

LIGHTING+SOUND

International



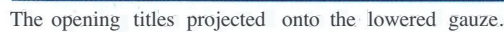
TOP OF THE POPS IN REHEARSAL AT ELSTREE

- West End latest: The Hunting of the Snark
- New Look Top of the Pops
- Theatre Magic from Glasgow, Stockholm and Japan
- Ultimate Movement: Talking Tracking
- Disco Technology and a Dutch Palace
- A new venue in Carshalton
- Cloud Electronics Profiled

NOVEMBER 1991

Julian Williams at the West End's latest mega musical

For safety, there is a gate at every potential bridge position. These gates are interlocked so that they can only operate when the bridge is in the correct position. All the interlocks are operated via Pinpoint's Computer.



REFERENCES CITED	
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"Their main function is to slide between the screens. There's a lot of very accurate focusing

"Then there are actors who get in the way of all this - and I have to light them without hitting the screens or creating any excessive spill, be it from bounce of a white T-shirt or from just physically hitting the screens. The configuration changes quite often and with some of them it's

Howard Eaton, whose company have supplied production electrical, and lighting services, explained some of the practical





Chris Slingsby, Imagination's creative director of visual communications at work on the projection plan.

problems he has had to deal with. "The problem with the atmospherics was that Andrew Bridge didn't want a cracked oil because you can't get rid of it - he didn't want just smoke. He finally selected fan assisted Skywalker fog generators from German company The Smoke Factory. The main advantage of the Skywalker is its variability. They are 0-10 volt which means they can be operated from sub-masters on the board. A big advantage is that they are able to trickle and not clog-up and overheat.

"We are using one of our Bytecraft Sage protocol convertor units to take the AMX 192 multiplex signal from the Light Palette, and produce DMX 512 directly to drive the 60 scrollers and other such toys. Other similar installations such as in 'Five Guys Names Mo' and 'Joseph' are using this now to convert the D54 signal from the Galaxy board. It actually produces two parallel DMX outputs.

"We also have our standard motorised light curtain which is used in five sections with the Rainbow scroller's at mid-stage LX Bar 5 position. It flies to various positions during the show.

"We supply the team of production technicians, for continuity, and to get the same group of people who are all used to working in the same way together; hopefully to a high standard. This takes the problem away from management who don't have to hire individuals.

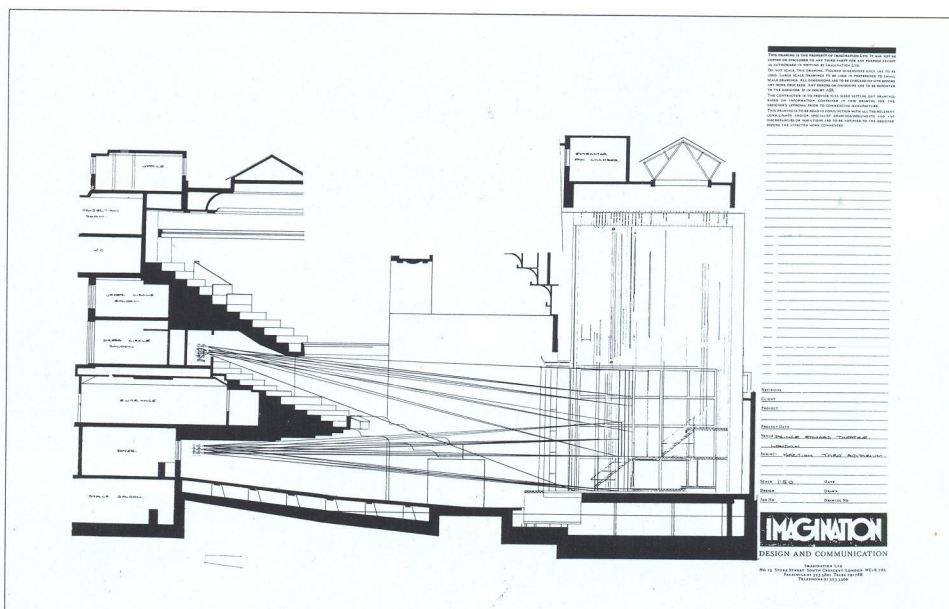
"A remote page button and colour monitor for the Light Palette 2, which Andrew Bridge has always wanted, is not normally available. We provided this and it allows the lighting designer to select his own pages on the monitor at the production desk without having to have an expensive full designer's remote system. It is a simple thing that's essential for this type of production.

"Our tracking followspot consists of a R&V SOOV Beamlight with a scroller on the front and it's modified to move into any of the five bay positions at both sides of the stage."

Then talked to Imagination's creative director of visual communications Chris Slingsby.

"One of the particularly nice things about this production was that many of the people involved had our company's background and had come together on our show rather than a commercial show," he said.

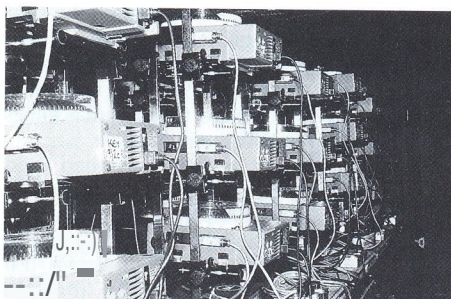
London's Imagination, a team who consist of leading practitioners in the art of presentation, cover trade shows, product launches, business television, and privatisation road shows among



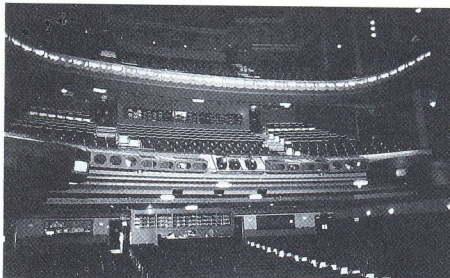
Theatre section showing tightness of projection beams to the theatre structure from both stalls and dress circle.

other things.

"We are first and foremost designers of all this, and secondly we are the technical producers of it," continued Slingsby. "On 'The Hunting of the Snark', our responsibility is the technical production - on most of our projects we are the designers as well; we do a lot of commercial audio visual production and also have a reputation for doing unusual audio visual projection, commercial and entertainment shows. This was a logical extension of that, but more complicated technically than the jobs we are normally likely to do on an everyday basis. It's so large and complex.



Stalls projection room: part of the line-up of 96 Kodak 2060 Carousels.



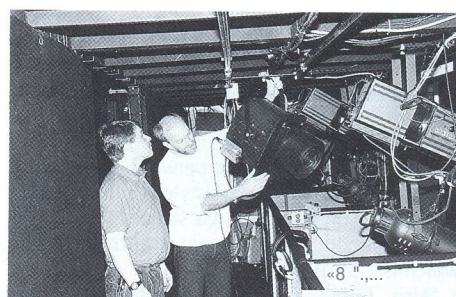
View from the stage to the projection rooms with the banks of projectors. To the left is the room housing the Genesis computers.



Richard Knight at the Vari*lite desk.

"Mike Batt and Imagination's chairman Gary Withers spent a lot of time developing how the screens should be and in what shape, how many there would be, and what they would do, and so on. Mike Batt wanted to create the whole of the scenic elements with projection and there is obviously much scope for depth on a stage. With the orchestra on the stage, he wanted to have the images in amongst the set with the artistes, as a total visual piece.

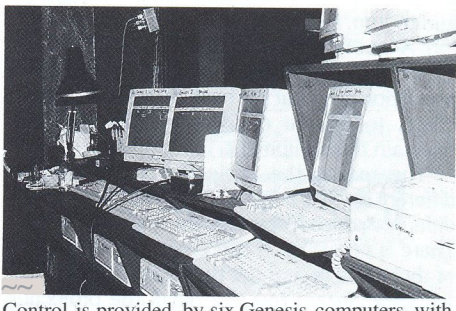
"He actually does the drawings himself. The visuals are based on his outline drawings which our studio people then take over and turn them into slides. We already knew how he wanted the



Howard Eaton (right) discusses his tracking followspots with production electrician Alistair Grant.



Sound designer John Del'Nero (right) with assistant Mike Furness at the Cadac console.



Control is provided by six Genesis computers with the operator's 'go' button just visible centre.



By projection on the front gauze, animated images of waves, birds, fish combine to create a real 'yo-yo-ing' sea scape.

techniques of creating the images, and this required the use of many lith slides with colour gels, instead of colour film and colour stock, and the use of many projectors.

"Using gels, you can maintain a brightness of image more effectively than you can using colour film. He builds up complete scenes using many small elements, with soft edge grads and so on inserted into each slide individually. Many of the slides are hand-made and built up to make enormous images using many projectors to achieve the result and this is why there are so many projectors involved.

"One image might use between 50 and 60 projectors to create it. This style is a unique way of working on such a large scale. However, it does maintain purity of colour and brightness which is critical in this situation.

"Also, this quantity of projectors gives the opportunity for animation. We have a full time studio of artwork people and our own in-house rostrum camera. Apart from processing the colour film we do everything in-house.

"This is a real development story based on multi-vision techniques that we have developed over the years for the conference industry and which has now been taken a stage further.

"The fundamental problem was in making all the projection work in a theatre that wasn't designed to ever take it in that form. So just arriving at the right number of projectors and to hit the screens in the right places without the projector beams catching the ceiling of the dress circle above the stalls, or getting on top of people's heads when they walk through the auditorium, and so on, was a very tight technical job! A lot of careful work went into making sure that it would all just about fit into the adapted projection rooms at the back of the stalls and the circle, to enable engineers to line up and maintain the equipment.

"The reason the projection rooms are on different levels is because they need to reach the different parts of the screens with the beams. There is no way you can project from anyone of those places and get the beams to all of the required places. You can break the projection down into two halves; the first half of the show

is all front projection which comes from the stalls and dress circle and that basically uses the same sort of projectors and projections.

"There are many screen overlaps and we have pushed the limits of soft-edging slides together. The bigger the image the dimmer it gets, - the smaller you can keep the image the better. It's a case of how wide you're spreading the light which is a fundamental problem with AV. We got over this problem by taking the image and splitting it on the rostrum camera in perfect registration. Without these fundamental things this job would not have been possible.

"These images and projectors are then lined up using special line-up slides which, when you put all the slides back with the right relationship to each other, you can blend them together to make a perfectly seamless picture. We use special soft graded pieces of film that are sandwiched in with them all. It's a very specialised business. Mike Batt insisted on a 12ft x 8ft picture (from the front projection) for consistency of brightness. These images are then built with soft edging both horizontally and vertically, into images that are nearly 40ft wide by 30ft high.

"We've had to programme the whole of what you see in the theatre, in one-third scale. It was completely created and set up at Imagination's purpose-made studio, with all the projectors, and all the screens and took six weeks. We had six weeks pre-production before that, to prepare the slides.

"The job started for my team in May this year and the first month was spent working out the technical details for the projection. We started the artwork in July which went on until September. It was then an on-going process right up to opening night.

"It was an on-going situation because of the way Mike works, as he creates everything with the pressure of time. As he was also doing other things, you were creating along the way. He would do the drawings and we would turn those into slides while we were still programming the last scene. We had a production team of seven people and a rostrum camera operator. Two people did all the slide mounting, specialising

with the collation of the slides, and three people worked in the studio full time, together with a studio manager.

"On the stage itself there is some quite tricky projection coupled with back projection. Installed in the back wall are 26 projectors for the back projection; all boosted 2055 400W Kodak Carousel projectors. From the LX bar 2 position, 18 carousels were used. The projection throw is so short that we had to develop a method of shooting those images to keep the projectors running parallel to each other, rather than keystoneing in together, which, because of the distortions involved, would have been totally unacceptable.

"The other thing on that screen is that there is a bottom strip which is projected from above the other projectors down at an angle of 30 degrees. The keystoneing on that was severe, and like everything else they would soft edge together. The slides all had to be created, and techniques had to be developed, to keystone-compensate all those slides so they would be a perfect match, which is much more difficult than it sounds.

"In addition there is the Horizon screen, which is right at the very back, and which comes down in front of the back projectors, behind the orchestra, and above the rhythm section. There are also some blinds in front of the section and we project on all of these screen areas as well. Both screens also had to be keystone-corrected.

"From the dress circle projection room, we have two Pani 4kW BP4 HMI projectors to cover the whole of the front pros gauze with one slide image or through combinations to create multi-layered imagery.

"On the Horizon screen we only had a pair of projectors on each screen area. The basic technique was to shoot those images from a screen and then by using a number of stages of re-copying them, to end up with them distorted to exactly the right degree. So again when they are projected back together you will get a seamless picture. In fact the whole picture at the back of the set is actually five separate slides every time blended together, and I must say that I am pleased with it, because I know what we've

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