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MOBY DICK: A PRODUCER AT PLAY

Julian Williams on lighting: Simon Croft on sound

The reviews of Moby Dick have been mixed, but if you are interested in seeing a show where almost every possible bit of stage trickery is used, many in a very pantomime-like fashion, then you could well enjoy it. It is hyped and fast, and a majority of 'numbers' are given the full finale treatment. The foot is hardly ever lifted off the gas, and your eyes have to stay focused on the overall stage area. If the action continuous dulls down a bit then something somewhere will happen to jolt you back on course.

Simon Croft on the sound

Conceptually, the Cameron Mackintosh presentation of Moby Dick at the Piccadilly Theatre in London's West End could be short-formed as 'a musical St Trinians with a whale in it'. But from a sound reinforcement perspective it is a fairly complex proposition.

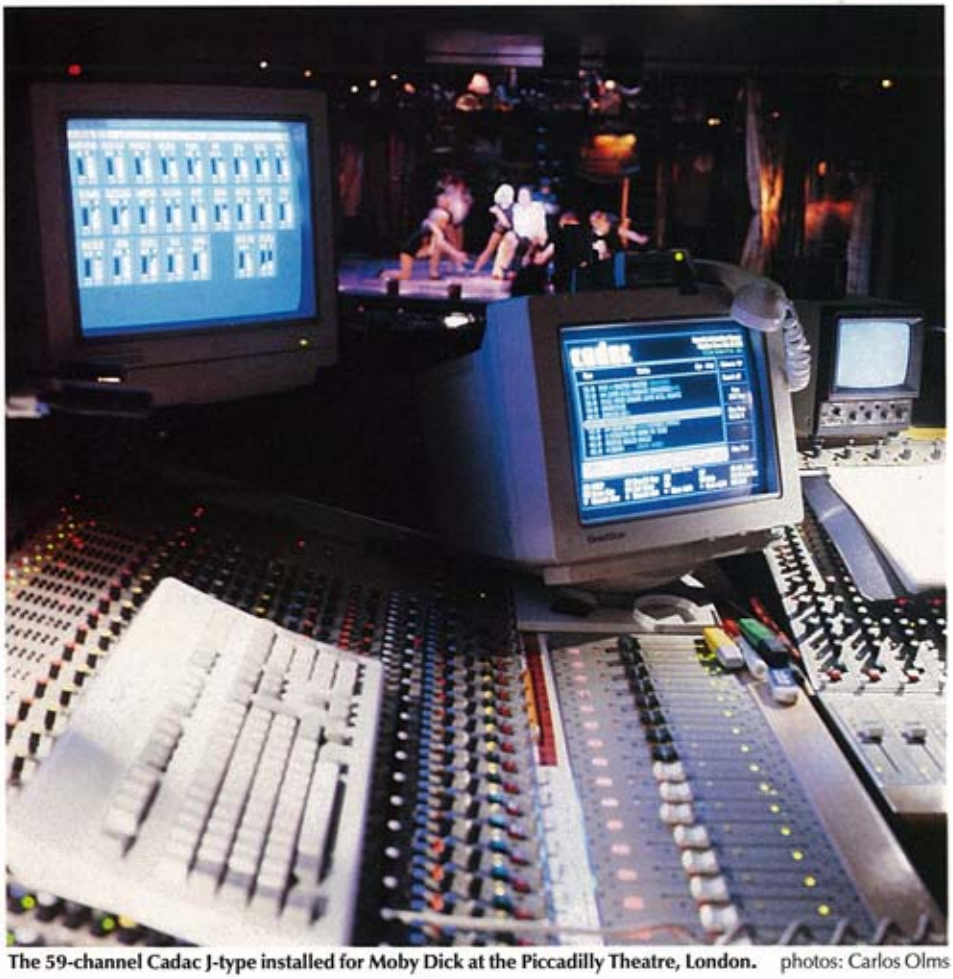
Written by Robert Longden and former Flying Picket Herewood Kaye, the musical was to be a 'small production' according to sound designer Martin Levan. It actually has an all singin' all dancin' cast of almost 30, supported by 25 channels of Sennheiser radio mics, the largest West End radio setup, just beating Joesph and the Amazing Technicolor Dreamcoat. In an ideal world it was 'not enough' said Levan, who would prefer to mic eveybody if money permitted.

"In a high energy show like this, if you haven't got a mic you're dead really. Without the microphones, the stage is almost silent from the auditorium," he explained. "It's probably much quieter than you'd imagine. When you get something sounding quite natural, it's hard to tell how much amplification there is. The band is a seven piece: three keyboard players, bass, drums, guitar and percussion. With the music making a determined move into disco territory at times, the foot mics of the old days wouldn't really be of any use."

Submixes from the keyboards are sent front of house via five Yamaha DMP11 rack mounting mixers. The players also monitor through Yamaha S22 enclosures powered by P1250 amplifiers. A total of 44 Sennheiser MKE2R microphones are used during the show, linked to 25 SK2012 transmitters and 1036 diversity sets. Sennheiser computer monitoring software, originally developed in the US, is used to check the status of every channel on an on-going basis. This runs on an Amiga computer and displays AF and RF levels for every mic if required.

Remaining with the input side of the system, Moby Dick is the first production where Levan has used the CD format to store sound effects. A Yamaha YPDR601 CD-R machine was chosen for use on site. During sound rehearsals and early performances, new CDs were recorded each day to accommodate any changes to the production. An advantage of the Yamaha CD recorder is that it allows new tracks to be added to an existing disc, an improvement over some systems which only allow 'one shot' recording.

Another 'first' is the Cadac J-type, the console that resulted from requirements initially specified by Levan. "It was very much what we wanted," he said. The Cadac events processor is used to trigger the CD machine and also produces MIDI commands that can be used to change the patches on outboard equipment, as well as the DMP11s mentioned above.



The 59-channel Cadac J-type installed for Moby Dick at the Piccadilly Theatre, London. photos: Carlos Olms

Another new feature is that 'it can be configured any way you want; the modules are not tied'. For Moby Dick, the console is laid out with 219 input modules in the main section and 30 at the side. The 12 sub groups and 24 way mix matrix is in the centre of the main section. Most of the show is mixed on the VCA masters under the subs. The sound engineer is Veronique 'Bique' Haddersley who sends, in effect, 22 different mixes from the output matrix.

There are 'close to 100' speakers in the theatre, arranged into two systems. The first is based on Apogee enclosures and the second, Levan's trademark, Tannoy dual concentrics without cabinets, coupled with Bose 303s for the bass. The Tannoys are used 'the same way as ordinary speakers but down to about 200 cycles'.

Levan has found that this way of using speakers produces a sound that is 'more natural' although he cannot quantify the mechanism at work. "Every enclosure has a lot of colouration to it. If you take the box away, you basically remove all that." The system is powered in by the 22 Yamaha PM4002s and 12 P2700s. In the outboard racks, there are 15 Yamaha Q2031 stereo graphic equalisers and six SPX1000 multi-effects units. Yamaha also appears in the form of 22 D1030 delays used on various mic channels and speakers for 'psycho-acoustic focusing'. Another Levan trademark, it makes use of the phenomenon first documented by Dr Haas.

The 'Haas effect' says that a listener perceives directionality by the minute difference in the time taken for a sound to reach the left and right ear. Experiments show that if a sound arrives at the left ear milliseconds earlier than at the right ear, it will be perceived as coming from the left side, even if it is louder on the right. This makes the normal volume-based pan pots on a mixing desk pretty blunt instruments when it comes to creating a stereo field.

Although radio mics are obviously a tremendous boon in improving clarity, they destroy any natural stereo field because the performers are a constant distance from their microphones, regardless of their physical position on stage. So Levan 'creates' space by using delays on the speaker system and also on the mics of individual performers, which accounts for the unusually high number of digital delay lines used. He said he tunes them 'completely by ear' rather than use an approach based on test equipment or mathematical formulae.

Levan has also been recording a cast album of the show, something he 'likes to get involved in as his background is studios'. Unusually, this was started in advance of the show opening, an unfortunate departure in some respects because 'considerable' changes were made to the production, right up to the last minute. However, work on the recording is likely to restart when a suitable studio is found nearby. The equipment for Moby Dick was supplied and installed by Farrahs.

Julian Williams on the lighting

Moby Dick is producer Cameron Mackintosh's first major musical to hit the West End via his Old Fire Station studio theatre in Oxford, and

The stage musical of Moby Dick is based on Herman Melville's book, 'in the spirit of Ronald Searle's St. Trinians'. Photos: Michael Le Poer Trench.

also the first where he's been very closely involved in the actual production. Based on American novelist Herman Melville's book, the Piccadilly Theatre production, which opened mid March, comes in the spirit of Ronald Searle's St. Trinian's School for Girls. Set in the 1950s in a disused Edwardian swimming pool, the girls from St. Godley's endeavour to save their academy from closure. They attempt to raise cash by staging a musical - in their own bawdy way.

The set was designed by Paul Farnsworth and originally utilised the gallery that surrounds the intimate 150-seat Old Fire Station at Oxford and which had to be purpose-built into the Piccadilly. He has created a very effective environment with a host of the appropriate paraphernalia. Old wooden beams abound and the panelled gallery ballustrades are appropriately dressed with functional old light cans, Pattern 23s, 123s and large tin reflected lamps as footlights. On each side of the set is a drab broken tiled wall that runs out along the auditorium to the dress circle, and at the circle level a 30 feet gallery continues from the sides and across the rear of the stage area.

There are no moving lights! But there are still over 500 units coming from all directions and at every angle. It's all stock equipment. The stage rig consists of eight composite bars, and tucked into the 'junk' are four booms on each side with several Parcans on each. At gallery level, upstage, Lekos are neatly integrated into the set, aptly housed inside half a dozen changing locker cabinets!

The bulk of the equipment is on hire from Theatre Projects Services, and the instrument types used, having taken a quick look at the Rosco Lightwright schedule, are small quantities of many different units.

There are numerous lighting effects which include UV floods and gobos in rotation and yo-yo'd. Optical effects projected are from 10 Strand Pattern 252 2kW projectors and two Strand Cadenza EPs, carrying such effects as vapour trail, flames, storm clouds, rain and waves.

Over 50 Rainbow scrolling colour change units are in position on Parcans, Panis and Beamlights. 23 Par 36 4059X 100W Beamlights are strategically positioned in the walls of the set and as uplighters for the stage. A Strand 5kW Bambino fresnel is used as a powerful backlight in the centre of the stage.

The front of house equipment includes a special rig of around 60 mixed Parcans and Lekos, positioned above the audience. The lighting positions here have been built into the roof of the auditorium. Suspended above it is another structure which supports various practicals including lamps suspended from it. For a specific effect this rig has to be capable of being shaken about for a storm sequence, more of which later.

The followspot operators are dressed appropriately as St. Trinian's girls, and they operate two short throw Pani units at circle level and the R&V 500W Beamlights above the Pros position.

Two Smoke Factory 'Skywalker' machines have been set to instantly provide either a trickle to create a 'haze' or as a smoke effect in any density. It can be plotted in accurately with associated lighting states on the Arri Imagine house board and reproduced in percentage terms through a combination of carefully timed fan motor and smoke cues. The system has been built into dedicated 'ducts' in the set. In addition, a Smoke Factory, battery powered, 'Scotty' unit is being used as a 'flaming raincoat' effect.

Every trick in the book has been introduced into the show's format including ample use of stage traps, and the lighting plays a major role in keeping attention focused on stage. Such trickery includes a 3D gag and a miniature shadowgraph scene.

Howard Eaton's dedicated water ripple effects used in conjunction with White Light's optical waves provide an oceanic background to the set, albeit in the swimming pool! Units are positioned largely around the orchestra pit rail and under the gallery and projecting onto the walls.

There are a couple of neat scenes near the end of the show when light and sound together enhance the nautical flavour. When the typhoon hits the 'ship' the special front of house rig mentioned earlier is violently shaken. During a dark and foggy night an attack is launched on the monstrous Moby Dick who finally comes

The stage set for Cameron Mackintosh's new musical Moby Dick.

downstage centre to consume his prey. The whale is cleverly portrayed by the use of huge white umbrellas, held in a highly effective overall shape.

The lighting designers for Moby Dick were Andrew Bridge and Hugh Vanstone. However, due to difficulties created by changing production dates and the general jet-setting life-style of elite LDs, who have great difficulty in altering their diaries if just one segment of the year's planning goes out of sequence, I was only able to speak to the latter.

I asked Hugh what collaboration with another designer involves when there are the demands of such a high profile show.

"This collaboration is only possible because I have previously worked on five big shows as Andy's associate," he explained. "Our basic rule is to discuss everything. We have had our disagreements about things, but have always ended up with a compromise. When you have two artistic brains working on the same thing it has be agreed that one of you will have the final veto, and in this case it's Andy."

Cameron Mackintosh keeps a close eye on things and he spends a lot of time at rehearsals with the cast before the show gets to the theatre. From then on he is always present. "He has the reputation of having an amazing ability to recognise when something is wrong," continued Hugh. "He surrounds himself with experts to help him put anything right. His suggestions may not always be the right ones, but he prompts you to find a solution.

"Putting it simply, when you are working for the world's leading producer you feel quite a large responsibility to get things absolutely right. With him being in the stalls all the time, every light you turn on had better be a good one, because he has given you the job and is watching.

"With this show he was very involved in Oxford. Cameron's involvement only begins after the creative team have come up with an initial concept. As a producer he has a very hands-on approach, and he's always coming round with suggestions and ideas to keep the whole thing bubbling along.

"It was very refreshing to work with him on 'Putting it Together' in Oxford, because there wasn't the pressure of it being a 'West End' production. One is inclined to be more experimental and perhaps take greater risks, in that situation, because you are working in a studio environment. It is easier when things are on a much smaller scale, and Cameron encourages experimentation."

Sound designer Martin Levan, seated behind the new Cadac J-type.

Back to detail on Moby Dick at the Piccadilly, I asked Hugh where he and Andrew started off in terms of style.

"It's undoubtedly a big rig and it's a busy show, mainly because we are having to light nearly 100 feet of extra acting area," he explained. "One thing we didn't want to do was to design it as if it was by school girls. The design concept overall was to try and move in fairly bold strokes, creating a collage of naturalistic and surrealistic images. The show is extraordinary in the way it changes mood turning into a show within a show. It takes on a roller-coaster of emotions and locations. We had an open hand, and this allowed us to make it as colourful and dramatic as possible.

"Moving lights just wouldn't have fitted the style of this production. Scrollers are just about as high-tech as it goes. It's been fun to have a large but conventional lighting rig to do things with. Everything is used. Although the central acting area is small, you have to light all the other areas, and there is an awful lot of dressing to the set."

Next person on my list was chief production electrician Alistair Grant who came in to join chief electrician Chris O'May and his house crew in preparing the show. Mackintosh's productions have to be wired in as far as possible as a permanent installation when they reach London. They also have to be capable of being duplicated later around the world. Here it is the

Hugh Vanstone and Cameron Mackintosh at the production desk.

Production electrician Alistair Grant working beside the tin reflected footlights, with the Rosco Lightwright programme on his PC. The Arri portable controller is alongside.

task of Alistair to ensure his rig meets all the regulations to do this. He had just three weeks to be ready, and fitted, in accordance with Westminster Council's requirements.

I suggested to him that with the pace in which such safety procedures were being implemented by the industry, it was up to them to influence the way these rigs are made safe. If they don't such measures could become impractical to a show, in a theatre situation, of this type and scale. For example, we are now up to the front of the Iron Curtain, as a fixed installation, from the start of a show.

"After the initial three months, we have to put things in for the IE regulations, as a permanent installation on the whole rig," he explained.

"There is no way that you can design an installation to be completely hard-wired from the start as we need to allow the designer the ability to move things around in this period. Most of the lanterns are moved these days, it's part of the design process.

"The other problem is that we are putting these shows into theatres that have 50's-style installations. You have outlets on the fly floor and so many dips, one phase in the air, one phase on the ground and one phase FOH. We are now trying to put in shows that are not necessarily lit in that format any more.

"Fundamentally, what we need to see are more patching facilities and flexibility. For example it would be an idea if we could put multicore outlets 'everywhere', terminating at a central patch room where the patch could be hard-wired for each show. The 1990s option should be saturation dimming."