

ou didn't think Kendrick would copy anyone else, did you? The Apple Music Super Bowl Halftime Show is a shapeshifting event, restyling itself annually to fit the needs of its featured star. The surprises began with the Philadelphia Eagles romping to an easy victory over the Kansas City Chiefs, but they didn't end there. This year's show, starring Kendrick Lamar and staged at Caesars Superdome in New Orleans, offered a head-swiveling twist on the format. Instead of a packed lineup of guest stars, a video-plated design, and a theatrical presentation, it presented a gritty spectacle on a stage styled like a PlayStation controller. The song list was thoroughly up to date, featuring the current chart-topper "TV Off;" "Luther," the star's soulful duet with SZA (the sole guest star); and "Not Like Us," part of Lamar's notorious beef with the rapper Drake.

Alternately heckling and cheering from the sidelines was film and stage star Samuel L. Jackson, dressed like Uncle Sam. As the Associated Press noted, "Dancers dressed in red, white, and blue joined Lamar. But even in their patriotic colors, they were labeled 'too loud, too reckless, too ghetto,' by Jackson's Uncle Sam, who reminded Lamar to 'play the game.'" With its elaborate clown car gag featur-

always, the show's unsung heroes are the field team members who get dozens of carts on the field, connect them, and then break it all down in record time. (See the photo on page 39.) If anything goes wrong, the country will know it in minutes and the globe will be clued in by the morning after. As they say, no pressure.

Mapping the PlayStation

Mike Carson, one of the show's production designers and creative directors, says, "Kendrick and Dave Free, his creative director [of the firm pgLang] and our co-designer, were keen on this not being a straight-up concert. We also knew we wanted to have some narration aspect. It evolved into the idea of a video game, with Kendrick navigating what we called 'the great American game'." (Carson's work includes tours for Lamar, Travis Scott, and Big Sean, among other acts, along with fashion launches for Chanel; creative direction for Honda, Apple Music, and Puma; and film/video for a variety of brands and stars including Megan Thee Stallion.)

Another consideration, Carson says, "was to take up space on the field in a unique way. We were drawing these really large stages; this is where the expertise of Bruce and

Kendrick Lamar and a team of pros bring a gritty, cinematic style to this year's Apple Music Super Bowl Halftime Show

By: David Barbour

ing a Buick Grand National, a small army of dancers, the seemingly magical appearance of a red Plexiglas X on one stage, and dazzling camerawork, it was a case of game on, a major star taking big creative risks in front of the year's largest television audience.

Unfolding across multiple stage areas; with dancers dressed in red, white, and blue; and featuring noirish lighting, the show was edited more like a film than a live stage event. Happening in early February, the star and his provocative songs provided a State of the Union reckoning that was startlingly different from anything heard in Washington, DC. "The revolution 'bout to be televised—you picked the right time but the wrong guy," Lamar said at the beginning of the set. Given the show's ratings, he was very much the right guy.

This year's halftime show brought together the usual mix of new faces, allied with the star, with the crack team of pros who, year after year, roll out a spectacle seen by hundreds of millions yet produced under the most unforgiving circumstances: six minutes to get the stage on the field, less than 15 minutes for the entire show, and seven minutes to get it off, all without damaging the turf. As

Shelly Rodgers and their team at Tribe was paramount. They could look at our first drawing and say, 'This is not going to work'." That first drawing, he adds, "wasn't that far off; we just had to reconfigure it a bit. I think we made it more interesting. I'm proud of the placement of everything; sometimes restraint makes things better."

Bruce Rodgers, of Tribe, Inc., can fairly be called the Super Bowl whisperer, being the production designer who, year after year, works with the artists' creative teams to realize their visions. He notes that Lamar was a known entity, having been part of the 2022 halftime show at SoFi Stadium, which featured a lineup of hip-hop stars performing a set depicting a block of downtown Compton, California real estate. When Rodgers heard that Carson and Free were onboard, "I said, 'All right, we got some major players here who have a lot to say, a lot of integrity, and who are different from anybody else',"

Early on, Rodgers says, "We talked about scale and how many carts we might have. I showed them references for past shows, to give them a sense of what we've done before. We really focused on the Beyoncé show in 2013 because it was in the Superdome, too." He also brought



Previous spread, top: Unfolding across multiple stage areas, the show featured dancers dressed in red, white, and blue, illuminated by noirish lighting. Previous spread, bottom: The Buick Grand National from which more than 30 performers emerged in a clown car gag. This page, above: This overhead view shows the four stages linked by the central street. Opposite: The field crew breaks down the set. The production's unsung heroes, they have mere minutes to set up the stage and, afterward, clear the field.

Lamar's team up to speed on the restrictions imposed by the NFL. "Every time we start a new halftime show, we get a breakdown from the NFL and the player's organization," Rodgers says, adding that the size and weight of the set are always major considerations, for fear of harming the playing field. "We were told that, even though the field is astroturf, they wanted 25 carts maximum with a weight of under 3,000lb for each, and they didn't want more than 1,000 people on this field. But compared to what we've done in the past, 25 is a small number.

"I have a lot of respect for the folks at the NFL," Rodgers continues. "They're really supportive of us. But I knew that maybe there was a way to present an idea that allowed more carts on the field. I said to Mike, 'I think we can get to 38 carts, but we have to be strategic about it'." The solution proved to be the PlayStation approach, in which four stages, one in each corner, were linked by a ground cloth depicting a city street complete with lampposts. If the total number of carts was relatively economical, Carson notes, "Bruce says it was the largest footprint they've had. It took up the majority of the field."

This scenic layout helped facilitate the show's cinematic

quality. "On the pgLang side, we're filmmakers as well as designers," Carson says. "We took a filmic approach so we could have these different [scenic] quadrants, getting close and making you feel you were in a different space each time." The concept was widely embraced by the creative team, he notes. "Hamish Hamilton is an amazing director, and [supervising producer] Aaron Cooke was at the forefront of the cinematic/live thing. We've worked with Aaron before, and, in the last few years, the Super Bowl has done a great job of starting to integrate cinema equipment, but we wanted to push it even further. We brought in our own DP, Adam Newport-Berra, who shoots features [The Last Black Man in San Francisco plus episodes of The Bear and Euphoria]. The beauty of the Super Bowl is that it's like a family reunion, and there was a lot of familiarity between production companies, producers, artists, and creatives."

As always with this unique event, preparation is—first, second, and third—the key. "We got a one-to-one of the set built here in LA, which was really helpful," Carson says. "With it, you don't have to guess how long it takes to travel 80 yards. We could see what was feasible with

Kendrick, going back and forth. By the time we were in New Orleans, the muscle memory was there. We also had an off-site space in New Orleans, which All Access [the show's scenic fabricator] built for us. We could only get two hours on the field for each of the four days, so we spent the rest of our time at the off-sites, fine-tuning, reworking, and dealing with things that didn't work on camera.

The show's stark look and restrained color palette "was intentional," Carson says. "It was all of us but Dave and Kendrick are really keen on minimalism. We had more color in the show originally but, after our first day on camera, we were, like, let's commit to a couple of color temperatures versus every song having an identity." This approach, he adds, "let you appreciate the red, white, and blue costumes; what Kendrick was wearing; and the amazing choreography by Charm La'Donna."

He adds, "Kendrick took a lot of risks—playing new music, not having a bunch of special guests, not doing a lot of traditional Super Bowl things. But he made up for it in his performance. He adds, "Bruce gets it like none other. It was really great to collaborate with him and Shelly, to have them welcome us, with open arms, as co-designers—which, I would assume, isn't always easy. From day one, they welcomed our ideas and drawings."

Indeed, working with Rodgers, Carson says, "We were

so prepared, first in our internal design calls with Eric and the guys at All Access [Productions, the event's scenic fabricator], then explaining the concept to the NFL, and to Roc Nation and Jesse Collins Entertainment [both executive producers]. And that's not counting the internal conversations we had on the creative side. By the time we got there, we had it storyboarded down to every beat. I think everyone felt a bit more at ease. It was pretty painless in the grand scheme of things."

Building the set

The set incorporated four key elements: the square, triangle, and circle stages and the X, alongside eight lampposts and the massive ground cloth. The 44 square stage, built on 11 carts, featured a unique open framing structure with wide aluminum verticals and generous spacing to allow for clearance between carts. It enabled more than 30 performers concealed beneath the stage to move freely before emerging from the onstage Buick Grand National.

To meet show requirements, All Access stripped down a genuine Grand National from 3,500 to 1,500lb. An angled mirror effect reflected the floor texture to visually conceal the access point where performers emerged between the cart and the car. Additional features included hidden doors in the upstage area and carpeted floors in the 50" tall under-stage area for added comfort.



Comprised of six carts, the triangle stage featured a ramped design. Instead of sloping the cart frames, All Access added sloped boxes to the tops, streamlining the woodworking process. The lowest point of the triangle hinged up during transport for ground clearance and then hinged down during setup to rest flat on the field during the show. Consisting of ten carts, the circle stage included a curved ramp leading up to a staircase.

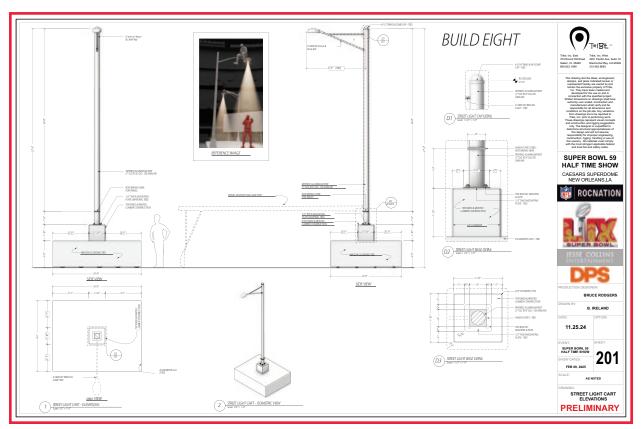
Constructed using a jigsaw puzzle-like design, the base of the X stage was precisely aligned on the field before showtime with a plywood guide. During the show, performers assembled wall panels (48 in total) into the base, guided by a self-aligning system. The wall panels required perfect placement; the solution was tapered receivers on the base and a numbering system. To keep the panels light for easy handling, All Access made them from lightweight polycarbonate (with red-tinted vinyl) on aluminum frames, each weighing 23lb.

Extensive testing was conducted to perfect the X. All Access developed multiple panel prototypes to find the ideal material and aesthetic. The company also evaluated five different connection systems to achieve the optimal balance of weight, precision, and alignment. "Because the dancers deploy them, the criteria was to get those panels as close to 20lb apiece as possible," says Erik Eastland, founder and CEO of All Access.

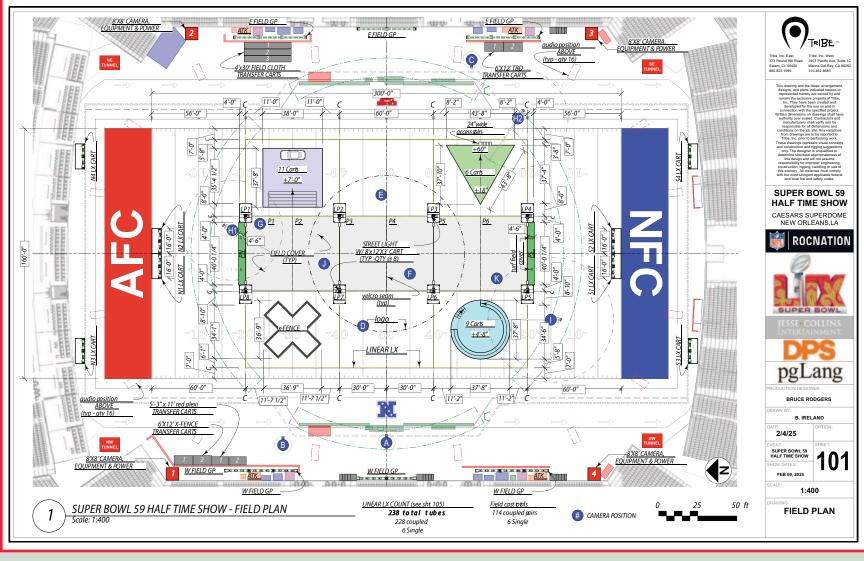
The square, triangle, and circle stages were wrapped in digitally printed vinyl to replicate the look of monolithic concrete structures. Additionally, All Access integrated Environmental Lights Eluxtra five-in-one strip lights into the three stages and X base, driven by the company's PowerPro six-channel DMX decoder, casting dynamic light upward to highlight the performers.

The company also fabricated eight 21' lamppost carts, providing aerial platforms for performers. Each base was constructed from heavy steel and equipped with stabilizing jacks on all four corners. To fit under the goalposts during transport, the lampposts were designed to fold down and then raise into position during setup. For authenticity, real lamppost poles and heads were used. Additionally, All Access disguised lighting fixtures inside fabricated transformer boxes and concrete blocks. Grating was incorporated into the base as part of a fog effect for hazers and fans housed inside the base. Facing was applied after the lamp posts were in position to conceal the wheels.

The 8,800-sq.-ft. ground cloth was designed to stay in place during dance routines while easily rolling on and off the field. To achieve this, the All Access team reinforced the cloth with a stiff backing material and divided it into eight panels for manageable transport and rapid deployment. Two sections covered existing field graphics, providing a seamless visual presentation. The cloth, which was



All Access fabricated eight 21' lamppost carts, providing aerial platforms for performers. Each base was constructed from heavy steel and equipped with stabilizing jacks on all four corners. Ayrton Diablos were hidden in the bases.



The above field plan gives an idea of the layout's complexity; provisions had to be made for all elements including cameras, carts, and power.

digitally printed to give it a kind of shiny surface, "was built to be in six pieces," Eastland says. "It was definitely the biggest pain, but we were trying to look perfect and, with 100 people dancing on it, it's super hard to do that. Funnily enough, show day was rainy and the cloth got a little bit wet when transferred from storage to the stadium; when we laid it out, it looked the best it had because it had more weight."

Lighting

"We had a very clear aesthetic approach to this year's half-time show, which was very much aligned with the wishes of the artist's camp," says Al Gurdon, who co-designed the lighting with Cory FitzGerald. (Gurdon is a longtime Super Bowl veteran; FitzGerald has worked with Lamar.) "This was to always aim for contrast and lighting angles different from those of conventional television lighting," he adds. "We wanted to prioritize drama over 'beauty light.' It needed to feel monolithic and synchronized to the heavy beats, without the 'sparkle'."

This year, Gurdon says, "The stadium having a roof was a huge advantage; it influenced our aesthetic approach

and where we could position lights. A roof offered a consistent look across all rehearsals and the show because ambient light conditions did not change. The second thing it allowed was overhead light positioning, which was important for this set. The performance moved from one area to another within the overall space, and it was important to isolate those 'action areas' very specifically in the wide shots, especially in the overhead sp-cam shots. The cleanest and most precise way of doing this while avoiding extraneous light spill was with a light source perpendicular to the area being defined, which, in the case of a stage situated on the field, was directly overhead."

Meeting with FitzGerald, Gurdon quickly realized that their ideas meshed. "We wanted Kendrick and the performers to be lit in a combination of the overhead light plus either sidelight, backlight, or floor light, but not all at the same time." This, he adds, would provide "a more dramatic and dynamic look rather than the more conventional keying angles that would be provided by lights placed in the audience seating. So, I had a lot of [Vari-Lite] VL3600s overhead, which are bright and capable of precise framing, as well as six remote followspots. We also had a lot of low

Noting the limited color palette, Gurdon says, "I am not a fan of using a lot of color, anyway, especially as a way of 'ringing the changes' within a piece of music, because it feels ancillary and unmotivated. A color change feels right to me if it has a strong motivation, whether musical or narrative. There is something bold and uncompromising about setting a style for a performance, sticking with it, and allowing the performers to move around within it. If what is happening onstage is strong enough, it is okay to create an appropriate visual environment in which it can take place, without having to always echo, underline, or enhance it. The show is in the performers, and the lighting is there to support that and the narrative." Ben Green (along with Harry Forster and Eric Marchwinski, one of the show's lighting directors) adds, "I found it refreshing because color is so accessible and everywhere, and being able to tell the story with various shades of white made it impactful."

"It was, I believe, technically the biggest show they've ever done, because it filled so much square footage," FitzGerald says. "Normally, you have sort of a main stage plus areas. And we did four main stages with a playing area in the middle. Lots of areas needed highlighting so the rig had to be more theatrical. We could hang from the roof but, because of its design, we had to hang in at roughly 120' high." This put a premium on power and long-throw abilities. Also, FitzGerald says, "One directive was never to show a bunch of equipment laid out. We didn't want to see equipment or moving lights in the shots. It wanted to be operatic."

The lighting rig featured various types of units. TMB Solaris Flares provided the show's plentiful hits and blinder cues. ACME Lighting Dotline 360 bar lights "were behind what would normally be behind the upstage wall across from the Chiefs' bench line," FitzGerald says. "They gave us those cool background moments. Ayrton Diablos were hidden in the bases of the streetlamps, their compact size allowing them to fit in easily to provide sidelight looks. A set of Elation Proteus Radius units were put on top of the streetlamps, "creating a beam grid that mirrored the floor tube light grid," FitzGerald says. The previously mentioned VL3600s, combined with Robe iFORTE LTX units, "did the grunt work: downlight, top light, and sidelight. Also, we had LTX units on the ground with VL4000 BeamWashes to give us those big beam punches and sidelight across the field. When we brought out the carts with them in the end zones, they functioned almost like dance lighting, then as background lighting, depending on where the camera was." Green says the VL4000s, "are not young fixtures but they are like cannons and, in the spirit of the show being operatic, we were making big gestures, big blasts of light-



Kirk Powell (engineer-in-charge for ATK/Clair Global), Luis Montes (Clair Global patch master), and Dave Caldwell (Clair Global network manager).

ing from different directions." Followspots were PRG Ground Controls (PRG supplied all the lighting gear.) Effects were provided by High End DF-50 hazers and Reel-EFX RE 5 fans.

Making a debut of sorts, 88 ETC/High End Systems Zeos were placed on the mid-audience rail upstage of the main camera point of view. The Zeo features a singular square face design with a central LED monolith and four RGBW engines; it can deliver up to 30,000-plus lumens. "Given that the show was lit with an emphasis on heavy directional gestures, the row of Zeos offered a versatile option to make effects with and wash a large area, along with the smoke in the air," Green says. "Having the pan and tilt also made it a good option, as we were able to sweeten it for the camera more than a static strobe fixture. It works well as both a space filler seeing the lens on camera and as an aerial effect light which we leaned on heavily here." Green notes that, even shooting from a distance of about 200', the Zeos "were still pretty punchy."

This year, PixMob's mandate was extended to the full game. A pregame performance, dedicated to New Orleans' resilience, featured a marching band illuminated with the company's synchronized LED wearable tech. Every fan in the stadium (75,000 in all) was given a PixMob LED wristband that collectively turned the crowd into an LED screen of animated visuals, allowing everyone to react to touchdowns, kickoffs, and other moments. The company's MVT "human screen" technology during the halftime show resulted in the "Game Over" sign in the finale. (See photo page 44.) MVT (Moving Visual Technology) is a controller that casts advanced animations and graphic effects across crowds. It was inaugurated at the Paris Olympics Closing Ceremony and Coldplay's 2024 tour.

PixMob had "16 MVTs in the corners of the stadium," Marchwinski says. "They developed a mapping technology that lets them seamlessly make the entire bowl a screen. The system takes regular DMX. But they had their own team making and programming content."

Lighting control and color considerations

The lighting was controlled by an MA Lighting grandMA3. Eric Marchwinski and Mark Humphrey worked together this year to tackle this unique approach to this year's halftime show. "It was a good dynamic: Mark and I have a long history working together—with both of us involved in the creative and technical cueing of the show, we can easily pass tasks back and forth as the process evolves. Working with Cory on Kendrick in the past helped make the entire



The gear rack room, which was filled with Focusrite RedNet components.

process very collaborative, and comfortable all around."

One major change, says Marchwinski, altered the overall workflow. "Kendrick's team wanted a more operatic look, and part of this included the inclusion of a film DP [Newport-Berra], and the use of a LUT on the cameras This allowed their team to treat the camera color pipeline more like a movie than a television show." It meant applying a custom LUT, or lookup table, into the color pipeline. Marchwinski continues, "The LUT, which is loaded directly

into the camera, allowed their team to push the color and exposure of the frame in a way you typically couldn't with a live broadcast camera, with which you just have the iris and exposure. This put a team of people downstream of us who had a direct impact on the picture."

Humphrey notes that the units hung from the roof, "were at a much steeper angle this year, which I think helped with the aesthetic. They were definitely pushing for more steep angles. We wanted that shadowy look." Marchwinski says, "The unique camera workflow was the challenge and required a lot of communication to avoid chasing each other. We needed to be in tune with what the camera department was doing and communicating how we felt about what we were seeing versus what we expected to see, to ensure we could achieve what the creative team set out to create visually."

Supervising producer Aaron Cooke, noting that the half-time show has been headed in the cinematic direction since The Weeknd's appearance in 2021, echoes Marchwinski, saying, "This year, we changed the color workflow so that the color pipeline was more like a music video. It's the lensing, the lighting, the LUTs. Typically, your lighting designer and video shader are the key decision-makers on what it will look like. You also have to work with the network's color pipeline because, ultimately, we're feeding it on a broadcast network. So we separated out our color workflow to create our own LUT and look, not relying on what Fox was doing but making something that would fit into their broadcast standards. This was the first year we colored like you would do a film."

The show's director, Hamish Hamilton, noting that Lamar's team was looking for "a live experience with a cinematic aesthetic," adds, "It was about using prime lenses, holding shots longer, choosing angles that were probably not from a television vernacular. Our choices were guided by the music and Kendrick's team. Once we all got in a room together in the rehearsal space, things started to fall into place quite quickly."

Interestingly, he notes, this meant going with "quite a streamlined camera package, with fewer lenses than we would normally have." For previous Super Bowls, he says, "We would augment the sports directors' cameras into our shooting script. And we would have more lenses, which were halftime-specific, at our disposal." But, given the demands of creating a cinematic feel, those rules didn't apply here.

This might seem counterintuitive, given the many stages built into the design. But, Hamilton says, "We used multiple cameras in most of these situations. We also moved them to other stages. Obviously, the Trinity Steadicam serviced the entire project. We also had longer cinema lenses on television dollies, and they could service multiple stages. The thing about the halftime show is it's a marriage of art, science, logistics, and fear management. Kendrick,

The system was "a base of 12 cameras plus a couple more around the stadium but they had many more movements," Cooke says. The Steadicams were certainly moving, but even our jibs, PEDS, and dolly cameras moved around the field as the artist moved. There was a lot more choreography, especially for the Chapman dollies and the bigger pieces of equipment; to have them move to three positions was a technical challenge because they all have cables to be dragged along."

Interestingly, Hamilton notes, "Ten years ago, we developed a process of post-producing before we produce. Using iPhones, domestic cameras, or sometimes more refined ones, we will shoot rehearsals at the right heights as fully as we can. Then we edit together a show that becomes a blueprint we take to the stadium. All our creative decisions—pacing, angles, storytelling—are decided as a group well ahead of execution. When we get to the stadium, we have an awful lot of decisions to make in a very small, pressurized, amount of time. We try to remove those big decisions from time crunch."



The final "Game Over" look, using PixMob's MVT "human screen" technology.



PixMob wristbands in place before the fans arrive.

Sound

Once again, the halftime show utilized an L-Acoustics K2-based loudspeaker system, provided by ATK Audiotek, a Clair Global brand, which has managed the event for nearly 30 years. The rig comprised 16 hangs of K2 arrays and eight hangs of KS28 subs. A dozen of the K2 hangs had K1-SBs above them; eight of the K2 hangs had closely coupled K1-SBs, while four of the remaining K2 hangs used K1-SBs as a line extension.

This temporary sound system was similar to those used in the past two years. It is, in fact, the third time that Kirk Powell, design engineer at ATK Audiotek and his staff—including show mixers Alex Guessard and Dave Natale, monitor mixers Tom Pesa and Chris Daniels, and systems engineer Johnny Keirle—have hung separate sound systems in a Super Bowl venue.

Since then, the temporary L-Acoustics PA systems have also handled all live sound in the bowl for the game and all related events, such as the opening night event at the stadium on Monday, where hundreds of media interview Super Bowl players and coaches. But because this year the temporary system was also being used for the entire game, it included 200 K2s, 40 K1-SBs, and 64 KS28s—the largest yet deployed of any type for a Super Bowl.

"The halftime show is so different than what we're doing for opening night, but we get a good handle on how the room feels," Powell says. "Having a flown system makes a lot of difference because the coverage is better and it's consistent—it's there all day; we're not moving it in and out during rehearsals. It's the third time we've done

this and it's a continuation of just trying to improve and tweak and see if we can make it a little bit better than last time."

The Superdome, Powell says, has "really deep underbalconies and that creates a big challenge. You have to rely on the installed house system for the fill speakers you need to reach those areas. And, acoustically speaking, there are other challenges, because it's an older stadium that wasn't updated like a newer stadium would be for acoustic treatments to address, for instance, the reflectivity of a lot of exposed concrete. Plus, it's a big, roofed room. So yes, there are acoustic issues."

"One of the biggest challenges was the trim height restriction, as no rigging elements could be lower than 153' from the field," explains PA systems designer Johnny Keirle. "That forced me to design the system higher than ideal, which introduced coverage and tonal balance challenges, as well as potential temporal issues. The flexibility

of the K Series, particularly K2's adjustable Panflex and rigging flexibility, was key in combatting these constraints. Narrowing the horizontal dispersion of the K2 using Panflex and using K2 rigbars to allow for extreme curvature where needed helped to both maintain coverage and tonal consistency despite the higher-than-optimal trim requirements." He adds that L-Acoustics' Soundvision design software allowed for fast and accurate on-site optimization of the designs.

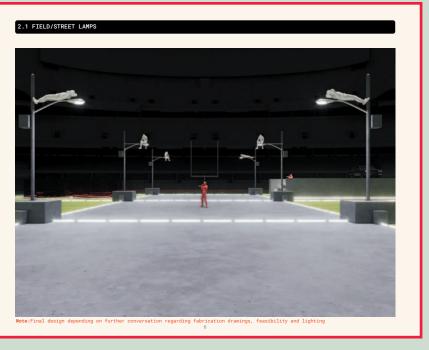
"As with all my projects, I spend a lot of time working in Soundvision and really trust the software when making design decisions," he adds. "All system management/optimization was done in Network Manager, and Smaart for the deeper acoustics analysis, particularly room reflections for referee mic equalization.

"Bringing in my usual PA team from the EU was essential to ensure a smooth setup and management throughout rehearsals and game day. Having Gui Burguez, Juan Beilin,



Members of the lighting team: Wyatt Mailloux (ETC product support specialist), Nick Coauette (previz tech), Mark Humphrey, Harry Forster, Al Gurdon, Bobby Hale (ETC regional sales manager), Ben Green, and Eric Marchwinski.

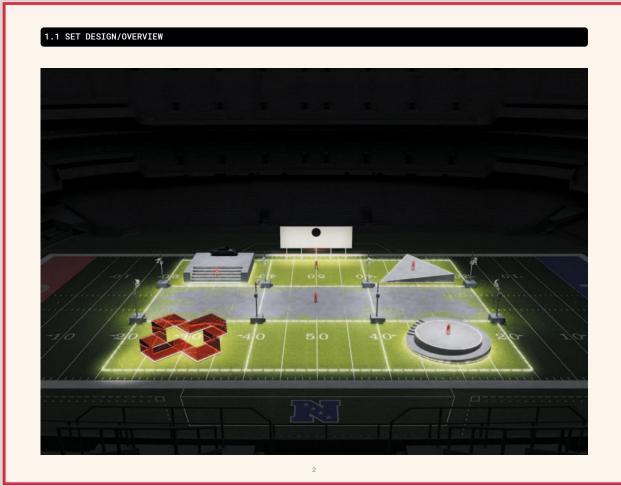
SPECTACLE



Claus Köpplin Orrán, and even Clair Global operations coordinator Rob Gurton working alongside the core ATK team made the entire PA deployment and management process seamless. This was particularly crucial with flown amp platforms housing all amplification, signal, and power: we needed experienced team members who were comfortable working at height and ready to climb whenever necessary during the event."

Interestingly, Powell notes, the type of music featured in a halftime show also affects the nature of the rig. "With hip-hop, which we've been doing for the last few years, we use many more subs than if the show featured classic rock or even pop music. Hip-hop is very sub-heavy. I have subs on the field, I have subs in the air. It obviously affects the weight on the roof."

PA design and implementation were overseen by Keirle. As in previous years, ATK prepped the system in the home office in Valencia, testing the system before shipment. However, due to tight scheduling constraints following the Beyoncé show in Houston, the team had just five days in the shop before heading to New Orleans for the Super Bowl.



Renderings showing the street layout (top) and the overall Playstation look (above).

DiGiCo consoles were employed for the show, mixed by Dave Natale and Alex Guessard with Tom Pesa and Chris Daniels on monitors. The entire event has its own outside broadcast trucks. "They receive signals from us and also send signals to us, so there's a lot of back and forth between our parties to get a seamless production for the global TV coverage," Powell says. "The Super Bowl requires such a large array of audio sources, and guaranteeing they are routed accurately to their respective destinations is another challenge. To handle this, we use Focusrite RedNet components for seamless connectivity as we work through the demands of the event." Indeed, the show employed a digital audio signal path, employing an extensive Dante networked audio infrastructure. This setup featured nearly 100 components from Focusrite's RedNet range of Dante-networked audio converters and interfaces, including models such as the RedNet D16R MkII, A16R MkII, and D64R.

ATK leveraged this technology for PA distribution, field audio, production trucks, and front-of-house and monitor positions. It included 26 RedNet D64R 64-channel MADI bridges, serving as MADI bridges between entities to ensure seamless clock synchronization and inter-system audio transfer and sharing without relying on a common master reference clock; 20 RedNet D16R MkII 16-channel AES3 I/Os, managing digital signal transport with AES for smaller channel counts; 32 RedNet A16R MkII 16-channel analog I/O interfaces, providing analog backup for the PA system, which ran AVB (Audio Video Bridging) instead of Dante; 12 RedNet MP8R eight-channel remote-controlled mic pre with dual PSU, capturing audience reaction and Atmos microphones for Apple Music's Atmos halftime mix; and six RedNet AM2 stereo audio monitoring units further supporting audio signal distribution. The advantage of AVB, Powell says, is that it "allowed us to go directly into the amplifiers and have analog backup."

Powell once again employed RedNet D64R MADI bridge units to interface with consoles and broadcast trucks. The product offers high channel capacity and the ability to convert sample rates between different audio systems at a multitrack level, enabling smooth audio transfer and sharing without requiring a shared master reference clock. Powell noted that while the front of house and stage monitors could sync to the same clock, "the production truck runs on a separate clock since it isn't in use all day. The D64R allows me to keep my system's clock separate from the production truck's, particularly when they finish up after halftime. As they start packing up, I prefer not to stay synced to their clock to prevent any premature shutdowns."

Professional Wireless Systems (PWS) handled all wireless microphones and IEM systems. Shure Axient Digital PSM advanced digital in-ear personal monitoring systems provided clear audio for Lamar's set. "We felt confident

Apple Music Super Bowl Halftime Show LIX

Executive Producers:	Jack Headford	Operations Director:
Roc Nation	Lily Rodgers	Carly Vaknin
Diversified Production	Lindsey Breslauer	
Services		Coordinating Producer:
Jesse Collins	CAD Design:	Laura Paganucci
Entertainment	Brian Ireland	
pgLang		Production Managers:
	Stage Movement Lead	Elizabeth Jones
Shawn Carter	Strategist: Douglas Cook	Erin Harding
Desiree Perez		
Dave Meyers	Concept Movement	Staging Supervisors:
Anthony Saleh	Study Animation: Q-Roc	Tony Hauser
Jesse Collins	Ragsdale	Cap Spence
Dionne Harmon		
Dave Free	Creative Producer:	Staging Coordinators:
Cornell Brown	Valtteri Laihanen	Dan Carlton
Roger Goodell		Shalah Cave
	Art Department	Kelly Coffey
Producer:	Assistants:	Doug Cook
Jana Fleishman	Andrew Frey	Rob Cray
	Regan Eastland	Tim Fallon
Directors:		John Gorli
Hamish Hamilton	Lead Stage Manager:	Dylan Hauser
Dave Free	Gary Natoli	Glenn Ingram
		Justin Klynsma
Associate Director:	Stage Managers:	Graeme Lagden
Cameron Whitelaw	Jeffrey Gitter	George McPhearson
	Harve Levine	Tony Menditto
Associate Director:	Donna Parker	Mike Mutti
Hayley Collett	Tammy Raab	Nick Rausenberger
	Karen Tasch Weiss	Richard Wold
Directors of Photography:	Zachary Figures	Katy Fahey
Adam Newport-Berra		
Dylan Sanford	Field Creative Producer:	Field Team Managers:
	Kristen Patterson "KP"	Bryan Ransom
EVP, NFL Events:	Terry	Holly Silber
Peter O'Reilly		
	Technical Director:	FTM Coordinator:
SVP, NFL Events:	Tim Kubit	Roma Ramchandani
Jon Barker		
	Lighting Designers:	Special Projects
NFL Head of Music:	Al Gurdon	Coordinator PixMob:
Seth Dudowsky	Cory Fitzgerald	Liz Hart
NFL Field Operations:	Lighting Directors:	Special Projects PixMob
Nick Pappas	Ben Green	Nikki Sude
	Harry Forster	
Supervising Producer:	Eric Marchwinski	Costume Supervisor:
Aaron Cooke		Chelsea Staebell
	Head Rigger:	
Creative	Carsten Weiss	Vendors:
Directors/Production		All Access
Designers:	Line Producers:	Backlit
Bruce Rodgers	Phil Sino-Cruz	Pixmob
Mike Carson	Chelsea Gonnering	Pyrotecnico
Dave Free	0	PRG
	Consulting Producer	

Consulting Producer:

Darren Pfeffer

Art Directors:

Shelley Rodgers

SPECTACLE

using the new AD PSM due to Shure's reputation for product integrity and reliability. Not to mention the audio quality," says Charles Ross, monitor engineer for Lamar. "The low end is punchy and responsive. The highs are smooth and natural. A complete game changer for my mixes."

"Kendrick used the new Shure [Axient Digital] ADXR for his IEMs and the new Sound Devices A20-HH with a Sennheiser MD9235 capsule," says Cameron Stuckey, who handled wireless for ATK. "SZA also used the A20-HH with a black SM58. Samuel L Jackson had a DPA 4088 with Shure ADX1," he adds.

The use of a brand-new product such as the A20-HH was bound to cause a little anxiety in a show as unforgiving as this one. Still, Stuckey says, "Mics and IEMs are a close personal choice for artists; everyone has their preferences. I view our job as providing technical support for every artistic expression to be possible and I take pride in the ability to provide the Super Bowl level of support no matter what an artist chooses. Using bleeding-edge technology at the biggest show of the year is scary, no two ways about it. Manufacturers set themselves apart from others in moments like that. I'm incredibly grateful to Jenn from Shure and Cody from Sound Devices."

From Stuckey's point of view, the venue came with certain challenges: "The Super Dome is a bit of a throwback. Its design comes from a different era of stadium design where the lower bowl of seating is wide with a low rake. The antenna mounting positions on the mezzanine are 80' from the sidelines of the field. That challenge is unique to New Orleans, compared to Los Angeles or Las Vegas. We lost more signal strength due to mounting locations in the Superdome than other recent Super Bowl venues, and the team worked hard to provide the same coverage on every inch of turf we always provide. Our antenna design was forever improved by this year's experience.

"Additionally, the fully solid concave dome acts as a perfect reflector for all RF signals inside. It's easy to measure those reflections at almost any of the frequencies we use and design around the multi-path interference but with a system that uses TDMA [time division multiple access, which allows multiple users to share a communication resource by dividing it into time intervals, or slots], where each user transmits data in a specific slot like [Riedel's Bolero wireless intercom], those reflections really interfere with the talk-listen timing scheme of those systems. When an antenna is listening to a belt pack but also hears its own reflection from a few milliseconds ago, the error rate increases quickly, and audio can degrade. The Superdome is one of the few places in the US where these reflections are guaranteed and the RF system needed to be designed to directly address reflections."

All told, Powell says, "They were coordinating something like 700 frequencies inside the stadium, which is

unfathomable. You have to check everybody in. You have to monitor everybody to make sure they're not deviating, and you always have crew who sneak in wireless on frequencies that aren't approved; then you've got to find them and shut them down. We've got the whole game day crew out on the field finding out who it is. I'm so happy we have Professional Wireless partnering with us because they're so diligent about dealing all these little things that can make or break us."

ATK's communications delivery, led by ATK Versacom, was overseen by Matt Campisi, who comments, "This year was an especially testing event as we took on all aspects of communication deployment; we not only supplied intercom systems for the halftime show and NFL broadcast executives, but to the stadium control, production company Van Wagner, and the Production Club. "We also integrated several other entities such as the halftime TV truck and the network TV trucks, NFL Films, and the tailgate entertainment concert, which takes place outside the venue."

ATK supplied several Riedel frames with integration to Caesars Superdome; two Riedel 1024 frames and Riedel Legacy frames were deployed in one large ring to make up a huge intercom system. Along with the utilization of the stadium infrastructure and a matrix smart panel, ATK brought in an additional 125 smart panels for all positions during both the football game and the halftime show.

Campisi's team worked closely with Riedel Communications: "We supplied 140 Bolero wireless belt packs; wireless is the most challenging aspect of this setup, as it's critical to most of the 250-plus end users. Additionally, Riedel Communications provided extended frequency channels that were applied to our system," he explains. "The stadium dome can cause reflections which creates multipath issues, and Riedel supplied us with special directional antennas to adequately combat this issue."

How massive is the Super Bowl? According to Variety, "After finalized data came in from Nielsen, the total number of average viewers for Super Bowl LIX rose to 127.7 million, a 3% increase on 2024's 123.7 million that further cements the game's status as the biggest TV audience of all time." It added, "Kendrick Lamar's streams for his culture-dominating 2024 song 'Not Like Us' soared some 430% on Spotify in the hours after his halftime performance during the Super Bowl on Sunday night, and the nine other songs he performed as part of his 13-minute medley reached into the double digits for a 175% total gain." Such results go a long way toward explaining why so many creatives, technicians, and crew return each year and accept such punishing conditions: There is simply nothing else like it. It's another successful case of game over-and already the wheels are turning, getting ready to put next vear's show in its place.