

## INSIDE

Japanese Weddings  
Use A-V. 150 Projectors  
for Renault.  
Editorial ..... 2

Boeing, Van Gogh and  
Macbeth use Multivision  
..... 3

Choosing a Presentation  
Unit ..... 4

A-V in use by Police,  
Banks, Marines ..... 5

People. New Book on  
Multivision ..... 6

Sound Systems. Belfast  
Opera House ..... 7

Electrosonic in Colour.  
Dinosaurs in Japan.  
Planetaria ..... 8

Electrosonic in Colour.  
Sales Conferences.  
Lighting Equipment .. 9

ESRAX. A new system of  
Random Access Projection ..... 10

New Products. Loudspeakers,  
Lenses, Lamp Changer, Triunial ... 11

Producers Forum. ICC  
Berlin. Whisky Computers Cars and  
Guinness ..... 12

Singapore Experience.  
Sales Conference. New  
Rome Showroom .... 13

Museums in Canada,  
Australia, U.S.A., Denmark,  
Spain, England, Scotland and Wales 14

Lighting News. £4 M.  
Contract. 300 Dimmers  
in Desert ..... 15

Tussauds New  
Display. Kodak at  
Photokina. Multivision  
at Westminster ..... 16

## Holland happens

JUST opened in Amsterdam is the HOLLAND HAPPENING, a superb new audio-visual spectacular. A 15 metre screen, 1.5 million guilders investment, 42 projectors, studio quality sound — and, of course, Electrosonic engineering.

Proud to be a tourist show "HOLLAND HAPPENING" also appeals to the locals. The show is not just about Amsterdam and tulips — but about Holland as a whole. It makes clear what made the country by depicting Holland as it was from yesterday's history, art and culture, to Holland as it is — in work, on the sea, at play.

Electrosonic Systems B.V. of Amsterdam were responsible for the complete engineering of "HOLLAND HAPPENING". Of course Electrosonic have the useful background of having completed several other large scale multimedia entertainment systems (probably the best known being the "LONDON EXPERIENCE") and in fact the complete technical system is mainly composed of standard products.

However the show producer, Henk van Mierlo of Kreative Kommunikatie B.V. has made interesting use of the projection armory at his disposal. A single screen area 15m wide x 2.5m high is covered by no less than 42 projectors. "Soft edged" masking is used throughout, so the show can use magnificent single images covering the entire screen, or, more usually, images vignettied into each other.

An interesting approach has been taken with the photography, 15 different photographers were used, each chosen for their particular skill in dealing with a subject. For example one photographed the landscapes, rivers and waterways; another created the legend of the Flying Dutchman,

another the sequence on sports and so on. All were working to the framework provided by the scenario written by Jonathan Ellis and Henk van Mierlo. This scenario is constructed in such a way that moments of beauty, suspense, excitement, pleasure and emotion are carefully juxtaposed — so that the audience always has something fresh to experience.

"HOLLAND HAPPENING" makes great use of sound. An 8 track tape deck carries the control signals and the 5 channels of music and effects. The replay system is basically "quadrophonic", but at times becomes "quintaphonic" with a loudspeaker system unconventionally placed above the audience. The main sound is a specially composed music score; written, in fact, as a symphony by the Dutch Composer Dick Eekker, and recorded at CTS Studio in London with a 70 piece orchestra. Sound effects and final editing were carried out by Artsound in Amsterdam.

Over 60,000 slides were taken during the creation of "HOLLAND HAPPENING", these were edited down to a mere 3360. The show is in a special theatre located at Nieuwendijk 16, next to the



The Amsterdam Canals, Sailing and the Flying Dutchman — all part of the HOLLAND HAPPENING.

## \$200,000 SYSTEM DELIVERED IN SEVEN DAYS

A complete Electrosonic theatre sound and lighting equipment package, also including automatic programming and audio visual equipment, was delivered to the Philippines in just SEVEN DAYS from order. The contract value was £86,000 (\$200,000) and 3½ TONS of equipment was involved.

On Monday, June 30 Electrosonic received telex advice of a letter of credit calling for the delivery of a complete set of theatre sound and lighting equipment including 60 programmable automatic dimmers, son et lumiere control system, 24 channel sound mixing console, 18 projector multivision system, high power sound replay system and stage management and intercommunication system.

What the letter of credit did not say was that the equipment had to be in Manila, installed and working, for a show that was to open on Saturday, July 12. For this to be possible all equipment had to be at Gatwick Airport in the early hours of Saturday July 5 in order to arrive in Manila on the Sunday evening; less than 7 days from the receipt of the order.

Electrosonic's distributor in the Philippines, Vidtronic, secured the contract to supply the system to the University of Life open air Amphitheatre. The University of Life is a major project being carried out by the Ministry of Human Settlements, and is intended to improve the quality of Philippine life by the training and instruction of regional group leaders. At the centre of an impressive complex of dormitories, lecture theatres, dining halls, conventional theatres and an olympic sized sports stadium, is the University of Life Amphitheatre.

The Amphitheatre has been designed as a focal point for both informal and formal events and has been technically equipped to provide the following:—

- ★ An informal sound and light sequence to provide a pleasant background for informal gatherings.
- ★ A formal Sound and Light Show.
- ★ Formal audio visual multivision presentations.
- ★ Formal theatrical or musical presentations.

The building of the Amphitheatre was still proceeding when the equipment arrived on site. The Philippines pride themselves on achieving miracles, and the requirement to build, deliver, instal and commission such a system within a few days was not considered abnormal. Neither was the absence of a control room, cable routes or lighting towers considered an adequate reason for delaying the inauguration — the only delay that was permitted was of one day to allow for the tail of a typhoon to pass.

The inaugural show depicted the growth of Philippine Society, and had a cast numbering several hundred drawn from various theatre companies in the Philippines, together with a choir from the Philippines Opera Company. The first dress rehearsal was on Friday, 11 July (in the rain!) and the final dress rehearsal preceded the inaugural show that took place at 10 p.m. on Saturday, July 12.

## VIVE L'ES3003

Electrosonic users win the prizes at Biarritz

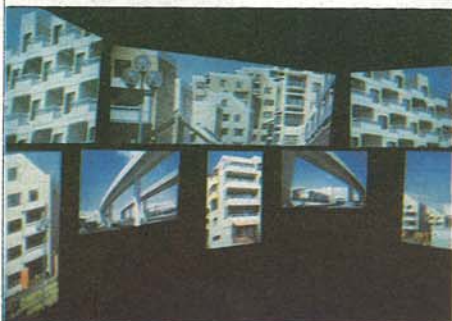
The 4th Festival of Industrial Diaporama was held in Biarritz in June. 65 shows, ranging from single screen to 7 screen, from 2 projectors to 20 projectors, were shown in 3 days. 22 of the shows were on Electrosonic equipment, and the top 3 prizewinners were all Electrosonic users.

Biarritz is the host town to the Industrial Audio Visual media every summer, when a "3 in 1" Festival is held. This is the Festival of Industrial Films — now in its 23rd year, the Festival of Audio Visual Training Programmes, and the Festival of Industrial Diaporama. Rightly the whole event can describe itself as "L'épicentre de l'audiovisuel d'entreprise."

The Festival of Industrial Diaporama covers all kinds of slide/sound and multivision presentations, both for general public and specialist audiences. Judging is based both on the artistic and technical quality of the show and on the success with which it meets its objective. For this purpose the shows are divided into categories — product promotion shows, public relations shows and so on.

Electrosonic users were prominent in the competition; not only was their equipment selected by a high proportion of users, but also the first three prizewinners were "Electrosonic". The "Grand Prix" was won by a show

Cont. on page three



"BOPLATS 80" Multivision in Stockholm.

## Radio controlled multivision in Sweden

A novel way of using recent innovations in telephone technology to reduce maintenance costs has been demonstrated for the last few months at the "BOPLATS 80" exhibit in Stockholm. This incorporated a 25 projector multivision show, linked to a radiotelephone system that ensured that in the event of any service being required the service engineer was called automatically.

The "BOPLATS 80" (this translates as "Habitation 80") exhibit opened on May 15th and was sponsored by the Swedish Architectural Association. The theme of the 25 projector, 8 screen multivision was that of living in

different styles of housing, and the contribution made by architecture to the quality of life. The show was produced and photographed by Hans Hammarskjöld and Peter Wistedt.

The show system was a standard Electrosonic ES3003 Autopresent System. The high quality sound available from the ES1311D tape deck being played through a 2 x 200 watt amplifier with JBL loudspeakers. The show was operated from push button start by the exhibit attendant, with shows being given as near continuously as possible.

Ljusteknik AB, Electrosonic's distributors, had to guarantee that in the event of a lamp failure or projector jam they would have a technician on site within 2 hours, whatever time or day of the week. This was achieved by taking advantage of the standard features of the Electrosonic system and by the ingenious application of other "off the shelf" products.

The ES3000 Multivision Controller is fitted with an external "Alarm" contact that is normally used to ring a bell or flash a light whenever

Cont. on page three

## ELECTROSONIC WORLD

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## EDITORIAL

Welcome to ELECTROSONIC WORLD, the world of professional audio visual, lighting control and sound systems.

To many people Electrosonic means ES3601 Audio Visual Presentation Units, to others it means automatic dimmers for hotels. The application of our products is so widespread that many of our customers and friends do not know of all our activities — and even we ourselves do not know about all the uses to which our products are put.

ELECTROSONIC WORLD has been produced as a forum — a forum of news about the jobs we and our distributors are doing, about new products and applications, and about technical topics that might be of universal interest. If this issue is inclined towards describing the activities of some of the U.K.'s leading audio visual software producers, it is because their stories were most easily available to us. We serve a world market and know of many other interesting and exciting applications in other countries which are equally important to us. If you have any views about how ELECTROSONIC WORLD should proceed; better still if you have stories about your own activities that may be of general interest, please let us hear about them.

## THE NEED TO SELL

Present world economic circumstances are confusing for all of us. At Electrosonic we notice that they affect our various markets in different ways — the cause of a downturn in one market can be the very reason for an upsurge in another.

For example a downturn in the start of new construction work means a fall off in the demand for lighting control systems for new buildings; but at the same time there can be an increase in the demand for systems for refurbished buildings.

Likewise a reluctance to spend big money on lavish product launches might mean a cutback in "one time only" presentation a.v. shows — but at the same time be the opportunity for "investment" shows which have a long life and are used as part of a Company's day to day business of recruiting, training, and promoting its products and services.

We have noticed the paradox that audio visual producers, who often excel at making shows to sell other people's products, are not always alive to the need to sell their own services; not because they are not able adequately to demonstrate their wares, but because they do not maintain a continuous selling effort.

This can result in producers working around the clock through a busy period on actual work in hand, only to find when they complete this work that new orders seem to have dried up completely.

Likewise we have noticed that the most successful dealers in our products are those that maintain a continuous active selling effort throughout good times and bad — with only the emphasis changing as economic circumstances or the changing needs of customers dictate. Above all we are continually reminded that our markets are still very young; that many more businesses are unaware of our products and their benefits than those who know of them; and that the potential for sales remains enormous.

## ELECTROSONIC'S ROLE

Do we practice what we preach? Not as much as we would like; but we do have some important objectives and we believe their attainment will enhance our position in the market by better serving the needs of our customers in the 1980's.

1980 itself has been a year of consolidation for us. We have made, and are continuing to make, significant progress in improving our manufacturing facilities, in improving the way in which products are made, and in refining our methods of production control. We therefore expect 1981 to demonstrate improvements in product availability and quality that will maintain high end-user acceptance of our products.

Product Development also continues to be a major company activity. A significant proportion of our revenue is ploughed back into Development work, and our development team is supported by an increasingly heavy capital investment in instrumentation and computer equipment. We have been listening carefully to the criticisms and recommendations from end users and trade customers; and major new developments "in the pipeline" will, we believe, yet further expand the market we serve. Development of a new product, and more especially a family of products, takes a long time and it is especially the case in the audio visual field that precipitate change to catch a fashion of the moment can create difficulties both for customer and manufacturer. Our aim in the 1980's is to develop product that will benefit from, and not be outlived by, the expected spectacular further development in microelectronics and, with the aid of our customers, to refine our product range to best meet the real needs of end users. We also seek to identify completely new product possibilities. We remember that when we developed our first automatic electronic dimmer, we were using a component, the thyristor, that had only been invented a few years before. Similarly the widespread application of our kind of audio visual techniques depended on both the availability of new, sometimes hitherto unimagined, components, and on a new kind of market that appreciated the possibilities.

We are confident that we shall find new opportunities based on the developing technology — and we look forward to exploiting them with you, our customers, suppliers and business colleagues.

## AV WORLD NEWS

Japanese  
weddings  
audio visual

It may come as a surprise that Japan is one of Electrosonic's important export markets. It may come as more of a surprise that an important application there is the use of Multivision in Wedding Palaces. Nagase and Co. Ltd., Electrosonic's Distributors in Japan report on an unusual market.

Many people in Japan get married in a Wedding Palace. These are more than just a place to get married — each is an organisation able to look after all the "ceremonial" aspects of a wedding. This includes the ceremony, reception, photography, hire of clothes, and so on.

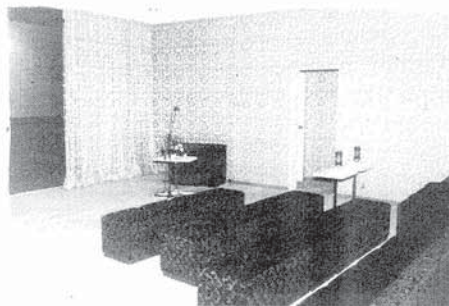
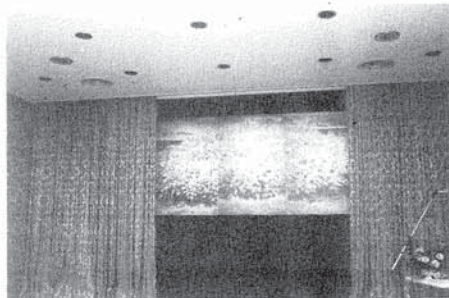
The largest group of Wedding Palaces is the Heian-kaku group with 80 palaces each run as a separate commercial concern. Of this 80 no less than 47 have a 3 screen audio-visual system, this is most usually installed in a special room known as the "Fairytale Room."

A typical installation is at the Funabashi Heian-kaku in Chiba prefecture, and a wedding ceremony here will usually use five different rooms. First a couple and their family enter a meeting room where the families meet officially for the first time. Then they enter a sanctuary room (often a Shinto Shrine) for the ceremony itself.

After the ceremony they move to a photo studio for wedding photographs to be taken and next they enter the "Fairytale Room". In this room the newlyweds and their family see a 3 screen multivision programme, the theme of which is gratitude to their respective parents and families. Although the programme is a standard programme, it finishes with pictures of the newlyweds themselves — so every show is different! After the show the newlyweds and families move to the Banqueting Room where they are joined by their friends, colleagues and teachers for the wedding banquet.

All the installations for Heian-kaku group have been carried out by the Aei Studio Company, using Electrosonic ES 3006A dissolve units and Kodak SAV 2000 projectors.

But weddings are not the only audio-visual business for Electrosonic in Japan. Industrial visitors centres are also an important market, and companies such as Mitsubishi Motor at their Okazaki works, Pola a leading cosmetics manufacturer, Hitachi and Idemitsu Oil Company have all got permanent multivision systems for visitor shows. Recently the ES 3003 system has been successfully introduced to Japan, and many installations are planned for the future.



The Fairytale Room at the Funabashi Heian Kaku Wedding Palace, screen (above), seating area (below).

## LEVI

Nissen Lie Consult of OSLO report that LEVI'S are presenting their fashion line and marketing activities in a well prepared audio-visual programme. 10 ES3603 sets are being rented in Finland, Norway, Sweden and Den-

mark. The ES3603 was chosen for its excellent sound quality. Apart from presenting the fashion line for Spring - 81, the programme is a presentation of life styles, ideas and the concepts that are basic for the success of Levi's.

150 projectors  
launch FEUGO

Electrosonic France (Technitone) are co-operating with the Paris based producer Extension in equipping a major launch programme for Renault.

No less than 150 projectors are being used to launch the new FEUGO car in promotion throughout Europe. In fact THREE complete staging systems each using 50 projectors are "on tour" in September.

Each system uses 6 Technitone modified 400 watt projectors with extra high speed lenses and 44 standard projectors. All projectors are fitted with ES 3003 Multivision processors.

Extension are already major Electrosonic users, so were able to meet half of the massive equipment requirement from their own resources. The balance of equipment is on hire from Technitone.

Glass  
on screen

It's often the case that we hear of two or more similar applications of audio-visual arising at the same time in different parts of the world.

Nissen Lie Consult of Oslo have recently completed an installation at the HADELANDS GLASSVERK. This company is the oldest glass works still in production in Scandinavia. Their products are exported world wide and the Hadeland designers have received many awards.

Each year the factory is visited by 150,000 people; it is impossible for them all to see the production process, so the Company has converted an old wash house on the factory site into a visitors centre. This includes a 75 seat presentation room in which a 24 minute Multivision show is given on an autoperiscope basis in Norwegian, French or English.

The system uses 8 ES3003 equipped projectors, and 3 ES1311D tape decks. These allow language selection without tape changing and still allowing full stereo sound. An ES34 is used for curtain control etc.

## PILKINGTON

A glass company of a different kind is PILKINGTONS, of St. Helens, Lancs., England. This is one of the world's major glass companies — best known for their invention of "float" glass. Back in 1964 Electrosonic had the pleasure of working with the designer James Gardner in the provision of automatic displays for the Pilkington Glass Museum. This museum, set overlooking a lake next to the Company Headquarters, covers the history of glass making right up to the present day, and also deals with the surprising properties of glass.

Tony Gidley Productions have just completed a single screen 4 projector show (ES3003 system) for installation in the museum. The show is on the history of the window "from a hole in a rock looking out at the world, to a window on the universe."

## Phantasmagoria for a Phantastic show

Many people are surprised to hear that the origins of audio-visual shows are hundreds of years old. Yet over 100 years ago 'dissolves', 'superimpositions', 'slide registration', 'back projection', 'animations', and 'high light output' were all well known. Our modern 'magic lanterns' are only developments from much original thinking that has gone before.

Keeping alive the traditions of the magic lantern showmen are Doug and Anita Lear, who besides having an amazing collection of slides and equipment dating from 1820, give a most entertaining show based entirely on the use of this material. What is more the show is given on a 'Narrowboat' designed for working on the complex British Canal System which itself was largely built 200 years ago and had its commercial heyday at the same time as the 'old' magic lantern.

The only concession to modernity that the Lears

make in giving their show is that in the interests of safety (insurance companies do not approve of hydrogen and oxygen cylinders on boats!) limelight has been replaced by battery supplied electricity.

Doug and Anita Lear started with one boat 'Magic Lantern'. This was both their home and the 'theatre'. At the beginning of 1980 a second boat 'PHANTASMAGORIA' was added — this allowed for bigger audiences and more space both for the growing Lear family and the growing collection of equipment and slides.

The 'PHANTASMAGORIA' show is a must for anyone interested in audio-visual projection, art, science or photography. It's also great fun for the family! The location of the show is obtainable from Yvonne Hegarty at Electrosonic or by RADIO-PHONE 33633. At the present time the show is in the London area and is expected to be there throughout the winter.



Doug and Anita Lear on board Phantasmagoria Electrosonic Ltd., are a sponsor of the Lear's show.



# ELECTROSONIC WORLD

## Boeing fly into Singapore

Singapore, in the words of Tony Clynick our Far East representative, is "bristling with Electrosonic A-V". This largely thanks to the efforts of Vernon Cornelius and his team at Rediffusion Services Ltd; our Singapore distributors.

There are Multivision shows at the Straits Times Showroom (about newspapers), Singapore Police (crime prevention and road safety), Singapore Bus Service (corporate image) Port of Singapore (Training), Singapore Telecoms (p.r.) and more too numerous to mention.

Biggest single show is the 56 projector "Singapore Experience" now into its second year and described elsewhere in ELECTROSONIC WORLD, but probably a bigger concentration of Electrosonic equipment is to be found in the Singapore Science Centre where daily for the last 2 1/2 years many audio-visual exhibits have been running, including a 7 screen, a 6 screen and a 5 screen show.

### AIRCRAFT

Just recently Boeing Aircraft Company of Seattle have agreed to instal an

exhibit on Aviation at the Science Centre. A main feature of the exhibit will be a 15 projector Multivision. Mr. Jack Hardesty, co-ordinator of the project for Boeing, selected Electrosonic equipment for the show on two major grounds. First was the fact that the complete ES 3003 "Autopresent" system package is the most suitable product on the market for this kind of installation. Second he was assured of Electrosonic back up "on the spot."

The show itself is being made by Mr. Duffy White of Photo Synthesis, Denver, Colorado, with all equipment initially being supplied in the USA by Electrosonic Systems Inc.

## Philips

We hear from Electrosonic Systems BV that PHILIPS of Eindhoven are extensive users of the ES3603 presentation unit for the promotion of, and dealer training in, video, audio and HiFi equipment. Philips have 10 ES3603 systems. Their presentation rooms for these product ranges are also equipped by Electrosonic.

## VIVE L'ES3003

Cont. from page one

designed for the general public entitled "Le Tresor Noir". This show was produced by PRO — Michel Gueritte for Total Cie Francaise des Petroles, and described the development of the oil industry from the perspective of the evolution of mankind. The showed used 11 ES3003 equipped projectors.

Second and third prizes were won respectively by ELF and MAISON BRUNO. ELF's show was a house production using 14 projectors and Maison Bruno's 8 projector show was produced for them by Messages Audiovisuels.

Electrosonic France (Technitone) our distributors in France point out that the Grand Prix winners at Biarritz in 1978 and 1979 were also Electrosonic users. No coincidence they say, just that discerning a.v. producers in France choose the best equipment —

ELECTROSONIC!

## Showslide on beer

ANHEUSER-BUSCH recently purchased 10 Electrosonic ES3069 SHOWSLIDE dissolve units for use in their travelling display vans. These stress the quality of the processing and



of the well known end products of the Company — Budweiser, Michelob, Natural Light and Busch.

The display vans travel the U.S.A. telling the Anheuser Busch story to potential new beer drinkers, wherever it is possible to attract them. The vans dispense free sample beer and present the single screen audio-visual show — a very attractive combination.



Leonard Nimoy plays Theo, Vincent Van Gogh's brother. Slides give support.

## Audio-Vincent

A unique one actor play featuring Leonard Nimoy on the life of Vincent Van Gogh has been filling theatres around the U.S.A. The play is supported by a slide show featuring Van Gogh's work.

Leonard Nimoy's production of "Vincent" is unique in the method by which we come to know Vincent Van Gogh. Perhaps the word should be "methods" since Nimoy uses two. The first is the character Nimoy portrays. He is not Vincent. He plays Theo, Vincent's older brother, a Paris art dealer. The second is showing Van Gogh's work through slides.

Theo supported Vincent during the last ten years of his life, during which time he produced nearly 1500 sketches and paintings. It is through Theo's admiration and frustration, anger and love that we learn much of Vincent. Theo has called us all together to say the many things he could not say at Vincent's funeral a week earlier.

From the theatrical standpoint, "Vincent" is a simple play. There is a bare minimum of set and props and costumes. This simplicity was an integral part of the production from the start. "I wanted a 'suitcase play,'" says Nimoy. "I literally wanted a play that could travel in a suitcase with each theatre supplying the few props we'd need, but I did need to show Vincent's gifts."

To Nimoy's credit, the addition of A-V to "Vincent" is a success. From Graphic Houses and museums throughout the United States and Europe Nimoy obtained quality slides of Vincent's works. Then, using an Electrosonic programmer, dissolve control and four projectors, Nimoy personally programmed the visuals. The changes of the matching images on the two rear screens are so gradual and subtle that they go unnoticed. The visuals become a part of the set like gently changing scenery.

As Theo reads his letters of hope and promise, the screens dance with images of Vincent's

flowers and dazzling colours. As Vincent's moods darken, the screens behind Nimoy show us the works of a superbly talented and desperate man.

What sets a true artist apart is the way in which he or she perceives the surrounding world. For this reason, a painting or sketch tells us far more about the artist than about the subject. Leonard Nimoy has combined his considerable skills as an actor, poet, photographer, lecturer and author to give us an insightful look at Vincent Van Gogh and his brother Theo.

In doing so he has also given us an interesting look at Leonard Nimoy. All three would seem to be men worth knowing better.

## Reg and Macbeth

Over the years we have often been involved in the use of slide projection in the theatre, and have supplied many special control systems to meet the needs of a particular production.

More often nowadays people tend to use the standard products and just recently two productions have opened in London using our equipment. The most elaborate is an 8 projector Memomaster controlled system to support the one man show "The Sacred Cow" — written, designed and performed by Reg Livermore.

It is Livermore's first visit to London, but he arrived from Australia with a considerable reputation. In the words of one critic "On stage he conveys a vitality, energy and violence that make a Bette Midler seem positively languid."

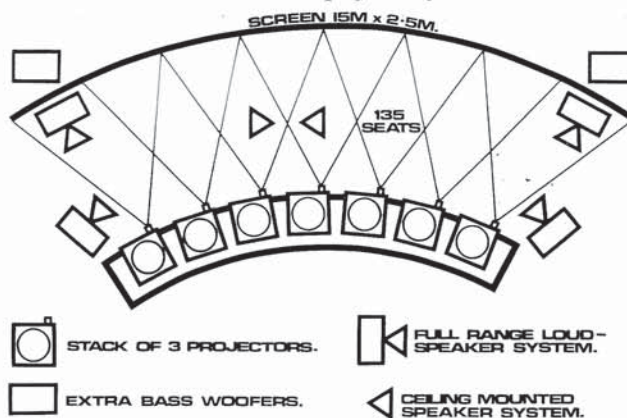
Meanwhile the Old Vic are presenting a new session of "Six Great Plays". One of these is Macbeth, starring Peter O'Toole. The ghost of Banquo will be created by projection — controlled by a standard Electrosonic ES69 Dissolve Unit.



Reg Livermore.

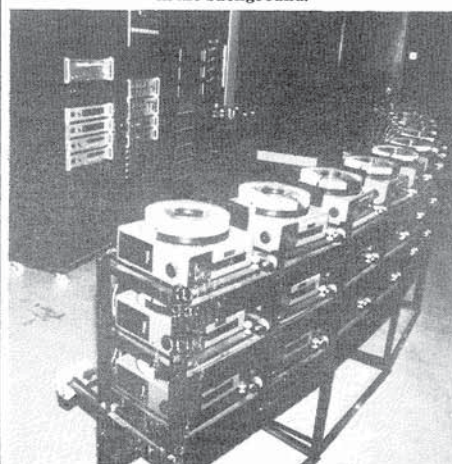
## Holland Happens

See front page story



FORMAT OF THE HOLLAND HAPPENING.

The Projection Room at Holland Happening. A neat installation by Electrosonic Systems BV. Control racks in the background.



## Radio control

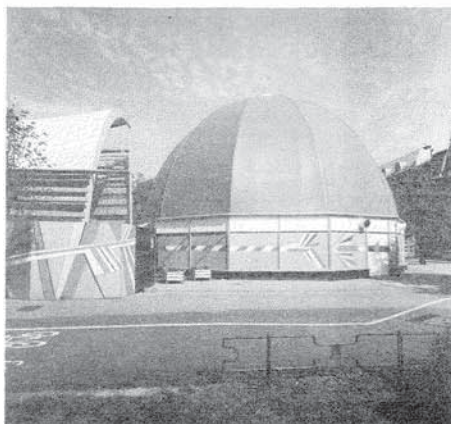
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a lamp fails or projector jams. The feature is of most use in museums and the installations where central monitoring of exhibit performance is important. In the case of "BOPLATS 80" the contact was used to operate a proprietary automatic telephone dialler, of a type usually supplied as part of a burglar alarm system. This device can be programmed to dial a particular number and to emit an identification tone. If it receives no answer within a preset number of "rings" it dials an alternate number.

Ljusteknik arranged that their office was the first number called, and the second number was that corresponding to a radiotelephone used by their service engineer. A further refine-

ment was that at weekends the "office" number was replaced by that of a second radiotelephone belonging to the Chief Engineer. This was installed on his boat!

It was a pity that Electrosonic's new automatic lamp changer was not available in time for the show, since this would have practically eliminated random calls. However, pre-planned lamp changing meant that actual callouts have been few and far between. The whole system meant good service for the client and reduced maintenance costs for both the client and Ljusteknik. The very successful exhibition closes on September 15th.



The Special Building that housed the Multivision at "BOPLATS 80".



## Choosing a presentation unit

The market for audio visual presentation units seems to be getting more complicated. But in fact the need for such equipment can be simply defined. End users of such equipment should make a choice based on their actual as opposed to imaginary needs; producers and dealers must help users to define real needs. Here BOB SIMPSON explains how the Electrosonic range of presentation units matches real user needs.

We introduced the ES3601 Audio Visual Presentation Unit in 1974. Since then the ES3601 and its companion product ES3609 have sold in thousands all over the world. The ES3601 has been joined by the ES3669 SHOWTAPE and the up-market ES3603. If you are an end user of audio visual which unit should you choose? If you are a producer or dealer advising an end user, what advice should you give?

The first point to make is that there is no point whatever in buying equipment which does more than you need. The idea of extendability is itself attractive, but if by buying "extendable" equipment you increase the complexity of setting up a show, you may actually reduce the opportunity of showing it — thus reducing rather than increasing its overall impact.

We hope that most buyers of presentation units intend to use their equipment regularly. For example it might normally be set up in a house conference room ready to run a visitor show, a staff induction show or a sales programme. The same equipment may be taken out for occasional outside meetings, regional sales presentations and so on.

### Simplicity

The nature of the shows will usually be direct and informative. It is an irony that the more complex the message you have to put across the simpler the equipment requirements — so it is no wonder we sometimes find that customers have invested in a complex 3, 4 or 6 projector system on the basis of some exciting demonstration programme they have seen;

but actually end up by using programmes that could quite well have been done on 2 projectors. Strange as it may seem it is NOT in our interest as manufacturers for a customer to buy a 6 projector system when a 2 projector system would have served. A customer who over-invests first time round becomes wary of the medium — and like as not the equipment ends up in a cupboard. A customer who makes the right investment choice may well be back next year or even next month for more equipment or more programmes because he *knows* a.v. is good value for money.

This does not mean we do not believe in multi projector as opposed to 2 projector shows; far from it. We believe strongly in their value for prestige shows, large audience shows and motivational shows. But for a typical industrial customer this might mean that once or twice a year he needs the "Big Show" treatment — but for the rest of the year he needs something much simpler which can be quickly set up by relatively unskilled people. He may be better renting the complex system — complete with operator and perhaps other support services; and buying the simple system for direct everyday use. On the other hand a big organisation with comprehensive visitor reception facilities might justify the complex system for regular in-house prestige presentations.

### Production

Another point of argument. Should you buy programme making equipment as well as showing equipment? Obviously if you are a full service producer or a comprehensive in-house production unit — Yes. Usually, if neither of these applies — No.

As an extreme example we can get the Sales Manager of a company asking us why we cannot sell him an ES3603 stereo sound multi-projector presentation unit complete with full recording and programming facilities built in so he himself can make programmes direct on cassette (rather than having to invest in additional sound equipment, transcription recorder and programmer). Our answers must be:

★ You cannot make prestige a.v. programmes direct onto cassette. You must master on at least 1/4 inch tape and then make a number of show copies. (NEVER go out on a show with only one copy).

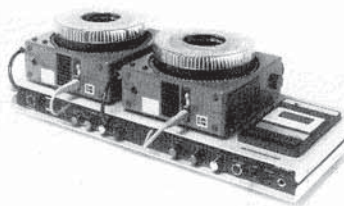
★ If your programmes are so simple and for such a limited audience (e.g. a specialist in-plant training programme) that direct on cassette programmes are justified, you should be buying a 2 projector Showtape ES3669, NOT

additional observations are important:

★ Both the ES3601 and ES3609 are easy to set up. It is this simplicity which makes them the best choice for commercial users who themselves are not a.v. professionals.

★ The choice of "impulse" or "continuously variable" dissolve control is really one of personal preference. While both ES3601 and ES3609 are available world wide, most markets "major" in only one of the units in the sense of stocking the other to special order. Thus, for example, the U.K., Holland, Sweden, Switzerland, Australia are "ES3601" countries. France, Germany, Canada, U.S.A. are "ES3609" countries. It is very easy to transfer an ES3601 programme to ES3609 standard. Usually the converse is also possible.

### ES3601 and ES3609



Models:  
ES3601 for 2 S-AV2020 Projectors (optionally snap modified)  
ES3609A for 2 S-AV2020 Projectors  
ES3609B for 2 Ektagraphic Projectors.

Outline Specification:  
Combined tape replay and dissolve unit with accommodation for the two projectors on the unit. 10 watts audio output. ES3601 impulse type dissolve unit. ES3609 continuously variable dissolve unit using f.m. system.

Supplied with:  
Carrying case with thick foam lining and built-in loudspeaker. Loudspeaker cable. Hand control.

Intended for:  
The great majority of industrial and commercial audio visual presentations. Regular touring presentations.

an ES3603. With the money you save you can buy two or three sets instead of one!

★ If you are a sales manager presumably you are being paid for your success in selling your company's product — not for your expertise in manipulating a.v. programming equipment. By all means write your show, organise specialist photography, graphics etc. but get it finished off by outside professional studios. It costs a lot less than you think and the results are much better than you can achieve yourself. It will save you a lot of your time.

### First family

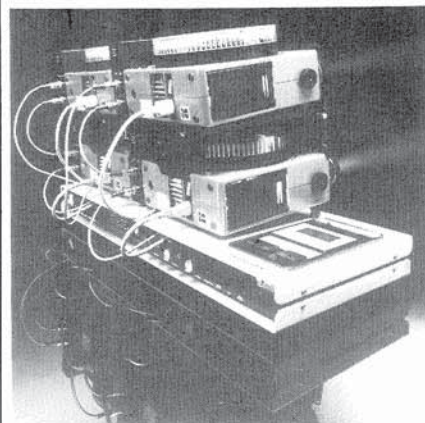
So where does the Electrosonic range fit in? We like to think of the Electrosonic range of presentation units as the "FIRST FAMILY" of audio visual. First into the field with a comprehensive range and still first in meeting real needs. The accompanying tables and illustrations define the range, but the following

★ Many people like to use their presentation unit for showing *visual aids* slides as well as showing their *audio visual* programmes. This is easily done with ES3601 and ES3603 with the push button hand control supplied. In the case of ES3609 and ES3669 the slider hand control for making programmes is not convenient for lecture purposes; and for this reason we also offer the ES3697 push button hand control to allow for simple dissolves from push button command.

★ Although the ES3609 is easier to set up, there are some users who prefer the ES3669 even for playback only shows. This is only because it is more compact; for example in the USA customers have found they can carry the ES3669 on board a plane as hand baggage whereas the ES3609 must be checked.

★ On the subject of transport you will notice that all Electrosonic presentation units are free standing units that are carried in lined carrying cases. This

### ES 3603



#### Outline Specification:

Combined tape replay and demodulator unit for use with ES 3003 equipped projectors on the unit (or 4 if compact twinning stands are used), but ability to control up to 18 projectors. If two projectors only used there is an option to run ES 3601 standard programmes. Sound is stereo with Dolby B noise reduction 20 watts per channel.

#### Supplied with:

Carrying case with thick foam lining, and space for 4 ES 3003. Hand control.

#### Intended for:

Prestige shows. Medium size conferences. In house shows where a library of programmes is available.

is important since this minimises the chance that impact shocks applied to the carrying case will affect the electronic equipment. The cases of the ES3601, ES3603 and ES3609 will stand the normal rigours of car, truck and the occasional air transport; but if frequent air transport is expected we recommend the supply of an alternative heavy duty flight case. These are available to special order.

### Summary

To sum up, the choice is yours, but remember:-

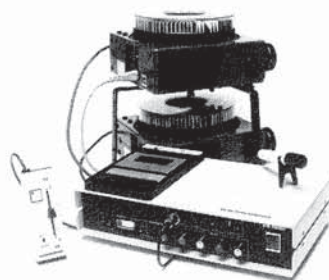
The ES3603 for top quality audio visual pre-

sentations using up to 18 projectors, usually as part of a carefully structured event or visitor programme. Also able to show ES3601 programmes.

The ES3601 or ES3609 for all "standard" industrial and commercial programmes that must be shown frequently under varying circumstances with minimum set up time and non-specialist operators.

The ES3669 for a complete "do it yourself" record and playback presentation unit for creating and showing semi-professional and limited audience shows.

### ES3669 SHOWTAPE



Models:  
ES3669A for 2 S-AV2020 Projectors  
ES3669B for 2 Ektagraphic Projectors.

#### Outline Specification:

Audio visual cassette recorder with built-in continuously variable dissolve unit using f.m. system. Independent record and replay of audio and control tracks. 10 watts audio output.

#### Supplied with:

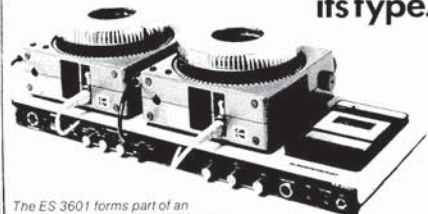
"Briefcase" style carrying case with built-in loudspeaker. Microphone. Loudspeaker cable. Dissolve hand control.

#### Intended for:

Small "in house" production units. Especially those involved with training programmes.

## ELECTROSONIC

this is the ES3601  
— the portable slide/sound  
system that has made more  
money for more people  
than any other unit of  
its type.



The ES 3601 forms part of an outstanding range of exceptionally cost-effective audio-visual equipment spanning the full gamut of commercial applications — company presentations, exhibitions, sales, data display, training and public entertainment. You will project a better image with Electrosonic A-V equipment



**ELECTROSONIC**

Audio, Audio Visual, Lighting, Presentation and Hire  
815 Woolwich Road, London SE7 8LT. Tel: 01-855 1101



## SONG OF 3603

Our distributors in Norway report an interesting application of the ES 3603 presentation unit. Besides being distributors of our equipment Nissen Lie Consult offer full P-R services and their offices in Oslo and New York had the P-R responsibility for the rebuilt S/S NORWAY — ex "France" — the world's largest passenger ship/cruise liner.

Among many tasks were the planning and production of the audio-visual programmes on board.

— a 15 minute introduction of the ship to all passengers, media and guests during the maiden voyage.

— a visual presentation of Norway, the country, the people and the culture.

While the introduction show was first shown on a 4 projector ES 3603 system to large group audiences on board during the maiden voyage, it has subsequently also been transferred to video so that passengers can see it on the TV set in their cabin.

The ES 3603 system remains on board in the NORWAY cinema, where the second presentation is regularly shown to passengers as a special feature before showing films. The show is called "Off the Beaten Track", and combines the photography of Johan Brun with the music of Edward Grieg.

## Bottled ES 3603

A newly formed Birmingham (U.K.) based consortium specialising in audio-visual production and conference organising has recently returned from Athens, where it had used the ES 3603 presentation unit very nearly to the limit of its capacity.

The group, which is co-ordinated and marketed by JTA (Design and Publishing Ltd.) of Edgbaston, consists of Equip Productions, the programming division of Cine Equipments, and Joseph Such, specialists in studio and special effects photography.

The new group was responsible for the total production of a complex series of visual aids and audio-visual programmes in support of 16 speakers at the Coca Cola Bottlers (Scotland and Northern) Ltd. conference held at the Astir Palace Hotel, Athens.

The programme used 16 Carousel projectors, a 16 mm projector with start and stop controlled automatically, and special effects such as strobe lighting, all programmed from an ES 3603 presentation unit. Auxiliaries such as houselights, speaker spotlights, etc. were also controlled, this show must represent one of the most extensive applications of the ES 3603 to date.

The attraction of the ES 3603 for the application was that it not only could combine the reproduction of high quality sound with the programming of a large number of projectors, but also was very compact with the whole programme being carried on a few compact cassettes.

The group was also responsible for devising the theme for the conference — the "Time Machine" enabling speakers to take forward and retrospective appraisals of the company's performance. In support of the theme, the conference commenced with a lift-off sequence displayed on the 30 feet wide screen. Time warps, a time tunnel and other effects were staged with the conference ending with the "Rocket Launching" of a Coca Cola bottle!



The liner "Norway" — launched with ES3603.

## U.S. Marines go with Electrosonic

The Services have one of the greatest needs for specialist training of any audio-visual user. Recently the U.S. Marines at their Camp Lejeune base in North Carolina, have purchased Electrosonic 2 projector equipment (both ES 3609 SHOWSLIDE and ES 3669 SHOWTAPE) as being the most suitable to their needs.

Captain N.P. Anderson is in charge of the audio-visual and training centre. She already had some experience with audio-visual on different assignments in different camps when she was assigned to Camp Lejeune. She and another officer wanted to put together a Multi-Image show to demonstrate its capabilities. They did this using 3 projectors,

supplement live demonstrations. Major Phillips has been extremely pleased with the unit because of the ease of programming. He found it easy to put these presentations together using local talent and available slides and then easily update the show as needs change.

The other uses for the equipment in Camp Lejeune range from a system in the reception centre that helps to welcome the thousands of Marines who are admitted daily to the Camp. It was decided to use slides for this because of the constantly changing statistics of the Camp.

The Engineering School and Supply School became exposed to Multi-Image and have both started using the Electrosonic ES



**The Few.  
The Proud.  
The Marines.**

each projector hand controlled. This show was such a success and well taken by the training officers in the facility that they were led to investigate equipment needs for further use.

They looked at a number of systems available for 2 projectors and with the help of Mr. Bill Perry, an Electrosonic representative, they chose an ES 3609. They chose this unit because of the vast flexibility that it provides to both the producer and the presenter. About six months ago this unit was put into the Instructor Management School (IMS). Major Phillips of IMS uses the unit to put together short "canned" presentations to

3609 systems to help provide visual animations and a broad classroom overview. The ten ES 3609's work well for this application because the majority of the presentations are done live as speaker support.

At first video tape was tried in the schools but was quickly found to be impractical because of the large number of monitors and cameras needed to fill the different classrooms. Because of the size of the ES 3609 it is easy for one school to use one unit in many classrooms and therefore keep equipment expenses to a minimum and yet provide presentations that more than fill their needs.

## ES 3603 needs no fur hat

In October 1979, Kodak Limited's Photographic and Audio Visual Services department was requested, by their colleagues in the Kodak Export Markets Division, to provide a slide/tape programme to be screened in Moscow, shortly before Christmas. The subject of this audio visual programme was the new 'Kodalith' MPII Films, Chemicals and Process Control Aids which were to be shown in Moscow for the first time.

This request for the audio visual programme coincided with the announcement of the ES 3603. Kodak Limited decided that the new unit suited their purposes exactly and an order was duly placed. The unit was delivered to Kodak Limited in early November 1979 and after being tested, it was then packed with the other equipment required to show the programme, ready for shipment to Moscow.

All the equipment arrived at Moscow airport on the last Monday in November. It then stood, for two weeks, in an unheated customs warehouse,

awaiting clearance. The temperature in Moscow at that time varied between +25°C and -30°C! Customs clearance was finally accomplished less than twenty-four hours before the presentation was due to be screened.

On unpacking the equipment, the ES 3603 was found to be too cold to handle without gloves and the projector optics took an hour to demist. Apart from this minor problem, the presentation ran perfectly the first time. The ES 3603 certainly withstood the rigours of a Moscow winter!

Before the return journey, the equipment stood in the open air for nearly two weeks prior to customs clearance and shipping home. On arrival in the United Kingdom, the equipment was checked and found to be in full working order.

A Kodak spokesman stated, "There can be no doubt that the excellence of the ES 3603 made a major contribution to the successful launch of the new 'Kodalith' products in the USSR."



"Showsync" the practical AV cassette recorder. NMB have 150 of them!

## SHOWTAPE battles crime

The use of audio-visual in crime prevention is reported from our Danish distributor, Lys and Lyd of Copenhagen. Recently the technical department of the Danish State Police purchased five ES 3669 SHOWTAPE presentation units for crime prevention training.

While it is not expected that a slide programme would actually persuade a bank robber not to embark on his hold-up, training of the people likely to be on the "receiving end" of a bank raid can make life more difficult for the robber and lessen the harmful results of a raid.

The Danish police have produced two SHOWTAPE programmes for use in banks and other places where cash and valuables are handled.

One is on the subject of "identification" — to ensure that bank staff can give the police the best possible description of the criminals; and the other is on "security" — to instruct staff what procedures to adopt in emergency.

In addition to using the programmes for police training, the programmes are now being seen in banks and savings institutions throughout Denmark. More than 80 have already asked for special presentation to their staff.

One bank — The Bank of Denmark has bought 12 ES 3609 presentation units for use in their main offices and branches to show the programme. They will also be used for marketing and general staff training (see also story on right about NMB).

## Bank buys 150 Showsyncs

The Nederlandse Middenstands Bank (NMB) certainly believes in the value of audio-visual for training. However audio-visual in staff training is a long way from the "audio-visual spectacular" and NMB need a system that is simple to set up, allows easy modification to programmes and can be used in the actual bank branches for training counter staff.

After evaluating equipment from a number of manufacturers NMB selected the ES 350 SHOWSYNC as more precisely meeting their needs. They have so far purchased 150 complete equipment packages (comprising ES 350, projector, lens, carrying case and stand) from Electrosonic Systems B.V.

One of the reasons the NMB chose Electrosonic was the excellent experience they have had of Electrosonic products and services in the past. Their p.r. department already have 15 ES 3601 sets; and it was as far back as 1973 that Electrosonic fitted out two presentation rooms at their head office with Multi-vision, lighting control, and random access equipment.

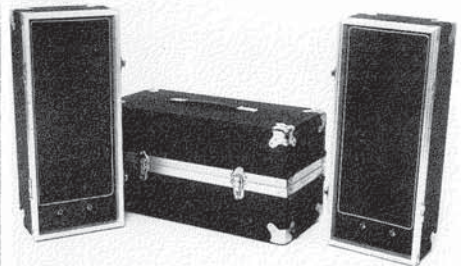
The particular application of the SHOWSYNC units to counter staff training covers not only the obvious things like staff induction, counter procedures etc.; but also the introduction of sales campaigns. Thus staff would be properly instructed in how to deal with customers who might be interested in, say, a new savings plan that had been nationally advertised.

## India likes Showtape

India has some enterprising users of audio-visual. Until recently the import of this kind of equipment was closely controlled — if not prohibited, as part of the effort to conserve foreign exchange. This had the interesting effect of making those people who had got such equipment extract the absolute maximum from limited resources.

Electrosonic have for many years worked with their Indian representatives Western Outdoor Advertising of Bombay. The name is a little misleading, since the company has an excellent audio-visual sound studio, skilled technical support and a well equipped hire department. While WOA will undertake full audio-visual production, its technical and sales services are also available to other producers.

WOA often hire out multi-vision systems — using maybe 6 or 9 projectors — for sales conferences and P.R. presentations in the big cities. However the big distances in India and the difficulty and expense of transporting equipment, mean that most "bread and butter" audio-visual shows are best done on single screen equipment. SHOWTAPE has proved an excellent answer to the problem, allowing maximum flexibility in production, with minimum complexity, (not to mention minimum weight and import costs!).



The ES1203 loudspeaker pair makes a fitting complement to the ES3603.

## ES 1203 SOUND

The problem of suitable loudspeakers for travelling presentations will always be with us, but while we believe that there is good reason to use different solutions for different applications, it is important that we have a "standard solution".

Thus we believe that if a customer purchases an ES 3603 for use "in house", the choice of loudspeaker should depend on the size of the presentation room, on what will best 'build in', and on budget. In principle the ES 3603 deserves "high fidelity" loudspeakers.

On the road, however, different considerations apply. Loudspeakers should be of reasonably high efficiency to deal with large

audiences and heavily damped "auditoria" (hotel banqueting suites being notoriously "dead"). The loudspeaker should have a good performance on speech — since the audio message is what the client is paying for — but should also do justice to music and effects.

The ES 1203 loudspeaker pair has been designed to meet these requirements. Ruggedly built to withstand the hazards of transport, each "half" is equipped with two high efficiency 8 inch full range drive units. These units were specially developed for Electrosonic for use in small enclosures. Each drive unit is rated at 25 watts, so there is no danger of overloading.

Users wanting higher efficiency still could consider the new Electrosonic 1100 loudspeakers (see page 11).



## PEOPLE

POL  
BURNOTTE  
MEETS THE  
KING

On the 21st April Pol Burnotte, Managing Director of Mediatone, attended the inauguration of an important travelling exhibition. King Baudouin of Belgium opened the exhibition on the Mole in Washington DC that was designed as a celebration and a promotion.

A celebration of the 150th anniversary of the founding of the Kingdom of Belgium, and a promotion in the U.S.A. of Belgian Scientific Research. The theme of the exhibition and accompanying audio-visual programme was that while Belgium was a small country without energy resources or raw materials, it did have great capabilities in scientific research and in high technology manufacturing.

The exhibition will visit eight U.S.A. cities in a period of just over a year — spending one month in each city. It is designed to be rapidly packed up and re-erected; for example it only takes two days to set up the complete exhibition. In the centre of the exhibition is a 16m x 10m presentation room in which a powerful audio-visual show is given; either on demand or automatically at precise intervals.

The audio-visual installation is, once again, a good example of the international service offered by Electrosonic. The complete system using a 7m wide screen with 13 ES 3003 controlled projectors; 16mm projector; ES 1311D tape deck and high quality sound system was put together by



King Baudouin discusses "Belgium Today" with Pol Burnotte.

Mediatone in Brussels. Mediatone installed the system for the inaugural exhibition in Washington; all subsequent site maintenance and installation in the next seven cities has been the responsibility of Electrosonic Systems Inc. Likewise, in October, a special presentation of the show in Tokyo will be organised by Nagase and Co.

"Belgium Today — A Technology for Tomorrow," was produced for the Belgium Ministry of Foreign Affairs by INBEL; the Belgium Institute of Information and Documentation.

Mediatone were closely involved with the production, both from the hardware point of view and in the provision of support services.

Go East  
young man

Sometimes we're asked: "Whatever happened to Tony Clynick?" Well, Tony is still very much part of Electrosonic and has been now for over 12 years. He has worked for us all over the world, but for the past few years has been based in Singapore.

While titled our "Far East Technical Representative" Tony is, as those who know him will testify, much more than this. He's responsible for supporting our distribution throughout the Far East and for working directly with system customers. This can mean everything from helping to make a multivision show in Japanese, to installing spotlights in a typhoon in Manila (see front page story). Most important it means continued customer training in the application of our products.

He gets over to Europe at least once a year — last year his visit coincided with our International Distributor meeting, this year with Photokina.

Just recently he has been working closely with David Kerr, manager of our lighting and system sales division, in promoting our systems expertise in the Far East. They will both be on the Electrosonic stand at the ENEX Exhibition in Singapore (October 21-25) demonstrating our dimmer and lighting control system.

One recent visit to an audio visual installation was something of a sentimental journey for Tony. The "Time Tunnel" in the UN park just outside Tokyo (see story on centre pages) was housed in what was originally the Malaysian Pavilion at Expo 70 in Osaka; the pavilion subsequently being moved in its entirety up to Tokyo. Tony first met his wife Susan, who is an accomplished dancer and dance teacher, when she was working at the Malaysian Pavilion and Tony was looking after Electrosonic AV systems in a dozen pavilions at Expo.

## Risto works a holiday

Risto Marttila, director of our Finnish Distributors AV Teknikka, recently spent six weeks in England. While part of this was vacation, most of it was spent actually working in the sales department at Electrosonic.

This was valuable to Risto — in that he had the opportunity to meet a wide range of customers and some leading software producers; but valuable to us

also, since an outsider can always have some useful comments to make about the way an organisation operates.

One of Risto's tasks when at Woolwich was to do the preparatory work for the production of ELECTROSONIC WORLD. We wonder who will come and help us for the next issue! Many thanks to Risto in the meanwhile.

## AT LAST — THE BOOK OF THE SHOW

John Lewell, who worked in our U.K. sales office for two and a half years, has just had a book published by Focal Press called "Multivision". This is a guide to the applications and production of audio-visual shows. It is the first text-book on the subject, complete with diagrams and full colour illustrations. Already it is one of the fastest selling books on the Focal Press list.

Two years ago John moved from London to the United States, where he now runs a company called Pacific Multivision. Yvonne Hegarty asked him about the book and about the new company.

Yvonne: First of all, why did you write "Multivision"?

John: Simply because clients asked me a lot of questions about audio-visual! If you sell motor cars, it's unlikely that a customer is going to ask you how to drive. He might want to know the features of a particular car, but he's not going to expect you to explain how an automatic transmission works. Not so with audio-visual!

If you are selling A/V systems then it is inevitable that you have to answer questions about production, about registration photography, about projection optics and a hundred other topics. One question which became more frequent as time went on was: "Why isn't there a book I can buy which would have these details in it?"

And so you started collecting material for it?

Yes. Working for Electrosonic I was in a unique position to meet hundreds of people in the industry and examine all the different production methods which have evolved. I doubt if a producer would have approached the book in the same way — he would tend to describe his own production method, which is only one way of achieving a good result on the screen. And dealing with end-user client needs on a day-to-day basis gave me a good insight into the applications of the medium. I hope that by reading the book many people will find applications which they would otherwise have missed.

It's supposed to be very difficult to find a publisher these days. Were Focal Press the first publishers you approached?

Yes. Focal Press were a natural choice. They have the best list of books on photographic, TV, and film techniques. The list includes Karel Reisz on Film Editing, John Halas on Animation, and classics such as Cox on Lenses. The Michael Langford books on photography are very well-known, and in fact it was Michael who suggested that I approach Focal Press with the "Multivision" project.

In the States, multivision is called "multi-image". Is that a problem in selling the book?

No. The book is doing very well in the States. After all, films can be referred to as "cinema" or "pictures" or "movies." There's room for several names for a new medium, and eventually two or three names stick. We no longer call a movie a "biograph," but I think audio-visual, multivision and multi-image will be the three most commonly used terms. They all sound better than "slide-tape"!

You now live and work in the States. Did you consider moving there before joining Electrosonic?

Yes. You caught me just in time! Back in 1976 when I joined ES I had had offers from a number of companies — some of them on audio-visual production, others on the commercial side of the business. But the fact that Electrosonic was based in most parts of the world, including the States, certainly influenced my decision.

It's probably on our records somewhere, but what did you do before joining ES?

Well, if it's on your records, I doubt if anyone has ever read them! I remember that I had been with the company for over a year when Stan Giddings, who is now European Sales Manager, discovered with surprise that all of his sales team had university degrees. I think this proves that Electrosonic chooses people on the basis of experience rather than academic qualifications. In fact, I graduated in English and Fine Art at Cambridge, and then went on to study film and television at Guildford School of Art. Guildford did not work out exactly as I had planned. After a few months the entire school was



John Lewell relaxing in California.

engaged in a full-scale revolution. We made the front page of "The Guardian" every day throughout the long hot summer of '68. I took a few days off to get married (which lasted a few years longer than most art school marriages), but eventually I found myself in the High Court in Fleet Street, along with a dozen others, on trial for trespassing on school property. We were all found "not guilty" and art school education was allowed to lapse back into its normal chaos.

Did this interfere with learning about the "visual media"?

Not in the slightest. The art school revolution taught us all more than we could possibly have gained from the regular curriculum. We took over the curriculum and invited dozens of well-known film-makers, playwrights, artists, sculptors and other creative people to come and discuss their work with us. The people who supported us included Bertrand Russell and John Lennon, both of whom were better at their jobs than the regular teaching staff!

You see, the whole quarrel was over excessive specialisation in the school. If you chose to study film, you never got to use a stills camera or a paintbrush. I think the rise of the audio-visual industry has proved the fallacy of this approach. A/V production involves unusual combinations of skills — knowledge of electronics, graphics, writing, photography, sound-recording. And people tend to do a number of these jobs. Then there is the added bonus that the medium can be used for so many applications — unlike the broadcast media, which are

Why did you move west to California?

I spent a year in New York, and I must say that I miss the uniqueness of that city as much as I miss London. But nothing can compensate for the perfect climate of Southern California. We have four seasons: Flood, Drought, Fire and Earthquake (plus 300 days of sunshine in between). Very different from Woolwich.

The main reason for moving was to start an independent company called Pacific Multivision Inc., which distributes Electrosonic products in the Western States. We have other, related, product lines, including ELF and Neal Ferrograph. The company is currently based in Orange County, which is to the south of Los Angeles, but we'll shortly be opening up closer to the Hollywood district where most of the A/V production takes place. However, the locations of some of our clients have included places as far apart as Fiji, Portugal and Canada — which again reflects the international scope of Electrosonic. For international visitors we offer a rental service in Los Angeles and San Francisco. And we sell audio-visual systems to local producers and industry via a dealer network.

Do you still find time to write? Yes. I contribute to "Audio Visual Communications" and "Backstage" (both in New York), and to "Video and Film International" (London). I'm currently investigating the industry of computer-generated images, and anyone interested in this should get a copy of "Computer Pictures" — the first issue was published by "Backstage" during August this year.

Between Cambridge and Los Angeles you seem to have encountered all the visual and audio-visual media. What's next?

Well, I think that because our knowledge of the world is dependent on our receptiveness to the different media, it's important to understand how these media work. Developments in electronics are changing the ways in which we communicate, but few people are aware of the whole spectrum of communication. This interests me. The direction I'm taking is towards providing a real media consultancy as part of the activities of Pacific Multivision. One reviewer of the book, writing in "A/V Product News" — a West Coast journal — said that the chapter on "In-House Production" could save the jobs of some people who run A/V departments in large corporations. If that's true, I think we can provide some direct help in the area of corporate communications. California will still be the home base, but we'll go where the work is. The new media tend to ignore national frontiers.

Pacific Multivision is at 27931 Redonella, Mission Viejo, CA 92691.

Copies of "Multivision" by John Lewell are available from Electrosonic Ltd. or direct from the publishers, Messrs. Focal Press Ltd.



The Book.

basically news or entertainment for mass audiences. Today, society has a wider range of specialist interests, and therefore a need to communicate on a small scale rather than on a large scale.

And after Guildford?

I didn't graduate from Guildford, I was released. I made documentary films for the Government, joined the ACTT (film technicians union), and worked as a writer and assistant director on TV commercials and feature films. I worked for a company called Goodtimes Enterprises who were making the most interesting films in London in the early '70's — the Ken Russell pictures for example. Then for two years I became involved with video cassettes and projection TV, as sales manager of a video company. Just before joining ES I was writing scripts for Kodak — for shows that were destined to be played on Electrosonic two-projector units.

You left England to be sales manager for us in New York.



## PROJECT NEWS

# SOUND BUSINESS FOR 'PROJECTS DIVISION

Electrosonic Ltd. has always had a 'project engineering' department to enable it to complete both lighting and audio-visual systems that needed some 'special' work. Such work might be as simple as the provision of a small control panel, or special set of connecting cables. On the other hand the work could sometimes be more complex, involving special 'one off' design work or the integration of a variety of equipment, not necessarily all made by Electrosonic, into a single system.

In recent years the projects undertaken by Electrosonic have grown in size and in order to ensure that they are managed efficiently a separate service division — the Projects Division — has been created. This division is managed by BOB STINTON and consists of a team of project engineers, draughtsmen and installation personnel. It can draw on the manufacturing resources of the Company

as required. 'Projects' can be valued at anything from a few pounds up to several hundreds of thousands of pounds.

Sales for the Projects Division are mainly secured by the International Lighting and Systems Division, and to a lesser extent by the Audio-Visual Division. The work undertaken is in the fields of lighting control systems, audio systems for

auditoria, theatres, conference rooms and exhibitions; audio-visual systems based on Electrosonic products and also integrated audio-visual systems based on all audio-visual media including video.

On this page we describe some of the work that is at present being undertaken with an emphasis on some of the unusual applications encountered.

## Tricks with mirrors at De Beers

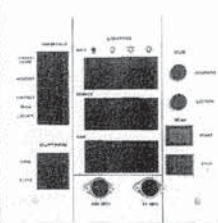
A prestige installation recently completed by Electrosonic is the audio-visual system in the Presentation Cinema at De Beers and the Central Selling Organisation at their new London Headquarters.

The Group's involvement in the promotion of diamonds on a world wide basis causes them and their associates to make use of virtually every audio-visual medium and format in use today. These include video in PAL, SECAM and NTSC; 35mm and 16mm movie with separate or composite sound tracks; tape slide and multivision; not forgetting flip chart and overhead projector. Getting all this lot to fit into one presentation system gave us a few headaches!

### Problem

Leaving aside for the moment the question of formats, the first and more pressing problem was where to put all of the necessary hardware to project video, 35mm movie, 16mm movie, 35mm slide, a two projector single screen show, and a four projector single screen show using movie, somewhere near the centre axis of projection. This problem was compounded by the projection room floor being some 14' above the horizontal axis of the projection screen. In order to avoid unacceptable geometric distortion all of the projection lenses had to be on or near the floor.

The only thing that made possible a solution to this problem was that the height of the cinema at the projection screen end was enormous. This allowed us to use a specially constructed cinema screen which, together with its motorised two axis masking system, could be flown vertically into a ceiling void revealing as it went a rear projection screen for the video projector. As usual, the space made available for rear projection was decidedly limited but a combination of ingenuity and a mirror



Projectionists control panel at the C.B.I.

provided the necessary projection path.

### Periscope

Having removed the video projector from the problem; we used a periscope to effectively place the lens of the 35mm movie projector on the floor in amongst those of the 16mm movie and 35mm slide projectors. This enabled all projectors to be contained within usable angles of the screen horizontal and vertical axes.

Returning to the question of show formats, those for cine and slide were catered for at the screen end by an automatic masking system which could memorise the necessary masking settings for a wide range of formats, and at the projector end by the provision of a range of special aperture plates and lenses. The 35mm projector was equipped for separate magnetic sound as well as composite optical and magnetic sound tracks. The video replay and recording system was limited to Sony U-matic as a tape format but was capable of accepting programmes in either PAL, NTSC or SECAM on 625/50 or 525/60 Hz. standards. Equipment was provided for tape slide presentations on the ES3601 and ES3003 formats, together with special equipment for interlinking 16mm movie and sound track with a three language multivision show. The projection room is also equipped with a specialist sound mixing console; 4 track tape recording facility; and disc and cassette replay facilities in order that in-house productions can be recorded.

In addition to its function as a preview cinema, the room is also used for presentations, lectures etc., and for this purpose is equipped with a lectern offering full control of the room lighting, window blinds, screen curtains and projection facilities.

## New home for the C.B.I.

Shortly to come into use, The Confederation of British Industry's Council Chamber in Centre Point will be one of London's most prestigious and well equipped meeting rooms.

The Council Chamber itself with a seating capacity of 350 is served by a spacious reception area and three technical control rooms, one each for sound, projection and simultaneous translation; and has direct links to the radio and television studios in Centre Point.

Although the design brief was centred on the current needs of the C.B.I. emphasis was placed on providing technical systems capable of future development and attractive to other potential users. Electrosonic were awarded the contract for the supply and installation of all the sound, audio-visual and lighting control equipment used in the Council Chamber.

In order to minimise the need for technical staff, the sound, lighting and projection equipment has been designed to operate as an integrated system with control available from either the technical areas or the chair and lectern positions.

### Microphones

The microphone management system again reflects this need to minimise the use of technical staff for, although it can be operated manually using a specially designed 24 channel audio mixer, configured to mimic the microphone positions in the Chamber, with facilities for pre-mix of microphone groups, selective dais foldback, multi-channel recording etc., it can also be operated in an 'auto' mode with control of microphone selection being carried out by the speakers themselves (under the control of the chair). In addition to the specially mounted Electret microphones, each panel contains a 'channel on' selector/indicator and a '2 minutes/30 seconds/stop' cue light system. The chair and lectern panels also contain digital clocks and time elapsed indicators, together with facilities for communication with the projection room and each other.

As the clear and natural reproduction of speech was the main requirement of the sound reinforcement system, the audio consultants, Messrs. Sound Research Laboratories, chose a low level system optimised for speech, augmented by a secondary high level system for audio visual or music presentations. The low level system consists of 27 specially designed ceiling loudspeakers fed in four separate time delay zones and equalised to match the Chamber's acoustics over the band of frequencies occupied by speech.



The restored Belfast Opera House has an Electrosonic Sound & Communications System. Picture courtesy the Arts Council of Northern Ireland.

### Automatic

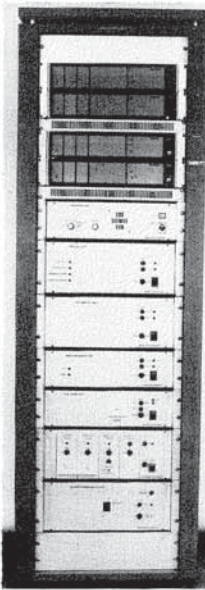
One of the more difficult requirements of the sound system was that it must operate with the dais on either the long or short wall of the Chamber, without loss of either sound quality or the impression that the amplified sound is originating from the dais and not from the overhead loudspeakers. In order to avoid lengthy setting up each time this change of dais position is made, each loudspeaker has two separate settings for delay zone, level and equalisation, and is automatically switched to the appropriate setting dependent upon the position of the dais.

For visual presentations, the Chamber is equipped with a 5½ metres wide cinema screen complete with motorised curtains and masking. The curtain and masking position can either be controlled manually from the projection room or will automatically assume the correct settings for any format selected either at the chair or lectern positions.

### ES3603

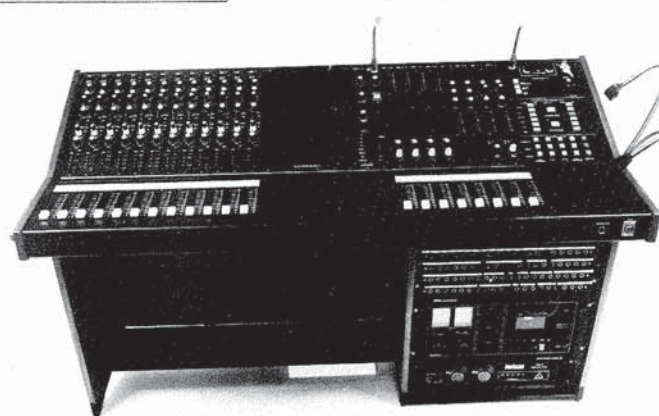
The projection room, which has a full width window for multi-screen shows is equipped with a 1 Kw. Xenon arc 16mm projector and an ES3603 presentation unit, all of course controllable from any position within the Chamber.

Other facilities provided by Electrosonic for the Chamber include an audio/video/UHF distribution system, an inductive loop system for simultaneous translation, a radio microphone system to augment the floor microphones in the microphone management system and an automatic dimming control system for the Chamber lights.



One of the Control Racks at Belfast Opera House.

The sound mixing console at the Belfast Opera House. A similar console is at the C.B.I.



## Belfast Opera House

Electrosonic are pleased to have supplied and installed the sound and communications system for the renovated Belfast Opera House. In this case we were working to the specification laid down by the Theatre Consultants John Wyckham Associates; which was not only designed to meet the creative and technical needs of the theatre, but also had to take account of limited space available in the control room.

The problem of theatre sound mixing is one of 'grouping' and 'routing' rather than that of a large number of sound sources. The main mixer at Belfast is 12 channel, 4 main, 2 auxiliary and 2 foldback groups. Comprehensive patching facilities and push button selection of effects loudspeakers are provided.

Sound is relayed through a 1200 watt amplifier system to custom built loudspeaker assemblies set into the theatre fabric. Digital delay lines are used for the rear of stalls and circle loudspeakers.

The communications system, embracing ring intercom, cue lights, paging, special intercoms and effects power supplies, is comprehensive. All subsystems are built as separate rack mounting units so failure on any one communication system will not affect the others.





## Computers in Madrid

On page 12 Paul Castaldini of ROUNDEL PRODUCTIONS writes about their varied clientele. Here we show a picture of one of their recent productions — a major conference for I.B.M. held in Madrid. Here several different projection formats were used, involving a total of 35 projectors on both ES3003 and ES3001 control. Three Xenographic projectors were also used.

## Bonner Einblicke

A really extraordinary multivision was shown last year at the Bonn Summer Festival.

Produced with great enthusiasm by a team of young photographers as their contribution to the Festival, the show used 39 projectors each controlled by ES3003, and was given outdoors in the evening mainly to the accompaniment of music by Beethoven (born nearby).

So far — so normal. The "screens," however, were 4m high rear projection screens set into the window openings of the Town Hall. The result was a most unusual multivision that used the building both as a framework and as a contribution to the show. The show was hugely enjoyed by those who saw it, and received great applause when shown; much appreciated by the team that created and installed the show.

Electrosonic GmbH provided a complete technical service for the show — including supplying over 600 metres of "ring" cable for the 3003 system, and a great variety of lenses to meet the different circumstances in each room. A major problem was the need to carry out the installation in a very short time in order to minimise disruption in the Town Hall offices!



## Glass on screen

In the last 15 years we have worked with James Gardner Studios on many permanent exhibitions — worldwide. James Gardner never fails to make interesting use of audio visual techniques but rightly regards them as a means to an end. Thus audio-visual or sound and light is always properly integrated into the overall display. Here is one of the displays at the Pilkington Glass Museum (see story on page 2).



## Flatapak and Linkit

The stylish portable lighting controls made by Electrosonic are deservedly popular. FLATAPAK is a 6 channel dimmer pack 10A per channel, available in single phase "British" or 3 phase "European" versions. The dimmer packs are lightweight and designed for stacking. LINKIT is a range of control desks in two preset configuration with dipless crossfade. They are available in 12, 18, 24 and 30 channel versions. The "Linkit" feature allows them to be linked together for mastering purposes — a feature that is invaluable for smaller users wishing to expand a system, and for rental companies. A "Rock and Roll" version of the 24 channel desk is available which includes flash buttons, sound to light control and a ping pong chaser. These products are distributed for us by CCT Theatre Lighting Ltd.



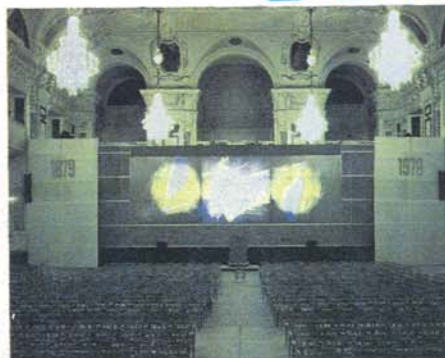
## Siemens 100 years in Austria

Our distributors in Austria, Grohman GmbH, report a major installation carried out for Siemens AG in Vienna.

1979 was the centenary year for Siemens in Austria. They decided that there was a good opportunity to mount a major p.r. campaign that would —

- give the history of Siemens in Austria
- demonstrate their huge product range
- show the importance of Siemens to the Austrian economy
- show the huge effort being made by the Siemens organization worldwide

The multivision medium was chosen to achieve this objective since the centenary celebrations would involve events throughout Austria — and since audiences would be assembled it was important that the message was put across effectively. The show was designed for big audiences so



a screen 12m x 4m was used with 56 ES3003 controlled projectors.

The show producer was Studio ARTFOTO POLKE, who worked 18 months on the project. The show included incredible panorama pictures (of both factories and alpine scenery!) made on the POLKE 360° ROTOCAMERA, and also included laser effects.

In 1979 the show toured Austria — spending some time in each major centre. It is now permanently installed at the Siemens Headquarters, where it is used for welcoming visitors. It is well worth seeing.

One of the photographs shows one of the temporary installations the other is of the screen at the permanent installation.



## Planetaria

Multivision Electrosonic of Canada have supplied the McLoughlin Planetarium in Toronto with a variety of audio-visual and lighting control equipment. The panorama projection system is ES3003 controlled (20 projectors).

Many planetaria use Electrosonic lighting control or audio-visual equipment somewhere in their operations. Madam Tussaud's London Planetarium uses our equipment both within the Planetarium and in pre-show exhibit areas (see story back page).

Recently the Planetarium of the Hong Kong Space Museum purchased a complete 32 projector programming system — together with a system for programming 130 auxiliary circuits.



# OSONIC WORLD

## Dinosaurs in Tokyo

For several years Electrosonic has worked closely with Czechoslovakian experts in the field of multivision. The Czechs can take much of the credit for pioneering multivision formats — especially as applied to permanent exhibitions. It has been our pleasure to work with teams from ART CENTRUM, MADE IN PUBLICITY and others.

One of the best known teams is that led by Professor Jaroslav Fric — the SCARS team who work through ART CENTRUM. A particularly interesting installation that they have recently completed is that for a "time tunnel" in the Seibu-En Unesco Park, just outside Tokyo. The exhibit is sponsored by Gekkoso Inc., and used 30 ES3003 controlled projectors.

The multivision area used 10 screens each served by three projectors; the screen are arranged in two groups of five at opposite ends of the room, and the walls are mirror clad. Sculptures of dinosaurs are placed in the centre of the room. Amazing artwork, clever programming and an interesting sound track combine to make a most impressive show.



## Niagara Falls

Here are pictures of the 15 screen 60 projector spectacular "Miracles and Madness" installed at Niagara Falls.

This system was a co-operative enterprise between Electrosonic Ltd. in London, Multivision Electrosonic Ltd. in Toronto, and producers Caribiner Inc. in New York (Electrosonic and Caribiner worked together on the "London Experience"). Clients were York Hanover.

The show has been running for over a year — with performances every half hour, sometimes for as many as 16 hours per day.

Some recent visitors to the show heard an unsolicited testimonial for Electrosonic. A representative of the Theatre Operators commented that the system had run like clockwork and had a good reliability record. The show uses 60 ES3003 equipped Ektagraphic projectors, and a comprehensive sound and lighting effects system — all engineered by Electrosonic.

## 56 projectors for Singapore

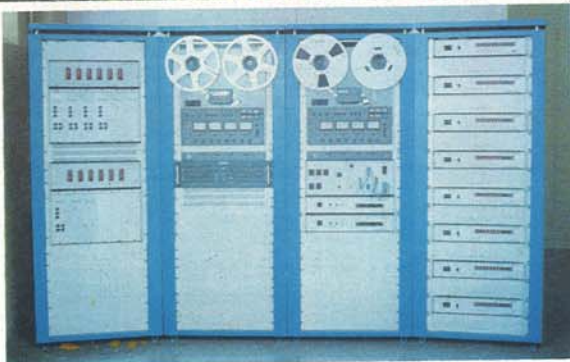
These are two of the scenes from the 56 projector show "The Singapore Experience" produced by Prater Audio Visual (see story of this production on page 13).



## Old and new

The PHANTASMAGORIA — MAGIC LANTERN NARROWBOAT has on board the old way of giving audiovisual shows (see story on page 2).

The equipment rack is typical of those we supply for fully engineered systems. This particular system was supplied to ART CENTRUM for use in a major audiovisual permanent installation in Eastern Europe.



## Kilowatts of dimmers

Visitors to our factory are sometimes amazed when they learn that we fabricate all our metalwork in house. This includes the manufacture from sheet steel of several hundreds of 19 inch instrument racks in various sizes up to 2 metres high.

The bigger ones are usually used for lighting systems. This picture shows just part of the dimmer system manufactured for the Hyatt Regency Hotel in Dubai — see story on page 15 "300 dimmers for Dubai."





# ESRAX - A new system of random access slide projection

Electrosonic are pleased to announce the introduction of a new computer compatible random access slide projector. It is designed especially for use in briefing rooms, simulators, control rooms, museums and showrooms.

Electrosonic have been involved in random access slide projection systems for many years. The first system to be supplied was back in 1965, when a completely custom built unit was made for the Esso refinery at Fawley. Since then three product ranges have been offered. The first was the ES 1556 which used a relay logic unit with a shaft encoder system. The second was the very successful ES 2500 unit which used a separate electronic control unit (all solid state) with a slide counting system. Major users of this system included Honeywell Controls for building supervision, several police forces for map display, and such prestigious clients as the Amro Bank for briefing rooms.

## M Series

In 1973 the Micronic Projector was introduced as a parallel product to the ES 2500, and over the years the "M Series" as it is known has taken over as the standard unit. The Micronic conversion was developed in Sweden, with Electrosonic providing a range of control panels and accessories to meet the most usual applications.

Important users have included Redifon Flight Simulation for use in large flight simulators, and the Bell Telephone Company in Canada for seminar rooms.

The advent of the Microprocessor and the experience gained in meeting the many and varied needs of random access projector users, have led Electrosonic to develop a completely new system of random access slide projection for the 1980's — the ESRAX system. The aim has been to produce one basic projector unit with limited range of accessories to meet the most popular requirements. The system needs of particular customers can be met by Systems Houses (including Electrosonic's Projects Division) and by O.E.M.'s.

## ES 3500

The basic product is the ES 3500 Random Access Projector. This is shown in the photograph. It consists of a standard Kodak Carousel SAV 2020 projector to which a minimum modification has been carried out, and to which is attached a combined control unit and rapid drive unit. From receipt of commands sent in serial data form the unit will:

- Switch power to the projector on and off. This eliminates unnecessary running time.
  - Cause the projector single step forwards or backwards.
  - Select any slide in the magazine. Maximum selection time approximately 3 seconds. "Shortest way" selection.
  - Cause the projector lamp to fade up or down at any one of 8 fade speeds. (Same fade repertoire as ES 3003).
- Data is fed into the projector via a locking DIN socket — similar to the ES 3003 system — and it is possible to "daisy chain" up to 24 projectors on the same ring. Projectors are identified by selector switches. Although the concept is similar to the ES 3003 arrangement there are some very important differences. The need to select slides on an individual

basis demands a different data format; and the fact that many users are using such equipment in an environment where computers are in use suggests that an industry standard format be used. The signals that are used to instruct the projectors are in the form of standard characters in ASCII Code — thus, for example, the printer output of a small computer could be used to control the projectors. In addition to receiving signals the projector can also send back signals reporting on its status.

## ES 3501

Not all users of random access projectors want or need a computer. Two standard control panels are available which, between them, cover a remarkable variety of applications. The ES 3501 control panel is intended for simple single projector applications. It is fitted with 12 push buttons (0-9, "F" and "R") and a 2 digit indicator.

Any slide may be selected by entering a 2 digit number 01-80. If the projector power was initially "off" the mere fact of making an entry restores power. Subsequently further selections can be made, or the projector can be made to single step forwards or backwards using the "F" and "R" buttons. The display shows the slide being projected, and pressing "99" switches the projector power "off".

It is possible to connect TWO ES 3501 panels to one projector, but while this is an economical approach, the displays on each panel do not follow each other, thus only the last active panel will show the correct slide position.

screen, then a selection can be made of any slide in the group: — e.g. entering 2 1 5 will give slide 15 in projector 2 or 4 2 6 will give slide 26 in projector 4.

— Normally only one projector lamp is on at a time, the lamp control being automatic as you move from one projector in the group to another.

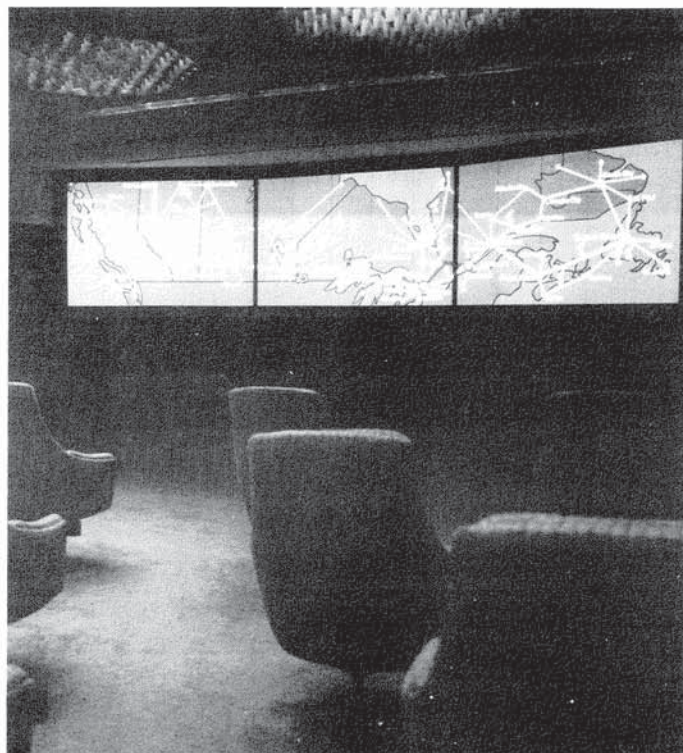
— Use of the F and R buttons on the control panel gives Forward or Reverse Dissolves with the unit automatically selecting the next projector on the loop.

As can be seen from the photograph the ES 3502 has 16 buttons instead of the 12 used on the ES 3501. The new buttons are:

"P" — Power to the projectors is switched on and off by this separate button.

"E" — With the ES 3502 the user enters the number he wants on the keyboard followed by "E" for "Enter". He can therefore change his mind. The display shows his new selection as he makes it but flashes to indicate it is no longer the slide being projected.

"L" — This is a "LAMP" button. With this a "secret" selection can be made. Suppose Projector 1 is selected to slide 22 by entering 1 2 2. The user then wants to dissolve to Projector 2 slide 22, but Projector 2 is at present at some other number. If he just entered 2 2 2, he would get a "hole in the middle" and a delay for selection. So he enters 2 2 2 with "L". This moves Projector 2 round to slide 22 but then does not bring on lamp



Bell Canada's Communication Seminar Room uses an Electrosonic Random Access slide projection system.



The ES 3500 Random Access Projector.

## ES 3502

The ES 3502 control panel is intended for the more sophisticated user. The aim here is to meet the needs of people needing multi-projector and multi-control possibilities. The ES 3502 is a sophisticated microprocessor based unit whose internal programme can, if necessary, be varied. If 2, 3 or 4 projectors are connected to one ES 3502, with all the projectors working on one

2. The system waits until the "P" button is pressed to give a dissolve. Note that using this method it is possible to neatly dissolve between any combination of slides (provided they are in different projectors) — e.g. from slide 122 to slide 256.

"S" — Is the "SUPER-IMPOSE" button. This inhibits the normal self-cancelling facility between projectors, so slide images

can be deliberately superimposed.

It is possible to link two or more ES 3502 to the same set of projectors and the displays on each ES 3502 correctly follow each other.

## Multi-screen

What happens if a user wants more than one screen? e.g. 2 or 3 screens side by side for comparison purposes. In this case all the projectors in the system can still be connected in the same "ring". At each control position there is one ES 3502 for each screen (a small set of pre-selector switches on the back of the ES 3502 set which screen number the panel is controlling, and also the number of projectors on that screen). Thus a 3 screen installation would use three ES 3502. The ES 3502 is very compact so such an arrangement does not occupy much space and has the following important advantages:

— Each screen has its own display.



The ES 3502 Multiple Control Panel.

— Operation is simplified. — Only one standard part is needed for any common system configuration.

The system permits of up to 24 projectors on the same ring — arranged in up to 6 screens each of up to 4 projectors. Multiple control positions are possible and the diagram shows the arrangement for a 3 screen seminar room system with one lecturer control and one projection room control. The diagram also shows an optional extra — a standard microcomputer being used to store a pre-programmed sequence of images, or more likely a set of such sequences.

## Computer

The idea here is not the production of complicated multi-image shows — although the facilities of the ES 3500 are sufficiently advanced to permit this — since Random Access projectors are not ideal for this purpose and in Electrosonic's opinion multi-image shows are best done with standard projectors. The facility is intended for seminar work and "one off" presentations actually given by a live speaker.

Thus it can be imagined that a multi-product company might have a large slide library stored in an ES 3500 system. When a customer is due, a slide sequence is prepared specially for him in

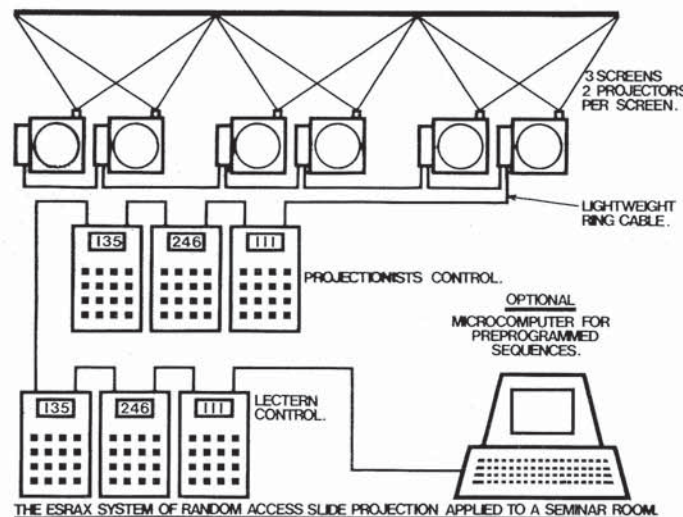
advance. It contains the slides that are expected to be of relevance in discussion. The slides are then shown by the sequential pressing of a single button — however random and however complex the sequence. At any time the ES 3502 panels can be used to override the computer.

## Specials

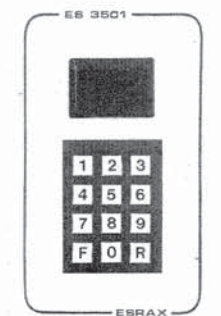
The ES 3502 control panel allows many other possibilities. Here are just a few of them as applied to Museum and Showroom displays:

- The push button assembly is separate from the main p.c. card. This means that alternative push button sets can be fitted, e.g. heavy duty "small boy proof" buttons.
- Power control can be made automatic — e.g. A visitor makes a selection which automatically switches on the projectors. (Also in this case no need for the E button). The chosen slide appears on the screen as quickly as possible and is then projected for a predetermined time, adjustable on a control fitted to the back of the ES 3502.
- A projector or group of projectors can be made to dissolve or step at a predetermined interval. When a visitor makes a selection, the selected slide is shown for a preset time, and then the system continues to single step. This avoids a "dead" screen (but of course means continuous as opposed to intermittent operation).
- The ES 3502 can be fitted with a special programme and a button set numbered 1-16. It is connected to two ES3500 projectors. A visitor makes a single button selection and then sees on the screen an automatically timed dissolve sequence of 10 slides, after which power to the projectors is automatically shut off.

The ESRAX system of Random Access slide projection is a powerful, yet simple to install system for meeting the needs of all users of non-sequential slide projection.



THE ESRAX SYSTEM OF RANDOM ACCESS SLIDE PROJECTION APPLIED TO A SEMINAR ROOM.



The ES 3501 Single Control Panel.



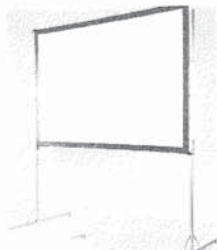
## PRODUCT NEWS

### Quickscreen for a snappy set up

The Electrosonic "Quickscreen" is now in full production at our Woolwich factory. Quickscreen is designed to meet the needs of small scale touring audio-visual shows, and is a range of fold up projection screens made in 18mm square section aluminium tube with "snap-on" surfaces.

The standard range are the QS64, QS66 and QS755. They are 1.8m x 1.2m, 1.8m x 1.8m, and 2.25m x 1.5m respectively. Each screen comes in a fibre carrying case, and consists of two legs and a frame with provision for fixing height adjustment, together with a front projection surface in a protective wallet.

Rear projection surfaces in



"QUICKSCREEN."

protective wallets can be ordered as an optional extra. They are RS64, RS66 and RS755 respectively.

To special order we can supply larger surfaces. The Quickscreen system is designed in such a way that two or three frames can be set up as one assembly, and then fitted with a single surface. In this way economical 5.4m x 1.8m (18ft. x 6ft.) and 4.5m x 1.8m (15ft. x 6ft.) screens can be assembled. At this year's Photokina we ourselves used a 3.6m x 1.2m front projection screen mounted on two QS64 assemblies. For larger requirements we can provide screens based on 25mm tubing, but these are only supplied to special order.

### Picture wall at Photokina

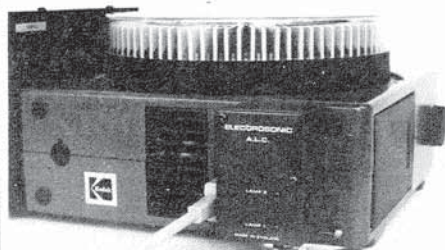
A screen system of an entirely different kind was shown by Electrosonic at Photokina.

We have long been of the opinion that the showing of audio-visual shows at trade exhibition stands as opposed to permanent exhibitions is one of the most difficult applications of the medium (maybe the subject of a learned article in a future edition of Electrosonic World!).

However, the use of slide projection as a visual attraction, without any complicated message, is easy to apply at exhibitions. The main problem then it how to ensure the projected image is bright enough, and that the display is sufficiently compact.

At Photokina we mounted a 24 screen display with all equipment built into a stylish cabinet mounted on wheels. The whole unit was only 1.8m high, 2m wide and 1m deep! We were only using one projector per screen and the individual image size was 30 x 20 cm. with an overall screen area 1.8m x 0.8m.

This produced a picture of fantastic brightness. Using ES 3003 control on the projectors, and a dynamic achieved both by the sheer number of projectors and by the ability to do complex lamp switching routines, we achieved a display of incredible impact and, just as important, minimum software production costs. Sorry but no picture was available for press time — but if you would like to know more we'd be delighted to hear from you. The whole unit can be hired, or new units to the same or custom format can be supplied to order.



Electrosonic ALC fitted to Kodak Carousel SAV 2020 projector.

### Automatic Lamp Changer

The ELECTROSONIC ALC is an Automatic Lamp Changer for the Kodak Carousel SAV 2020 projector. This device will automatically change the projector lamp whenever it senses that the main lamp has failed.

The ALC is permanently attached to the back of the projector; but only adds 50mm to the depth, and does not interfere with manual operation of the lamp change lever. (Thus ensuring that it is easy to replace defective lamps and to restore the system to "Lamp 1" after a lamp change). Normally a projector will be set to use "Lamp 1", and if this fails during a show the ALC will change to "Lamp 2" within 0.75 second of detecting the failure.

The ALC is fitted with l.e.d. indicators that show the status of

both "Lamp 1" and "Lamp 2"; furthermore a socket is fitted to allow this information to be displayed centrally. Thus in a museum, for example, it would be possible to have a central display showing which projectors needed attention.

Electrosonic or their overseas distributors will only offer the ALC ready fitted to projectors. It will not be sold as a separate item, since special jigs and test equipment are needed to make the initial fitting.

Production of the ALC has just commenced at Woolwich. When fitted to SAV 2020 projectors purchased from Electrosonic or their U.K. dealers, the ALC will add £53 to the projector unit price. It is expected that a similar price will apply in overseas markets.



The present range of Meridian lenses.

### Meridian means good value in lenses

Earlier this year Electrosonic announced the introduction of a range of objective lenses suitable for use with the Kodak Carousel SAV series of projectors. These lenses are of the highest quality and are excellent value for money.

"Meridian" lenses are available in the following focal lengths:

35mm	F2.8
50mm	F2.8
60mm	F2.8
70-120mm Zoom	F3.5
150mm	F3.5
180mm	F3.5
250mm	F4.3

Provided reasonable quantities are involved we can supply lenses of other focal lengths, and also lenses suitable for the Eltagraph projector.

Until recently "Zoom" lenses have been rather looked down on for high quality presentations. Not any more — the 70/120mm Meridian Zoom Lens gives an excellent performance, with even light distribution and minimum aberration. Indeed, tests on sophisticated OTF equipment show this lens to be outstanding value for money.

Exciting news is that it will soon be joined by a 110-200mm Zoom — surely the



The new zoom. Meridian 110-200mm.

answer to all professional audio-visual presenter's dreams! We can only show a picture of it at the moment, but look forward to the announcement of its early availability.

## Loudspeakers for audio-visual

A new loudspeaker for use in "big shows" on the road is announced by Electrosonic. This is the ES1100 "ELECTROPHONIC" heavy duty loudspeaker, designed to meet all the heavy knocks, both electrical and mechanical, likely to be met within touring audio-visual presentations.

The 1100 is first and foremost a practical speaker. It is made in high density chipboard with black vinyl covering. All edges are protected by aluminium angle, and the packed assembly has heavy duty knuckle corners and recessed catches. A heavy wire mesh protects the loudspeaker cone, and the case is fitted with carrying handle, four large rubber feet and a "top hat" fitting for pole mounting.

This fitting is used when the 1100 is mounted on the lightweight stand S1. This can lift the loudspeaker up to the correct height for maximum audibility at conferences and presentations. On the back of the loudspeaker a recessed plate carries a protective fuse and the paralleled input sockets.

But what's inside the box? A 12 inch loudspeaker rated at 8 ohms, 100 watts. The drive unit features a high temperature voice coil — said to be able to withstand a temperature of 500°C. In practice this means the ability to deliver high level sound on a continuous basis, to withstand high power transients and to withstand over-

load — all important for the intended application. The loudspeaker chassis itself is a pressure diecasting of magnesium alloy.

### ES 1203

At the same time as introducing the 1100, Electrosonic have introduced two other loudspeakers. The first, the ES 1203 pair, is specifically intended for use with our ES 3603 presentation unit and is described and illustrated on page 5. Some users of the ES 3603 may, however, prefer the 1100 for its superior bass performance and for its stand.

### ES 30 AV

The second is not really a new product, rather it is a facelift for the old one. There are many times that a simple high efficiency loudspeaker is needed for small scale audio-visual installations — particularly in showrooms and exhibitions with autoupresent equipment. The ES 30 AV is intended for this application and it is now offered in an all black heavy duty cabinet as shown in the photograph. It uses a 6" driver unit, and while it is intended for use with products like our ES 361 autoupresent unit which is fitted with a 10 watt amplifier, the ES 30 AV is rated at 25 watts, so damage through accidental overload is unlikely!



S1 stand for the 1100 loudspeaker.



ES 30 AV compact loudspeaker for AV installations.

### Other lenses

In the U.K. and for direct export, Electrosonic also offer the BERTHOUT range of professional metal barrel lenses, and there will be some interesting additions to this range in the near future.

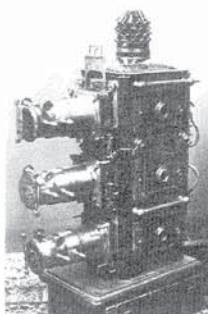
We also supply KODAK-RETINAR lenses and lenses by other manufacturers where these are the most suitable for the job in hand. In particular our project engineering department will arrange the supply of special lenses to meet difficult requirements.

## "Premier" Triunial sets new standards

Great interest has been shown recently in the use of three projectors for single screen slide shows. Audio-visual enthusiasts will therefore be most interested in the PREMIER Triunial projector which incorporates every conceivable refinement for the art of dissolving view projection.

The PREMIER stands 3ft. high and weighs 90lbs. The superb optics include 3" diameter objective lenses in 8", 10" and 12" focal lengths; all sleeve interchangeable. The 4 1/2" diameter condenser lenses are fitted with heat resisting conoidal glass covers. The triple extension draw tubes have a "hammer" finish, and are lacquered — as is all the brass work. The lens covers are clad in blue velvet, monogrammed with the owner's initials.

The Limelight system is patented and possibly the most sophisticated ever devised. Mechanical devices regulate the light as regards its height, distance from the condenser, lateral adjustment, distance of lime from the nipple, lime turning, total unit advancement and secondary safety on/off. The burners may well be the most expensive on the market since the nipples are platinum. The dissolve controls are com-

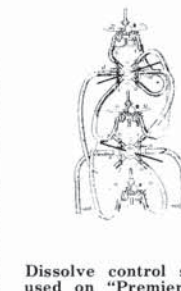


"PREMIER" Triunial.

prehensive and allow for all imaginable effects.

Not only is the PREMIER a superb piece of scientific and optical design, it also incorporates artistic beauty unmatched on other lanterns of its type. The mahogany used for the main casing has been chosen carefully for its colour and grain; and the six beautifully made doors are rich red rosewood. Some mahogany bands are stained black, and the decoration on the "pie fill" chimney cowl is even more striking. Gold leaf designs with red and white daisy motifs cover nearly every inch of the black enamel surface.

Perhaps the most amazing piece of design theory has



Dissolve control system used on "Premier" Triunial.

been applied in its usage... its operation is soundless. Lens caps and control valves are designed in this way. Pressure plates are padded with leather, and the only audible sound in operation is the gentle hiss of gas as the lanternist dims the houselights.

The PREMIER, made by J. H. STEWARD of 406 Strand, London between 1885 and 1900 may be inspected at the PHANTASMAGORIA — MAGIC LANTERN N A R R O W B O A T THEATRE. The PREMIER does not depend on electricity, and is therefore recommended for those applications where regular supplies of that commodity cannot be relied upon.



## PRODUCERS FORUM

We have given these two pages over to four U.K. Producers of audio-visual presentations. As explained in our editorial this first issue of ELECTROSONIC WORLD has concentrated on U.K. Producers because their stories were the most available to us. In the next issue we shall go further afield — but the stories here are certainly of international interest.

The digital clock next to the stage changed from 1858 to 1859 and the lights began to dim. In the projection room we could sense the unheard chatter of 5,000 people dying away.

"The tape is running," crackled the German voice from the small radio in my hand. "We have multiplex," this from the ever cool Electrosonic engineer. The first slides dropped into the gates of the projectors and nearly two hundred feet away the massive screen turned blue and small starbursts of light twinkled all over it.

Ten minutes fifty eight seconds later the audio visual sequence to open the International Congress Centre Berlin finished with the ICC logo bursting onto the screen as the sound track reached a crescendo.

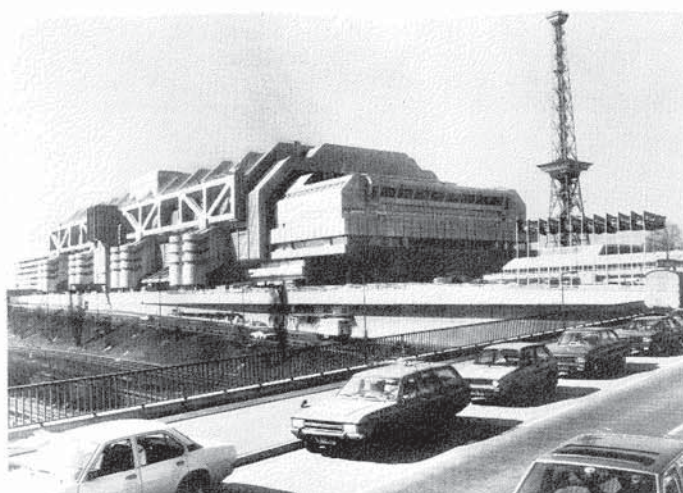
The applause was deafening, the five thousand evening dressed bejewelled heads of state, international guests, world press and local Berliners in Hall 1 had loved it. Across the massive stage in Hall 2, 2,000 more felt the same. The two huge sound proof curtains between the halls rose to reveal the entire Berlin Philharmonic and the maestro Herbert Von Karajan.

Seven thousand pairs of hands were stilled and seven thousand people settled back to listen.

In the sound proof projection room four people in jeans and T shirts were slapping each other on the back and nearing the end of a first celebratory litre of Berlin beer. A year of planning and three months of production work had produced an eleven minute audio visual presentation called 'Harmony' that had just opened the £200 million International Congress Centre, Berlin. We switched off the equipment, locked the projection room and made our way through the many levels of this amazing centre, past the final preparations to the eight hundred yards of buffet that would feed the seven thousand when the speeches had finished.

Half an hour later we were back from the hotel more properly attired in evening dress ready to dance, drink and eat the night away.

The only slightly odd part of it all being that here in Germany's newest and greatest conference centre as Bundes President Scheel formally declared it open we were four English people who had run a multimedia presentation that had been conceived,



The massive ICC in Berlin — scene of Peter Berners Price's story.

## Hello to Berlin

An international story from Peter Berners Price of Spectrum Communications Ltd.

organised and produced in England.

This fact had not escaped considerable notice in Berlin where the massive investment of taxpayers money in a conference centre had attracted a lot of adverse and questioning press and political reaction. Some months earlier 'Management Today' editor Robert Heller had asked ICC Berlin General Manager Peter Haupt the question "why have you given the task of producing your audio visual presentation to a

British company?"

"I say to their Berlin competitors' if you can produce the same standard at the same price you can have the job." Brave words from a man who would have had a very tough time if we hadn't produced the goods. The production of the goods had started in early 1978. We were already representing ICC Berlin in the UK handling and their marketing and sales and as part of this had already produced two single screen audio visual presenta-

tions which they were using as sales aids all over the world.

Then about a year before the opening in April 1979 we began to be involved in discussions about the opening, what would happen and who would be there. During the period it became obvious that the opening of the world's most sophisticated conference centre should show off as much of the centre's capabilities as possible.

These days that must include audio visual techni-

ques. We brought the senior managers from Berlin to London and took them on an audio visual 'guided tour' ending with a visit to the 'London Experience.' That did the trick, we were soon working on detailed specifications for both hardware and software. The event was originally planned to take place only in the 5,000 seat Hall 1 and we looked more closely at the facilities available. The 19000 watt computer directed sound systems with eight track tape available seemed to cope with the sound needs!

A lighting system on stage and in the auditorium which would allow live colour television broadcasts also seemed more than adequate. Then we looked at the screen and the distance from the projection room and sat down abruptly.

We wanted a total picture width of 100 feet with a lens throw of over 200. We went to see Electrosonic in Woolwich and they showed us the latest Xenon Arc projectors with a fader module that would allow us to achieve the effects we needed. We had already decided on Electrosonic 'Memomaster' as the multi media programmer we were going to use. The hardware was fixed, nine Xenon Arc projectors, control equipment and two engineers were booked for the day.

Then we thought we should put in a proposal to make the entire programme — in a matter of days it was accepted, draft scripts were produced, discussed, translated, re-drafted, changed, translated and finally agreed. The show had to run simultaneously in German, French and English with all visual effects coming up bang on cue in all languages.

Visualisation, picture research and photography followed, the stewards and stewardesses on the BA flight, to and from Berlin began to recognise us. We spent hours in museums and libraries in the UK and Germany searching archives for pictures and text. Then almost surprisingly it was February 1979, two months to go; by the end of the month the soundtrack was complete, the pictures were ready, by the end of the first week of March the show was complete and running in London. We had done it, we simply had to soak test it on the Xenon Arc projectors, pop over to Berlin, set it up and run it, we began to relax. Then came the phone call. Because of the astonishingly high rate of acceptances to the invitations for the opening they had decided to use Hall 2 as well as Hall 1 to allow 2,000 more people in. Could we please produce a complete duplicate show that would run in perfect synchronisation with the show in Hall 1 and could we find another 9 Xenon Arc projectors and control equipment?

For a few hours the entire Spectrum organisation went into shock with reactions varying from a glazed smile to near hysteria. Pulling ourselves together we worked out that by working 25 hours every day it could be done, but what of the equipment?

It seems that Electrosonic enjoys a silly challenge as well. Somehow a few hours later we were able to call Berlin back and say "Yes, it's all in hand." The final week of installation in Berlin is another story that I am saving for a novel. All that matters is that on the night, it was all right.

Oh yes, and we have been given the contract to produce three more shows for Berlin by the end of the year.

## Whisky, Computers, Cars and Guinness

The independent audio-visual producer making programmes for a single venue or single event has only emerged in the last few years. One of the first into the field was Roundel Productions who set up shop in London 14 years ago. PAUL CASTALDINI of Roundel writes about some of the applications they encounter.

Ever since the Langen Heim brothers invented the slide in 1849, producers have been trying to dazzle audiences by consuming more and more slides in less time than it takes to read these words. It all started when they inevitably went on holiday — on their return inflicted their friends and neighbours with the results of their 'snaps.' Magic lantern shows quickly became all the

rage and with no more than a few slow dissolves and a quick re-tray in the interval, the seeds of the Audio-Visual presentation were sown and all-nighters were on the way.

I don't think that Roundel can claim to have influenced those early audiences, but it has over the last 14 years helped to give Audio Visual programmes respectability and creditability and subsequently has turned con-

ferences into highly effective, memorable and entertaining events.

Although the slide hasn't changed a great deal since those early days, the way we manufacture it and project it has. A company's success is often measured by the number of Forox animation cameras it has, not the way it creatively uses whatever unit is installed at the time. Likewise with projection systems, it is pointless using a fine flying computer system simply to impress the client when really his needs are best matched by using a portable single screen unit such as the ES 3601 or the ES3603.

At Roundel the message is of prime importance, the control equipment should be there, available, working quietly and efficiently without fuss, providing the correct facilities to enable the producer to carry out the client's brief to the best of his ability.

One of Roundel's first permanent visitor centres dates back to 1972. Grants Distillery, just outside Girvan, was inundated with requests for visitors wishing to see how the brew was made and, of course to check its quality! Grants briefed Roundel on the problem, the result, the design and construction of a superb, stylish, multi-level complex involving a three screen six projector presentation and three inter-related single screens.

In close co-operation with a design team from Electrosonic, multiplex driven ES 2001 control units were selected, standard units from the presentation and lighting ranges were

assembled into racks and installed in the complex with the minimum of fuss. The complete suite has run ever since with only one major shut down, which was for planned maintenance. Organised by Brian Atkinson of the service division the projectors were transported to Woolwich, ultrasonically cleaned and then fully serviced, cartridge decks were overhauled and realigned, programmes cleaned and checked and new cartridges made, the whole operation taking only one week from shutdown to re-commissioning.

From Girvan to Guinness, across the Irish Sea to the historic premises of Ireland's greatest export! The problem, in part, was similar to Grants — too many factory tours to allow the efficient manufacture of Guinness and additionally, not surprisingly, a security problem, imagine the world without draught Guinness!

The Roundel solution was to create a separate visitor centre, slightly away from the main production areas but within the brewery grounds. Inside, a single screen multi-vision show which, with characteristic Irish flavour takes the audiences through the Guinness story from Arthur's small beginnings to the present day company which exports ... million gallons every day.

At the heart of the installation, an ES 2000 controller driving lighting dimmers, four track cartridge player, ES 2005 projector control units and the associated projectors, the programme and environment being controlled

automatically, the sequence being initiated by a remote keyswitch by a single guide.

There are on average 12 shows every day, adding up to over 20,000 performances since the centre was commissioned in 1974! It is still running today on the same equipment installed nearly seven years ago!

For conferences Roundel has always insisted on having both full manual and automatic control over the projectors. With ES 2001 and ES 3001 systems Electrosonic built special manual control boards for us to accommodate automatic and manual sequences. With ES 3003 systems the ES 3033 Touchmaster provides manual interaction with the projector controllers and, at the flick of a switch, permits automated sequences to run. Using the ES 3018 Memomaster complex pre-programmed manual sequences for speaker support can be released one cue at a time giving the producer access to a wide variety of effects.

Large scale conferences such as the one we have recently produced for IBM, and BL Cars rely on the substantial flexibility and control offered by the latest Electrosonic systems — the message is all important, the technicalities should not hinder the producer but allow him to interpret and create in the most effective way possible, and to pass on that confidence gained to the ever nervous client.

See pages 8 and 9 for further pictures of Roundel Productions.

A 6 screen travelling exhibition show produced by Roundel for London Docklands Development Board.





## P.A.V. has an experience

Prater Audio Visual (P.A.V.) are one of the best equipped full service producers in London. Two rostrum cameras, full continuous colour processing and a complete professional sound studio are all "in house." They are one of the most experienced producers in the world in terms of the "Big Show," although this does not mean that they cannot also tackle the single screen!

Recently they undertook the production of "The Singapore Experience," here ROBIN PRATER, P.A.V.'s Managing Director writes about it:

The production of the Singapore Experience challenged us to capture the subtle and complex essence of a city on both transparency and audio tape. Our aim was to educate Singaporeans and inform visitors while entertaining both. A show of this size must inevitably conform to many pressures; such as politics, time and weather, while carrying on with the original enthusiasm which fired the enterprise.

We were guided through the first obstacle of political subtleties by an old Singapore hand, Prof. George Thompson, but time and weather are subject to no one's control.

From the final choice in July 1978 of PAV as producer of the Singapore Experience, six months elapsed while the backers of the show made their decisions on the story line they wished to pursue. David Gibbs, our script-writer, and I visited Singapore in December to get an initial impression.

In the following two months the script was written and largely approved, giving us a list of subjects which had to be covered photographically. Three photographs set to work, giving life to the words of the script. During the six weeks which had been designated for photography, our hosts predicted their best weather—a forecast that turned out to be as uncertain as weather predictions the world over.

Not a day passed without at least intermittent showers, but the exhilarating moments far outnumbered the disappointments caused by the weather. We covered the city from the tops of high rise buildings to the back alleys of Chinatown. Helicopters, boats and underwater cameras were pressed into service.

It took virtually a month of non-stop film processing to handle our output of transparencies. Now, back in London, we moved from the general design phase to the specific allocation of pictures against script. Working in a large single studio to take advantage of creative impulses brought about by close co-operation of the team, a very detailed story board was drawn up in tandem with the rostrum camera preparation. Maximum flexibility of visual emphasis was maintained by drawing the storyboard on individual cards which could be shifted or deleted without creating visual gaps. Design considerations had to take into account the fact that we would fill all of the slide magazines completely, and therefore slide allocation had to be carefully proportioned between all projectors.

The creation of the sound-track was taking place at the

same time. The composer Graham de Wilde, was given a careful tour through the script and storyboard enabling him to fit the music with the verbal and photographic content of the story.

A careful balance had to be maintained between the script, which took approximately 35 minutes to read, and the length of the programme, specifically designed to last 45 minutes.

In a production of this length, a continuous voice track was unthinkable as we were conscious at all times of our mission to entertain as well as inform. On a one inch master 8 track were recorded the English voiceover, quadrophonic sound effects and the multiplex clock track. Then these elements were combined with the music on a 24 track system with the final mix reduced once again to 8 tracks.

In a little over three months, the production was ready for its Singapore National Day premiere. Fifty-six projectors containing 4500 slides, blended with the voice, music and sound effects to capture the past history and the present spirit of this intriguing city.

The Singapore Experience is at the Cultural Theatre, Grange Road, Singapore. The show is run by the Singapore Experience Pte Ltd., a company owned by three companies—Boustead, Rediffusion and Times Publishing, and a statutory body, the Singapore Tourist Promotion Board.

**Pictures of the Singapore Experience are on Page 9.**

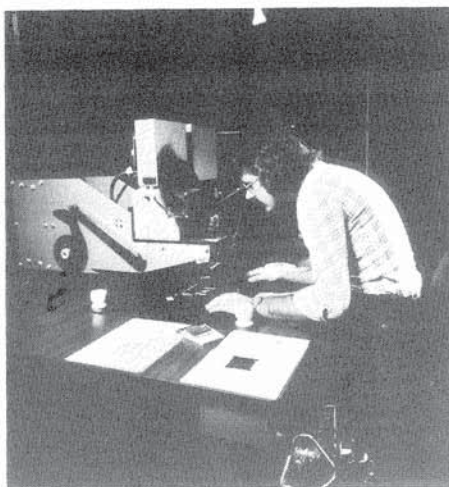
## Metro Multivision

One of British Leyland's proudest hopes for the 1980's is their sleek new hatchback, the Metro. This car, which has aroused an unprecedented storm of curiosity, will be introduced to the public at the Motor Show in Birmingham by Prater Audio Visual.

The audio visual production will stress Leyland's unique combination of advanced engineering concepts with excellence in design. 63 projectors will cover 21 segmented screens above a revolving turntable displaying three of the cars. The programme will feature a personal demonstration of the cars and a specially composed soundtrack. All aspects of the presentation—turntable, lighting, and audio visual display—will be tape controlled, having been programmed on the Electrosonic Microcuc.

The physical limitations imposed by the total stand design have been overcome by the use of 50mm lenses with specially moulded offset slide mounts to a 4:3 ratio. This radical solution has alleviated the potential registration problems inherent in a short projection distance and a very wide angle lens.

Design, script, photography and soundtrack have largely been completed and the production is in full swing. When the public at the 1980 Motor Show finally get a look at this long awaited British answer to the automotive challenges of the decade, it will be through the medium of a new and exciting audio visual production.



One of two Rostrum Cameras in use at PAV.

## Thanks for the memory

### A Sales Conference report from Optigraphic Motivation

We are used to the idea of Multivision being used at sales conferences. It is also often used as a means of internal communication within a company—it can even be regarded as a tool of management. A recent example that combined "traditional" sales conference technique with the need to advise the audience of a major change in the organisation they worked for, involved Optigraphic of Stevenage.

For Smith & Nephew Ltd., manufacturers of brand leaders Elastoplast, and Nivea 1980 was a very special year, the year which was to see the amalgamation of their two highly profitable and professional sales divisions into one major market force.

The first of these divisions was Health Care—which is responsible for such household names as Elastoplast and Tender Touch; the second, the Toiletries Division who handle Nivea, Atrix and others. These were to merge into a major force—Smith & Nephew Consumer Products.

With this in mind, directors Alan Fryer of Health Care, and Dennis Wilkinson of Toiletries made two major and correct decisions.

1. That the news of this company re-organisation would be given to both Sales forces at a joint Sales Conference, and

2. That the responsibility for the creativity and administration of this conference should be passed to Optigraphic Motivation at Stevenage, England.

The Optigraphic method of totally integrated thematic conferences was applied to the communication demands of the client, whose need was to motivate the new increased sales force to welcome this change with open arms and see it as a positive and challenging step forward for personal and company advancement.

A creative parallel was required and so, after much discussion, the theme of the launch of a new newspaper emerged; a newspaper to be called 'The Target' which was to contain inside it the whole marketing message rendered as a series of newspaper sec-

tions. A newspaper that would in fact, be distributed at the event.

Thus, information on the growth of Nivea was set in the language of the 'Living' supplement, Elastoplast through the pages of 'Sporting



The Smith and Nephew "Target" Show.

Live' whilst Tender Touch Cotton Wool was written in the comforting style of a 'Family Page'.

Each marketing manager provided the Optigraphic scriptwriting team with straight facts concerning their product presentation; this the team converted with a swift stroke of the sparkling thematic wand into generic newspaper reportage.

To support this approach, thousands of graphic slides were shot and assembled into multivision format; new music was composed and recorded for the event to support each relevant presentation. New dance routines were devised to fit the theme and the music, special lighting and effects were brought into play, and professional news presenters were introduced to comment on the excitement and tension of the launch of a major new force on Fleet Street.

But creativity, imagination and direction skills alone are not enough and for this reason Optigraphic's technical director entrusted the encoding and cueing of what amounted to over four and a half hours running multivision with 16mm movie on two projectors, to Electrosonic Memomaster.

He devised an on-site system based on: One x ES 3018 Memomaster.

Eighteen x Kodak SAV 2020 Quick Change Projectors.

Eighteen x ES 3003 Multivision Processors.

One Teac 3440 Tape Recorder.

The show was encoded at the Optigraphic multivision studio using two ES 3018 Memomasters—one for live sequences and presentations—the other for the pre-recorded multivision links which joined one presentation to the next, or as an audio-visual background for dance sequences.

The cues from the Memomaster serving the live sequences were dumped onto tape so at the event only one machine was required.

The dump tape was loaded into the Memomaster's memory on-site, and the cues were then operated manually for all speaker support and then the machine was switched into tape play for recorded multi-vision links. So, was Peter Blagg, the conference director, and Managing Director of Optigraphic, happy with the way in which the Electrosonic equipment performed?

Peter says: "I knew that a show of this complexity involving 41 separate live and pre-recorded sequences would push the capabilities of Memomaster to the limit of most of its competition. For, after all, we are talking of the equivalent of a four and a half hour television spectacular being cued up in real time, and I fancy that there are few TV directors who would not feel nervous at entrusting so

much to just one major piece of equipment in a live situation. I wanted to prove that Memomaster was equal to the occasion and I must say that it fulfilled my highest expectations under what were extremely taxing conditions. And so, to Electrosonic I say "Thanks for the Memory!"

Optigraphic Motivation is part of the Optigraphic Group of Communication Companies. For Smith & Nephew Ltd. they were able both to motivate their client's audience, and to ensure that the positive aspects of organisational change were appreciated and welcomed.

## Workshops in USA

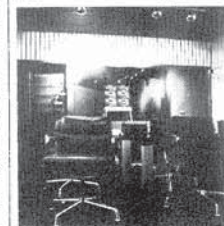
Carl J. Beckman, founder and past president of the Association of Multi Image (AMI) is the featured speaker in a series of one day workshops being held in various cities in the USA. Title of the Workshop is "Uncomplicated Multi Image Productions," and the aim is to introduce the medium to potential new users, with the emphasis on simplicity and achieving objectives. The workshops include "hands on" use of equipment, and they are organised by Electrosonic Systems Inc. Fee is \$95 which includes support materials.

## NEWS

### New showroom in Rome

Gianni Giordano, Managing Director of our associate company Electrosonic SpA, reports on a comprehensive redevelopment of the company's offices in Via Arno, Rome.

The completely rebuilt suite includes a prestige presentation room, with extremely comfortable individual seating, and a



Part of the new showroom at Electrosonic SpA.

separate meeting/board room fully equipped with audio-visual presentation facilities.

The operations of Electrosonic SpA and other companies in the Rome based group are fully computerised in respect of financial and stock movement control, and the computer is based in the headquarters suite. A separate building, very close by, provides space for warehousing, hire equipment and service laboratory.

### Trek with showtape

Trek America, a specialist in North American adventure holidays are now using Electrosonic ES 3669 Showtape to promote their product. They have a programme which is designed to show to groups of prospective "adventurers" and travel agents throughout Europe and Australasia.

Trek America uses air conditioned 15 seat minibuses, with groups limited to 13 plus leader/driver. Apart from the main attractions to visit en route a flexible itinerary is maintained to ensure everyone gets the most out of their 3, 6 or 9 week trip.

Trek America chose Showtape because of its flexibility and wide range of effects which is put to good use during the superb landscape shots of America. They also wanted to adopt the programme for specific audiences and the showtape with its infinitely variable rates of dissolve, operated via the hand controller, gives them just that facility.

### GmbH expand dealers

Electrosonic GmbH of Düsseldorf has, under the management of John Brühl, earned an excellent reputation for service, and Electrosonic products are now well established in the Federal Republic.

Dealers in other cities are being selected on the basis of their being able to offer the same high standards. They are not easy to find, so their appointment is proceeding slowly. Mietzner and Mattis GmbH have represented us for some years in Munich, and they have recently been joined by Audio Visual Technik in Hamburg. AVT's Technical Manager is Wolfgang Kreuz who used to work for Electrosonic in Düsseldorf.

Electrosonic GmbH expect to announce new dealers in Stuttgart and Frankfurt in the near future.



# ELECTROSONIC WORLD

## MUSEUMS ETC.

We have called this page "Museums etc." — but we could just as well have called it "visitors centres etc.". Here is news about just a few of the recent jobs we have been involved with in museums, interpretation centres and so on. Some of the principles described have a wider application.

### ES 24 fights the civil war

During the American Civil War the high tide of the Confederacy was reached during the battle of Gettysburg. This was a bloody 3 day confrontation in which nearly one third of the 160,000 combatants were casualties.

In the Gettysburg National Military Park the National Park Visitor Centre houses a 750 square foot ELECTRIC MAP. By means of lights on this topographic model of the Gettysburg area, the story of the three day battle is traced as it unfolded. Landmarks, points of fierce fighting and placement and movement of the opposing armies are made clear in this presentation.

Until recently an operator had to operate some 200 switches to bring on lights on the map, while a tape explained the course of the battle. Electrosonic Systems Inc. were awarded the contract to automate the whole thing. This was accomplished comparatively painlessly by installing 10 ES 24 universal decoders, 10 low current to high current 24 way interface units and one ES 311D tape deck. 2 ES 6199 45 Amp automatic dimmers were also supplied to control the house lights.

Each of two tape tracks carries multiplex signals to independently control 120 circuits; leaving two further tracks for stereo sound programme.

The ELECTRIC MAP programme at Gettysburg runs for 30 minutes. It is another excellent example for the application of standard Electrosonic products to unusual sound and light installation.

### Multivision at Imperial War museum

War has a horrible fascination for all of us, and it is not surprising that museums dealing with the subject are popular. It would be nice to think that most of them cover the subject in a spirit of enquiry and interest, rather than in glorification of war itself.

London's Imperial War Museum is an outstanding museum with an amazing collection that makes use of audio-visual for interpretation and "setting the scene". Recently the museum has installed two standard Electrosonic "Autopresent" systems for showing one 4 projector and one 9 projector show.

The shows produced by Media of London, are on the subjects of the Vietnam war and the development of the Fascist Movement. They are mainly based on library material. The Museum reports that the shows are very popular and are achieving their object of instruction without glorification.



### A-V at the end of the line

Strathpeffer? Where on earth is Strathpeffer? You might well ask, but Strathpeffer demonstrates how well the a-v medium is suited to the "one off" situation.

The Strathpeffer Visitors Centre, north of Inverness in Scotland, is the result of co-operation between the Scottish Development Authority, the Highland Regional Council and the Highlands and Islands Development Board. Based on a hitherto neglected and decaying Highland Railway Station (on a line axed in 1951) the refurbished building houses a Tourist Information Office, local craftsmen's workshops and the Visitor Centre.

The Centre's main attraction is an audio-visual presentation "ALL CHANGE FOR THE HIGHLANDS" produced by Michael Marshall of Cinescope of Collieston, Aberdeenshire. This 30 minute show is a miniature version of the Grand Tour, and is an excellent starting off point for a visit to the area, suggesting what to look for, and showing the changing face of the Highlands over the years and over the seasons.

The technical installation — consisting of 4 ES 3003 controlled slide projectors and 16mm movie projector is an "Autopresent" configuration — was carried out by our Scottish Distributors, Messrs. Audio Visual Distributors of Edinburgh. Strathpeffer is the latest of many tourist installations in Scotland. They include those of several properties of the National Trust for Scotland and the Forestry Commission, also the "Land of Burns" Centre at Ayr, the Countryside Commission Headquarters at Redgorton near Perth, and the Scottish Clans Tartan Centre at Aviemore.

### Cardiff pride

Pride in the City and Country he lives in led Chris Abram to produce a complex a-v show "on spec". The 6 projector 30 minute autopresent show "Cardiff — Our Heritage" is written as much or more for the people who live in or near the city as for tourists — and shows that after many hundreds of years of history, the Citizen of Cardiff has much to be proud of.

Partly sponsored by the local department store, Howells of Cardiff, the main impetus and cash came from Chris Abram himself, though he hopes that local business and local government will now pick up the baton to ensure wide showing of the show and possibly the creation of further shows for distribution to schools.

"Cardiff — Our Heritage" is now showing at a department store located close to Cardiff Castle. Narration is by Wynford Vaughan Thomas of a script by Iwan Thomas, from an original story compiled by local experts Peter Humphries, Richard Keen and Graham Bailey.

## History moved along with audio visual — Son et Lumière

Halifax, Nova Scotia, and Adelaide, South Australia, are a long way apart, but both have recently opened new historical museums and it is interesting to note that both had the same problem — that of a visitor flow. Independently they both came up with similar solutions to the problem — and both found that standard Electrosonic equipment could do the job.

What is the problem? If you have a relatively small museum or visitors centre in which there is a timed event — e.g. an audio-visual show or even guided tour, the event can only start at intervals and can only accommodate a defined number of people. This has two major disadvantages from the point of view of both the visitor and the centre operator.

— the visitor may have to wait for a long time — either because he has just missed a "start", or because there is not enough room for him.

— a continuous arrival of visitors is not easily dealt with and needs a "holding area" sufficient to take the maximum traffic.

The solution is to divide the "event" into a series of short sequences, each of which takes the same time and, most important, each of which has the same "people capacity". (We have been amazed to see how in some museums "bottle-necks" seem to have been "designed in" — surely not on purpose?)

In June 1979 Parks Canada introduced the colourful and elaborate "Tides of History" show to the Halifax Citadel, dramatizing the struggles, tragedies and accomplishments which punctuate the City's history, the show provides a unique educational experience for tourists, student groups and entertainment seekers.

Completely automated, the show is presented in 4 period "Theatres" — each of which uses a combination of artefacts, special displays and slide projection to dramatise a particular period. Each show is run by a standard Electrosonic Autopresent system that combines multi-image with son-et-lumière technique.

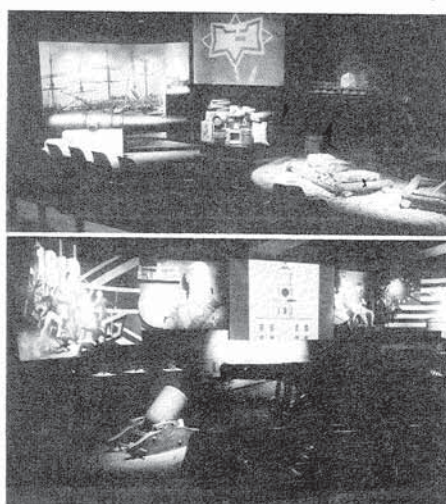
Visitors are ushered in to the first "period" at preset intervals, as this show ends, so they move on to the next period, and a new group comes in to the first theatre behind them. Each period show lasts 11 minutes — so the overall show is 45 minutes but no-one has to wait more than 10 minutes or so to see a show.

A particularly neat touch is that the shows can be given in either English or French. The desired language is selected as a group moves into the first theatre. It then "ripples" through to trigger the same language choice for that group in succeeding theatres.

Only one attendant is needed to marshal the groups and operate the system. The attendant has a simple control panel that provides the following facilities:—

Emergency announcements. Show start with language selection via key operated switch. Display of which theatres are running and with what language. Display of "alarm" indicating projection lamp failure. Display of "time to next show" (if shows are continuous). Display of number of shows given.

The complete control system was installed by our



Two of the "Theatres" at the Halifax Citadel.

Canadian associates Multivision Electrosonic Ltd. of Toronto.



Attendants Control Panel at the Citadel.

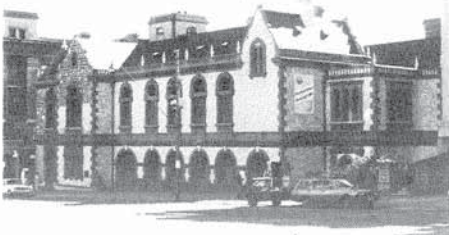
### AUSTRALIA

Meanwhile, in the Southern Hemisphere, Mike Shirley of Shirley Spectra was wrestling with the problem of what to do with the South Australia Constitutional Museum that was to be housed in the old Legislative Council building on North Terrace in Adelaide. Again the problem was how to tell a continuous story covering centuries with relatively limited display material; indeed the only "artefact" in the museum sense was the building itself. The story how-

The first "chamber" is almost conventional "museum" in the sense that it consists of a number of static displays. It covers aboriginal South Australia before the coming of the Europeans and includes a reconstruction of HMS Buffalo which brought the early colonists. It also includes 3 separate a-v presentations, one using 10 projectors, one 6 and one 3. All three are automatically coordinated so visitor flow is controlled, and so that the move to chamber 2 instruction is given at a time when visitors have been able to see everything in chamber 1.

Chamber 2 is just that. It is not a reconstruction, but a restoration of the actual Assembly Chamber that was the South Australia Parliament between 1875 and 1901. Son et Lumière technique is used to recreate a meeting of the Legislative Assembly. The system uses 40 ES 6192 dimmers programmed from ES 24 decoders.

Chamber 3 brings us right up to date, featuring South Australia in the 20th Century. A 28 projector multivision of free format is used in an



The Old Legislative Assembly Building in Adelaide — now the Constitutional Museum.

ever, involved people and a method had to be found to involve the predominantly local audience with their forbears.

At the Citadel in Halifax the "Tides of History" represented only a part of what the visitor was to see. At the Constitutional Museum in Adelaide the "show" was nearly all there was to attract the visitor. Thus while the solution to the visitor handling problem was similar, the parameters were different. This time there were three show areas, with each segment lasting over half an hour — so the complete visit to the main part of the museum was to take 100 minutes.

exciting fast moving show which is also supported by static exhibits.

The Constitutional Museum is expected to attract between 80 and 100 thousand visitors a year. The whole museum project cost Australian \$3.2 million, of which about \$500,000 was spent on the automated display equipment and programmes. There is an admission charge of A\$2 and certain days are set aside for school parties.

The technical installation was carried out by our Australian distributors, Messrs. Convoys International Pty. Ltd.

## La Caixa sponsors art show

News of enlightened sponsorship comes to us from our Spanish distributors, Audio Visual Hardware of Madrid.

The Caja de Pensiones para la Vejez y Ahorros de Barcelona — affectionately known as La Caixa is a savings bank and as such is expected to invest some of its funds in Social and Cultural activities. Recently the Educational Department of the bank commissioned a multivision system and two shows for the Macaya Palace, the Museum of arts and history of Cataluña.

The main system supplied by AVH is a permanent autopresent system based in a special theatre at the museum. It is a conventional 9 projector ES 3003 system — but is interesting in that it is both a choice of two programme system as well as being a choice of two language system. The desired programme / language combination is selected by push button.

The requirement for multiple programme and / or multiple language system is a common one. One of our best efforts was a 3 screen multivision in Stockholm which gave a push button choice of no less than 18 programmes! Belgium often comes in with a demand for programmes to be given in a choice of 5 languages.

## Danish choice

We have recently completed an interesting job to meet the requirements of a Company Museum of Denmark. The application is of wider interest because it deals with the problem of how you pack a lot of information into a small space and easily give the visitor a choice of what to see.

Simon Muirhead of the Museum's designers James Gardner Studio explains the problem. "The Company's products were too big to have in the museum — and in any case many of them now only existed in the form of a photographic record. We wanted to show how the different classes of product made by the company had evolved and this was best done with a slide sequence with timed automatic dissolves between image of product and descriptive caption."

"The problem was that each sequence would consist of up to 10 slides and we had 15 classes of product. Any visitor could be expected to be only interested in perhaps one or two of these, so we have to have some system of visitor choice that would give the desired sequence at the touch of a button."

The solution was provided by one of our first installations of the ES/RAX Random Access Slide Projection System (see page 10 for a full description). The visitor is confronted by a display that includes a rear projection screen and a numbered list of the product types. On it also is a small keypad — like a calculator but with bigger buttons — with 16 pushbuttons numbered 1-16. The visitor presses the button of his choice and then within 3 seconds the system has both switched on and started the sequence required. At the end of the sequence the projectors switch off to eliminate unnecessary running time.

There are many possible variations of the random access theme — varying from simple displays where a visitor just chooses a desired single image from a "library", to multi-programme multiscreen systems that include a sound commentary. The point that must be remembered is that they are essentially an individual display, catering for the needs of an individual or small group where you know that they do not want to see / hear all the material available, but only a section of it.

They are therefore particularly suitable for specialist museums and private showrooms / exhibitions. If you intend to use them for general public exhibitions — to be sure to specify small boy and chewing gum proof selection buttons!



# ELECTROSONIC WORLD LIGHTING NEWS

Lighting control has always been an important part of Electrosonic's business. Indeed our first product was an automatic electronic dimmer, and its design was sufficiently advanced that the basic product remained in production for 12 years.

We specialise in the needs of commercial lighting control — for hotels, hospitals, offices and public buildings of all kinds, but also have a popular range of professional equipment for theatre and t.v. applications.

Since our company was founded on the combining of light and sound it is not surprising that we are also active in some unusual applications — from Son et Lumiere to dimmers for environmental chambers.

## 300 dimmers in Dubai

The fabulous new Hyatt Regency Hotel Complex in Dubai, constructed on reclaimed land on the corniche in Dubai was opened on Monday 5th May by His Highness Sheikh Rashid bin Saeed al Maktoum, Vice President and Prime Minister of the U.A.E. and Ruler of Dubai.

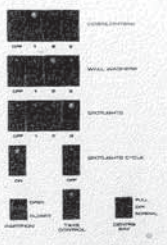
The hotel together with the Galadari Galleria Centre was equipped with one of the largest and most sophisticated dimmer systems installed in the world, and was designed and built by Electrosonic Ltd.

In line with Electrosonic's policy of a total service, the original design work commenced several years ago. The concept of control (multi-scene push button dimming) was designed in conjunction with Howard Brandston and Gene Stival of Howard Brandston Lighting Design Inc. of New York, who were responsible for the overall lighting design. The electrical design was carried out with 3D International of Houston Texas consultants and project managers, and with the installing Electrical and Services contractors Phoenix Electrical Co. Ltd. of London and Dubai.

Phoenix were also responsible for placing the £50,000 contract for the system with Electrosonic Ltd. Considerable co-ordination and joint design effort was required on this contract between Phoenix and Electrosonic, due to last minute changes and additions to the lighting fitting and load schedules.

The complete system involving in excess of 300 ES6090 plug-in dimmers and 24 2 metre high equipment racks was manufactured and supplied in less than 10 weeks.

The final system test, commissioning and handover was carried out by Electrosonic in conjunction with their local service representatives Messrs. Business Communications Pte. Ltd., on behalf of Phoenix Electrical Co. Ltd. The ultimate client was Abdul Wahab Galadari, and the main contractor was Cementation International Ltd.



One of the lighting control panels at the Hatfield Lodge Hotel.

## Valves out

Back in 1960 the best method of dimming cold cathode lamp loads was by the use of Thyatron valves (or tubes if you prefer). So the Haworth Lecture Theatre at Birmingham University (named after the Nobel prizewinner who formulated synthetic Vitamin C) was duly equipped with two equipment cabinets each 1800mm x 650mm x 600mm fitted with thyatron dimming equipment.

Now, 20 years later, thyatrons have given way to thyristors. Two wall mounting ES6090 dimmer frames each 500mm x 400mm x 35mm, fitted with a total of 10 dimmer modules are now installed. The new dimmers occupy one tenth the volume of the old!

Electrosonic ES6090 dimmers are available in versions that are particularly suitable for "difficult" loads, such as transformers and fluorescent lamps. The Haworth installation uses 4 level push button control, accessible from several control points.

## Buckland under control

The Buckland Suite at the Hatfield Lodge Hotel is not as far as we know, named after a certain well-known New York Audio Visual Producer — but it does have a complete Electrosonic sound and lighting control system.

While other items on this page might lead readers to think that we are only interested in giant dimmer systems for multi-million pound hotel projects, we have a lot to offer the small installation; whether it be the supply of a complete system for a new conference facility, or even the supply of a single dimmer for a refurbishment scheme.

One of the problems at the Buckland Suite was the one common to many hotel banqueting areas. The suite can be divided into two. When this happens, it is essential that lighting and sound control is correspondingly split into two independent systems — whereas when the partition is open the whole system must operate as one.

The Hatfield Lodge Hotel is owned by Beales Hotels Ltd. Architects for the Buckland Suite were C. E. Owen-Ward and Partners; Interior Designers Brunton Design Associates, and Electrical Consultants John Laing Design Associates Ltd.



Bob Simpson, Ron Bray, Cheryl Anne Wilson, Anthony Easterbrooke celebrate Wembley's win.

## Wembley wins "Cue" draw

Wembley Conference Centre recently won the first prize in a draw to promote subscription to the technical theatre magazine "CUE". The prize — an Electrosonic Linkit Control Desk and Flatpak Dimmer Pack.

"Cue" magazine is an independent journal covering the technical aspects of theatre. While descended from a competitor's house magazine, it is now a completely independent publication of Twynam Publications. As a means of generating extra subscriptions "Cue" held a draw on all new subscription applications over a one month period. The draw was a success in every way — it generated a lot of publicity for "Cue", it got the extra subscription expected, and it resulted in a happy prize winner, who had an immediate need for the prize.

The winning new subscriber was Cheryl-Anne Wilson, Press Officer of the Wembley Conference Centre. She and the Centre's Technical Services Manager, Ron Bray, received the Electrosonic portable lighting control system at a special ceremony at the Association of British Theatre Technicians' London Headquarters.

The ABTT President, Anthony Easterbrooke, made the presentation. He remarked that while it

might have been nice if the Upton Snodsbury Amateur Dramatic Society had been the winners, it was in fact equally appropriate for a serious professional user to win it — one who would make maximum use of the system.

In fact Wembley Conference Centre are old friends of Electrosonic. Their complete auditorium lighting control system, and also the dimming systems in the lecture theatres and other meeting rooms, are all based on Electrosonic ES1006 dimmers.

Ron Bray is highly pleased with the acquisition of the Electrosonic Flatpak and Linkit. "With seven main lecture theatres, an exhibition hall and several other banqueting suites and meeting rooms — in addition to our 2700-seater main auditorium — the call on technical services is enormous and as varied as our range of events," he explained. "Being so versatile and easily portable, this system will be of particular value in our exhibition area and conference suites, where the hectic schedule may call, in the space of one week, for flexible lighting to create the right mood for a product launch, a fashion show, a discussion seminar, a buffet dance or a boxing dinner."

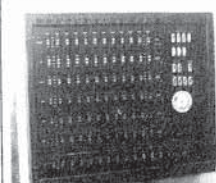


London office of the Banque Belge.

## 500 KVA Dimmer System for Banque Belge

Electrosonic supplied a sophisticated energy saving dimmer system for the Banque Belge in the City of London.

The design of this system was carried out in conjunction with Haden Young Ltd. (Electrical Contractors) and was for the control of all the fluorescent lighting in the building. The building is on seven floors, with each floor being divided into 11 zones of controlled lighting. The luminaires are of a recessed modular type employing 40W U-tube fluorescent lamps and the maximum load per floor is 280 Amps (inductive). The control



Master control panel at Banque Belge.

system is fully automatic, with the aim of saving energy, increasing the life of the luminaires and at the same time offering the optimum solution in local control.

The automatic dimmers are controlled from a master control panel (programme controller) and local control panels. The local control panel has 70% or 'OFF' control between 9.00 hours and 16.00 hours (approx.). At, say, 16.00 hours the artificial lighting is available is automatically faded to 40% due to the fact that the glare index is reduced as daylight fades.

However, the natural illumination cannot always be relied on to comply with a control system, so the pre-determined illuminance available from the artificial lighting can be supplemented using the master override control panel.

Included in this installation is an emergency lighting system. In the event of the normal supply failing, this is detected by the system, and when the emergency generator has reached full output the lighting is automatically dimmed to the 40% level. This is necessary because of the large load of the lighting for the building — some 500 KVA!

## £250,000 contract for Holiday Inn

Electrosonic Ltd. has recently been awarded the contract for the supply of lighting control and small power systems, sound and communications systems, room status system, H.F. television system and the supply of all guest room bed head panels for the Holiday Inn Kuwait — scheduled to be opened in early 1981.

The £250,000 (\$575,000) order was placed by the main contractor, Samho Construction International Ltd. of Seoul, Korea. The luxurious

atrium lobby hotel is being constructed near the new Kuwait Airport, for Jawad Bukhamseen and Holiday Inn International.

Architects for the 425 room hotel are M.D.P. International, Services Consulting Engineers are Morris Bagueley and Partners with Panarab as Managing Consulting Engineers. Contract negotiations and local co-ordination were carried out by Electrosonic's distributor in Kuwait, Messrs. Gharabally Ltd.



The Caves above Matlock Bath — now with sound and light.

## Underground experience

Caves have always fascinated man — and many of the most spectacular have now become tourist attractions.

The "Heights of Abraham" above Matlock Bath in Derbyshire has recently installed an Electrosonic Sound and Light system. This uses an ES1311 tape deck with ES24 decoder controlling a rack of ES6090 dimmers. The show uses special lighting directed on the rock formation and tableaux which outline the use to which the caves have been put.

It places special emphasis on the mining activities that used to take place in the Cave — and in this respect is similar to an in-

stallation carried out in Sweden some years ago. There Ljusteknik AB installed a Sound and Light system in Stora Kopparberg — the oldest coppermine in Europe. A problem we had was the damp atmosphere underground, necessitating 200 watt heaters in the base of each equipment rack!

The biggest cave installation we have done is that at St. Michael's Cave in Gibraltar. An automated Son et Lumiere system (originally installed in 1964, but updated in 1973) uses 48 dimmer channels and multitrack sound. The cave is sometimes used as a concert hall — so manual control is available as well.

## Ljusteknik exports

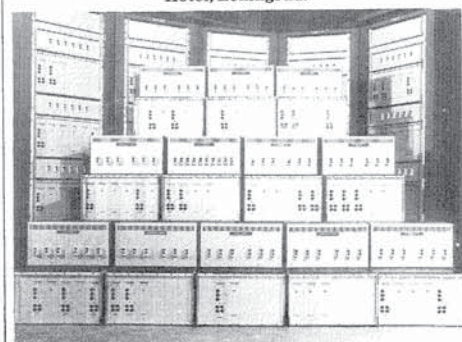
Ljusteknik AB is Electrosonic Ltd.'s oldest distributor. In fact Göte Ljungberg started Ljusteknik only a few months after Electrosonic was founded in 1964, and by 1967 Ljusteknik and Electrosonic were doing business.

All the early business was in lighting control, but by 1970 Ljusteknik had moved into a-v as well — the present company now being the biggest specialist distributor in both lighting control and a-v in Sweden. Ljusteknik have sold many thousands of Electrosonic automatic dimmers in Sweden — first the ES1006

and ES1093 Series and now the ES6090 Series.

In addition to supplying the Swedish market, Ljusteknik also work closely with major Swedish contractors executing projects abroad. Ljusteknik supplies the dimmers and special luminaires for such projects, and also provides a project engineering service. Electrosonic equipment has been exported from Sweden to Japan, Poland, Saudi Arabia, the USSR and other countries in this way. The photograph below shows part of the massive dimmer system (over 200 dimmers) supplied to a hotel project in the USSR.

Dimmer system supplied by Ljusteknik AB to Intourist Hotel, Leningrad.





## Tussauds open new display

Madame Tussaud's is one of the best loved tourist attractions in the world. In recent years they have introduced several striking new displays which by clever design and the use of lighting and sound, make their subjects more relevant, more interesting and, yes more entertaining.

"The Astronomers" is a new exhibition that has just opened at the London Planetarium (part of Tussauds). Great figures from astronomy are shown in settings which demonstrate their contribution to the science and the whole display is co-ordinated with an impressive sound and music track and synchronised lighting.

Electrosonic supplied the lighting control and programming system (based on standard decoders and ES6090 dimmers), and also the cartridge tape decks. The system was designed in conjunction with specialists within the Madame Tussauds group.

Electrosonic have been proud to be associated with Tussauds for 15 years. We supplied the control system for their "Heroes Live" and "Battle of Trafalgar"



Einstein at the London Planetarium.

galleries and for many other exhibits — not to mention a comprehensive dimmer system for the static display galleries. To help with the in-house programming of both the "old" sound and light system and the new "Astronomers" display, Electrosonic have recently

supplied Tussauds with a Microcuc programmer which is ideal for the creation of complex light and sound sequences.

Our picture shows Albert Einstein in a 3-dimensional representation of his theory of the relativity of space, time and gravity.

## Multivision at Westminster

From the summer of 1980, the school parties who normally visit the Houses of Parliament during recess to expand their knowledge of history and contemporary events, will be treated to an audio-visual introduction to their tour. The programme, entitled "The Mother of Parliaments" runs for 27 minutes and, as well as presenting some of the places of interest in the buildings themselves, more importantly explains in detail how Parliamentary business is conducted. It follows the progress of a Bill through its various stages, from presentation of the original proposals to its final passage through the House of Lords and on to the Royal Assent.

The equipment used in the programme is unremarkable. Six carousels with ES3003 Multivision Processors, ES 3000 controller, ES1111 cartridge deck and ES 1254 amplifier feeding into the existing speaker system. However, the special nature of the building imposed a number of restrictions.

The Grand Committee Room, where the programme is presented is used regularly for committee meetings. The screen centre line is some 2.5 metres from the ground. Permanent fixings could not be made to the ancient stone walls or oak panelling. For convenience, the equipment should be stored close to the Committee Room, but no storage room was available. Whatever solution was adopted, the whole system had to blend in with its surroundings.

The only convenient storage location was outside in the corridor. Already in the corridor were two oak-panelled bookcases. It was decided that the equipment could be housed in cabinets matching the bookcases and placed opposite them in the corridor. When required, the cabinets could be placed one above the other and locked together to provide a stable projection box of the required height.

The work of building the cabinets was committed to Electrosonic's own woodwork shop, the entire construction being carried out by cabinet maker Len Adams, taking time off from building lecterns and Multiway lighting desks.

The end result is a set of equip-



Elegant Electrosonic woodwork in the Houses of Parliament. One section removed to show projectors!

ment which for 10 months of the year will provide an elegant addition to an historic building. For the remaining two months it will aid the education of future generations.

Due to restrictions on photography in the Grand Com-

mittee Room, the illustration is of a preview of the programme in the adjoining Jubilee Room, which, being smaller requires only one of the two matching cabinets. In actual use the projectors would not be seen by the audience.

## Bernini celebrated

A spectacular multivision is opening this month in Rome as part of the celebrations of the third centennial of the death of Gian Lorenzo Bernini.

The City of Rome has commissioned Electrosonic SpA to design, build and install a structure containing a 42 projector system with a 10 ft x 62 ft (3 x 15.6 m) rear projection screen to be installed in Piazza di Spagna on the Spanish Steps.

The show "The 4 Universal Elements — Water, Air, Earth and Fire" — in the invention of Bernini" directed by Ennery Taramelli, is produced by Umberto Santucci and Gianfranco Montadoro of leading Italian television producers Audiovideal S.r.l.

## 100 for Ganz

Electrosonic have been represented in Switzerland by Ganz & Co. of Zurich for more than 10 years; but Ganz and Co. themselves are a company who have been in the "a-v" business for no less than 100 years!

In 1880 the great-great-grandfather of Thomas Ganz (the present Managing Director) designed and manufactured the first Ganz Magic Lantern. It was a very advanced product for its time — placing special emphasis on the efficiency of the light source.

Nowadays Ganz operate from a modern Headquarters overlooking the Zurich See; besides covering every aspect of audio visual from filmstrip to 35mm movie, the company also offers high quality processing services to professional photographers.

## Kodak go Xenographic at Photokina (again!)

Kodak's Press Conference prior to the opening of Photokina, held this year in the Auenstaal of the giant exhibition complex at Cologne on September 11, is a major event that is both an opportunity and a problem.

The opportunity is the ability to talk to 700 journalists from all over the world, including of course all the influential photographic press. The problem is that there is only 30 minutes so available for the formal presentation and the same journalists may be attending other press conferences at different times on the same day.

What better than to support the press pack with a tightly written audio visual presentation, that gets over all the main points both economically and in the journalist's own language? It sounds easy but Kodak have to be careful using audio visual. They must, of course, have projection of the highest quality and impact, but also may require to demonstrate the actual performance of filmstock.

For example at the 1978 Photokina they introduced the 400 ASA range of films. As part of the presentation it was important that the audience could actually assess the results of using these films — which meant in turn that individual 35mm slide images had to be 21 ft. x 14 ft. (6.4 m x 4.3 m) in order to be seen properly by the large audience.

In fact a 42 ft. x 14 ft. (13 x 4.3 m) screen was used, with a format of 2 images side by side with overlapping centre image. A total of 9 XENOGRAPHIC projectors were used in order to achieve the required picture brilliance, and Kodak expressed themselves delighted with both the high light output of the projectors and the evenness of illumination which together ensured a truly magnificent image. The main part of the presentation was pre-recorded, allowing for accurate simultaneous translation in 4 languages — German through loudspeakers, French, English and Japanese through radio headsets.

So successful was the 1978 showing that a similar format was chosen for 1980. This time 12 XENOGRAPHICS were used to



Kodak's 1978 Photokina Press Conference — The 42 ft. screen seen from the projection tower.

allow for the maximum flexibility in programmed effects. Programmed control was by the Electrosonic ES3003 system, and the programmes were made by Kodak Ltd.'s Audio Visual Services Department at Ruislip, on behalf of Kodak as a whole. They used their own Microcuc and SAV2000 projector set-up to prepare and preview the programmes, just hiring the Xenographic system and extra sound equipment from Electrosonic for the big day.

Xenographic projectors,

manufactured by Optical Radiation Corporation, are available from Electrosonic on a hire or sale basis. When fitted with the servo driven fade module they are compatible with many standard dissolve systems and are especially suitable for use with the Electrosonic ES3003. Available light output is 4000 lumens in the standard version, 5500 lumens in the "stretched" version, both with exceptional evenness of field. (Compare this with the 600-950 lumens available from the S-AV2020).



The Xenographic 500 RFXB FM High Power Projector with Fade Module.

## Louvain and Chelsea teach multivision

The Centre de Recherche en Communication en Histoire at the Université Catholique de Louvain has installed a massive facility for research into the use of audio visual as a means of communication, and for multi-purpose use by staff and students.

An adaptable area 10 x 13 cm is equipped with a complete sound studio and multivision programming set up; together with facilities for automatic shows, programmed lighting control, both back and front projection, programmed screen masking and much else besides. A Microcuc is used for programming and there is provision for the full 56 projector system to be used. The 3.6 x 2.4 m rear projection screen is fitted with an adaptable masking arrangement that allows any format from 3 to 16 screens. Complete installation was by Mediatone.

On a more modest scale the Chelsea School of Art has recently purchased a Memomaster ES 3018 with 9 ES3003 for use by their Media Resources Department, particularly in a graphic design course biased towards photography. The students have full access to the equipment and already two major "productions" have been made — one by Tessa Crombie, a 7 projector show on Neon medium and effects, produced after a study visit to the USA; and another by Ameeta Manji, a programme on the Indian wedding which won first prize in a Lucas sponsored a-v competition.

## 'The Wall' in U.S.A.

The super group PINK FLOYD recently performed their new album 'The Wall' in the U.S.A. All the lighting and comprehensive special effects were supplied and 'toured' by Britannia Row Lighting Inc. The person in charge of this element Graeme Fleming, chose Electrosonic to supply the dimmer system (modified ES6090 dimmers) and an electrosonic 'Rockboard' control desk.

In addition to these items Electrosonic supplied a special 60 way lighting control desk. Included in the 'package' were a number of

'special' items — electrical distribution units for the distribution of the massive electrical power used in the 'rig'. These are affectionately called 'Tardis' (from the Doctor Who T.V. series) and for 'Treki' fans there is a special control console called the 'Enterprise'.

Electrosonic provided technical assistance on the tour in the form of Charles Laver (in Los Angeles) and Bob Stinton (in New York). Rumour has it that they both learnt a lot whilst on tour with what must be the largest and most impressive multimedia show on the road this year.

The Electrosonic "ROCKBOARD" Lighting Control.

