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Photo: Catherine Ashmore

SUPERCALIFRAGILIS

L&S caught up with the UK tour of *Mary Poppins* in Edinburgh to discover how the tour differed from its West End incarnation . . .

words by Julie Harper

Following its successful West End run at London's Prince Edward Theatre, and its continuing success on Broadway at New York's New Amsterdam Theatre, the Disney/Cameron Mackintosh production of *Mary Poppins* finishes its UK tour this month at the Wales Millennium Centre, Cardiff - while its American counterpart takes off from Chicago around the same time.

The show opens with an act-drop of the trademark skyline of smoking chimneys and back-lit (actually carefully-aligned video projection) windows and leads into the set-piece of the Banks' house at Cherry Tree Lane.

Evidence of the adaptations made from Bob Crowley's ambitious initial design by tour set designers Matt Kinley and Ros Coombes, begins here, the house now being one solid piece (breaking down into three for transit) which opens out doll's house-style to reveal the interior. In the West End, the exterior was represented by projection, and whereas the West End set filled the stage and contained the actors, the action now tends to take place in front of the set which, nonetheless, remains a pretty hefty centrepiece.

The house truck is positioned on a slew ring which turns 180° to reveal a kitchen at the back; it also carries a lot of practicals, all of which must track up and down stage. Consequently, all electrics and automation equipment needs to be self-contained and concealed within the set for both aesthetic and safety purposes.



Photo: Catherine Ashmore

TICEXPALIDOCIOUS



The windows of the house and nursery are formed by a combination of technologies. The 'outside' windows are lit by electro-luminescent paper, from Austrian-based Light and Motion, as only one colour is required, while the 'inside' windows are lit using Howard Eaton Lighting Ltd (HELL) three-colour LED fittings recycled from the London production. These light the windows indirectly via white surfaces 'behind' the Perspex windows and allow colour mixing to give the impression of day and night.

All of this is sandwiched into the front door panels of the house which have a depth of just a few centimetres. Power and data are then fed around the panels' hinges - a challenge taken on successfully by HELL's Paul Greener; HELL also dealt with the show electrics for all the practicals.

All of the automation control has been provided by Netherlands-based Silicon Scenery and is toured and maintained by a core team of three - Tim Follett, Charlotte Lockyer and Oliver Burns.

"A lot of action centres around the house and the nursery flying piece," says Oliver. "The house needs to track up- and

downstage and revolve 180° and, with cast members no longer flown in or trucked in on the set but coming in at stage level during scene changes, positioning and timing need to be very precise.

"We have a lot of cameras at crucial vantage points so we can monitor what is going on from the large control desk backstage - it is vital for the operator to see everything as it is moving during the show. Plus there are numerous additional touring crew who watch from the wings - especially for numbers such as 'Jolly Holiday' and 'Step In Time' when there is so much happening at once!"

There are no less than 10 floor tracks to run plinths for living statues and innumerable chimneys on and off stage; two pairs of sliders are used to conceal the movement of plinths and cast and two lifts are concealed within the house - one inside the nursery chimney, used by Mary and the children, and one inside the banister which Mary rides during the second act.

There are also four performer flying winches contributing to a total of 31 axes in the show.





Photo: Catherine Ashmore

The performer flying systems are brought into operation for when Bert tap-dances upside down on the proscenium, and on three occasions for Mary Poppins herself, both on stage and, most famously, out over the heads of the audience. Various winches above the stage and in the roof above the auditorium are employed to achieve the iconic effect.

Lighting

Howard Harrison's original design for London has undergone re-lights for the tour, under his supervision, working with associate LDs Rob Halliday and Oliver Fenwick, and is looked after by production electrician Ian Moulds, chief touring electrician Simon Sherriff and their team of Lenny Welsh, Anna MacInnes and Oliver Thomas.

Receiving houses such as the Edinburgh Playhouse often have little or no in-house lighting equipment; because of this and to aid speed of set-up, Poppins is fully self-contained, with a lighting rig supplied by White Light. The three principal overhead bars travel pre-rigged on GP truss with custom-designed legs which allow the lanterns to stay rigged as the truss is rolled on and off the trucks. In addition, an LX1 position is built into the support truss for Bert's proscenium walk, and a smaller lighting bar flown above the Nursery set piece.

In London and New York the sheer size of the trucking house and flown nursery, along with their support structures, precluded much lighting in the downstage third of the stage and necessitated a very large front-of-house rig, this being the only position from which light could get into the house. The new design of the house and nursery mean most of the acting in these scenes now takes place downstage of the scenery, so lighting positions to the sides and above allow decent low and high sidelight and backlight into these scenes. This has made a considerable difference and also allows the FOH rig to be scaled back drastically - invaluable for a touring design where the available FOH positions vary hugely venue by venue.

Nonetheless, some quite specific FOH positions are required - particularly a low FOH position to get light into the Nursery and a circle front position. To achieve this the production has been making and donating new temporary rigging to several of the venues it has visited, notably an upper circle bar for Plymouth and side box front positions for the Birmingham Hippodrome.

The upper circle carries Vari*Lite VL3500Q Spots fitted with custom gobos from Goboland providing the Mary Poppins logo at the top of the show, masked to allow the front of the house to be precisely lit, as well as a selection of moons and break-ups. Two White Light VSFx units provide moving cloud effects.

An advance truss holds a mixture of VL3500s and VL1000s, while four Robert Juliat Aramis followspots complete the front-of-house setup: with most of the scenes involving two children plus either mother and father or Bert and Mary, using less than four spots on this show would be extremely difficult. Ellie Wright, who was head spot for the entire London run, followed the tour into production, calling the spots when the show was set up in Plymouth. Oliver Thomas then assumed her role for the duration of the tour.

On-stage, there are five lighting ladders plus five roving booms per side, carrying ETC Source Fours with Rainbow 6" Pros and Martin MAC 700 Spots. The low booms have to be mobile to be able to clear the enormous amount of scenery that tracks on and off stage; when set, they lock into position to maintain focus. The flown ladders hang from up- and downstage trusses that also simplify cable management; each ladder breaks into two, the height of each section designed to fit into an American trailer, which are lower than the usual British trailers.

Overhead, the rig uses a mixture of Martin Professional MAC 700 Spots and Washes and Vari*Lite VL3500Q Spots, with six VL1000s on the proscenium truss. All of the units were chosen to keep the background noise level as low as possible, the MAC 700s being particularly successful in this regard when set to low-noise mode.

Another major change for the tour is the cyclorama lighting, which is provided by the much-talked-about EvenLED tiles from Martin Professional. A total of 104 tiles are arranged in a 13x8 grid that sits just 30cm behind the cyc, with each tile offering 16 individually-controllable three-colour LEDs.

"The amount of scenery in the show and the space required to store the house upstage of the cyc meant that we had a tiny amount of space left to light the cyc - far less than would traditionally be acceptable," production electrician Ian Moulds, explains. "We spent a year looking at every option we could think of that would work in the space before eventually finding EvenLED, which is designed for exactly this application and is the perfect solution."

Simon Sherriff adds: "The great thing is that it looks like traditional lighting, especially in terms of its colour temperature, which closely resembles tungsten. It is certainly not shouting 'LED'. It does colours very well and provides a pixellated but spectacular array of effects as the backdrop for 'Supercalifragilisticexpialidocious'. We can create colour wipes that just wouldn't be possible with traditional cyc lighting."

The EvenLED also solved the problem of lighting the 'Jolly Holiday' cloth. "This has always been challenging because of the enormous range of colours in it," says Ian. "If you light it in any one colour it goes flat, but traditional cyc lighting doesn't really let you pick out bits of the cloth. Here we took a picture of the cloth, loaded it into the grandMA's pixelmapper so a low-res version of that image appeared on the EvenLED, and immediately the cloth looked the best it has ever looked. Then we could warm it up, cool it down or change the colour of specific sections - for example, to make the sky go bluer - by hand-drawing on the console's touchscreen. This was thrilling, and quite revolutionary."

For both practical and artistic purposes EvenLED has proved a great hit. "The ability to light as such close quarters and sit in such a tight space has been invaluable, since there is no possibility of using ground rows in such a confined space and with so much movement on stage," says Simon. "Unlike conventional cyc lighting it can simply be flown out of the way during scene changes." And, weighing in at over a tonne, at one point it is flown in at a speed of over 2m per second!

"As far as touring goes, it is really reliable and very easy to maintain. It is quick to set up and compact to store and transport, with each column of tiles packing down into its own flightcase. When we reach the next venue we just line them up and re-hang them directly from the flightcases."

"It's also relatively efficient," Ian adds, "using just under 63A at full white - and I don't think we ever reach full white. That would hurt!"

Practicals, of which there are many, are provided by the aforementioned HELL. Aside from the 15 wall lamps in the house alone, these include plenty of chimneys, complete with birdie uplighters and smoke from Look Solutions' TF07 Tiny Foggers and Viper NTs, aided by JEM fans. One cylinder of CO₂ is consumed every two shows by the Le Maitre Low Fog unit which is used in abundance during 'Anything Can Happen' and the ominous 'Temper Temper' numbers.

HELL also devised and constructed the collapsible table which Simon refers to as "phenomenal engineering and extremely reliable". Using HELL's own radio DMX system the table, complete with utensils, plus surrounding shelves, chest of drawers and a selection of bells for good measure, collapses amid a cloud of smoke (provided by a Spaceball smoke machine concealed in the fireplace) - and then restores on cue. Needless to say, a fairly robust structure is needed to do this eight times a week. "We do tour a spare for emergencies," says Simon, "but it is incredibly well-built!"

On stage, dimming takes the form of four Avolites Art2000 48 dimmer racks which drive the ladders while the FOH generic rig (with the exception of the VL1000 units) are patched into local dimmers at each venue. This saves a great deal of time by not having to install long runs of mains multicore from on-stage and also minimises the amount of dimming that needs to be transported.

36 universes of DMX are used in total - 26 for the EvenLED (two universes per column) plus 10 for the rest of the rig. All is controlled by a grandMA full-size console using 10 MA Network Signal Processors that convert the Ethernet lighting data back to real DMX; a GrandMA Light desk acts as a backup and on-stage remote. All radio-controlled dimming is provided by HELL's standard radio dimming system, whilst radio DMX control is provided by City Theatrical Inc's SHoW DMX (see *Technical Focus* in this issue for more on this product).

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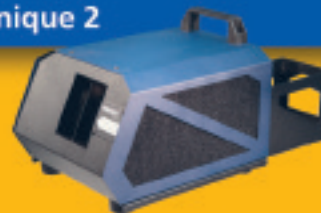
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From top, L-R: The automation team: Oliver Burns, Tim Follett, Charlotte Lockyer.

The LX team: Oliver Thomas, Simon Sherriff, Tim Jackson of Edinburgh Playhouse.

The sound team: Nic Gray, David Darlington and Alex Bryson.

"This is the first tour where I have used the GrandMA," says Simon, "and I have found it really easy to pick up."

Projection forms a major part of several scenes, providing both ambient effects such as falling rain, or the main focus for scenes like 'Jolly Holiday' when Bert paints a picture, or during 'Feed the Birds' when said ornithological subjects flutter above St Paul's Cathedral.

All video images are provided by the on-board media servers of four High End DL2s - supplied by Creative Technology (CT) - which quarter the backdrop and are triggered by DMX signals from the GrandMA. The DL2s were chosen because they could be treated just as moving lights during rigging and because of their ability to split one image across multiple projectors - a frequently used feature throughout the show. Once again, it falls under the remit of the lighting team to look after the video projection.

"There were a few initial teething problems with very occasional random lamp dousing and some noise pollution with the DL2s," explains Simon, "but the units were still to be proven on a theatre tour of this scale and have since really settled down. We

have boxed the units in on three sides in the auditorium which helps with the noise aspect, and CT, together with High End Systems have provided excellent support throughout."

All of the lighting for the London and Broadway productions was documented using the FocusTrack Production Lighting Documentation system, which has been developed by Rob Halliday. This enabled the lighting team to reference the original design when relighting the tour, and also to document the lighting of the tour itself for any subsequent productions.

Sound

Sound design for the show was undertaken by Steve Kennedy for the Broadway production, Andrew Bruce in the West End and Paul Groothuis for the UK tour. The UK tour's sound team consists of Alex Bryson, David Darlington and Nic Gray, with kit supplied by Autograph Sound.

"The original intention when designing the sound for *Mary Poppins* was to keep the show sounding as naturalistic as possible," explains Alex. "We felt it was important not to distract the audience with the kind of sound which is obviously

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emanating from a sound system. By a skilful use of timing and equalising, we can image the vocals to appear as if they are coming directly from the performer."

To achieve this three separate systems are being toured - an A/B vocal system, as well as one for the band and one for the sound effects. "Touring three systems gives us the flexibility to image the sound more clearly, to adapt according to venue and, by using an A/B technique for the vocals, reduce phasing between mics," continues Alex.

"Three systems is a lot to tour and we use powered speakers wherever possible to reduce the amount of amplifiers and processing required. Consequently the system has a much smaller wing footprint and packs down into considerably fewer flightcases."

The naturalistic style is further augmented by using the A/B system on all speakers in every level of the auditorium: the vocal system employs a mixture of 18 powered Meyer UPA 1Ps and 2P speakers whilst the band uses six Meyer MSL2s powered by MC2 Audio amps, with 2 each of powered Meyer 650 and USW subs. Delays, front- and side-fills are provided by no less than 88 d&b EO cabinets and eight L-Acoustics

MT108s - the Edinburgh Playhouse's wide auditorium requiring a lot of side-fill. Additional surround sound is provided through six d&b E3s.

Sound effects run through four Meyer UPA loudspeakers on stage - one in each corner - whilst six modified, reversed Sennheiser IEM radios feed various d&b EO, Ci80 and E3, plus Meyer MM4 speakers, concealed throughout the house, kitchen and nursery. This leaves no trailing cables, including power cables, which is obviously beneficial in terms of touring and for the safety aspect of such a busy set. Stage and off-stage foldback comes from a single d&b EO, 12 EAW JF80s and 10 Galaxy Hot Spot personal monitors.

A total of 44 Sennheiser 5012 and 5212 transmitters are used with 1046 receivers and 60 head mics (a mix of Sennheiser, DPA and Countryman units), optimised according to placement amid the costumes, hats and wigs of each cast member. Bob Crowley's costumes are as complex and colourful as the set and call for some creative positioning of microphones: four mics are concealed in hats while 10 are located down trouser legs to reinforce the taps for 'Step In Time'. These are augmented by Crown Audio PCC 160 float mics at the front of the stage.

The 16-piece orchestra is reinforced via a variety of Sennheiser, Neumann, Shure, Beyer and AKG mics, as well as BSS Audio DI boxes. Mackie 16:4 mixers are used to sub-mix keyboards.

Sound effects are played from two AKAI S6000 samplers with G-type control (everything is doubled to form a back-up) and mixed through a Yamaha DM1000 console. Reverb is provided by five Yamaha SPX 2000 units, while two XTA SIDDs provide dynamic processing on the vocal systems, giving flexibility across the different tour venues.

Front-of-house mixing is via a DiGiCo D5T - the desk which has been with the show for both its West End run and the tour - with three DigiRacks and a DiGiCo TC remote and D5TRE for backup. The D5T is used for matrix summing, with XTA DP448s providing system processing.

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