

ADELE

T a k e s M u n i c h



The star bids farewell (for now) to live performance with a record-setting series of concerts

By: David Barbour



It was the Super Bowl of live concert events, the Olympics of divadom: In August, pop singer Adele appeared for a ten-performance run at a purpose-built stadium in Munich that set records in more ways than one. Her first gig on the Continent in eight years provided a spectacular signoff for the star, who, following the completion of her Las Vegas residency in November, is stepping back from live performance for an indefinite time.

But what a way to go: Staged in an open-air arena that accommodated 80,000 audience members at each performance, the show was an exercise in superlatives, not least of which were a 100m-long thrust stage and a colossal, 220m-by-19m LED screen, shaped like a scroll. (That translates to 722' by 59'.) No less an authority than Guinness World Records officially declared it the “largest continuous outdoor LED screen (temporary).” Joanne Brent, an official adjudicator for Guinness, said, “I was intrigued to see how such an expansive and seamless screen would be utilized during the concert. The bespoke visual effects, tailored to each song, truly elevated the performance, adding an undeniable ‘wow’ factor. It was a perfect complement to the unparalleled artistry of Adele.” Matt Askem, Adele’s creative director, was onboard, as was show director Kim Gavin. The rest of the creative team also did *Weekends with Adele*, the star’s Vegas residency.

Just to make it interesting for everyone on the creative team, however, the stars didn’t align for the project until unnervingly late. Greenlit just after Christmas, everyone had to scramble to make a show filled with enormous creative challenges. “Adele was always of the opinion that the show should be intimate—as much as you can make 80,000 people intimate,” says Paul English, the event’s production manager. “That was the idea of the wrap-around screen; we code-named it ‘Embrace,’ because that’s what she talked about. It had to be proportional to create a feeling of intimacy.”

Indeed, English says, the production was designed to serve the concept, not create a spectacle for its own sake: “It wasn’t like we were out to build the largest-ever temporary screen. It was just proportionately correct.”

No matter the size, the project had to happen in a hurry. “It was insane,” English says. “I started on the project properly in January. In June, we loaded in.” Of course, the proportions were enormous. “It took between 500 and 600 trucks,” he says. “We dug a hole for the B stage, which was tanked; it was 4m deep. We tarmacked the entire surface where the audience was. It took 250 trucks just for the actual seating, 100 trucks for black steel, and just under 100 trucks for production.” (Adjacent to the show site was Adele World, a fan-experience space that, designed by Florian Wieder, which helped enormously with crowd control going in and out of the venue.)



The production featured a 100m-long thrust stage and a colossal 220m-by-19m LED screen shaped like a scroll. (That translates to 722' by 59'.)

On arrival, English says, the venue was “a gravel-based car park. I used the power they had in the ground for back of the house and catering. Then I dug trenches to hide our cables. There wasn’t any yellow jacket, so we did metal plate covers for the trenches. We went through different types of fabric to find something that would cover the arena and match what we were going to do on the production side of things. The tarmac was very state-of-the-art; it was porous so when it rained, it drained through, and you didn’t have standing water.”

Once the groundwork was laid, English says, “My first stage manager arrived on June 26; he oversaw our backstage cabins going in. I arrived on June 28 and catering arrived on the 29th. On July 1, Stageco arrived and started building. We were show-ready by July 21—the stadium, grandstands, sidewalls, and our production.” The production, designed by Stufish (led by CEO and design director Ray Winkler_), wrapped around the audience; a key feature was a sweeping circular passerelle packed with pyro effects supplied by the global effects specialist ffp Spezialeffekte. (English, amused, says, “We had more pyro than Rammstein,” name-checking ffp’s largest client.) The wide-ranging stage gave Adele the freedom to roam, getting closer to various sectors of the crowd.

At the intersection of the passerelle and the catwalk was an illuminated B stage, which elevated Adele into the heart of the arena. Concealed within the passerelle was a set of lifts that rose up to reveal a 42-piece string orchestra; a roof located at center stage provided shelter for the musicians in case of rain. (One night out of ten featured a rainstorm; Adele and company simply powered through, delivering a full performance.) The screen’s edges curled like a paper scroll, bookending the stage’s perimeter. At a certain point the scrolls transformed into towering light-

houses, casting beams across the arena. Scenery and automation were provided by TAIT. The black steel sub-structure was the work of Stageco.

Engineering the video wall was one of the project’s chief challenges. It was covered with 4,625 sq. m. of ROE Visual Carbon 5 MarkII panels in concave and convex configurations. The key advantages of Carbon 5 in this context were its relatively light weight, 6,000-nit brightness, and efficient heat dissipation.

This element required several prominent industry companies, beginning with the video gear supplier Solotech, to engineer the largest hanging bracket ever built, supporting 250 tons of video panels, lighting units, and rigging, the latter element being entirely concealed to create a seamless, elegant look. “This required cooperation between all partners involved with every detail having to fit the overall design,” says Kristof Soreyn, CEO of the Belgian LED framing specialist Twenty Three. The screen was powered by 26 Brompton Technology Tessera SX40 processors, with many distributors and Tessera XD boxes housed in 12 custom barges across the full stretch across the screen’s rear side; this provided power to each of the primary video sections. The screen content team harnessed AV Stumpf PIXERA 4 media servers to process four MEs from the switcher desk, which were then fed into Disguise GX 3 media servers as multiple video inputs.

Eight Disguise GX 3 servers powered the wall with full 1:1 redundancy, keeping the canvas in sync. The system also used 18 SDI VFC cards, enabling the servers to output SDI natively to the LED processors, removing the need for downstream conversion. The show was sequenced to time code, with Disguise’s Designer software compositing rendered visuals, Notch effects, and capture inputs. Video content, which featured archival footage from Adele’s per-



Keirle mapped out a sprawling 36-hang, 14-delay-tower L-Acoustics K1/K2/L2 design, carefully considering amp positions and signal distribution. "The shows in Munich represented a completely different approach from a system design perspective," he says. "In Las Vegas, we work with an immersive L-ISA system, while in Munich we used a traditional L-R/dual mono system."

sonal life, was provided by Treatment Studio, with Noah Campeau as video creative director.

The 6,200 ROE video tiles were calibrated using Brompton's Hydra measurement system to enable the company's Dynamic Calibration technology which is designed to achieve a uniform result; other Brompton product features, including PureTone and Extended Bit Depth, were also deployed. Ian "Woody" Woodall, Solotech's director of global touring and special projects, says, "We made good use of the wide array of Tessera features available, including Frame Store, Cable Redundancy, PureTone, API, sACN for Brightness Control, and Brompton's industry-leading scaler—all running on the latest V3.5 Tessera software."

Rick Williamson, motors and rigging manager at Neg Earth, says, "Four hundred twelve motors (500kg, 1,000kg, and 2,000kg) were serviced, tested, and sent onto this gig. It supersedes the biggest gig we have ever done by nearly double in terms of motors and rigging counts. We knew this was going to be the biggest pop show on the planet. So, we prepared for this well in advance. I was having conversations with head rigger Colin Raby months prior to this to make sure we had everything covered for him and his team. The system itself for us wasn't complicated, as it was all fixed-speed motors and control. However, the sheer scale of it was the thing that will always stick in our minds."

Steve Hornsey, Neg Earth's warehouse manager, adds, "The cables alone equated to 52,000m in length and, with 570 individual truss sections totaling 1,465m of truss, it was certainly one of the largest projects we've been involved with. The truck loading was spread over several days, and with equipment needing to be distributed to various areas of the venue, there was no margin for error."

Working at such a scale in an accelerated time frame

made the project something of a nail-biter, English says. "It was really on the edge. The LED came directly from China to Twenty Three, where they made the surrounds for the screens; then it all came straight to the gig for the black steel." Getting so much gear so quickly was something of a miracle, he notes: "We were incredibly lucky that three major shows got canceled, and we ended up exactly with what we needed."

Scenery

The show, Ray Winkler says, "was an incredibly simple idea: A very large scroll that embraced Adele and the audience, a long catwalk in the center the length of a football field, and a passerelle, embracing the standing audience in the middle, that was close to the length of four football fields." Echoing English, he adds, "It wasn't big for the purpose of being big. It was to give her the environment that allowed her to be with her audience. What drove the screen's dimensions was not the desire to be the world's largest. It came from having to accommodate 80,000 people a night. Malcolm Birkett [the technical director] and Paul English should be given a lot of credit for working out the geometry of it. Once the layout had settled into that geometry and we did all the sightline studies, it became clear the only way to provide a show with an impact on such a wide area was to create a sufficiently wide screen. To put it into context, people seated at Wembley Stadium are never farther than, say 130m from the stage. At the farthest point in the Adele show, we were over 200m."

Other considerations came into play, Winkler adds. "When you build a venue in concrete, you can put seats up at a steep angle. When you're building everything out of scaffolding [as was done here], the gradient is quite shallow. To reach that high number of people, you're going

CONCERTS

back farther and farther on a low gradient. Therefore, the screen had to be very wide. It was a happy accident that Adele liked the idea of a scroll. The very first drawing I did was 90% of what we eventually got to. The rest was about tweaking the curvature to minimize the gaps between screens.”

The screen’s curvature needed to be handled delicately, he notes. “The panels are flat, which meant they had to be arranged carefully to prevent gaps from forming. Then we had the fear of creating distortions; when the surface becomes less flat, it can tear the image and create weird side effects.” Thus, he adds, the layout “was done deliberately as a large convex surface that transitioned into a very long and flat surface before transitioning into concave. Most of the IMAG was placed in the middle area, allowing Adele to appear as her true self on the flat screens.” Much of the created content was seen on the concave/convex portions.

The B stage, Winkler says, “was roughly 80m away from the main stage; Adele had to travel underneath on a track to the B stage, and then she appeared miraculously,” making a stunning entrance.

“I’ve been in this business for 30 years,” Winkler muses. “The first show I did was U2’s *PopMart*; we had 700 sq. m. of custom-made LED screens. Now you can buy them by the acre. There are a lot of things you can do with technol-

ogy that end up looking gratuitous and rather weak. But find the right artist, with the ambition to create something profound—not just the largest or most expensive but in terms of telling a story that imbues the audience with happiness: I could stand among the people and see the sheer pleasure of their emotions. People were laughing, crying, and singing along. To put that into the world—even in small amounts—is a really rewarding job.”

Lighting/effects

“Everything was at a scale that isn’t common or really understandable in arenas, even in stadium shows,” says lighting designer Cory FitzGerald. “The footprint would not fit in the largest stadium. It was the size of an Olympics-sized stadium show. It was all about trying to make clean, simple ideas at a huge scale. If you wanted a nice little backlight, you needed 85 of them. There was a dedicated system of followspots to carry Adele around, but we ended up incorporating up to twenty-nine spotlight fixtures to manage where she traveled on the stage, how bright she needed to be in the daytime versus the nighttime, and how to keep the camera balanced.”

Providing the right coverage for the enormous stage space was a primary challenge, FitzGerald notes. “It was always going to have some form of IMAG or pre-shot video content,” but his concerns included “matching



“Everything was at a scale that isn’t common or really understandable in arenas, even in stadium shows,” FitzGerald says. “The footprint would not fit in the largest stadium. It was the size of an Olympics-sized stadium show.”



Robe iFORTE LTX units “were the floor fixtures surrounding the main stage,” FitzGerald says. “They were also in the towers and served as followspots, so we could pull from the zactrack [automated tracking] system, depending on where Adele was, if we needed more key lights.”

everything and not knowing until we got to rehearsal where she would be standing. Sometimes it was 400'-600' away.” The big question, therefore, was: “How do we get units in places where we need them, having the flexibility to craft looks around the staging? It took a ton of forethought into what we considered would happen. But we also had to be flexible when we got there, to connect with the same type of audience intimacy we enjoyed in Vegas. How do you connect with that many people, crafting those moments around such a big stage to isolate and build beautiful looks when it’s just her and a piano in a huge crowd?”

A key lighting unit was the Robe iFORTE LTX, an IP65-rated white source LED automated wash/beam. “They were the floor fixtures surrounding the main stage,” FitzGerald says. “They were also in the towers and served as followspots, so we could pull from the zactrack [automated tracking] system, depending on where Adele was, if we needed more key lights. The LTXs did a really great job. I wanted them everywhere because they have a nice big lens and consistency was necessary.”

As he quickly discovered, “The lengths were farther than most stadiums and, at that distance, the LTX wasn’t enough. We started by combining fixtures because we

wanted the consistency of color temperature. We also used [Ayrton] Dominoes, which we also use in Vegas. We split the system: The onstage units were Dominoes and everything in the house and on the floor in front of the stage was LTXs. We also added some [GLP] JDC1 strobes and put [GLP impression] FR1s, similar to the configuration we use in Vegas for the band to continue the clean look. We added [GLP impression] X5 IP Bars around the passerelle for effects and lighting the string players. And we added Ayrton Cobras for aerial beam effects; in addition to pencil beam effects—which they do really well—their breakups and prisms gave us the flexibility to make the audience come alive. Obviously, everything had to be IP-rated. In the last phase, we added Robe iBOLTS [billed as a new generation Searchlight and Skyflower fixture, with a white source laser] because they became available. They’re really good, as well, with beautiful large lenses and super-bright beams. We did add some Claypaky Sharpay Aquas along the bases of the audience towers. They were to help light the confetti and continue our beam effects.” Roughly 350 SGM Light P-10s, installed on pylons at multiple points, illuminated the audience and provided additional effects; their 40,000-lumen maximum output was useful for the task. A set of Q-8 Strobe Washes were also



The special effects package was supplied by ffp Spezialeffekte. For pyro, each show had 540 pieces of Evolution Pyrotechnics 1S25 silver jets (for the passarelle) and 1,000 Evolution Pyrotechnics mines, comets, multishots, and aerial shells for the finale.

utilized around the stage.

“We also had four Syncrolites, modified to 8K,” FitzGerald says, mentioning a long-popular but largely out-of-circulation search-beam unit. “They looked amazing, super-bright. I don’t honestly know if there’s another fixture that can do what they do, as far as pure brightness and the shape of light at that scale. They’re great, great fixtures.”

Running the numbers, the rig, supplied by Neg Earth, included 536 Martin Sceptrons, 372 GLP impression X5 Bars, 348 SGM P-10s, 195 ACME Lighting Pixel Lines, 192 Robe iFORTE LTX units (and 21 iFORTE LTX FS with integral cameras for followspot use), 135 GLP impression FR1s, 127 Ayrton Cobras, 85 Ayrton Domino Profiles, 36 Robe iFORTEs, 24 SGM Q-8s, 20 Claypaky Sharpy Plus Aquas, 20 GLP JDC1s, 13 Robe iBOLTs, four Syncrolites, and 12,641 pixels of 6mm RGBW pixel tape, spanning 1.4km. (LED trim was supplied by Light Initiative.) Effects gear included four hazebaze Base Hazers, four MDG AtME haze generators, eight MDG theONE hazers, and four Look Solutions Viper foggers.

“Luminex provided the network switches and DMX nodes, crucial components that formed the backbone of

our system,” says Joao Magalhaes, technical solutions manager, at Neg Earth. “With a 10Gbps backbone network utilizing 3km of fiber optic cable, we ensured a fully redundant link across all systems, deploying 42 Luminex GigaCore switches.

“One of the standout challenges was implementing an effective followspot system over the vast 14,400 sq. m. area, with a 120m-by-120m performance zone,” he continues. “The spot towers, positioned 128m from the stage, required precision and accuracy. Twenty-two iFORTE LTX units were tracked with the zactrack PRO system, which provided smooth movements and excellent color quality, crucial for such a large-scale event.

“Operating in an outdoor environment with 80,000 attendees, we faced unpredictable weather, including heavy rain, as well as the use of fire effects and confetti,” he says. “The zactrack system, comprising two PRO servers, 25 PRO anchors, and 12 trackers, excelled in these conditions. It demonstrated its capability to handle the unique demands of large-scale outdoor productions. The zactrack team played a crucial role in supporting us, delivering a fully automated followspot system that was



both reliable and efficient.”

“We ran the show on MA3,” FitzGerald notes, referring to the grandMA3 console from MA Lighting. “We did Adele’s residency on MA3 as well. This, obviously, was two-ish years later and [the software] is far more refined. We had a lot of great support from MA. Being in Germany [the company’s home base] was convenient; they visited us a few times. We also had great support from zacktrack. Once the system was dialed in, it was great. We had one of the biggest footprints zacktrack ever done, so it was a bit of learning curve on the setup side. It was such a huge area to adjust. A lot of the refinement of zacktrack involved making it super-smooth. Once the guys had it set up and dialed in, it was rock-solid we never thought about it again.”

The special effects package from ffp Spezialeffekte included ten ffp Liquid Flame Giga Systems, 16 ffp Liquid Flame Giga Heads, four ffp Liquid Flame Terra heads, 52 Galaxis G-Flames, 52 Club Cannon Quad Jets, nine ffp Dry Ice Giga Systems, 60 Magic FX STADIUMBLASTER confetti launchers, 40 Magic FX Stadium Shot X-treme air cannons, 12 Magic FX Stadium Shot II air cannons, 80 Galaxis PFE wireless receivers, four Galaxis PFC wireless

controllers, 21 Reel-EFX RE2 fans, and four RE5 fans. Each show used roughly one ton of confetti. For pyro, each show had 540 pieces of Evolution Pyrotechnics 1S25 silver jets (for the passerelle) and 1,000 Evolution Pyrotechnics mines, comets, multishots, and aerial shells for the finale.

Nicolai Sabottka, founder of ffp, says, “We were focusing on providing effects that were in proportion to the gigantic structure. It looks easy from the outside but trust me, it wasn’t. Once we figured out the logistics and had built more and larger effects, we were quite confident that we would be able to pull this off. It worked so well thanks to our 30-member crew led by Renzo Cargnelutti, Matthew Varley, and Nick Thompsett, and an incredibly professional and nice production under Paul English’s leadership.”

Audio systems

Wrangling the sound system included lots of preparatory work, beginning with Andy Walker, account manager from audio gear supplier Clair Global. “A great thing that Andy did was get the IT team on board, supplying fantastic Internet across the site,” English says. “It made our lives easy throughout the entire backstage area, which was an immense space—over 600m long. This was linked to the comms system, which meant we could go everywhere with a [Riedel] Bolero pack, and it worked perfectly, giving us exactly what we asked for.”

Walker notes that the project “included 150 Wi-Fi access points [managed by Clair IT engineer Kevin Lehmann] and inter-departmental network for site-wide IT support and fiber distribution.”

Systems engineer Johnny Keirle mapped out a sprawling 36-hang, 14-delay-tower L-Acoustics K1/K2/L2 design, covering the large urban site with perfect clarity, carefully considering amp positions and signal distribution. “The shows in Munich represent a completely different approach from a system design perspective,” he says. “In Las Vegas, we work with an immersive L-ISA system, while in Munich we used a traditional L-R/dual mono system.

“This PA design was a complex process,” he continues. “There was a huge emphasis on creating a visual experience that was as clean as possible, with stage design central to the show. This required finding solutions for high trim heights at the main stage end and finding discreet, tidy audio solutions within the audience areas. The main stage system was flown incredibly high to clear the video wall, with flown K1SB/K1, flown KS28, and adjacent K2 downfill hangs to achieve nearfield coverage without introducing destructive interferences or losing HF integrity in the main K1 system.

“The most impressive qualities of the L Series for me were the precise (and adjustable) directivity control and

CONCERTS

full-range polar stability, as well as the inherent cardioid pattern for low-end control,” Keirle says. “These were clear during the design phase, and the real-world translation was very impressive. Specifically, being able to rely on the 14 positions of L2 and L2D in the delay world giving full-range response without negatively impacting the audience behind the loudspeakers: This was a game changer.

“The high Active Radiating Factor (ARF) of the L Series, combined with the stability provided by wind bracing, resulted in a more coherent and controlled wavefront, resulting in an impressively direct and immediate sound even at greater listening distances. The higher ARF also allowed me to lean heavily on electronic optimization and zonal adjustments—particularly crucial in my goal to create a system that could be electronically managed to account for extreme changes in atmospheric conditions that we were expecting.

“I take a very methodical approach to my designs, considering a wide range of factors including SPL, coverage, frequency response homogeneity, time synchronicity, temporal integrity, and off-site noise pollution,” Keirle says. “As much as possible is calculated before arriving on-site, so there wasn’t much trial and error once we started—just adjustments for the unpredictable factors like venue/set acoustics and atmospheric conditions. I made some minor mechanical tweaks to the system upon arriving and listening to the coverage and imaging, but nothing major.

“With an artist like Adele,” he notes, “vocal intimacy and immediacy are key—so the primary focus with my system design was ensuring that every fan could clearly

hear Adele’s every breath. Of course, there were challenges with the set design and restrictions on where I could position the loudspeakers, but, overall, there was excellent cooperation from the production and creative teams. Some of these challenges led to unconventional approaches—such as incredibly high mainstage trim heights, separated down-fill hangs, custom-built delay towers, and more—all of which proved to be successful.”

Among other challenges, Keirle says, “Outdoor shows often present noise pollution challenges; moreover, with the summer weather being unpredictable, I designed a system that could handle extreme weather changes without assuming optimal conditions for high-frequency propagation. Firstly, from a mechanical perspective, we wanted to ensure the system’s safety. Together with the Britannia Row/Clair Global team, we custom-engineered wind bracing solutions for every flown PA element in the system. Each array was individually analyzed, factoring in rigging configurations, weight distributions, sail areas, and more. The goal here was to have the PA system rated for the same wind speeds as the main stage structure itself—meaning we wouldn’t need to drop the PA in adverse weather. While this approach was incredibly time-consuming during load-in, it paid off massively during the run of shows. Besides the safety benefits, this also offered sonic benefits: eliminating movement typically seen in systems flown in windy environments, resulting in significantly more stable performance in bad conditions.

“From a system design perspective, I conducted extensive atmospheric studies during the design phase. I

Photo: Courtesy of Stuffish



“With an artist like Adele,” Keirle notes, “vocal intimacy and immediacy are key—so the primary focus with my system design was ensuring that every fan could clearly hear Adele’s every breath.”



At the intersection of the passerelle and the catwalk was an illuminated B stage, which elevated Adele into the heart of the arena. For a closer view of the B stage, see page 40.

researched weather trends at the concert location and explored a range of mechanical solutions to find the system most likely to handle the vast atmospheric changes we might encounter while maintaining system linearity and ensuring no part of the system would run out of headroom before any other.

“Alongside extensive design work in Soundvision, I built custom calculators to account for atmospheric changes—ranging from high-frequency propagation management to arrival-time consistency and preservation of imagery. This was particularly important and challenging given the scale of the venue and the variations in coverage distances. It was all about designing a system that could adapt to the elements while maintaining sound quality.”

A vital aspect of the show’s connectivity was hidden networking. Laurie Fradley, a support engineer from Clair Global, says, “We had to feed all our equipment positions for PA, comms, and IT—some situated in the middle of the large audience—ensuring there were no clear cable runs. We took the decision to deploy a multistrand fiber network throughout the site for our team and other departments that needed to service these areas. In total, we ran around 1,200 fiber cores throughout the entirety of the site.”

Navigating a Riedel Communications ARTIST-128 digital intercom network on AES67 audio networks was communications system designer Patrick Taghavi. Among other Clair contributions was a customs cue light system. Conceptualized and designed by Fradley and engineered and programmed by J Walton, the comms system housed a Raspberry Pi computer and Stream Deck controller that

gave a visual cue for the elevators carrying the string players.

Front of house and monitors

Front-of-house engineer Dave Bracey says, “The PA design Johnny did was so physically accurate, and well-considered that it sounded amazing straight out of the box. I had to do very little apart from rejigging from an L-ISA mix, which I had been doing in Vegas, to a normal stereo mix; I had already started to work on that before I got to Munich. The PA sounded so good immediately that Johnny spent very little time having to make adjustments. He had them all nailed before even the first listen.”

Bracey, too, notes the power of weather to affect the audio. “On any given day, changes in barometric pressure, temperature, and humidity, all affect the speed of sound. Knowing his theoretical start point based on one set of parameters, any change in them would necessitate a change in delay time. It could be quite significant over those distances.”

Clair Global deployed a control package mirroring the Las Vegas setup—DiGiCo Quantum 7 consoles at both the front of house and monitor positions, the latter being run by Joe Campbell. “I’m kind of a dyed-in-the-wool DiGiCo man, so it was easier for both of us to roll forward on SD7s,” Bracey says. “Since 2002, when the first DiGiCo board came out, I’ve always shared the A/D converter with the monitor engineer. We both use the same inputs; it’s easier to do that if you’re using the same console.

As is typical for him, Bracey was fairly sparing with pro-

CONCERTS

cessing. “I put the Waves MaxxBCL [compressor] back onto the stereo mix to use the L2 Limiter; I hadn’t been using it with the L-ISA system. I did so in case the system started to run out of headroom during some of the louder songs. Apart from the L2, the only difference between Vegas and Munich, in terms of outboard gear, was a different vocal chain; we knew that Adele would be in front of the PA much of the time, so I used the Rupert Neve 4054 Primary Source Enhancer to cut extraneous PA spill. It worked really, really well.” He notes that when the singer was on the B stage, “it took over 300ms for sound to reach there. Although she’s a powerful vocalist, there was still a lot of spill in the microphone when she was in front of the PA. I also added the Shelford Channel Strip for some extra EQ and the EL8 Compressor from Empirical Labs. She’s got an extraordinary dynamic voice and the EL8 ended up being the best compressor I’ve ever used for her. I’m going to be sticking with it when we get back to Vegas.”



Adele has used various mic combinations over the years. “At the moment, we’ve ended up with a Neumann capsule on a Wisycom handheld,” Bracey says.

The scale of the show affected other aspects of the sound system. “A key difference working in this venue was the long distances over which we had to transmit and receive RF for the in-ear monitors and radio microphones,” notes monitor mixer Joe Campbell. “We used RF over fiber for the first time with this artist and have opted for a Wisycom system, which has been superb.”

Clair deployed 20 Wisycom MFL RF antennae, overseen by monitor and RF system designer Thomas “Chip” Valentino, who worked with four RF nodes in different positions around the passerelle; one at the B stage, one central to the thrust, and others at stage left and stage right.

“We had lots of RF antennae spaced around the main and B stages,” Campbell says, “and, as the artist and backing vocalists moved, different antenna systems were

Adele: The Munich Concerts

Creative Director: Matt Askem
Show Director: Kim Gavin
Lighting Designer: Cory FitzGerald
Stage Design: Stufish Entertainment Architects
Production Director: Paul English
Tour Logistics Director: Maya Gas
Technical Manager: Malcolm Birkett
Stage Managers: Chris Taplin, Matt Kaye
Site Coordinator: Hayo Den Boeft
Production Assistant: Judit Matyasy
Show Caller: Maddie Cupples
Creative SMS: Emily Burton, Rob Allen, Sophie Zimmerman
Band TM/Backline Crew Chief: Adam Carr
Guitar Tech: Dave Bernson
Keyboard Programmer: Des Broadbery
Drum Tech: Will Dorsey
Front-of-House Engineer: Dave Bracey
Monitor Engineer: Joe Campbell
System Engineer/Crew Chief: Johnny Keirle
Monitor Tech: Thomas “Chips” Valentino
Head Carpenter: Jem Nicholson
Carpenters: Ray Bogle, Stu Simms, Ben Clarkson, Stuart Farnell, Oliver Wales, Adrian Typkiewicz, Stephen “Xumi” Schumacher, Lonnie Adams, Jimmy Brazzel, Dave Cockrell, Sinjin Cloma
Head Rigger: Colin Raby
Riggers: Bradley Cunniff, Ricky Hopkins, Barnsley Lee-Grain, Eric Degen
Lighting Programmer: Davey Martinez
Lighting Director/Operator: Nick van Nostrand
Lighting Crew Chief: Keith Johnson
Lighting Techs: Jack Talbot, Jen Bertha, JJ Contini
Disguise: Richard Turner
Video Chief: Paul McCauley
Head Video Tech: Dany Lambert
Head of Engineering: Alex Mulrenan
Servers: Jeff Bertuch
Head of LED: Steve Grincer
Vision Mixer: Rod Wardell
Wireless RF: Alex Harvey, Phil Charles, Paul Traynor,
Content Executive Producer: Sam Pattinson
Content Creative Director: Noah Campeau
Content Technical Director: Brandon Kraemer
Content Producer: Lizzie Pocock

Stage and Scenic: Stageco, TAIT
Lighting Gear: Neg Earth
LED Trim: Light Initiative
Sound Gear: Clair Global
Special Effects: ffp-fx
Content Producer: Treatment Studio
LED Rigging: Twenty Three

switched on and off for uninterrupted coverage as they walked freely around the stages for audience interaction. It was quite a challenge, but it worked out exactly as planned, and the results speak for themselves.”

Indeed, you can say that everything about Adele’s Munich residence worked out as planned, despite the enormous scale and unprecedented challenges. Having triumphed in Munich, the singer returns to her residency in Vegas, which ends late November. 📶