House. Now the theatre professionals had to take notice and one by one designers and managements discovered the merits of the new CCT products and, incidentally, the advantages of having a little commercial competition in the business.



relationship between actors and audience which is echoed in Stratford's new Swan. When theatre was restored, with the monarchy, after the Puritan closures, the 17th-18th Centuries developed a smaller indoor theatre whose intimacy was followed by *Lavish Victorian Spectacle* with pictorially extravagant productions framed by a proscenium arch. This period includes the founding by Charles Flower in 1879 of the Shakespeare Memorial Theatre with its library and (this) picture gallery. Destroyed by fire in 1926, the rebuilding brings us to the time of *A New Theatre in 1932 and the RSC Today*.

Inevitably the last two are the sections which have most fascination for the theatric tourist who already knows the basic bones of theatre history. The material from Victoria onwards is rich in Stratford associations whether it is performances captured in paintings, recorded in printed ephemera, or remembered by the props used in the performances.

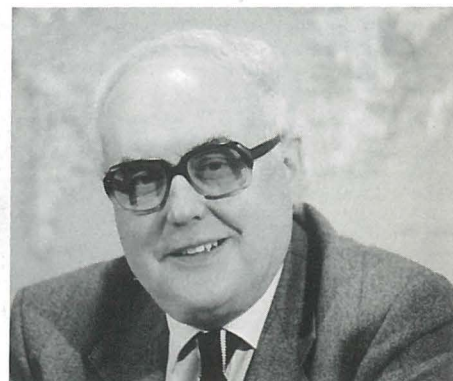
The story of the current theatre of 1932 illustrates the struggle of theatre architecture to solve the fundamental problems of actor-audience and inter-audience relationships. These problems probably reached their lowest ebb with the opening of the new Stratford theatre in 1932 and structural alterations have been regular, almost continuous.

Similarly, the story of the productions at Stratford illustrates the enormous development in staging styles everywhere, particularly in the post-war era. Comparative costumes, photographs and even articles from 'Tabs' show us older mortals the history of our own times. How many of us were aware that we were living through the 'Star Studded Fifties' or the 'Radical Sixties'?

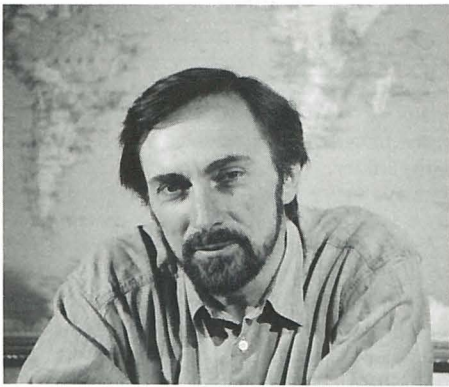
Stratford makes theatre history and it is appropriate that it should have a museum to record it.



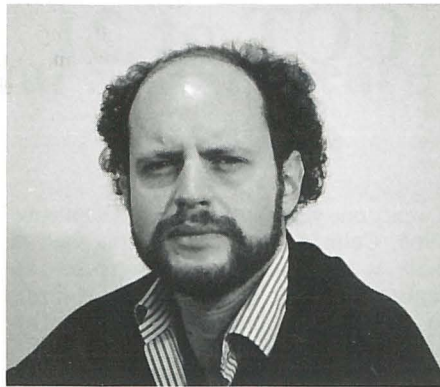
DON HINDLE - *Managing Director.*



PHIL ROSE - *Production Director.*



DAVID MANNERS – Sales Director.



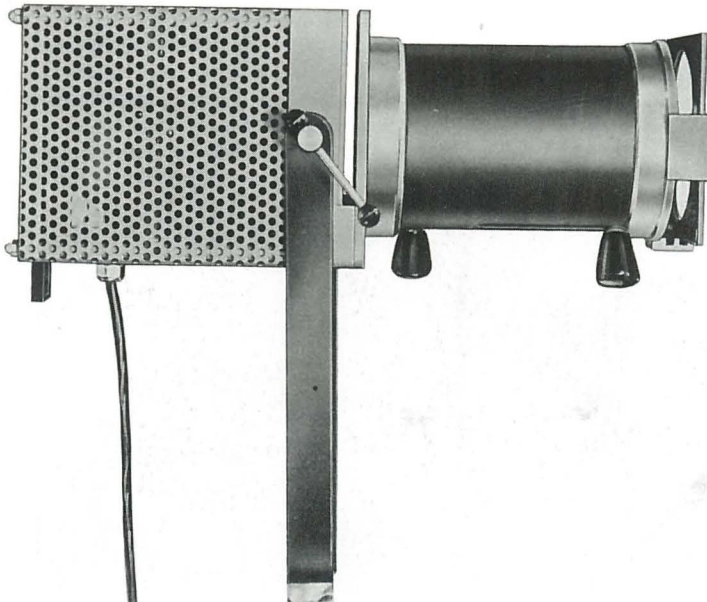
JOHN SCHWILLER – R&D Director.

Expansion

Development continued and a CSI lamp-house was added to the range, designed to work as a follow-spot complete with a built-in iris and ingenious mechanical dimming device. Gradually CCT changed from being a predominantly rental based company with own-product sales of less than £10,000 in 1972 to become a sizeable manufacturing company with £100,000 own-product sales by 1975. Rental, presentations and agency sales also grew fast under the direction of David Manners who joined the company in 1969 and added a similar amount to company turnover.

Investment

Next came the move into extruded aluminium construction methods, electrostatic powder paint techniques (with colour choice following Henry Ford policies) and then to folded sheet metal fabrication following the leap in price of aluminium after the '73 energy crisis. This required heavy investment in new technology and present production is based on a £250,000 investment in CAD/CAM—computer aided design and manufacture. All sheet metalwork at the CCT factory is now designed at computer terminals and punched out automatically



The first 'Silhouette' – 1971

from instructions on computer tape. Watching this punching machine and a computer controlled bending machine at work is the highspot of any guided tour of the workshops. CCT were among the first small companies to use this approach and received an award in 1984 from the Institution of Production Engineers for the success of their enterprise. CCT were also early users of computers for sales and accounting administration and have recently taken delivery of their third generation system from Plessey-D.E.C. Much of the workload now being added to this computer is the entire stock and production scheduling operation, masterminded by Phil Rose.

R & D

Technical design of CCT new products was, initially, the responsibility of Bob Deichen. Then, in 1972, John Schwiller joined the company direct from Nottingham University and gradually took over the design and development department. Since 1980 Bob Deichen, although still an active member of the CCT board, has concentrated on outside activities. Design, testing and production engineering work is done in-house, though CCT are members of the PERA (Production Engineering Research Association) and

value the help they can get from this body. The company are also members of the Lighting Industry Federation and play an active part on British Standards committees. Company policy has always been to offer products with a very high standard of safety and reliability.

Manufacture

Credit for the success of the manufacturing operation was, between 1972 and 1982, very much due to the work of Pat Shannon. Pat joined CCT from the Strand lantern factory in 1972 and was chief buyer for ten years. The company suffered a real loss at his untimely death in 1982.

Exports

Others at the top of the company moved over from Strand after it became part of the Rank organisation. Director Phil Rose ran the Strand operation in North America for many years and brought extensive experience in selling theatre lighting in USA and Canada and also in UK and Europe. Phil joined CCT in 1979 and now acts as production controller. Mike Wooderson and Peter Fitzwater also moved from Strand, in 1978 and 1981 respectively, to join the ex-



The first product, the 'Halostar' 1kW CSI effects projector



The 1986 'Silhouette' – careful refinement of the original good idea

panding sales team. Mike now leads the overseas market force and Peter has recently joined Phil Rose in production engineering. Sales in North America are organised through agents SECOA in the USA and CCT Inc. in Canada and in Australia through CCT Theatre Lighting (Pty.) and agents Jands-CCT. Lanterns for customers in remote countries are often assembled to CCT designs from parts shipped in bulk from UK, the present manufacturing methods allowing punched and painted metal to be shipped flat and bent to shape on arrival with considerable saving in transport costs or, even better, only the computer tapes can be sent and the punching and bending of precisely interchangeable parts carried out automatically in suitably equipped local workshops.

Home Sales

UK sales are the responsibility of manager Len Druce and technical representative Steve Southcott under General Sales Manager, newcomer Ken Rickman, recently welcomed from a commercial lighting firm. CCT customers in the north are then looked after by Martin Hawthorne based in Leicester and Reg Webb working from Bristol. The Presentations business is run by Eddie Hunter. A new venture, 'Lightline' fittings for architectural applications, developed from the Minuette range, is managed by Alan Chamberlain.

Collaboration

Over the years CCT has had agency arrangements with several other companies in similar lines of business. ADB purchased CCT Silhouette spotlights for many years for resale in Europe and CCT had a reciprocal arrangement to sell the ADB fresnel spotlight and floodlight ranges. When ADB chose to start manufacturing their own range of profile lanterns CCT, in turn, designed and marketed theatre fresnels and floodlights. At one time, CCT and Electrosonic had an arrangement, with both firms contributing to the design of dimmers and control systems intended for small theatres. When this ended CCT formed a similar relationship with DTL. Now, although still

occasionally exchanging business with these two companies, CCT are offering the Swedish AVAB range of dimmers and control and have very recently introduced their own small dimmer packs—Command 6.

Product Range

At 21, CCT can justly claim to have earned their place among the world's leading suppliers of theatre equipment. The 1986 catalogue includes 1kW and 2kW Silhouette zoom profile spotlights each available in five beam angle ranges between 9° and 47° and with choice of base-down or axial lamp-houses for the 1kW size and a 1kW CSI lamphouse for follow-spot use. Also for the professional user are 1kW and 2kW Starlette fresnel spotlights, the Rockette 1kW PAR lantern, 1kW and 2kW 'Pebble Convex' lanterns—a CCT refinement of the old plano-convex spotlight, and halogen cyclorama floodlights—another idea that CCT were among the first to offer specifically for theatre. Remote control colour change is yet another field where CCT have pushed development forward, they re-introduced semaphore changers with their own ingenious mechanism, changed to safe low voltage motors and with the aid of outside specialists, developed modern electronic preselection and memory control systems using coded digital signals on single pair control circuits. For clubs, studio and amateur theatres the 650watt Minuette range includes profile, fresnel, pebble-convex and followspot lanterns with most of the features of the professional range but much reduced in size and cost.

Latest Ideas

New this year are condenser optic versions of some of the profile spotlights giving more light output and better gobo focus, modifications of professional theatre products to improve their suitability for television and video studio use, and 'Project', a new version of the Silhouette idea tailored to fit into lighting trusses for the special needs of the touring pop music roadshow.

Information

CCT data sheets give full and clear guidance about performance and dimensions so that all types of customer should be able to make proper comparisons with similar products offered by rival manufacturers. Company policy and practice has always been to comply with the highest applicable current or anticipated standards of safety required in the countries where they sell, and to incorporate their own improvements over and above these standards where a need has been discovered—a policy that they see as increasingly important for their customers as legislation on product liability closes off more and more of the loopholes once used for evading responsibility.

The Future

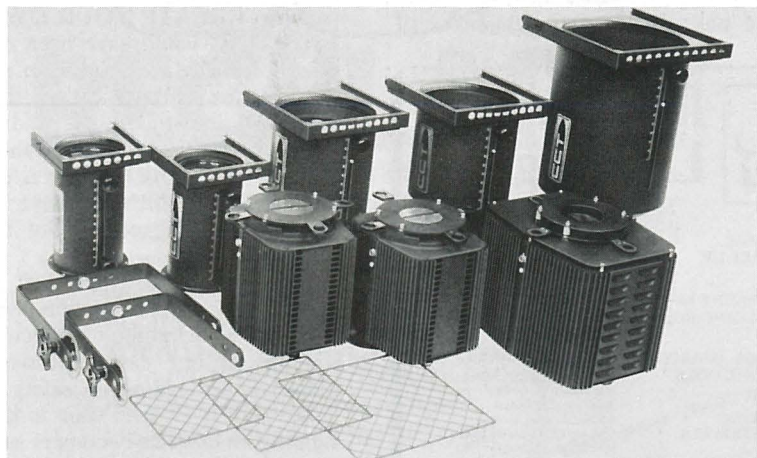
Twenty one years soon become a quarter century and I predict that during the next four years and for long after we will see many more new and useful innovations from CCT. Now a £2,000,000 a year turnover enterprise employing 55 people, Chairman and financial adviser Alan Freeman, Managing Director Don Hindle, Sales Director and Company Secretary David Manners, Production Director Phil Rose, R.&D Director John Schwiller and their colleagues can be duly proud of their company's youthful achievements. Now CCT has come of age they must fight off the new problems of middle age—complacency about their understanding of the needs of the market, consolidation without inflexibility and survival of even more determined challenges from rivals at home and abroad who can no longer dismiss CCT as merely an insignificant irritating poacher in their rightful marketplaces.

Many Happy Returns

Manufacturers and customers in theatre and television lighting are, worldwide, a friendly cooperative lot. CCT is no exception and competitors and customers alike enjoy their companionship and admire their achievements. May we therefore wish, on behalf of all in the business, congratulations, many happy returns and continuing good fortune to CCT on the occasion of their 21st anniversary.



Quality at minimum cost — A 650 watt 'Minuette' fresnel for smaller theatres



The 1986 'Silhouette' range

REIDing SHELF

Strand have always been good at making sure that we know how to use their lighting products. Booklets, lectures, demonstrations, recorded lectures and Tabs have been key components of a policy that was established long before such educational initiatives became part of the conscious marketing strategies of specialist manufacturers. Perhaps because of this long experience they do it better than most. The latest manifestation is a new edition of their **LIGHTING FOR TELEVISION** booklet which, for ten years, has been successfully introducing the basic principles of television lighting systems and their use.

The 26 pages cover eight topics: language, lighting design practice, luminaires, control, studio design, studio lighting layouts, equipment and data on the interaction between dimming and colour temperature. The text does not mention product names: the reader has to dig these out from a single spread at the back of the book. Everything is clearly explained by an anonymous pen and fully understandable by even an old unscientific theatre lightperson like me, who doesn't know his lux from his filler.

When I was editing Tabs I always got just a little bit worried if people inside Strand were too enthusiastic about a particular issue, for this signified that I had probably got the balance wrong for my real readers. (I was not alone in this, some of Fred Bentham's best issues were christened 'Stabs' by newly arrived marketing moguls.) Strand have dropped Tabs, at least for the moment, but its spirit lives on—Fred's Tabs in Sightline and my tabs in Cue. The successor is called **STRANGLIGHT** and I suspect that its first number will bring more joy to 'them' than to 'us'. Mind you, Richard Harris has done a quite excellent editorial job in his task of inspiring a corporate unity between the maestros of

printed circuit board assembly in Kalifornia and Cirkaldy. This is a tricky marriage for Strand. The world is divided into two in three different ways. By voltage (240 versus 110), by design approach (anglo-american versus central european) and by language. Voltage may be the most important physical difference but language is the psychological barrier with the biggest potential to affect sales. By language I don't mean English versus the rest: I mean English versus American, whether spoken by dimmers or people. Tabs always prided itself on translating jargon but the first issue of Strandlight has an article on Lightboard which is a triumph of the jargonspeak that is an essential feature of American marketing.

Can the worlds of the organ loft and mission control merge totally? Richard Harris's Strandlight is a splendid product for the insiders but once they are convinced of their international brotherhood, he might just have to add a teaspoonful of the old Tabs style for the benefit of the customers—on a page printed locally in each of the major Strand language markets: English, American, German, Italian, Spanish and French.

The *Create Your Own* series having dealt with scenery, props and make-up has now reached lighting. The task has been entrusted to Tim Streader and John A Williams of the Bristol Old Vic with transatlantic support from an old Bristol colleague of theirs, Robert A Shakespeare, now Professor of Stage Lighting at Indiana University. This is a formidable team and, despite some mid-atlantic compromise, their text is full of the real truths about lighting. They could perhaps have been better served by their packagers: illustrations tend to be sized for visual impact on the page rather than for the information they convey, and there are rather a lot of drawings which serve little purpose beyond decorative graffitti although they do seem to offer a general message that lighting is a labour intensive pursuit that can be enjoyed without smiling. And each chapter is prefaced by a summary whose literary style often comes uncomfortably close to that of publisher's blurb. I think that what I am trying to say is that a lot of the paper in **CREATE YOUR OWN STAGE LIGHTING** could have been rather more effectively used if it had been made available to the authors rather than to the graphics department. I find it rather worrying for the future of publishing that the copyright of this book is vested not in the authors but in a firm who have 'conceived, edited and designed' it but are not its publishers.

However the book is full of good sense and practical information with many strengths including, particularly, the lighting design case histories and the emphasis throughout on safety. It will be welcomed by all who want to have a go at lighting, whether newcomers or old hands at creating it.

The golden touch—some have it and some do not. Sam Goldwyn had it: when he made gut (ie illogical) decisions they were rarely wrong. Reading in Michael Freedland's biography **THE GOLDWYN TOUCH** of the perseverance, work and intuition that took Shmuel Gelbfisz from Poland to become American's ace glove salesman, one realises that this man could only be a winner. He chose to make movies, creating not only pictures but an image and reality which has been inescapably that of the Hollywood mogul. Freedland describes him as the biggest slayer of the English language since Mrs Malaprop. His son said it was because his brain worked faster than his lips. Certainly the ideas poured out and the book is full of gloriously fractured sentences. The lines that Groucho Marx might speak from a script were the daily conversation of Sam Goldwyn: 'a verbal contract isn't worth the paper it's written on'.

Michael Freedland researched his biography by interviewing the actors, directors, agents, writers and musicians who worked for Goldwyn. The real Sam Goldwyn remains elusive but the character he portrayed comes over exuberantly and, I am sure accurately, to life. Perhaps this public character was even the real Goldwyn. I would not have liked to have been one of his directors, even if I had been one of the distinguished few who were not fired. And I do not much care for some theatre people I have met who model themselves on him but lack his 'touch'. But I much enjoyed the Sam Goldwyn who comes across in this book—just as I enjoyed so many of his movies.

Michael Moorcock's **LETTERS FROM HOLLYWOOD** record his observations of the Los Angeles that the Sam Goldwyns created. Although he touches on the high living absurdities of writing discarded scripts for directors whose aspirations outrun their creativity, the particular strength of Moorcock's letters is his picture of the life of those unconnected with the studios but nevertheless caught up in the particular brand of unreality that Hollywood has imposed on this section of the west coast. It is an area that I have yet to visit (apart from transiting the airport at L.A.) and, although I have read many, this is the first book to give me any confident feel—particularly for the differences from the east coast.



Michael Moorcock's own personal life seems to be in something of a mess although we are spared the details. So I was able to read his letters without any sense of involvement, retaining my objectivity to the extent of feeling neither smug nor guilty at having no experience of divorce or drugs. Apart from its social anthropology of the coast from L.A. to Frisco, the fascination of the book lies in the author's friend Lina. She is mentioned on most pages but we are told little about her: we have to build our concept of Linda from her responses to situations. An enjoyable book, enhanced by Michael Foreman's drawings. I just have to go there. And now I think I know what I'll find.



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There is no consciously cynical analysis of Hollywood in **STEVEN SPIELBERG** by Donald R. Mott and Cheryl McAllister Saunders who have written a straightforward analysis of the movies, together with some technical background to their making. There are no illustrations, but then who needs stills of such accessible films as 'Jaws' and 'Indiana Jones'.

James Franklin's **NEW GERMAN CINEMA** (in the same *Columbus Filmmakers* paperback series) is well illustrated, as befits an account of films that are only accessible to English speaking audiences through specialist cinemas and late nights on channels two and four. A chunky introduction is followed by close-ups on eight directors, and there is enough chronology, filmography and bibliography to send the specialists off on unlimited investigative Quests. And it made me realise just how many interesting German films of the 60s and 70s I seem to have missed seeing.

Wendy and J. C. Trewin's history of **THE ARTS THEATRE LONDON 1927-1981** for the Society of Theatre Research is a record of the productions mounted at the Arts. There is virtually nothing about the theatre building itself: no plans, no interior photographs, only one external photograph. Thirty per cent of the book is appendices listing the productions with the dates of the opening nights. The text fleshes this out by adding the casts and an indication of relative success. Changes in ownership and artistic direction are charted with appropriate recognition of Alec Clunes in whose memory the slim volume is dedicated. As a history it nearly slips into the 'and then' grind, being only saved by the neat summarising capsule remarks of the Trewins. 'Without much style apart from the conventional matters of snuff-taking and handkerchief waving' presents a devastatingly clear picture of a production of 'The Provok'd Wife'. Compared with so many recent histories of distinguished theatres, this one seems to represent something of a step backward; perhaps the Society for Theatre Research should make amends by publishing in their quarterly 'Theatre Notebook' some information on the Arts as a building.

It is good to find theatre researchers moving more actively into historical analysis of the first half of the twentieth century. In the period between the wars, alternative theatre was seeding many of the styles that have become the norm in today's establishment theatre and even made quite a considerable impact on our boulevard theatres. **THEATRE AS A WEAPON** by Richard Stourac and Kathleen McCreery presents three case histories of workers theatres between 1917 and 1934. In the Soviet Blue Blouse, the German Agitprop and the British Workers Theatre Movement we can trace the development of most of the elements in today's staging mix of words, songs and movement, performed with varying degrees of heightened naturalism in an

environment of anti-illusionist minimalism.

At the beginning of the book Meyerhold predicts practically everything that has been said and done since the 1920s, from Brecht to Brook. Then we follow the struggle to make it all happen. Not to a grand plan, but by small committed groups struggling against practical frustrations but making discoveries in the process. Their struggles, and the flavour of the performances that comes through from the descriptions and illustrations, emphasises for us that our own theatre has been subjected to an inevitable process of gentrification which ensures that its 'truth' has become every bit as formalised as an eighteenth century French court ballet. In comparison with the period of this book, today's new alternative theatre companies are on course for an automatic absorption into the establishment from the very first day of their formation. But then, perhaps we now recognise that theatre is more effective as a weapon when used with a more subtle gentler satire than the crudely, propagandist performances of an emergent workers theatre in pre-television days.

Sometimes a specific case history tells us much more about a broad subject than a detailed analysis. James Gibbs book on **WOLE SOYINKA** does just this. By taking this leading Nigerian dramatist and describing his life, influences and the plays resulting, we are able to discover a great deal about the situation in which drama has to develop in an emergent nation, especially one on the African continent.

LIGHTING FOR TELEVISION. An eight part guide. Strand Lighting.

STRANDLIGHT. Free mailing list from local Strand Lighting Offices.

CREATE YOUR OWN STAGE LIGHTING. Tim Streader and John A Williams. Bell & Hyman. £12.95.

THE GOLDWYN TOUCH. A Biography of Sam Goldwyn. Michael Freedland. Harrap. £9.95 (UK).

LETTERS FROM HOLLYWOOD. Michael Moorcock. Drawings by Michael Foreman. Harrap. £10.95 (UK).

STEVEN SPIELBERG. Donald R. Mott & Cheryl McAllister Saunders. **NEW GERMAN CINEMA.** James Franklin. Columbus Filmmakers. £5.95 (paperback) (UK).

THE ARTS THEATRE, LONDON. 1927-1981. Wendy and J. C. Trewin. Society for Theatre Research. £6.75 (UK).

THEATRE AS A WEAPON. Workers' Theatre in the Soviet Union, Germany and Britain, 1917-1934. Richard Stourac and Kathleen McCreery. Routledge & Kegan Paul. £30 (UK).

WOLE SOYINKA. James Gibbs. Macmillan Modern Dramatists Series. £15 (UK) £4.95 (UK) (paperback)

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Alhambra Theatre Bradford

BOB ANDERSON

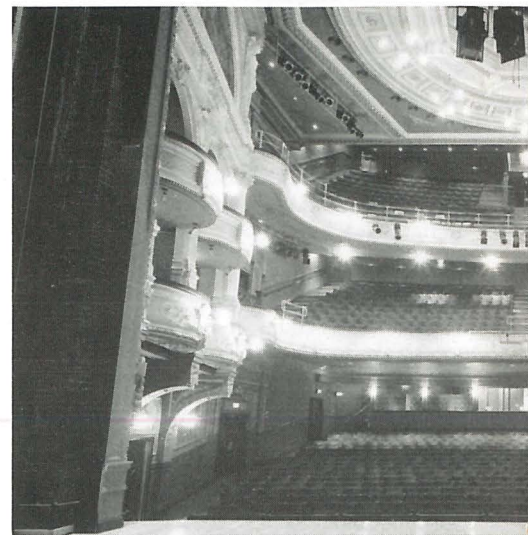
The London based firm of Architects RHWL (Renton Howard Wood Levin Partnership) have, by now, amassed considerable experience both in designing new theatres and in converting old ones and deal with each new project with skill and distinction. Previous conversion jobs, mostly for civic authority clients, include the Theatre Royal in Nottingham, the Theatre Royal and the Dergate Centre in Northampton, the Duke of York's in St. Martin's Lane and the Old Vic in London. All are characterised by a blend of careful restoration of the most valuable parts of the old building, ruthless replacement of worn out areas and far-sighted provision of new spaces and equipment to the best modern standards. To do the job properly generous budgets are needed and obtained, plus a competent supporting team of experienced specialists to advise on technical details. For most of the above jobs RHWL have had the benefit of Ove Arup and Partners as electrical, mechanical and structural engineers and the specialist advice of Theatre Projects Consultants.

The Alhambra Theatre in Bradford is the latest theatre to benefit from the skills of this team. Built in 1914, the theatre, by 1982, still had a remarkably fine and intact auditorium but run-down, sub-standard stage, administrative and sanitary facilities. In 1982 the owners, Bradford Metropolitan

Council, commissioned a feasibility study which showed that selective surgery and the construction of extensive new additions to this grade II listed building would be needed to bring it up to the standards expected by present day audiences and performers and also to ensure the highest degree of commercial viability. The report recommended immediate acquisition of an adjacent cinema at the rear to permit a major increase in stage space and provide a rehearsal studio, and changes to the road alignment to allow expansion of foyer and front of house space.

Higgs and Hill Building Ltd were appointed as management contractors in late 1983 and approval for the project to go ahead was given in August 1984.

Externally, the three famous domes have been retained, with the forward rotunda now glazed and used to contain a grand staircase allowing the audience to be seen from outside as they make their way up to the new foyer levels within. At street level an entirely new double height entrance hall has been created to replace the tiny foyer and segregated entrance stairways of the original building. The lower area contains the new computerised box office and a shop and leads up to a mezzanine floor with bar and coffee bar. Access to the stalls is through a small ornate lobby which previously contained the dress circle stairs.



A new grand stairway leads to two large upper foyers with broad coffered ceilings and island bars. Access to the front of the steep upper tiers has been created through new routes inserted above the auditorium ceiling to eliminate the long climb to the old entry points at the rear of the tiers. The foyers are designed to provide a community meeting place, available for letting throughout the day and large enough for occasional lunchtime entertainments.

The 1500 seat auditorium has been lavishly redecorated and refurbished in a range of gills and subtle shades of warm red, with white and blues highlighting the tier fronts and proscenium boxes. Carpets have been specially designed and the old ceiling paintings magnificently restored. New ventilation, a control room and sound and lighting installations have been fitted in and the orchestra pit enlarged to take up to 65 musicians.

The stage area has been totally rebuilt and is now, at 18m, double the original depth. For the benefit of visiting ballet companies the maple strip stage floor is flat and lightly sprung and has extended wing space for run-off. For pantomime there are two 'genie' traps and a grave trap. The fly tower has 55 counterweight sets and five hemp sets in the reduced height area at the rear. Get-in is by scenery lift large enough to bring small vehicles down the 2 metres from street level. Lighting control is a 150 way Strand 'Gemini' with Permuss dimmers and CCT lanterns. The sound desk is a Soundcraft 400 with 20 inputs to 6 outputs. New dressing rooms for 100 people are provided on three levels with wardrobe and assembly area and administrative offices above. The Majestic Cinema, now known as the Alhambra Studio, lies immediately behind the stage and can be used for rehearsal or as an auditorium for 400.

The work, completed in only 21 months on site, will have cost around £8,250,000. The opening performance was on 27th May 1986.

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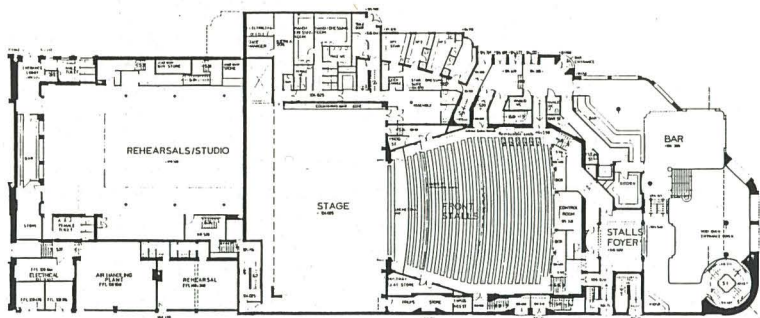
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The DISTRIBUTORS section is not a list of official agents (although these are included) but a guide as to which products can be purchased from each distributor. The distributors in this

section are arranged geographically by county and if a distributor appears in a county other than the one in which he is based this indicates that he serves this additional area.

The HIRERS section is also arranged by county. Companies providing a nationwide service are listed under London. In addition to the address and telephone the name of the manager or contact is shown together with any services provided in addition to hire. Again companies listed in more than one area provide their services in these additional areas.

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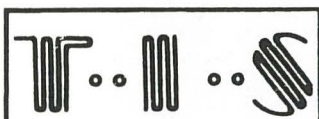
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FUTURIST THEATRICAL HIRE LTD., Hoyle Head Mills, New St., Earlsheaton, Dewsbury, W. Yorks WF12 8JJ. 0924 468183. 9am-5pm. 24 hr. Ansa-phone. Brian Simmonds, Labour for installation, design services, free price list.

WHITE LIGHT LTD., (NORTHERN BRANCH), Saw Hill Farm, Dean Lane, Triangle, Nr. Halifax West Yorkshire. 0422 822016. 9.30am-6.30pm. John Anderton, Labour for installation. Design services. Free price list.

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ELSE SOUND & LIGHTING, 74 Herriot Avenue, Kilbirnie, Ayrshire KA25 7JB. 0505 684379. Hours as required. Moray G. Coull. Labour for installation, design service, free price list.

NORTHERN LIGHT, 39/41 Assembly St., Leith, Edinburgh EH6 7RG. 031-5533 2383. 9.00am-1.00pm. 2.00pm-5.30pm. G. Blackburn. Labour for installation. Design services. Free price list.

WALES

LIGHT RELIEF, Ellar House, Alexandra Industrial Estate, Wentloog Road, Rumney, Cardiff Tel: 0222 779555. Mon.-Fri. 9am-6pm., Sat. 9.30am-12.30pm. Mark Satchell, Labour for installation, design service, free price list.

NORTHERN IRELAND

ANDROMEDA LIGHTING, 10 Donegall Park Avenue, Belfast BT15 4ET. 0232-772491. 24 hr Answering Service. 9am-6pm. John Connolly, Labour for installation, design service, free price list.

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PHOTOKINA

Sooner rather than later, the entertainment industry is surely going to have to find a way of reducing the number of product exhibitions. Trade Fair costs must represent quite a tangible proportion of the price of each light that we buy. I don't know what marketing and sales managers do in their baths, but I guess that quite a lot of the water slowly chills while they contemplate the cost-effectiveness, not so much of hiring the stands but of staffing them with key personnel who might be more profitably employed in the research labs or visiting a potential customer on site.

We do need some trade fairs. They are probably the most effective way for theatre people to keep informed about the latest technological hardware. For anyone actually contemplating a purchase they provide the quickest and easiest way to get an overall view in order to decide on a short list of options for serious consideration. And we must not overlook the opportunity that they give for manufacturers to check up on what their competitors are up to. But the annual trade fair calendar is developing into something approaching a continuous tour.

However the one fair that no manufacturer of substance can afford to miss is **PHOTOKINA**. Apart from daylight photography, virtually all the image processing displayed on the 136,000 square metres of the Cologne exhibition halls requires controlled lighting for its operation. Europe's key stage and studio firms were to be found in the Professional Media section. Anyone wishing to fit out a complete studio for film, television or any style of video operation could find all the kit here. All they needed was a cheque book.

This lighting man did not take his cheque book because I am not currently in the unhappy position of having to buy lights. Yes, I'm glad that right now I am not in the position of having to decide on best buys. Choosing lighting equipment is getting more and more difficult because more people are making more stuff that looks the same and costs the same. The lighting market has only one truly USP (unique sales proposition) at the moment and it was not at Cologne—*Varilite* is unique and so expensive that anyone who needs it and can afford it already knows all about it.

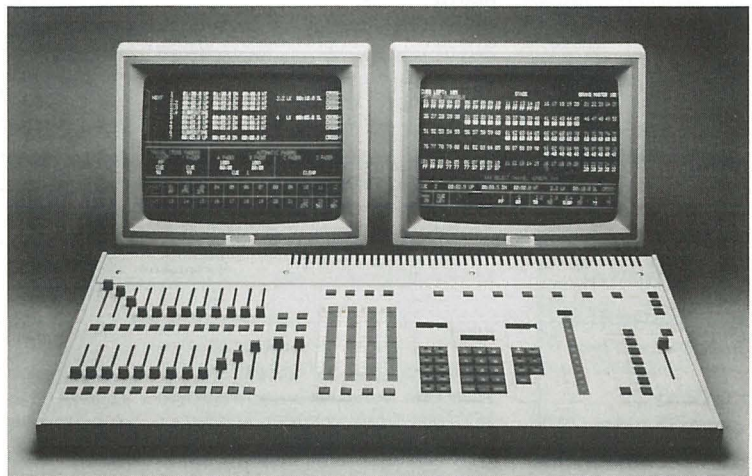
But there was a lot of ISP (Interesting Sales Propositions) on view at Photokina: let me try to identify some—well, at least the ones that interested me. . . .

Where to start? Well I have some eating of words to do. So let's start with **Arri (GB)**'s re-launch of Tim Burnham's **Imagination Technology**. In my enthusiasm for the potential of Tim's spotlight thinking, I was less than enthusiastic that the Imagination launch should be led by "yet another control system". I could of course see the commercial justification for this: the international

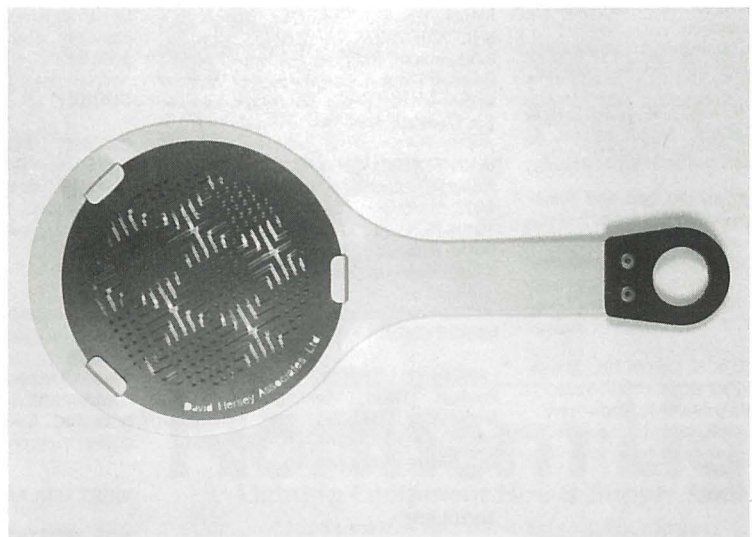
studio world is very package conscious and Arri need a control system to complete their all embracing package. (The theatre world has increasingly preferred to do its own packaging—control by Strand, a mix of lights from CCT and Strand, with filters by Rosco and Lee is not uncommon.) However, after a close encounter with *Imagination* in Cologne, I am prepared to concede that it is not just "yet another control system". Indeed it could well be the most serious current challenge to the supremacy of Strand and AVAB—especially with the younger operators. However we oldies, with a slower capacity for absorbing new routines, could well be seduced by the operator friendliness of VDUs that tell you what to do next in

a tricky sequence—although even quite complex operations are simplified by a programme which makes logical assumptions about what your brains/fingers are trying to do. (Each knob is even happy to announce its own special function on request.) But I do wonder if the positioning of the VDU screens in *Imagination* might make for a somewhat uneasy operator sight-line to the stage. *Imagination* is the top facility system of a range which includes *Image* and an in-between system to follow soon.

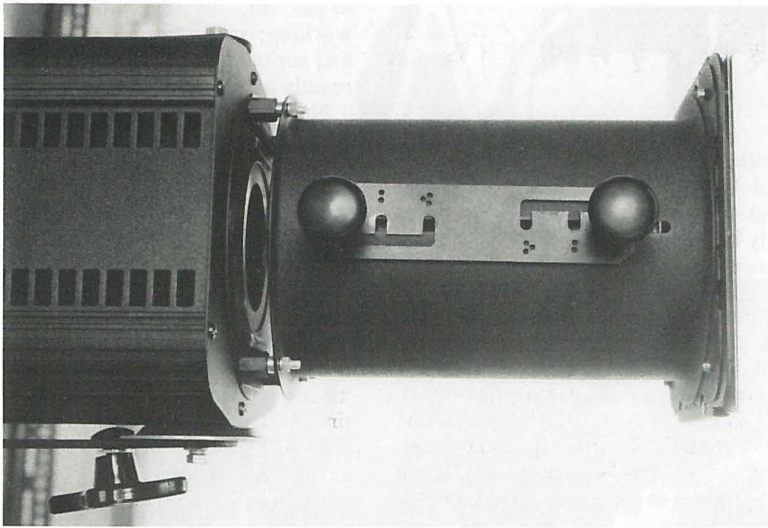
Control desks, having processed the intent of a lighting cue, need to talk to the dimmers. An international digital standardisation to DMX 512 has been proposed but the various analytical and digital languages



Arri(GB) *Imagination* control



CCT's *Rotatory Gobo Holder*



CCT's Zoom lens preset guide.

presently talked by the world's desks and dimmers amount to something of a tower of babel. The Arri answer is a modular interface system called *Connexion* which offers patching programmes in addition to conversion in and out of DMX 512.

While we await longer term development of low voltage models with electronic transformers, the *65 Series* offers 500/600 watt theatre spotlights with PC, fresnel and profile optic options. The use of a condenser optical system on the profiles offers a field that looks particularly even under demonstration conditions: we shall no doubt have some feedback soon from on-stage active service.

Indeed condenser optics may be a new trend: they are on offer also from CCT for zoom profiles in their *Minuette* range. The new *Pro-Ject* from CCT is very cleverly tailored to a real user need. It is a 1kW 30/42 degree profile, sized to fit into standard trussing. With its slogan "no larger than a parcan", this one is really going to cover the world's rockshows in gobos. Available as an accessory is an adjustable gobo holder which allows a gobo to be angled quickly by simple rotation without removal from the gate with the inevitable loss of time and charring of the fingers. Their preset zoom lens guide—a jig which allows lens positions to be preset before rigging—is another idea that seems



Strand's Parscan 'Showchanger'

so simple that there must surely be a snag! On the other hand, is it the simple solution, often overlooked for so long, that can be the real breakthrough. These are particularly intended for *Pro-ject* but can be used with *Silhouette 30* and *40s*. Photokina being primarily a studio occasion, CCT were offering pole operated options on their main 1kW and 2kW ranges. *Glyndebourne* and *Sadler's Wells* used pole-operation in the 1960s and I am surprised that the technique has never caught on more in the theatre.

Strand Lighting had a big impressive stand commensurate with their status in Germany, not just in the studios but in the opera houses where *Heinz Fritz* has made first *MMS* and now *Galaxy* into standard equipment. (Who would have predicted a dozen or so years ago that Photokina would have no Siemens presence and that *Reiche* and *Vogel's* would be almost token.) The chaps at Strand these days are rather obsessed with their American development called *Showchangers*. The *Parscans* were whizzing to preset pan/tilt configurations

while colour changing their programmable filter scrolls. These scrolls were also running on cyclorama floods to offer new flexibility in repertoire theatres. Fan cooling is likely to present a limitation in theatres where the band stops playing. The market response to Parscan is going to be particularly dependent on pricing—how many basic parcans is one parscan worth?

The atmosphere at Photokina is technology rather than showbiz, so it was good to find Strand sponsoring performances on their stand by Ross McKim's *Moving Visions Dance Theatre*. Strand did not try to use these performances as any kind of hard sell for lighting, and indeed the level of ambient 'work light' spilling on to the stand from the exhibition generally would have made that difficult. All praise to our section of industry for giving some of our young dancers such a prominent showcase: it is gestures like this that endorse Strand's ability to lay claim to the position of market leaders—apart from such goodies as *M24*, *Gemini*, *Galaxy* and the *Prelude 16/30*.

Cinemoid is being replaced by a lookalike gel called *GL*, while Chromiod is now called *GLX*. Sheet sizes for both are standardised at 20" x 24" with *GLX* also available in 50ft rolls. There is a new leaflet to explain all this, while Rosco have produced a poster with some very constructive advice to help choice of an appropriate Supergel for most standard situations; and in the pipeline they have a Supergel Application Guide in the form of a handbook.

Lee International are the industry's current fastest growing conglomerate: stands everywhere, bursting with studio knowhow. But, at least for the moment, their main influence on theatre looks like continuing to be filters. For those who can afford real precision quality there is **Niethammer** and (especially) **Pani**—but then I am a Pani fan when it comes to window shopping.

ADB have continued the development of the mouse activated cursor which intrigued me at NoTT (see Cue 41). There is something to keep an eye on here. I look forward, in due course, to having an opportunity of watching a theatre crew plotting on this control once they have had experience of a few productions.

Finally let me just note that the Italians are flourishing—**De Sisti** in the studios and **Coemar** in all live areas, particularly with effects and with a stylish looking range of conventional halogen theatre spotlights.

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PRODUCT NEWS

PLASA – Light & Sound Show-86

Readers of Cue are, I intend to assume, open minded and properly curious about all forms of technology applicable to live entertainment. How then can we ignore the goings-on in discos, pubs, clubs and cabarets and the million dollar world of the pop roadshow? Perhaps I am wrong to anticipate a degree of sales resistance to this topic, if so, apologies. However, I must declare that pop music and the technology that goes with it are a part of the entertainment world that I usually go out of my way to avoid.

Who or what, then, is or are PLASA?

Once upon a time, from 1976 to 1983 in fact, there was BADEM, which stood for the British Association of Discotheque Equipment Manufactures. In 1983 BADEM decided to change it's name –

“... to reflect the broader business spread of our members and the wider entertainment, leisure and presentation market that member companies were supplying goods to.”

PLASA, then, are the Professional Light and Sound Association and admit as members professionally run companies selling lighting or sound products, lighting designers and installers who wish to see all installations completed to professional standards and especially those interested in promoting their product or service to a multi-million pound world market. They run a monthly magazine, and sponsor British trade groups at the Frankfurt Music Fair and Photokina in Cologne and have organised trade missions to Australia, New Zealand, Brazil and Venezuela. In Britain they organise an annual trade show, this year held, for the second year running, at the Novotel, Hammersmith – The Light & Sound Show-86.

Now that you know the history of PLASA, it will not come as a surprise to discover that L&SS-86, to invent my own abbreviation, had little to offer visitors in search of peace, quiet and relaxation. Sound and lighting as promoted by PLASA pay little heed to the once revered maxim from the old fashioned world of drama about not being intrusive! In short, PLASA people strive above all things to be noticed by making more noise, audible and visible, than anyone else within range. This though, is the style of the production; the principal rule of the game, and must not be confused with incompetence or lack of professionalism or discourtesy. The result is satisfied customers at the venues, and money in the bank. Perhaps it is also, on occasion, Art.

Hastily changing the subject to the tools of the trade exhibited at L&SS-86, there were many clever devices offered for the

use of either artist or rude mechanical. The potential beauty and excitement of light beams in motion are a discovery that must be firmly credited to the PLASA world and there were countless variations on this theme. Some were mere mirrors wagged by a single motor in response to a sound-to-light bandpass filter. Others move the lamphead which may project single beams or many spoke like beams of light from multiple lenses. Some incorporate colour change, red yellow green and blue, some pastel, some saturated. Others have much more complex motions, twisting and turning on several axes simultaneously. The best are fully computer controlled so that attitude, movement, intensity and colour could all be orchestrated for fully planned effect. Regrettably, nobody at the show seemed to have bothered to take this amount of trouble and nearly all demonstrations appeared to cycle indiscriminately.

Other lighting devices included miniature coloured fluorescent neon tubes in a wide range of straight lengths and shapes suitable for operation from safe high frequency power packs. Then there were modular multi-colour illuminated dance floors, mystical mirror boxes arranged to reflect miniature lamps in patterns that recede to infinity and move as the viewpoint changes, linear flash tubes to blitz and focused flashes to strobe, lasers writing messages in smoke and spitting and spotting dots and dashes of red and green light in semi-rhythmic chaos. Other stands featured truss and rigging systems to provide somewhere to hang all the speakers and lighting devices.

Many stands concentrated on electronics and control. Familiar theatre memory systems, less familiar memory preset pop touring boards, touch panels for keyboard style lighting performances, joysticks to move motors and sound-to-light and sequencing panels to control light and movement cycling effects for up to sixty-four circuits in complex chase sequences. All featured high-tech controls with LED mimics to indicate every feasible alternative. Some panels were light shows in themselves.

Sound systems were also high-tech, enormously powerful and mostly dauntingly complex, though some of the DJ self drive equipment looked as though there had been an ergonomist at work. This, the performer interface, hardly exists in the disciplined, rehearsed environment of old style theatre and requires extrovert and mercurial artists to work complex control systems while adding patter under the critical eyes of their public. If controls can be organised to suit this testing requirement some lessons may be learned to help further improve operational accuracy under theatre conditions.

So, over 100 stands; a free glossy colour catalogue sent out before the event (though having swallowed the bait it cost £1.00

to get in); all the hardware, nearly all working; presentations with dancing girls and scripted demonstrations; bars and food readily available; what more could one ask?

No. I can't answer that for anybody but myself and, as I said earlier, I could be biased. Certainly PLASA earn the right to consider themselves professional and this must include professional concern for packaging, promotion and profitability. My concern is that the exhibition showed no sign of disciplined design of the use of these effects, the lighting design in theatre terms. It is difficult to recognise who might be the top designer members from the stand displays or from the list given in the PLASA magazine. Perhaps the simplest explanation is that the best lighting designers in this field “... who wish to see all installations completed to a professional standard...” were not able to influence the look of any of the exhibits and rely on completed projects or other means to demonstrate their abilities.

Odd though. There is another association with similar objectives, the ALD, the Association of Lighting Designers, and their members have designed the lighting for many West End successes and for many trade shows and presentations. They are also undoubtedly professionals but, as an association, are nearly broke. Perhaps, somehow, there should be some professional cooperation.

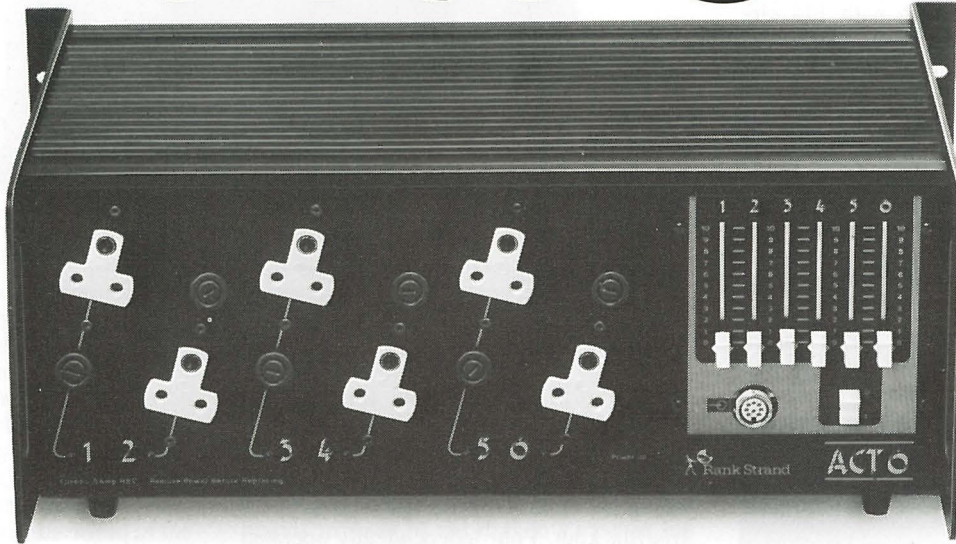
Double Century for Strand's Galaxy.

At the beginning of August Strand Lighting celebrated the installation of the 200th 'Galaxy' lighting control desk by inviting customers, consultants and other friends to visit the Royal Shakespeare Theatre at Stratford-upon-Avon. The RSC have demonstrated their approval of this system by installing three, in the main house at Stratford, at the Barbican and now the 200th Galaxy itself in the new Swan theatre. To mark the occasion Strand Managing Director, Mike Lowe, presented the RSC with a Memory Back Up Remote control panel for their Galaxy, complete with ceremonial golden key, joking that they could now work the show from a comfortable seat in the auditorium and use the space



John Bradley (right) RSC Technical administrator at the 200th Galaxy celebration.

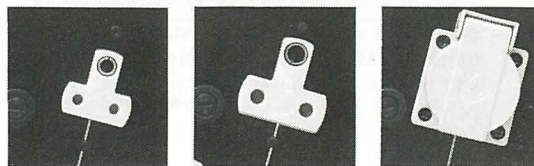
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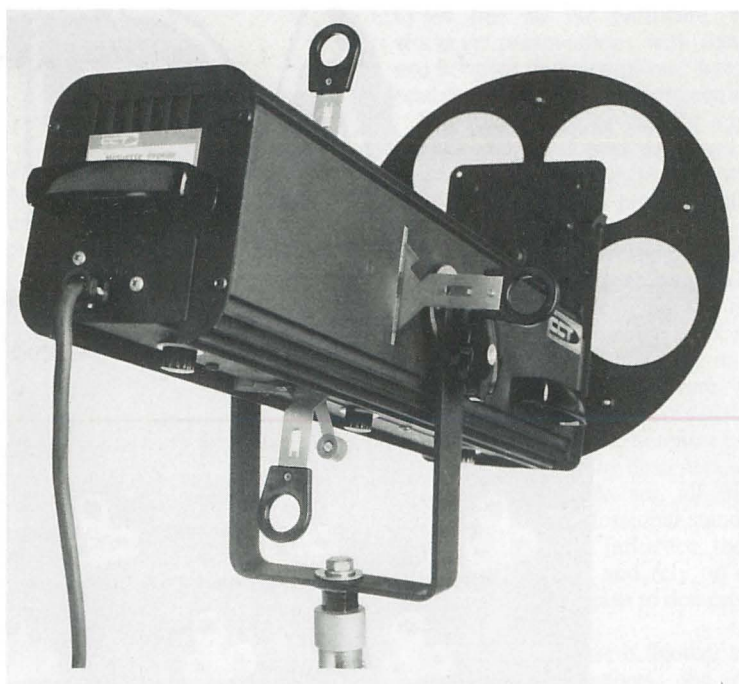
**Strand
Lighting**

in the control room to install a fridge for cold drinks.

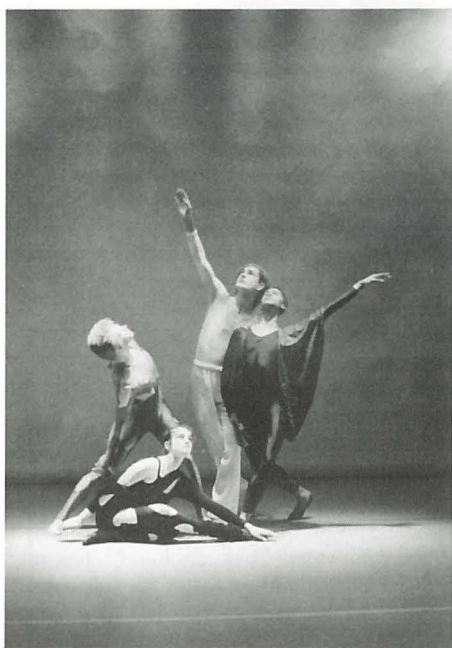
Accepting the gift for the RSC, technical administrator John Bradley expressed the company's thanks and their satisfaction with the control and with Strand's help and service over the years. Guest, Fred Bentham, recalled earlier Strand controls installed at Stratford; a 56 circuit Grand Master delivered in 1932; the post war 1951 'Woody' Electronic system with 144 circuits and his favourite system, DDM with 240 dimmers, installed in 1972 and replaced by the present Galaxy in 1982.

The guests were then treated to a tour of the new Swan theatre followed by an excellent buffet lunch in the theatre restaurant and an opportunity to gossip with old friends. Despite rumours, top Strand policy makers confirmed that Galaxy will be available for many years to come even though exciting new alternatives may be launched very soon.

BOB ANDERSON



Minuette 650w Follow spot and colour wheel.



Photograph, Linda Rich

A Light Inspired Ballet

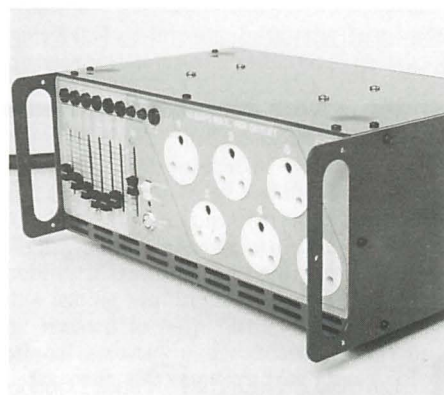
Moving Visions Dance Theatre is a professional dance company based at Ballet Rambert School. Recently, Strand Lighting commissioned 'Moving Visions' director, Ross McKim to create a new work in which the programmed movement of light would form an integral feature of the dance. Thus demonstrating how the range and variety of lighting sequences available from these computer controlled systems can be preset to match and complement the mood and pace of the choreography.

A new lead in Follow Spots

Among several new products and accessories from CCT is a compact 650W Minuette Zoom Profile. The new spotlight

has twin zoom lenses and a built in Iris/Blackout. Four independently operated framing shutters are provided. Their use is optional and are easily removed or re-inserted as required. Operator handles are fitted front and back and in addition to colour runners, a five colour wheel accessory is available which can be indexed or spun. A line switch is fitted readily accessible to the operator. This compact and efficient spotlight has been designed with Cabaret, Club and Disco applications very much in mind.

Also new from CCT is 'COMMAND 6'. A flexible dimmer pack with six 10amp modules each having local control with an overriding master. A single switch acts as blackout control or selector for remote control. Any external +10v analogue system is compatible. 15amp 3 pin outlets are fitted and in its standard form 'COMMAND 6' is wired single phase. A three phase option is available. 'COMMAND 6' can be used entirely as a portable pack, stacked or rack mounted. By simply reversing the standard end plates it can be wall mounted as a permanent fixture.



Command 6 Dimmer pack

Pocket Book Guide for Lighting Designers

Rosco have produced a unique pocket book guide to the applications of their Supergel range of colour filters.

The booklet, called Supergel Guide, gives guides to the applications of every colour in the Supergel range, grouping them into categories of Warm and Cool accents. Although intended for use by professionals and amateurs in the theatre, it will also prove invaluable to lighting directors involved in television and video production.

The main publication is in the form of a handy pocket size book, but it is also available as an A3 wall poster. Copies of both can be obtained free from Roscolab Limited, 69/71 Upper Ground, London SE1 9PQ, telephone 01-633-9220, or any Rosco distributor.

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Lighting the *Ring* and *Tannhauser* at Bayreuth

MICHAEL F. RAMSAUR

The operas at the Bayreuth Festival are performed in a daily rotating repertory and the season schedule usually includes two complete *Ring* cycles, in sequence, with the other productions performed before, between, and after the *Ring* cycles. Each year, in general, one new production is added to the repertory and one deleted. Since no new production was premiered this summer, the productions which hold the greatest interest probably remain the latest addition to the repertory, the new (1985) Wolfgang Wagner production of *Tannhauser*; and the Peter Hall production (1983) of the *Ring* Cycle, which will be retired from the repertory after this season.

Manfred Voss, is the person currently responsible for the lighting at the Festspiel. Most of the year he works as the Head of the Lighting Department for the Theater of the Freien Hansestadt in Bremen. During the summer he takes on the additional responsibilities of lighting the Wagner Festspiel. He has held this head position since 1978, although he has worked, on and off, at the Festspiel since 1966.

The current *Ring* production at Bayreuth was put together by the 'British Team' of musical director George Solti, director Peter Hall and scenic and costume designer William Dudley in 1983. The cycle has been re-staged during successive summers with minor design changes, which include a new Valhalla, a new platform shape for the second act of *The Walkure*, and a simplified staging for Erda's cavern. Looking at this production one is immediately aware of the vast amount of contemporary technology used to accomplish the Wagnerian goal. The cost for mounting the production in 1983 amounted to almost 2,000,000 DM.

The stage design includes as its basic element, 'the platform', which is approximately 50' wide by 33' deep and 20" thick, with surfaces which have an upstage to downstage curve providing both a concave and a convex playing surface. The platform rests on the stage floor, raises to a height of over 28' and rotates on a horizontal axis 360° to expose either side of the unit. Additionally, the complete unit slides upstage and downstage, all potentially within full view of the audience. A very good description of the setting and the production's creative process can be found in the book *The Ring: Anatomy of an Opera* by Stephen Fay and Rodger Wood, published by Secker and Warburg, London. (Reviewed in CUE 32)

The directorial concept for the *Ring* cycle was, as accurately as possible, to provide exactly what Richard Wagner asked for in

the script. As a central scenic unit 'the platform' would raise, lower, revolve and truck forward to generally allow the audience to feel the cinematic effect of moving into a scene. Each opera would take as its key, a particular natural element which dominated the action of that particular opera in the cycle. A specific and significant moment was associated with these elements.

For *The Rheingold* the element was water and the moment was the Rheinmaidens teasing Alberich in the first scene. In *The Walkure* the element was fire, and the moment was when Wotan leaves Brunnhilde with the ring of fire around her in the last scene. For *Siegfried* the element was the forest and the moment was when Siegfried stands in front of the dragon's cave in the second act. *Gotterdammerung* brings together all three of these natural elements for a full completion of the *Ring* cycle.

The first lighting discussions occurred seven months prior to the opening with Dudley presenting a dozen or so sketches and a model. More lighting discussions occurred three months before opening. At this time some preliminary lighting tests were conducted but there was continued experimentation with the placement of scenic units and drops, and the platform was not yet working.

The hard core lighting work (the design in the German sense) occurred during the last six weeks of the production period. Since during this period the platform was continually needed for blocking rehearsals, very little time was available for lighting. The lighting was basically accomplished over a period of 80 hours of lighting and dress

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rehearsals. This included a lighting set up rehearsal and three rehearsals of each act.

It was during these lighting rehearsals that Voss created the lighting with direction and input from the director Hall and the designer Dudley. Voss likes to prepare the preliminary lighting for each scene alone, and then once the basic look is accomplished, to include the director and designer. Much of this lighting work is accomplished through a trial and error process of choosing instruments, focus, and color. The basis for all lighting cues, which are written during the lighting rehearsals rather than planned ahead, comes from the director as does the production's concept.

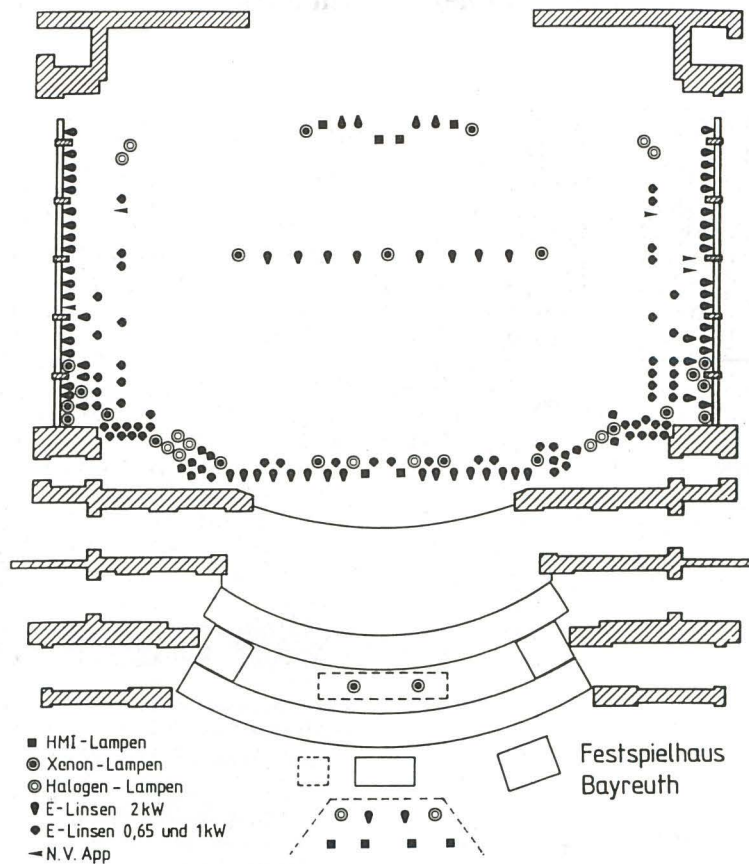
Not a complex *Ring* in terms of lighting cues, each act of each opera in the cycle contained between 20 and 30 lighting presets. The on and off control of the followspots, on the 1st lighting bridge, was recorded in the lighting cues, but the individual follow spot operators controlled the brightness of the followspots.

Voss says that although he can create the lighting alone, he feels that the looks should be created by the stage design and directorial concept. He appreciates getting a lot of feedback and direction from the director, something more than just "brighter or darker please". During the production process for this *Ring*, Voss reports that most of the communication came from the director.

The design choice of using a front scrim stretched across the proscenium throughout the whole *Ring* cycle presented many serious problems in terms of lighting. According to Dudley, the primary purpose of the scrim was to mask the mechanical working elements of the platform, but its softening effect seemed to create an additional advantage of enlarging the epic quality. The scrim's presence, though, prevented the use of any front light. Since the scene design included no scenic background, but instead played the whole cycle against a black surround, the front scrim was also softly lit with compositions (mostly moving projections) to provide a sense of environment around the performers.

The heavy use of chemical smoke together with dry ice fog helped give a sense of atmosphere to the stage space. The smoke sometimes became a problem as it absorbed the light passing through it. Some distraction was caused by the smoke particles reflecting the light beams around the edges of the proscenium where, close to the instruments, the light is the brightest.

In many of the acts 'the platform' was utilized overhead, serving as a ceiling or



Although it is not typical in German theater practice to draft a light plot, this plot from the 1983 *Ring* production was drawn for, and published in the German technical theater magazine "Bühnentechnische Rundschau". While not completely accurate, it does give an indication of the use of the typical lighting hanging positions. E-Linsen units are ellipsoidal. Drawing by courtesy of Manfred Voss and the "Bühnentechnische Rundschau".

roof. This solid covering prevented the use of backlight. In other scenes, in addition to the normal masking, the flies contained a large amount of flown scenery thus further restricting any use of rim or backlight. In order to achieve highlighting Voss relied on carefully worked out high side and back three quarter lighting angles from the galleries.

Although some of the most striking stage images effectively used the reflectivity of the silver floor cloth, notably the last act of *The Walkure*, the brightness of the floor forced Voss to use followspots where he would not have otherwise. The follow spots, colored in a complement to the color of the light striking the floor, gave the faces of the performers a slightly contrasting color from that which was being reflected from the floor.

As in Bayreuth *Rings* of the past, darkness predominates as the overall image of this *Ring* production. There are problems throughout in seeing the singer's faces. The pictorial emphasis is created by large static pictures intermingled with 'the platform' making vast sweeps across the stage. The British 'white light look' is very much present, although mostly at very low levels. The use of sporadic moments of intense

color which accent the overall darkness cause one to recall similar visual images in Wieland Wagner productions.

The lack of visual edges on the stage picture gives the production a sense of openness. The use of fog and smoke add to the misty vision present from viewing the production through the front scrim. Depth is a totally arbitrary dimension in this production because there is no ultimate background. One only sees through one scenic element, on to some slightly less illuminated scenic element, and on into the dust and darkness.

Much of the interest in the lighting comes from a creative but subtle use of the front scrim as a projection surface. The coloring and blending of moving abstractions through which one views the acting compositions is handled with utmost artistry.

LIGHTING TANNHAUSER

Tannhauser, the newest production in the repertory at the Richard Wagner Festspiel at Bayreuth, premiered last summer. In this case, not only artistic director, but stage director Wolfgang Wagner has chosen to perform the original 1945 Dresden version

of the opera rather than the typically produced 1860 Paris version. The Dresden version was specifically chosen by Wagner because of its spontaneity, and its musically youthful approach to the material.

The production, under the musical direction of Giuseppe Sinopoli, displayed stage settings which were also designed by Wolfgang Wagner, the costumes were designed by Reinhard Heinrich, and the lighting was by Manfred Voss. The simplicity of the ground plan and scenic units make this production reminiscent of the productions performed at Bayreuth just after its reopening in 1951; what became known as the 'New Bayreuth' style.

Wolfgang Wagner's scenic design gives particular emphasis to the stage floor. The foundation of the design is a single, but variable, circular ground plan. Wagner chose this classic shape because of his ability to enhance the inherent amphitheater shape of the Festspielhaus' auditorium by completing the historical shape with a circle (the classic orchestra) on the stage. The performers movements are staged so that much of the movement articulates this circular line. This is particularly true of Ivan Marko's choreography for the Gyor Ballet, which performs the Bacchanale in the opening scene.

Wagner has designed the setting so that the stage floor is raised to the same height as the auditorium floor. This means that the audience instead of looking down on the performers, if they were on the regular stage floor, looks on a straight line to them. This gives the two, audience and performer, a relatively equal relationship. Sightlines are improved by increasing the permanent 2½% rake of the stage floor of the Festspielhaus to 10% on the platformed stage.

The set is composed of a center circle or disk approximately 7½ meters in diameter. Around this disk are two concentric rings each about 1¼ meters across. These elements are set in the raked platform which is about 20 metres across and 13½ meters deep to the farthest upstage point of its semicircular rear edge.

Each of the rings and disk step down successively 50 centimeters, starting from the outer edge of the stage and moving in and down toward the middle disk. All three elements rotate at variable speeds in both directions, and the center disk also raises and lowers to various heights. Throughout the action of the first and third acts, the raked rings and disk are regularly rotated, thus providing different visual compositions for various moments in the opera.

In the first and third acts the raked stage platforms are surrounded by a semicircular cyclorama composed of strips of translucent and opaque fabric intended to receive projections which represent the natural exterior of the valley near the Wartburg castle. The shrine, in the form of a statue of the Madonna, is located in an additional raised platform on the center disk. In the second act a curved colonnade, backed by a cloth cyclorama, serves as the surround representing the Hall of Song in the

***The Ring of the Niebelungen* Staged by Peter Hall, Scenic and Costume Design by William Dudley, Lighting by Manfred Voss.**



In the last act of *The Walkure* Brunnhilde lies covered with her black shield on the silvery slate floor with Wotan standing silhouetted against the darkness. He is surrounded by small subtle white stars. All of this is seen through a barely discernible, slightly bluish front scrim, which softens all of the edges. Wotan ignites the ring, and as the fire begins to grow around the circle, the silvery stage slowly appears to change into a red hot metallic sheet of rough steel. The ring of fire is accomplished with 24 dimmers using 43 presets. The ring is divided into 16 segments which are faded up, one after the other in order to complete the effect of fire growing around a circle. Each segment contains twenty, 75 watt lamps. Of these 320 lamps, 256 are used to create the flickering, with additional background light supplied by fluorescent lamps. The picture is completed with slowly wisping smoke emerging from the ring. The effect is superb.



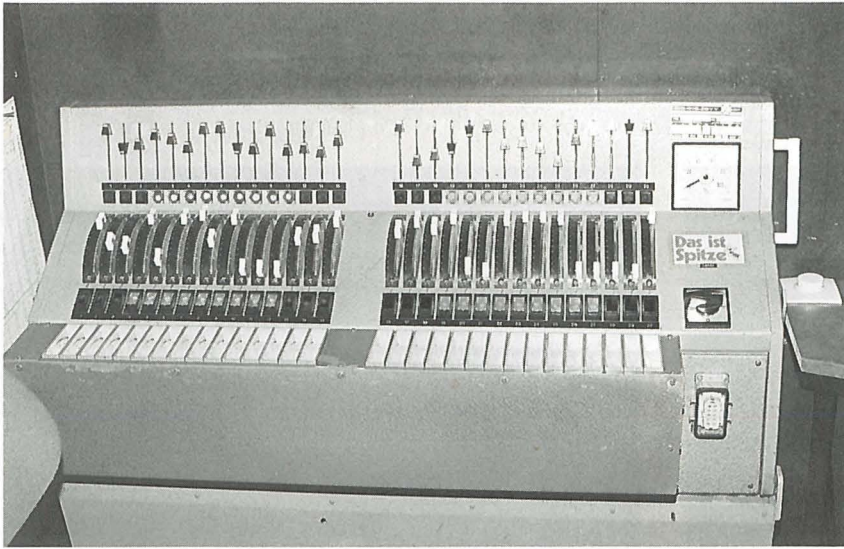
In the second act of *Siegfried* the fire breathing dragon appears from the cave. During the ensuing fight it stands erect at it's full height of almost 20', smoke appearing as fire because of the interior illumination. The act ends with a final picture of building intensity. Siegfried's growth in understanding is reinforced by a gradual, centrally concentrated, increasing light, as he stands in his element, surrounded by the nature. The act is accomplished by the use of 84 dimmers, 40 presets, and followspots.



The final moments of the last act *Gotterdammerung* are particularly effective because the funeral pyre for Siegfried uses real fire. In addition to random flickering lights at the bottom of the pyre, and high intensity orange and red lights focused up through a large moving smoke cloud, a metal fire box was placed about three feet up stage of the pyre. Eighteen inch flames burned in this box giving the appearance and effect of a 6' tall burning pyre.



The Rheingold opens to a stage bathed in a blueish green light with moving water effects projected on the front scrim, both from the rear of the auditorium and from the torm position behind the proscenium. One at a time the Rheinmaidens are revealed swimming, far above, in very tight follow spots. The scenery is lit sparingly with ellipsoidal spotlights, and the Rheinmaidens are illuminated with 650 watt ellipsoidal type followspots from the 1st electric bridge. Alberich is lit with a tight side light in his position all the way forward against the scrim. The lighting for the complete scene involved only twenty presets.



The control board which, operates the thirty mechanical douser units used with arc lamps, is used in conjunction with dimming of the arc lamps controlled from the regular dimmer board.

Wartburg castle. The additional raised platform is removed, and the interior feel is reinforced by covering the ground cloth with a wooden parquet floor.

The opening Bacchanale scene is played on the standard groundplan with a black masking as a surround in front of the cyclorama. The essence of the scene and lustful atmosphere is completely created by the lighting. The scene is lit with sensual reds, rich ambers, and magentas. The lighting successfully concentrates the audience's vision to the constantly moving disk and rings, with the characters of Venus and Tannhauser highlighted and visually removed from the frenzy by the use of follow spots.

The Bacchannale concludes with a black out during which Venus and the dancers disappear, the black masking is flown, and the Madonna magically appears from the floor of the small platform. When the lights fade up, a stylized Wartburg valley is revealed in all its spring green glory. The atmosphere is virtually completely created by the successful lighting of the surround. The basic gray strips of cloth are covered with patterns and projections, creating a surface with a surprising illusion of depth.

The general rule, when creating a scene with projections — use many overlapping images, holds true with this production. A multitude of projections are used to create the illusion. In addition to many ellipsoidal patterns being projected from the galleries and the grid bridge positions, HMI and incandescent source projections come from the first electric bridge and the proscenium lighting towers.

As a final touch, a group of special xenon source curved Linnebach (cinebach) type projectors are used from the 1st light bridge. This projector takes a curved piece of plexiglass as a slide which can be painted. When placed at the center of the first light bridge, such a projector will light the complete cyclorama. With the use of multiple projectors, the image can be changed by fading from one to another, or more

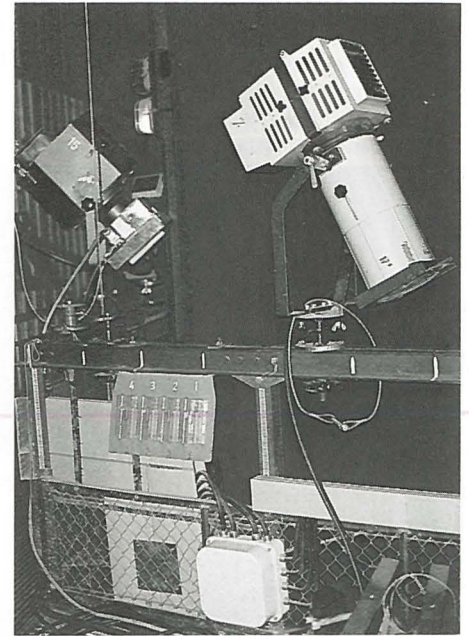
sophisticated yet from one group to another group. The striped cyc and its curved backing is also washed with floods from the floor front and back.

All of these various instruments from the variety of locations are used in countless mixtures in order to achieve a constantly changing (although at a very slow rate) background with a vital and vivid spring quality. The impression of movement is further accented because the cyclorama is composed of strips of cloth hung at different depths. Since the projections come from various angles, the light passes through some strips striking others. Throughout the action of the act, the background seems to be an ever evolving complexity of shimmering greens, ambers and daylight blues.

The bright smooth surround for the second act stands in high contrast to the busyness of the forest like image of the first act. A series of arches stand before an intensely lit pale blue cyclorama which visually thrusts the large chorus forward to the audience. To prevent the translucent fiberglass colonnade from appearing dark in contrast to the bright cyc, the columns are brightly lit from below and the arches backlit from above.

To provide the brightness needed, 500 watt, 24 volt, parabolic reflector beam projectors, each able to provide 8,000 lux were used from within the columns. The arches were lit from above with high intensity, series wired, low voltage strip-lights (Svoboda strips) lamped with 250 watt, 24 volt lamps, each strip providing almost 3,000 lux at 10 meters.

The third act, which has the identical physical stage setting as the first act, is lit in a similar fashion, except for the use of autumnal tones rather than spring greens. This change from a spring to an autumn palette appropriately reinforces the passage of time. Once again the image of the stage is not static but constantly moving and providing dynamic compositions which reflect the emotional level of the characters



View of the lighting gallery with a Niethammer ellipsoidal spotlight.

and stage situations. This reinforcement is particularly apparent at the conclusion of the opera when it subtly, slowly, helps create a composition that concentrates attention to the climactic action at the center of the stage.

The Lighting Instruments at Bayreuth

Constructed and equipped similarly to many large German theaters, the Festspielhaus has all of the lighting positions situated in such a way as to be accessible to the electricians at all times. This accessibility is important for theaters performing a daily rotating repertoire because it facilitates an easier change over between productions. This accessibility also allows for focusing instruments during the act breaks, a much used technique which provides more flexibility with fewer instruments. The lighting instruments in use in the theater tend to be physically much larger and more powerful than the instruments used in the U.S. or the U.K.

The standard lighting positions in the Festspielhaus are: the 1st electric bridge which is two levels high, the proscenium tower towers which are six levels high, the galleries around the sides of the stage house which are located at three levels, two positions which hang just below the grid at stage center and at the rear of the stage, the front of house at mid-auditorium and rear of the house, and the stage floor.

The total lighting inventory at the Festspiel in Bayreuth includes between 350 and 400 lighting instruments. Tungsten halogen incandescent ellipsoidal spotlights are lamped at 650, 1000, and 2000 watts. Other ellipsoidals include 1200 watt HMI spotlights, and 900 and 2000 watt xenon spotlights. Fresnel lensed spotlights can also be found lamped at 1000, 2000, and 5000 watts.

Much of the xenon equipment is from Reiche & Vogel, the company that manufactured many of the projection devices invented by Paul Eberhardt. The Festspielhaus is also equipped with many instruments from the company Niethammer, including 1200 watt HMI ellipsoidal spotlights which can provide over 5,000 lux at 10 meters. Although rather large and heavy, they are a delight to work with and are considered the highest quality spotlights available on the continent.

Reiche & Vogel and Pani Projector units include 2500 watt xenon, and 1200 and 4000 watt HMI scenic projectors, both with and without lenses. In addition to these typical theatrical spotlights, low voltage high intensity backlight strips, and fluorescent tube flood lights can be found in the inventory.

Since the xenon and HMI units have special power requirements, the Festspiel has engineered a system of distribution that supplies certain special circuits with the appropriate power. As these lamps cannot be fully dimmed special mechanical douser units were developed and fitted to the various arc lamp instruments. The control circuits for the mechanical dousers are run permanently, adjacent to the associated high power circuits.

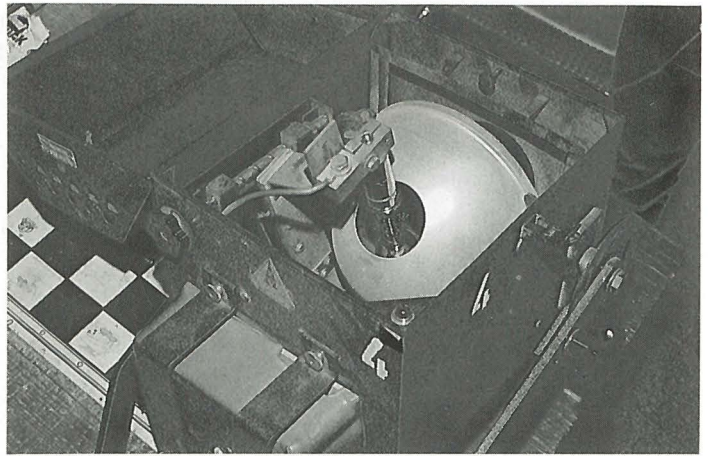
Over the years many innovations in projection, and especially moving projection, have been initiated and developed at Bayreuth. One of the most effective uses a glass cylinder in front of the lens to further breakup an abstract projected image. Such a device gives the movement special life as the light is refracted by the different thicknesses of glass through which it passes.

The theater, with 260 circuits, has a 5000 watt dimmer per circuit dimming system, which was installed in 1972. There are 30 additional dimmers specially engineered to supply the xenon and HMI circuits. Unusual are the ten fluorescent adapter units which can be added to any dimmer to allow the dimming of fluorescent lamps. The units seem to work better with a ghost load added, which takes the form of exposed lamps above the dimmer rack.

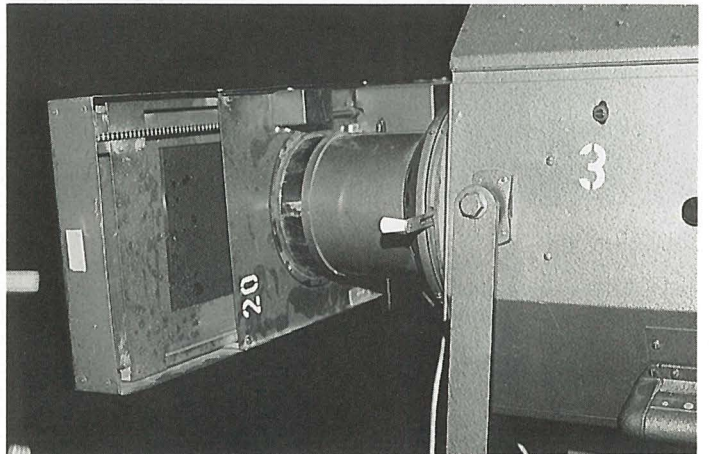
Installed in 1981, a Siemens Sitralux B-30 memory control system is located back stage, on the second floor of the proscenium form. The system, custom designed for the Festspiel, includes a control panel which is laid out physically in relation to the location of the stage lighting circuits in the theater. By pushing any of the buttons, circuits are automatically addressed by the lighting control system. This facilitates the typical practice of a Beleuchtungsmeister requesting dimmer level changes by function name or circuit number. The lighting board operator can immediately address the proper dimmer by knowledge of the function location, or by its circuit number.

Also of interest is the control system, which operates the thirty mechanical douser units. The 900 watt xenon lamp draws approximately 50 amps and can be dimmed down to 5 amps; below that a mechanical douser must be used. The 1200 watt HMI lamp draws approximately 15 amps and can

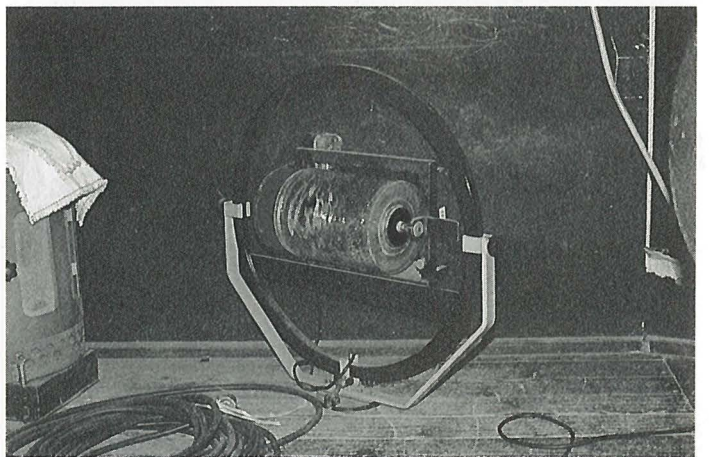
A Reiche Vogel ellipsoidal with the housing opened to reveal the 900 watt xenon lamp.



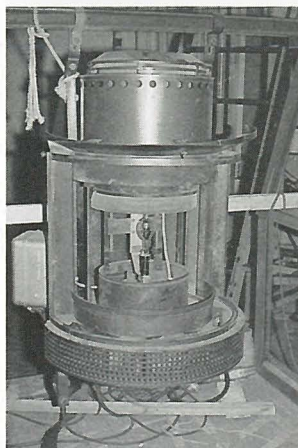
The use of xenon and HMI sources for stage lighting spotlights has caused the Festspiel to develop a mechanical douser unit which can be used with the arc sources.



To achieve moving water and fire effects a rotating glass drum is placed in the path of the light. Shields to block unwanted refraction are taped in place.



The cinebach projector, a curved version of the Linnebach shadow projector. When located at the center of the first light bridge, such a projector can light a complete cyclorama.



**Tannhauser Staged and Scenic Design by Wolfgang Wagner,
Costume Design by Reinhard Heinrich, Lighting by Manfred Voss.**



Tannhauser opens with the Bacchanale, a sensual dance of swirling bodies staged to surround Venus and Tannhauser, who are highlighted by followspots. The flow and movement are enhanced by the rotation of the raked concentric rings on which the dancers move. In addition to the colorful use of light to create the atmosphere, this constantly moving mass is lit with moving projections which help blend together all of the movements in the scene.



In the third act the action returns again to the valley near Wartburg, but this time it is a valley surrounded in autumnal tones. What was an animated vivid spring image returns as a more somber tranquil image utilizing ambers, oranges, and rusts. The change quite nicely reinforces the passage of time and prepares the audience emotionally for opera's ending.

be dimmed down to about 7 or 9 amps; below which, once again, the mechanical douser must be used. The control circuit for the mechanical douser is associated with the control of the lamp so that the correct douser for the correct lamp is always synchronized.

Manfred Voss, Head of the Stage Lighting Department, prefers to take advantage of the xenon lamped instruments first, because of the relative stability of their color temperature when dimmed compared to the HMI instruments.

The high intensity back light striplights (Svoboda strips) are permanently located on line sets in front of, and behind the center stage grid positions. It is unusual for any other line set positions to be used for light-

ing. The ceiling position in the auditorium is small and used only for a few front of house units, follow spots, and front scrim projections. The rear orchestra position is used extensively for both color washes and moving projections on the front scrim.

Since the theater operates in a rotating repertory of the *Ring* Cycle (4 productions) and an additional 3 or 4 other productions each season, the lighting instruments remain relatively fixed and are moved only under extreme need. Refocusing is continuous, certainly every act break, and sometimes during scene breaks when the curtain is lowered. Once a production is in performance the lighting staff has between one and two hours to set up and focus the



The brightly lit cyclorama of the second act of *Tannhauser* stands in sharp contrast to the busy foliage of the first. The use of the upstage colonnade provides the image of an interior, but because of the bright cyc an interior of vast openness.

lighting instruments, usually about 200, for each production.

A stage manager on each side of the stage calls cues for the stage activities. The lighting cues, however, are called by a stage manager positioned in the lighting control booth. This lighting stage manager sits with Voss throughout the rehearsal process and works as a lighting assistant. Having worked at Bayreuth for years, he knows not only the nuances of each of the productions but also the details of the lighting process. This practice of a special cue caller for lights is not common in all German theaters.

There are eighteen electricians working at the various positions around the theater. Two lightboard operators and a douser control operator are in the control room; three are on the light bridge; the two on each side term also take care of the galleries; one positioned on the grid; four on the floor, two each side; and one handles the front of house. In addition to these positioned electricians, two Beleuchtungmeister work as assistants. Because of the difficulties and complexities of setting up instruments on the stage floor during the performances, one oversees the work on the stage, the other acts as an assistant to Manfred Voss.

During the Festspiel Voss will sit through all of the performances in a special directors box in the rear of the auditorium to keep track of the accuracy of the lighting. He will make changes in dimmer readings and also corrections for the follow spot operators as the need arises.

The working atmosphere of the lighting crew, and even the complete company at Bayreuth, is one of family. Everyone in the company looks forward to the yearly summer migration to enjoy the environs of Franconia, and to re-immense themselves in the intricacies of producing the Wagner operas.