

FROM ARENA VENUES TO STADIUM SHOWS, TPI SAW MUSE MAKE THE JUMP ON THEIR RESISTANCE TOUR, WITH A DARING NEW STAGE DESIGN, MULTI-LAYERED VIDEO AND GROUNDBREAKING AUDIO AT LONDON'S WEMBLEY STADIUM.

RACHEL ESSON & LOUISE STICKLAND REPORT...

It was halfway through their year-long arena tour of 2009 that Muse and creative director Es Devlin put pen to paper and sketched out their ideas for the next step in their ever-spiralling career; a succinct nine-date European stadium tour.

The band's long-term production manager Chris Vaughan and technical stage designer Malcolm Birkett flew out to Singapore in February 2010 to discuss the initial concept. "When I first saw the drawings my initial reaction was that it didn't look anything like a stage," said Vaughan. "I thought, 'Hmm, what is that?!' But I soon realised that the band were serious."

What they had envisaged was a continuation of the socially oppressive Orwellian theme that inspired the *Resistance* tour and its arena production, but in a completely new design. Re-imagining the concept of buildings as constraining structures, (the three ministries from George Orwell's 1984 were recreated as three huge semi-transparent LED towers on the

arena show), the sketch showed the front of a giant diamond shaped 'building' of video panels looming over the stage, with a central forced perspective point out above the crowd.

Devlin, who won TPi's Set Designer of the Year last February, explained: "From the beginning of the *Resistance* tour we were thinking ahead to the idea of creating a monolithic, epic scale building for the stadium leg. I did all the research and came up with five sketches based on five different buildings, we tried a couple of versions, threw the first one out and ended up with the one we have now.

"I knew I would be off having a baby when it came to the stadium shows so it was up to Malcolm Birkett to turn the sketch into reality. I'm happy to say that I wouldn't want to leave my house without Malcolm by my side."

Said Vaughan: "Malcolm drew it up in CAD and sent it to Stageco with the question, 'Can we build it?' I don't think the day will ever come when they say 'no', but of course there's a cost involved!"

But with Muse's renowned no-holds-barred

Right: Muse's Matt Bellamy: production manager Chris Vaughan.







"They are one of the best, most efficient and friendly production companies out there at the moment..." XL Video's Des Fallon on The Production Office (TPO)

approach to production, the team started working on pushing the boundaries once again to create the band's most ambitious stage set to date.

The *Resistance* tour, promoting Muse's fifth studio album of the same name, had already enjoyed a successful sell-out run in America, Australia and Europe, providing a good foundation for a large-scale stadium leg.

Six out of the nine shows took place in June across Europe, kicking off at Berne's Stade De Suisse on June 2, with a further three UK shows in September; one in Manchester and two shows at Wembley Stadium (the first of which sold out in under 15 minutes).

The tour continued with the same production team behind it: TPO's Chris Vaughan and assistant Lizzie Adshead at the helm, with show design by Oli Metcalfe and Es Devlin, and technical staging design by Malcolm Birkett. Once again, Neg Earth handled lighting, Skan did the sound, whilst XL Video provided video. Stageco was responsible for the steel structure whilst Brilliant Stages built the stage set.

Right: Show designer Es Devlin; video director Tom Kirk: LD Oli Metcalfe.

LD Oli Metcalfe has seen the lighting and visuals develop and embrace many Muse eras over his 10 years with the band, and was lucky enough to get involved with the next live project right at the start, along with other key members of the creative team like the band's 'fourth member' and video director Tom Kirk, who has been nominated a 'Video Director of the Year' Parnelli Award for his work on Muse.

The idea of a 'Muse Ministry' for Resistance was circulating for some time, and Metcalfe originally had the idea for some sort of architectural elements. When Es Devlin came onboard, the shape and form of the building

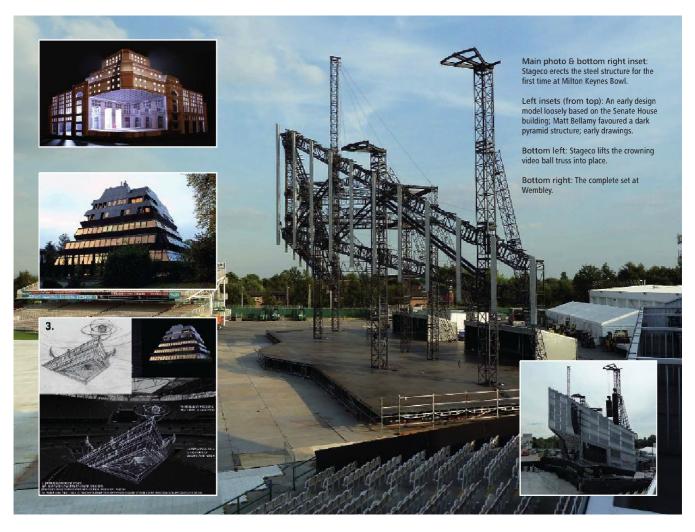
became the more refined and futuristic result that ended up on the road.

Malcolm Birkett worked with their designs to produce CAD drawings that were technically accurate and usable by the production suppliers. Said Vaughan: "When you work with Mark Fisher's Stufish team you get the artistic vision but also a high degree of technical data in terms of dimensions, materials and suggestions of how you do it. When we work with Es or Misty who are more artistic than practical, we need to have a technical realisation in the form of Malcolm. We've done a number of tours together and it works very well as a team."









THE CONSTRUCTION BEAST

The scale and complex angles of the stage design and video canopy posed challenges for Stageco, who produced the steel sub structure of the stage, and Brilliant Stages who fabricated the entirely new stage set.

Backstage at the second Wembley show, site co-ordinator Steve Iredale showed TPi photographs of the initial construction of the steel skeleton of the stage at The National Bowl in Milton Keynes.

Stageco's Dirk de Decker was unfazed by the challenges of the design. "When I received the drawings over e-mail, I think I wrote back that they were on to something good and I liked it!" he laughed. "It's a very unbalanced structure because it's a lot higher and heavier in the central overhang than at the sides. Most of the time we try to reduce the weight in the overhang in the cantilever, but here the further the cantilever goes up, the more it is loaded, so it's the other way round!"

The necessity to angle the steel truss into a forced perspective meant that Stageco had to adopt a construction technique never used before in the build of any of their stages.

Explained de Decker: "We had a tower with a hydraulic cylinder in it that was used as a temporary support for the cantilever so we could adjust the postion of the cantilever while

we were building it and de-rigging it, to reduce the stress on the joins. It's nothing new, you see it a lot in construction and bridge building, but it's the first time I've seen it in a Stageco structure."

Brilliant Stages worked in conjunction with de Decker and Koen Peters of Stageco to marry together the sub-structure and adorning set. Said de Decker: "We've worked together with Brilliant Stages on a lot of projects so we know what language the other speaks. We analyse where problems might occur where our structure meets theirs and we look for a solution together."

The overall stadium set consists of a 62m

long video canopy, or 'building', a suspended ceiling grid, a diamond shaped stage flanked by projection screens, drum riser fascias and on- and off-stage rear fascias, a tracking B-stage with inset revolving scissor lift, and tech bunkers and screamers.

Brilliant Stages' CAD team, managed by Kevin Edwards, devised the logistics to transform the design into reality. The company's Tony Bowern said: "We produced numerous structural calculations to ensure the video header could withstand wind speeds of up to 20m/sec and came up with a combination of steel verticals to take the wind load and aluminium fascias to minimise the static load."





Brilliant Stages also worked closely with XL Video to accommodate the integration of the video requirements, incorporating video panel attachment points into the design before sending the completed structure to XL Video who added the Barco MiTrix LED video tiles. This process is maximised for efficiency by the panels rising out of trucking carts on chain hoists and winched into the aluminium frame.

The ceiling grid beneath the video header was constructed by Brilliant Stages' sister company, Litec, from supplied plans. This consists of 64 ladder truss cells manufactured using Litec's custom Libra System. The cells are clad with stretch vinyl and each cell houses a Martin MAC301 Wash within the recess.

Brilliant Stages manufactured the diamond shaped stage using its own custom decking system and gave it a special non-slip surface specifically for outdoor use. Artwork was then applied to the stage in a silver-grey geometric diamond pattern, mimicking the shape of the video canopy.

The sub-stage design took its inspiration from the structure used on Take That's *The Circus Live* tour, with clear passages for the 'underworld' activity supported on aluminium rolling frames interconnected by Brilliant Stages' custom Hook & Channel system.

Another off-shoot of the Take That

Below, clockwise from top left: Head carpenter Rick Worsfold; Muse's team of carpenters; stage manager Paul English & site co-ordinator Steve Iredale; the crew raising the backline for the next support act on the dedicated hydraulic lift.









tour is the B-stage, which makes use of the salvaged hydraulic scissor lift. The B-stage was created using a trucking system designed to simultaneously track, revolve and extend the lift to elevate Muse. Finally, waterproof tech bunkers with viewing louvres for the crew,



Below: Bellamy plays in front of the Barco MiTrix tiles; Matt Vassallo; Stuart Heaney.







screamers and all access platforms were also provided by the Brilliant Stages team.

"Brilliant Stages is my favourite set company in the UK because I know everyone on the shop floor that manufacture everything and I like the way the system works and packages," said head carpenter Rick Worsfold.

Steve Iredale added: "The whole thing came together beautifully so it's a credit to all the companies and crew involved." The crew he commended consists of stage manager Paul English, his right hand woman Zoe Hodge, head rigger Phil Broad, a team of 12 carpenters

headed up by Worsfold, crew from main contractor Stage Miracles and 17 steel crew supplied by Showstars. Stage Miracles has worked on numerous Muse gigs and rehearsals in the past, the Resistance tour being one of the biggest shows of the year for the team.

"The week of the Wembley shows was especially busy as we were also doing the Concert For Heroes at Twickenham so with two stadium shows at the same time it was very hectic!" said Stage Miracles' Simon Chester.

On load-in days the company supplied 70 crew, seven runners and six catering assistants,

managed by David 'Chalkii' White, with Jo Adams as on-site co-ordinator.

Stage manager Paul English, who has worked with Muse for 10 years, manages all the action backstage. He said: "Each gig on the stadium tour has had different support bands so it's different each time. But it's made easier by the hydraulic ramp we have backstage.

"It's operated by our set carpenters who make a great team, and the local guys from Stage Miracles."

All the gear for the support bands is set up on rolling risers and line tech'd backstage.

ARCHITECTURAL VIDEO

XL Video has been supplying Muse's video requirements since the company was formed in 2000, looked after by project manager Des Fallon for the entire 10 years.

Fallon commented that it had been "fantastically exciting" to see a band start off with a couple of 2.5kW projectors, six 4' screens, four lipstick cams, an analogue mixer and lots of ideas, and see them get to where they are now, really pushing the boundaries of inventive multi-layered video.

In that decade, he's developed a great working relationship managers Anthony Addis and Alex Wall, and with LD Oli and video









director Tom Kirk. He said of working with TPO's Chris Vaughan and Keely Myers: "They are one of the best, most efficient and friendly production companies out there at the moment."

Video/visuals director Tom Kirk of London-based company Banoffee Sky and often referred to as a 'fourth' band member, is always right at the essence of the evolution process that creates each stage show. The stadium show is defined by the set's proto architectural look, bringing a slightly spooky post-modern fusion of dark Kafkaesque and Orwellian worlds into a contemporary Gehryian elegance. Other than being a piece of art in its own right, the Es Devlindesigned stage serves as a major projection surface, involving some serious mapping and mathematics to get some of the I-Mag and PiPs placed accurately on the corresponding chequerboard surface.

XL's crew of 15 for the UK stadium shows were chiefed by the calm and organised Stuart Heaney, one of the core XL crew who's been out on *Resistance* since the start, along with engineer Matt Vassallo.

For the stadiums, Kirk has 14 sources feeding in to his GV Kayak mixer; six operated cameras,

three robo cams, three mini cams, Catalyst and FX. The dedicated Catalyst feed comes from LD Oli Metcalfe; it's running all the visual content and the projection on to the building fascias. This allows Kirk to layer and key I-Mag on top of the Catalyst material, creating some very complex and idiosyncratic looks and moments.

Kirk is also running some special custom software on a laptop, operated by Vassallo, which allows him to colourise and distort footage or sync it to a beat in the music, etc.

The exterior of the building contains 3,514 Barco MiTrix tiles, mixed up with scenic panels, run with Barco 700 processors via four fibre feeds. All six Catalysts are fed with two independent mix outputs from Kirk's Kayak.

Of the four Catalysts on-stage, two deal with mapping content and I-Mag to the MiTrix tiles on the building fascias; one feeds a 2.5 tonne, 4m diameter sphere of Barco O-Lite suspended 33m above the stage (which moves up and down via a Kinesys motor and a four tonne winch system on-stage, installed by WiCreations) and the fourth deals with all the MIDI control.

Another two Catalysts at FOH are used for mapping the projection, and one of the onstage Catalysts feeds into Kirk's Kayak.

Two LED screens either side of the building are each built from 63 Barco S-Lite tiles, sloping to match the perspective of the building and fed with independent I-Mag streams from the Kayak. The FOH projection system consists of 12 Barco R20s, six a side, positioned on towers behind the FOH mix position, with the six images per side overlaid.

Selected rectangular portions of the building are covered in transparent projection material so they leap into action when it is running, but become invisible (some also with the LED panels behind them) when it is off.

The projection is mapped so it pops up in specific windows—either on the clear projection screen or in the MiTrix panels—at certain times in the set, and other times it washes forcefully as one massive image across the whole building fascia turning it momentarily into a giant cinematic experience.

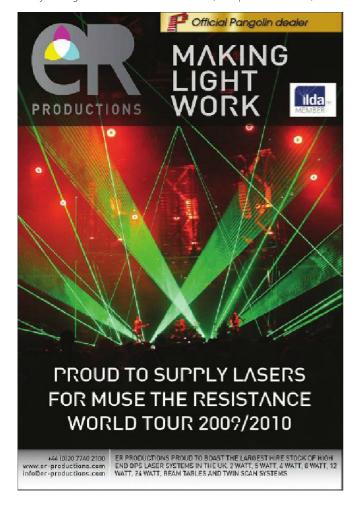
Kirk and Metcalfe worked closely on finalising the footage stored on the Catalysts, and Kirk commissioned pieces from visual artists including Leo Weston, onedotzero and Simon Bennett. He and Metcalfe also edited plenty of video footage themselves for integration into the show via the Catalysts, and France's Easyweb produced most of the projection content.

HIGH END LIGHTING

Lighting for the stadium shows again required a completely new design and rig from what was used for arenas and festivals. Neg Earth Lights, another long time Muse contractor, once again stepped in to provide all of the necessary kit.

Metcalfe has long been an enthusiastic advocate of High End technology and this was no exception, with 16 High End Showgun 2.5kWs and 16 Showbeam 2.5 LED wash lights in use on the show.

Some of these are recessed into the stage, and the Showbeams are on the stage wings and behind the set vents upstage. These are used for plenty of strong back lighting



"The whole thing came together beautifully
— it's a credit to all the companies and
crew..." Steve Iredale

Top row: Skan's Paddy Hocken on his last day with the company; FOH sound engineer Marc Carolan; monitor engineer Adam Taylor.

Bottom row: Marc Carolan mixing on the Midas XL4; processing racks at FOH; the Midas Pro6; Muse rise above the crowd on Take That's former scissor lift; Taylor's Midas Heritage 3000.

















effects and for big beamy looks into the audience.

The rest of the moving lights on-stage are VL3000 Spots and VL3500 Wash FX which is Vari*Lite's brand new super-bright 3000 Series wash light, and these are the general workhorses. He also specified the Martin Professional MAC 301 LED wash light, with 64 ensconced in the

ceiling above the stage, 28 on top of the building headers, another 28 illuminating the bottoms, and the rest on the B stage.

Metcalfe believes this is a "very interesting" product with great potential, and likes the small dimensions, light weight and zoom function

They worked particularly well for skimming colour up and down

the building with the zoom out.

No Muse show would be complete without strobes, and there are 36 of the ubiquitous Atomics dotted around the stage and behind the side 'vents'.

Thirty-four High End StudioCommand 1200s are uplighting behind the meshes on the vents and also shooting up the walls behind these, their "nice small smooth tight wash beams" being perfect for the application.

Metcalfe uses his preferred control platform of a Hog 3 console with a full size expansion wing and new DP8000 processing, which he says makes a "huge difference" to the power and performance. The whole system (driving lights and Catalysts) is driven by ArtNet with no DMX involved until the trusses.

With only four days of production rehearsals for lighting at Milton Keynes Bowl for the stadium leg of the tour, Metcalfe did all his lighting patching, grouping and block programming in an ESP Vision visualiser and preprogrammed the Catalysts as far as possible, so was able to rock up with a bit of a head start.

Metcalfe is a one person design package, producing all his own CAD drawings and renders, right from the earliest visuals presented to the band even before the tour starts germinating, and seeing the show right through the design to programming and operation.

LOCALISED SOUND

Anyone who has seen their fair share of live gigs at Wembley Stadium would have noticed something rather unusual when scanning around the upper heights of the venue.

Several metres below Wembley's house PA speakers that run around the top layer of the audience was a bespoke installation of individual d&b J8 and J12 cabinets, some fixed directly to the beams and some hanging off custom truss bars.

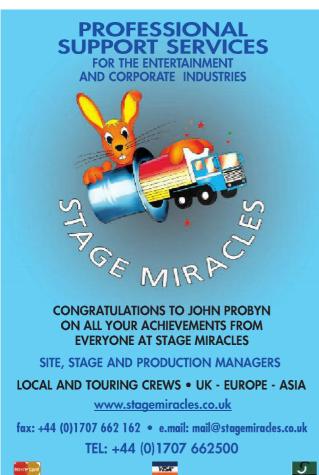
It was the first time that anyone had ever attempted to override the in-house PA with this type of 'ring system'. (Madonna's production team once chose to use delays on the floor to fire up into the roof areas, but never deployed speakers high up in the stadium).

The concept was the brainchild of Muse FOH engineer Marc Carolan and Matt Vickers of audio supplier Skan, and one that was brought to fruition by Skan.

"It's an idea Matt and I had eight years ago when Muse first did Earls Court," explained Carolan. "We had a proposal for what we call localised energy, so instead of a traditional bigger system trying to throw long distances with maybe a couple of delays to fill in the gaps, what we're trying to do here is bring the energy to the people, so that in every seat you feel like you're in the show."

The ring system consisted of three hangs of six d&b J8s per side and one hang of six J12s per side circling the balcony. The result was not only a more accurate and broader sound for people on the balconies, but also less off-site noise — a repetitive problem for Wembley and acoustic consultancy Vanguardia.

Said Carolan: "Even though it's only metering 101db here, the sound is immense. And even at the





loudest part of this show, we had a couple of db to spare off-site. Jim Griffiths from Vanguardia is great to work with; it's about sharing information."

STADIUM ADAPTATION

The stadium shows make use of a similar format d&b J-Series PA system to the previous arena gigs, but with some changes and additions. The main differences, apart from the ring system,

are that Skan has added six flown J-Subs next to each side hang of 20 J8s and two J12s, has used two delays rather than the normal one in Wembley, and has chosen 20 J-Infras for the floor rather than J-Subs.

Crew chief & FOH minder Patrick 'Paddy' Hocken, who was on his last gig with Skan before joining TPO, explained: "We had never tried the J-Infras before but when we went to Singapore they didn't have any J-Subs so we

used them instead and we really liked them. They give the PA a whole new depth, being big triple 21"s, they're good trouser flappers!"

The system, designed by Matt Vickers, and configured using "a mixture of the 3D version of Array Calc, Soundvision and a few other programs", has main hangs of 18 J8s and four J12s per side, with nine J-Subs.

Lighting and sound control are split into two FOH positions angled towards stage left and



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stage right, in order to leave a viewing strip down the centre of the arena, and it is above both of these that the first set of delays are positioned; 12 J8s and two J12s per side. The rear delays feature 10 J8s and two J12s per side, and the system is completed by four Q7s and four Q10s.

The shows are recorded on a 96-channel Pro Tools HD3 system with six Avid 192 I/Os, an Avid Sync I/O and an Apogee Big Ben.

"We have done quite a cool thing with the Pro Tools system. A lot of digital boards have their virtual soundcheck mode, but we have a system for the XL4 where we switch the multipins over and by using the trims within Pro Tools I can have a virtual XL4 soundcheck. It appears as it would trimmed and we can get our virtual soundcheck for the XL4 much quicker than you can on the digital boards where you've got to re-load everything."

There are also a few changes at the FOH position. Although the basic set-up remains the same as the arena shows, with Carolan using his trusted Midas XL4 for the main mix running 34



mono and 14 stereo inputs, he's also adopting for the first time a Midas Pro6 to handle some of the more sensitive vocal aspects of the show.

"For the multitrack recording we have ambient mics on all the delay towers, which are all pre-wired by Skan before the flies go up. Usually the ambient mics would be an after-thought, but the system Skan have put together is seamless. The Pro6 handles all that recording," commented Carolan.

For 'Undisclosed Desires' and 'Take A Bow', Muse rise up on the B-stage lift putting Matt Bellamy right in front of the throw of the PA. "It couldn't be in a worse place," added Carolan, "so I use the Pro6 and a bit of Lake processing to try and keep the vocal full and present. The Pro6 allows me to keep as much of the vocal energy as I can and really fine pick what's going to feed back. When he's that far out in front and high up there's a time lag, so you can get an odd slapback and trying to control that is difficult."

TPi asked Carolan whether he is tempted to give up his analogue board and move into

digital mixing now that he's had his hands on the Pro6. He replied: "I think the Pro6 is the best sounding digital board I've heard in a while, but I go by the right tool for the job and although I'm not a die-hard analogue person, in the instance of this show, analogue is right for me and for the material.

"I think that rock-based guitars and drums work better in analogue; it creates a gel and a different emotional response. Also, from an ergonomic point of view, everything is here in front of you so I can react to what's going on in real time rather than scrolling through pages."

In terms of outboard and FX, Carolan sticks to what he knows from the arena tour, using George Massenburg Labs, Tube Tech, BSS, dbx, Empirical Labs, KuSh Audio, Sound Performance Lab, XTA, Smart Research, Drawmer, as well as Bricasti, dbx, Yamaha and Eventide.

Processing wise there is a Massenburg GML 8200 parametric EQ and Smart Research Smart C2 inserted over L/R, then the signal from the XL4 is fed to an Apogee Rosetta 800 to do the A/D conversion, which then travels to a Dolby Lake (used as the main system EQ). The signal then reaches the stage as AES/EBU 96kHz direct to the d&b D12 amplifiers.

The crew are also running a wireless R1 network using remote desktop with three d&b R60s and two R70s. The nine-strong team from Skan also includes Tom Tunney managing the electronics/Pro Tools (who will be taking over from Paddy Hocken), monitor minder Richie Gibson, and techs Scott Essen, David McPhee, Ron Kessels, Fumi Sassa and Tony Smith.

Across the stage there are predominantly wired mics from Shure, Neumann and beyerdynamic, because they like to "keep it simple", and for eight years Muse have been using the Neumann KMS105s and 104s for vocals.

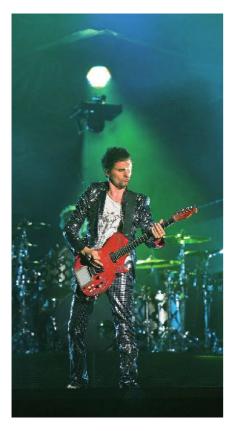
"One of Matt's quirks is that he can be off axis from the mic," said Carolan. "It's one of his performance aesthetics. But I don't believe it's my job to tell him to stay on the mic as that would hamper his performance. The Neumann deals with it really well, even when he has his head right back from the mic."

The band do use some wireless mics for certain parts of the show when they're running from stage left to stage right, so a Sennheiser EM3031 and SKM 5200 with a Neumann KM105 capsule are used for this purpose.

MONITOR UNDERWORLD

I navigate my way through the underworld of the stage to find the band's long-term monitor engineer Adam Taylor in a very small covered bunker beneath stage left. With such a tiny viewing window to the stage I ask him if this poses a problem when he's mid-mix.

He replied: "Over the years I have developed a method of taking cues from the band via subtle facial expressions and body movements so being in a bunker with a small letterbox to see through is less than ideal. So I have to have a spotter, my tech Richard Gibson, outside the bunker to take the band's requests."











"We started introducing external analogue pre-amps and decided to go all the way with a Midas Heritage 3000..." Monitor engineer Adam Taylor

For the *Resistance* tour, Taylor has adopted both a Midas Heritage 3000 and a Digidesign/ Avid Profile for the monitor mix. He explained: "On the last tour, *Black Holes*, I was mixing on a Digidesign D-Show. We started introducing external analogue pre-amps at the request of the band and from this we decided to go all the way with a Midas Heritage 3000 for this tour. However I still needed to retain some automation, hence the Profile side car.

"This desk takes some of the same inputs as the H3 — for use on songs that require different EQ or dynamics — extra inputs for bigger shows and provides all my FX. The main reason for opting for the H3000 is obvious, sound quality, I would have preferred to use an XL4, but the stereo aux sends on the H3000 won it."

Inserts on the H3 analogue mixing desk that Taylor makes use of include those from George Massenburg Labs, dbx, Summit Audio and Drawmer, as well as Avalon VT-737SP and Neve 1073 CH pre-amps and a Sony Oxford TDM plug-in. Some of the additional effects he uses that come as internal plug-ins on the Profile are D Verb, Delay, Echo Farm and ReVibe.

All four band members have a stereo in-ear monitor mix on their Sennheiser G3s. Although the band have tried other IEM system brands, they returned to Sennheiser because as Taylor said, "the RF is very stable and sounds great".

The only speakers on stage are two L-Acoustics dV-Subs for drummer Dominic Howard

and two J-Subs for bassist Chris Wolstenholme.

Taylor commented: "Generally, these stadium shows have been great, my monitor system has developed over the years into what, for me, is the perfect set-up. Skan have been superb with their continuing support and have dealt with the various configurations of this show really well."

CIRQUE BIJOU CLIMAX

Towards the end of the show, during 'Exogenesis Pt.1', what looks like a huge silver spaceship begins to circulate the peripheries of the stadium, as people's jaws drop to the floor and thousands of mobile phones are pointed to the sky.

What they are filming (and what has so far generated over 100,000 hits on YouTube) is the inflatable 12m UFO created by Cirque Bijou and Dream Engine. Halfway round the arena, an artist in a custom LED 'alien' costume drops down from the bottom of the spectacle and spins round doing aerial acrobatics.

Cirque Bijou director Julian Bracey explained how they came up with the concept for the tour: "Muse and TPO have commissioned Cirque Bijou to produce The Dream Engines UFO. We find concepts and companies with amazing ideas and make them happen on the world's biggest stages.

"Steve Edgar (from Dream Engine) heard a radio interview with Muse's Matt Bellamy expressing how he wanted a UFO to fly over the audience during Muse's next tour.

"Steve redesigned a UFO prototype he had been working on in 2005 and coincidentally had just finished Muse's previous tour working alongside Cirque Bijou operating the Heliospheres, a balloon with an acrobat performing underneath it. The UFO concept drew inspiration from this and the band was approached with the design and commissioned the work."

The show climaxes with 'Knights Of Cydonia' and CO₂ cannons filling the stadium with colour.

MAKING IT HAPPEN

Those providing exceptional service and comforts on the tour were Phoenix Bussing who saw the crew get from A to B in style, Stagetruck, who supplied 35 trucks for transporting production, Pieter Smit who provided 16 steel trucks, and Popcorn Catering who cooked for around 170-200 people each day, with Darren Staats as head chef.

Muse chose Popcorn's Peter Bailey to tour with them back in October last year and he has been looking after their needs worldwide ever since. "They are fantastic people to deal with and we really enjoyed it," said Popcorn's Wendy Deans

The Muse *Resistance* tour was due to continue across Europe, North America and Australasia until the end of 2010. With such huge investment of money and time in this stage set, it's unlikely that a nine-date tour will be the last we'll see of this show.

TPi

Photography by Louise Stickland, Rachel Esson, Steve Iredale & Es Devlin