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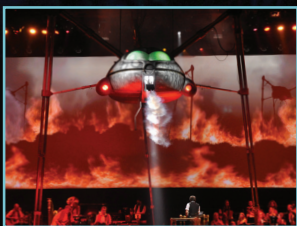
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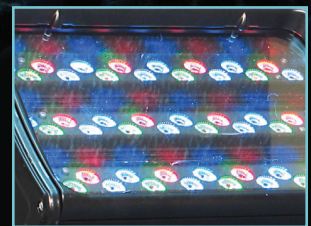
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THE WAR OF THE WORLDS

Composer Jeff Wayne's 1978 masterstroke has been transformed into an impressive and elaborate theatrical production.

Words & pictures by Steve Moles

I'd waited a long time to see this. So too, I discovered, had most of the key figures in the Production crew. It was a peculiar hit for its era (the album was first released in 1978), even more so for a successful jingle writer to come up with such a talismanic crossover between fiction, drama and modern rock music. Composer Jeff Wayne's masterstroke had been to engage Richard Burton as Narrator. As a young boy I first experienced Burton at the Thika Road drive-in cinema in Nairobi. Sat in the back seat of my parents' car, the dark fecund smells of Africa wafting through the window, I had been entranced by that voice. Would Wayne's much-vaunted CGI holographic image of Burton, coupled to the original voice-recording match up to that power?

Production

All the paraphernalia of a rock concert is here - sound, lights, video, but the focus of presentation is very different. "It's a theatrical performance in an arena space," began production manager Kevin Hopgood. "Because so much of the show is centred on the back screen, sightlines are much more important. Sheffield is perfect for our purposes, the seating stands

are neither too high nor too steep. There's not many shows where the artist is a CGI image, because of that and the big screen we try to persuade venues to sell the tickets from the floor up, not block by block."

Burton is projected onto a transparent screen stage right, a 'secret' product from the USA. Production director Steve Nolan told me: "The screen was produced by Image Metrics and we have it on a licence from them. The properties of the screen itself are secret - I suspect that it must have some sort of lenticular surface to it, which helps the light to reflect on it rather than go straight through it. Having said that, most of the light obviously does go straight through the screen, which is why we have to rear project from such a low angle to avoid hitting top bleacher seats - and there is also a percentage of light which reflects backwards off the screen which we have to avoid hitting the main screen with. Due to the fairly large loss of light through the screen we use 2 x 20k projectors!"

The holographic rendering is effective, and there's no limitation on viewing angle in this end-on stage format: if it's in line of sight then it's clear. "We will put up a simple RP screen in the higher venues where upper seats are blind sighted," added Hopgood, "but this is the third time around for the

show and we get a lot of repeat business, so much of the audience already know the best seats."

The first outing was 2006, a fairly close cycle considering this is 2009: how does this presentation differ? "Each tour we add things, small but important; for *Forever Autumn* we've added a confetti-style leaf drop."

Doesn't sound much, but Hopgood revealed that there's an online fan-club that quickly critiques every show. "Jeff [Wayne] looks at the website every day; he knew instantly they liked it." There are also some steam-driven flame effects from below stage, again quite a subtle addition, but as you can see from the photography, they're highly atmospheric.

Hopgood adds: "The biggest change has been the addition of our own rolling stage: rigging pyro and lights below stage is now simple, and positioning the band is a lot easier." As an example of this, there is a 36-piece string orchestra onstage right, a 10-piece electric band stage left, and a procession of five vocal 'performers'. When the Martian Fighting Machine (the 'MFM') descends, its feet land between the musicians. It's a very, very tight move, "but if the rigging points aren't quite perfect, we

Production manager: Kevin Hopgood

Production director/LD: Steve Nolan

Lighting director: Chris Cunningham

FOH sound engineer: Simon Honywill

Monitor engineer: Steve Watson

System tech: Mark Edwards

Stage manager: Phil Murphy

Theatrical stage manager: Ollie Brown

Musical director: Gaëtan Schurrer

can now tweak the stage position rather than re-arrange the whole orchestra," explains Hopgood.

"The other great improvement is a touch screen music score system for the musicians, called MusicPad Maestro. It doesn't change the show, but for the players it's a real boon. Jeff can add notes to individual musicians that prompt alongside the score." We'll come back to that shortly.

Stage

Duties on stage revolve between two men: Phil Murphy gets it built, loaded with band gear, props and monitor system, while Ollie Brown is the theatrical stage manager, calling the show. "It's quite a complex sound set-up," began Murphy. "On previous tours if we had lighting or MFM problems we could lose half an hour easily. With a one-hour rehearsal/soundcheck every day, that was a big issue. Now we can even line check before we roll the stage into place."

For Brown too, the issue is time. "Unlike typical concert performances, this is musically continuous, a seamless piece."

Brown has been SM since the first outing and reports: "Touch wood, we've never



Supplier Credits:

Lighting supplier: PRG Europe

Audio supplier: RG Jones/Synco

Video supplier: XL Video

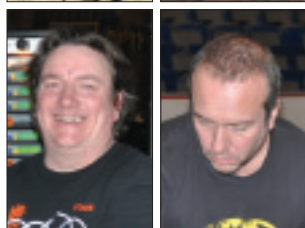
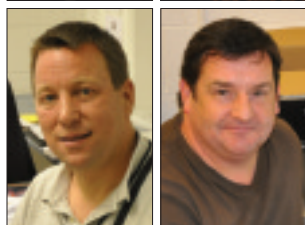
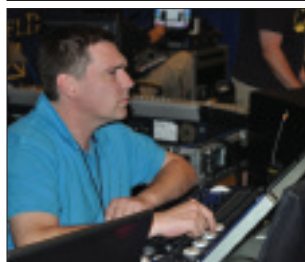
Staging supplier: LiteStructures

Pyrotechnics: Pyrotechnology Ltd

Steam/Flame FX: Back Stage Technologies Europe

Levitation FX: Howard Eaton Lighting Ltd

Live Show CD: Concert Live Ltd



Crew, from top:
LD Chris Cunningham.

Production manager Kevin Hopgood (left); Stuart Rowsell, video (right).

Stage managers Ollie Brown (left) and Phil Murphy (right).

Steve Watson, monitor engineer (left); FOH engineer Simon Honywill, (right).

stopped a show." He guides one or two gags, the intricacies of which I won't reveal, but one (built by Howard Eaton, incidentally) concerns levitation, and although the whole thing runs to time code, he has the human element of the five vocalists to keep in check. "In three tours only two of the musicians have changed, though there is a core group of string players from The British Philharmonic who rotate duties."

For Brown, Murphy and several other key members of the technical crew, *War of the Worlds* is a veritable Hotel California: you can check in any time you want, but you can never leave. Such is the affection Wayne engenders in his crew.

Sound

For house engineer Simon Honywill this is his first tour at the sharp end, yet he too has deep roots with Wayne's lovechild. "I became involved when the first tour was put together," he began. "The reason was the Digidesign connection. As Jeff and his engineers re-mastered the album, Pro Tools had a huge influence."

As it transpired, Honywill had prior commitments and was unable to work the first tour. "I was pretty gutted, part of my youth was growing up with *War of the Worlds*; so I'm absolutely privileged to be doing it now." Honywill's affection is typical - if you're of a certain age, this piece has a peculiar resonance.

So what of the live show? "Two things really," says Honywill, "great band and finding that big fat string sound." I witnessed the whole show and big fat strings is just what we got. As for the band, the mere presence of Herbie Flowers and Chris Spedding on Bass and Guitar was enough to bring a giant tear of nostalgia to my eyes.

The dynamic tension of acoustic string section and electric band was neatly resolved by Honywill, and in emphatic fashion. "I revel in

making it hard for myself. There are no wedges, everyone is on in-ears, the guitars are on pods, and on the previous tour the Drums had been pads. But the drummer [Gordon Marshall] asked if he could play acoustic and I said yes immediately."

With the drum kit close to centre stage, close mic'ing of the strings was a critical area for decent gain. "I've got DPA 4099s on Bass and Cello, and the new 4061 on the Violins and Violas. Unlike the omni 4099, the 4061 is just really tight and rejection is great; that's how I can get that really fat sound," Honywill explains.

Only a fool would believe such a show could run without playback, and both Honywill and Steve Watson on Monitors readily admitted there are 42 channels of it, "but they're tucked away underneath. My job is to make sure it doesn't sound like Memorex."

Flowers was FOH at this juncture of soundcheck and he concurred, saying, "the live sound is immense." Flowers' reputation of the last 50 years is equally immense: this is as much praise as any live engineer could wish for.

"The hallmark sounds of this show are the strings and Burton's voice," Honywill continued. "The 4061s are mounted on the tail, with the mic over the F hole. They're so good I've bought four for myself. They're not on the bigger instruments because I can't get the mic where I want." I'd be amazed if DPA aren't already addressing this.

"The Burton dialogue is much harder to get right. I use a dynamic EQ on his voice to control the transient sibilance; it can run away with a big system like this. The combination of musical elements and the Burton dialogue is much harder to get right than you might imagine. Jeff wanted to maintain the music beneath his voice."



Hear the show and you'll understand Honywill's focus on this area: there are times when the music is all emotion with swelling strings, yet Burton's commanding voice sits clear and intelligible above; at other times, just a synthesiser beep (the sound of outer space?) punctuates his words. In terms of house sound levels the two could not be more distant, one full bandwidth full-on, the other muted full of space, yet the presence in the voice is consistent. I can only imagine how easy it would be to mis-judge that dynamic variance on the vocal channel and ruin your reputation in front of 10,000 fans who know every nuance of the piece.

Honywill referred to Burton's voice through a big system: "It's from RG Jones/Synco, a Martin Audio W8LC. The one element I chose this system for is the low end - it's got 12" drivers which I like because you get more LF control - it's not wallowing about. We go for a really flat system so I can get the detail. It's great for orchestras - with a 15" system you can be shoving out a lot of unwanted bass. Because of the huge wide screen the system is flown really high and wide; it's actually about 5m upstage of the front edge, hence the mini line of W8LM for front-fills. My system tech' Mark Edwards and I have worked on this PA a long time - we've learnt how to make it painless." There are also three small arrays of L-Acoustic ARCS out in the house - left, centre rear and right - for surround effects: "Small, easy to rig, sound good," summarises Honywill.

Desk-wise it's all Digidesign, as Honywill indicated. "It's all done on the D-Show. I use a Profile for the orchestra, then the D-Show and a 16-channel sidecar means I have 40 faders, giving me all the band, all the vocals plus other bits and pieces on one surface. There's a few one-time effects but there's very little that isn't natural. I use a lot of Sony Oxford plug-in EQs and dynamics for the vocals, and an Oxford EQ across the mix for final mastering. On reflection a little more rehearsal time would have been good, we had a week with the band only, and three days of full production. With extra time I might have automated more things, but in my favour the songs always start in exactly the same place each night, so things like a touch of drum reverb drop in without a thought."

A facility which didn't stop him looking exhausted at show close - this is a production demanding high concentration.

Monitors

Steve Watson, another 'War' veteran, described his world succinctly: "The orchestra are on a Whirlwind hard-wired system;

War Reports . . .

- **The 'MFM'** is lowered on a Kinesys hoist system. The beast itself was built by Stone Monkey and has pneumatic legs (think inverted Genie air-tower) and is in fact self-supporting. I suspect we may see this beast walk off-stage into the audience one day, HSE permitting. Internally, the MFM is loaded with lights and smoke effects (from PRG) and although it dismantles, some parts are still a six-man lift - another reason why the rolling stage is such a benefit: lights, video screens etc are rigged from the floor and the stage is rolled in later.

- **LiteStructures** provide the rolling stage, "we have some custom decks for the steam flame effects," said Hopgood, "everything else is pretty much off the shelf. It's been a real benefit to all departments."

- **Kevin Hopgood** divides his time between this show, Kylie Minogue and "sometimes Level 42. I like to do big, small, big, small." We compared notes on the joys of 1 or 2-truck touring. "Can't beat it".

- **Ollie Brown** on the show's evolution: "The movie was all done in a CGI studio in Hendon in 2005. The Richard Burton effect used to be projected onto a huge prosthetic head positioned over the stage. Narration is so frequent it didn't make sense to fly it in and out, and for projection, position is critical, so when not in use it blocked the main screen. The holographic screen gives a better looking show."

- **Simon Honywill** talks further about his involvement prior the first tour. "Having met Jeff and talked to him about his expectations, and being aware of the musical structure, I spent three days in his studio, listening. I hadn't listened to it for 25 years. He'd collected all the original Master Tapes from the far corners of the world and it was then we encountered the time signatures being all over the place. Gaëtan Schurrer did a huge amount of work getting that sorted to click-track, and the video is built around those Pro Tools sessions."

"When I spent time listening - breaking it down, who played what when - I was able to be clear on my approach to the system configuration and the sound of it. This couldn't be a typical rock show; it has to be big and clear. The mental effort of dissecting it and bringing it together in the mix over the two 50-minute seamless halves is exhausting."

- **Honywill on DPA:** "For vocals we use DPA 4088 cardioid headset mics. Previously they'd been using the omni. When I was asked to do this tour they sent me a DVD from the last one and I was disappointed with the vocals. With the 4088 the position relative to the mouth is of course critical, but it has paid off. We make a concert true recording of every show that the audience can then buy on CD immediately after the show, and it's much better. It did take a bit of persuasion to make the switch: we rehearsed with the 4088s for a week and everyone was saying 'it'll never work'." Honywill had the special reassurance tool to hand: "I have Billy Birk on stage, he checks mic position on every singer ever time they go on stage."

- **Music, Maestro:** Steve Nolan on the benefits of the Maestro system: "The MusicPads are fantastic. There's one screen between two players, a little beat bar at the bottom lets the musician know where they are, but it's the ability to annotate that really helps; musicians can add their own notes to the score - bow marks etc: Jeff can also add notes to the musicians, it's Bluetooth enabled, so in theory he could send them messages during the performance, though I think he's probably a little too busy for that. But the musicians can take their own score on a USB stick, insert it in any convenient MusicPad and work on their part at any time."

- **Lighting:** Of all the Vari*Lites in the rig, the 3000 Series stood out, but it was the wash power that gave the presence, colour and intensity, and that came from all varieties of VLs. Effects-wise, the Studio Due Dominator 6000s and the Novalight High Grounds were of similar intensity, both large format, both high output, yet slightly different beasts. I believe this was Nolan's deliberate intention: two distinct looks of comparable potency.

Equipment List

AUDIO

FOH Control:

- 1 x Digidesign Venue D-Show 96-channel system
- 1 x Digidesign Venue Profile 48-channel system
- 1 x Pro Tools live playback & editing suite

Main PA:

- 48 x MA Synco W8LC Line array
- 16 x MA Synco WLX sub-bass
- 16 x MA Synco W8LM line array
- 8 x MA Synco W8LM line array
- 12 x MA Synco 4.2 amplifier
- 26 x MA Synco 2.8 amplifier
- 12 x XTA 226 loudspeaker management system
- 2 x XTA 448 loudspeaker management system

Surround PA:

- 16 x L-Acoustics ARCS loudspeaker
- 8 x L-Acoustics LA48 amplifier
- 4 x XTA 226 loudspeaker management system

Monitors:

- 1 x DiGiCo D5
- 14 x Sennheiser EW300 IEM systems
- 12 x Shure hardwired IEM systems
- 20 x Whirlwind hardwired orchestra IEM units

Microphones:

- 12 x Shure UHF-R bodypack systems with DPA 4066 headworn microphone
- 40 x DPA 4061
- 30 x BSS DI box
- 6 x Sennheiser 604
- 6 x Shure SM57
- 6 x Shure SM58
- 3 x Shure Beta52
- 6 x AKG 414
- 6 x AKG 414

Comms / Shout System:

- 1 x Yamaha LS9 16-channel
- 4 x Shure UHF bodypack systems with push to talk headset microphone
- 4 x Sennheiser EW300 IEM systems
- 1 x 6-way Techpro comms system

LIGHTING

Control:

- 1 x Wholehog III console

Fixtures:

- 27 x VL3000 Spot
- 14 x VL3000 Wash
- 4 x VL2000 Spot
- 4 x VL2000 Wash
- 10 x VL1000 AS
- 24 x VL500
- 14 x VL6C+
- 11 x VL5
- 5 x Novalite Moving High Ground
- 3 x Studio Due Dominator 6000s
- 25 x Martin Atomic strobes + scrollers
- 8 x James Thomas Pixelline 1044
- 2 x SGM Palco 3
- 2 x Lycian Starklites

VIDEO

- 2 x camera digital PPU
- 1 x Barco Encore control system with 4 outputs
- 4 x Christie S+20 20,000 lumens projectors plus hot back-ups
- 1 x Barco FLM20 20,000 lumens projector + backup
- 1 x HD Doremi + backup
- 1 x Grass Valley Turbo + b/up for inserts and cameos
- 1 x Image Metrics projection screen

there are 10 channels of Shure hard-wired; and all radio in-ears are Sennheiser's G2 system - 14 in total. I mix on a DiGiCo D5. There's 112 inputs, 44 outs, so I'm completely max'ed out; this is the only desk that could do it."

His desk choice is more than just capacity: "The four screen layout is ideal, I can be looking at any of 24 inputs at any one time; lots of information is what I need. I could automate a lot more but I try to time stuff manually; most of the changes are little vocal parts, maybe just two lines, so for example I don't want the Artillery man's vocal all the time he's on stage for a song, it's best done by eye. After three tours, I pretty much know where everyone comes and goes."

Watson is positioned stage right, "because this is the side where the band are; the orchestra on stage left pretty much do their own mix, so watching from this side is the better position. There's a lot of variable over here, I can have as many as three guitarists playing flat out, and there are four keyboard set-ups as well."

A lot of dynamic changes? "And all the musicians take complex mixes, so many guide tracks and FX, so they need a lot. Jeff gets everything, every musical flourish, he wants to hear it. Also there is a 'stem mix' that is run by Gaëtan; if a musician misses a bit it's up to him to bring up that part."

Gaëtan Schurrer is the musical director and worked extensively with Wayne on this project.

Lighting

If you look at the photos you'll see immediately the lighting dilemma: designer Steve Nolan (also the show's production director) has to contend with what is in essence a widescreen movie presentation, the stage view is thus by definition two broad horizontal stripes. As such, lighting positions are limited to directly overhead, or very low-level shin busters. Apart from followspots picking out the five vocalists the band and orchestra lighting can be very 2D, but not always. Nolan has given lighting director Chris Cunningham a fair battery of lamps (see below).

"For the last two tours PRG has supplied me with a Hog II, that was entirely out of choice," said Cunningham. "But now we have the Hog III for control. I was contemplating making the transition to a GrandMA but there are way over 400 cues and a lot of time code and non-standard effects to consider. That would all have needed to be manually transferred so the Hog III was the better choice in terms of time. Even so, I spent almost the entire time at Elstree tightening up the chases." It never was a perfect world, eh? "Well, there are a lot of one-shot macros effects off the cue list, they're hard to transfer and get the priority settings. The desk's Track Back function has proved very useful - with this being a continuous playback against time code if you tried to edit on the fly you'd be changing the wrong part, so updating cues through Back Track puts them where you want them."

A demanding show to operate? "The hard work was done in rehearsal, the orchestra and band are fairly static, a lot of the wash-light on them is matched to the colour effects of the video. It is a bit weird in that sense, a combination of band light with some conventional rock and roll-style lighting, but even the theatrical style for the solos takes its basic colour reference off the screen."

Cunningham was tweaking cues before soundcheck: "The PRG crew work fast and give me as much time as possible for this sort of thing. Musicians solos are rarely picked out, especially if there are performers on stage." But

Cunningham does work the musical solos more than his words might convey; it's more a case of raised light levels than picking out in a tight beam from a VL3000 Spot, so it is muted in that sense, but that's where the afternoon work originates.

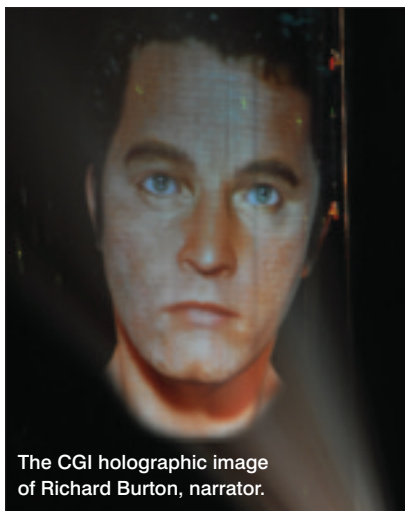
"We do a lot with the music generally, there tends to be a musical conversation between band and orchestra - that's an easy dramatic emphasis to follow. Lights like the Dominators and Novas are specific effects, one for a heat ray effect, the other to visually mark the alien sound." If you know the music, it's the three synthesiser beeps, tracked with a three-part chase.

Video

One of the biggest aids to lighting is the sheer force of projection. "There's eight Christie 20ks up there," said video director Stuart Rowsell, "two paired to each section of the screen. Takes all day to line them up, three overlays, doubled." The result is well worth the effort - another stunning application of video from XL Video. "It's not all playback, though the video is continuous throughout, via a pair of sync'd V1 HD Doremis. We have a pair of Sony D50s in the pit to give us pictures of the vocal performers." Rowsell masks the video, presenting neat, oval in-screen cameos of the singers as they appear. "It's not too

taxing operating," he says, but like many of the others in key roles, this is his third outing, so he knows the cues intimately.

What can he tell us about the holographic head? "Not a lot really, the playback comes from a pair of Barco FLM 20ks onto what we



The CGI holographic image of Richard Burton, narrator.

call 'the cling film screen'." I offer Hopgood's mention of Image Metrics: "Don't know - it's all a bit secret."

Conclusion

There's more to *War of the Worlds* than a dramatic departure from the conventions of

rock and roll concert production. As I said above, this is essentially a movie presentation. Acknowledge that and add the fact that this is the tour's third outing in as many years, playing largely to the same audience, and you have to ask - why do they keep coming? The answer is three-fold: a great piece of iconic music; Richard Burton (and in answer to my opening question, yes he is revealed in all his power) and finally the sound.

While big sound systems won't necessarily bridge the post Teen' deficit at your local multiplex (the walls aren't thick enough to contain the kind of levels experienced here), I can easily see a few thousand middle aged people, like Wayne's audience, popping down to the local arena to have their hair styles rearranged by a big pumping sound system while they watch the latest visual blockbuster. Hollywood's half-way there; world premieres - especially the big guns - are starting to find venues where they can import the rock and roll power speakers. Great fun.



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