


The Pepsi Super Bowl XLVII Halftime Show provided plenty of spectacle and special effects

By: Sharon Stancavage



*Flaming
Diva*



The Pepsi Super Bowl XLVII Halftime Show, starring Beyoncé and Destiny's Child, was the result of a cast of many: from the local volunteers (hordes) to the technicians (thongs) to the designers involved (plentiful) and the vendors (diverse). The collaboration included those at Touchdown Entertainment, Inc. of Los Angeles; Ricky Kirshner, of RK Productions of New York; and production designer Bruce Rodgers, of Tribe Design, located in Salem, Connecticut.

For the production, Rodgers created a stage featuring two silhouettes facing each other that included areas for the audience on the field. The stage, fabricated by All Access Staging, of Torrance, California, was divided into 35 carts and included built-in lighting and effects.

The stage also featured a WinVision 9mm LED wall. Video content was provided by Andy Jennison, of Breathe Editing, and was delivered using a Green Hippo Hippotizer HD media server.

Designing the lighting for his fourth Super Bowl show was Al Gurdon. The designer, who lives in the UK, needed an experienced man on the ground: lighting director Bob Barnhart, of Los Angeles-based Full Flood, Inc. Barnhart has been involved with the Super Bowl almost continuously since 1994, designing the lighting for half a dozen of them. Working with him were Rich Gorrod and David Grill, who handled the logistics of the project. The event took place at the Mercedes-Benz Superdome in New Orleans, an older facility that, nevertheless, offered more than enough sideline space for lighting. Most modern stadiums have between 6' and 8' of sideline space; there was approximately 16' in New Orleans. Barnhart explains, "The NFL allowed us to have a permanently floor-supported truss—it was only 3' high—all the way against the back wall, which was fantastic because

those lights could be on and calibrated before they opened the stadium to the audience."

The 3'-high truss was filled with Clay Paky Sharpys and was paired with a Sharpy truss overhead. Both were 180' long. "There was another overhead truss that did not move, with about 160 Philips Vari*Lite VL3000 Series fixtures, both spots and washes," Barnhart says. "They were higher up and did not move; they did the stadium audience and field washes. There were other trusses up high at the front of house that focused on the dancers." The outer portion of the stage was also home to 52 Robe Robin 600 LEDWash units, located in shelves and used to backlight the stage/band and provide crosslight for the dancers. The lighting rig also included Chroma-Q Color Block 2s, Martin Atomic Strobes with Atomic Colors, and Philips Color Kinetics ColorBlast RGBs and ColorBlast iWs, Strong III

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3K Gladiators, and one 1,500W Flame from Brite Box. The latter “is a very bright followspot in a very small box—about a third the size of a Gladiator but brighter,” he adds. PRG provided the bulk of the lighting gear. The show was run on SMPTE time code: “We started using it about four years ago, which has made the process much easier.”

Planning for contingencies is also important. Barnhart says, “We spend our time working out scenarios—things like, if the control cable to the main stage breaks, where is the backup? Is it protected separately from the primary? If the stage gets

put off by five yards, do we have enough power cable to make it to the set? If this gets run over and crushed, do we have a backup?”

During the six minutes of bedlam when the show’s gear is set up, Barnhart is on the field, getting feedback from the technicians. “It’s controlled, organized, planned chaos. On average, any one electrician could make about 24 connections in about the two minutes they have.” Just before the show starts, Barnhart says, “I have to make a decision 1.5 minutes out from going live whether or not I need another 30 seconds from the network if I have a problem.” This year, there was an issue with the ColorBlast iWs on the far stage-left wings of the stage and a bad data cable on the upstage right wing; his technicians assured him they would be fixed before they were on camera, and they were.

Programming for the show was handled by Mike “Oz” Owen, who has

performed similar services for the last three Super Bowls. His part of the production begins in January when Gurdon has completed his plot and the set list is taking shape. “I’ll put the patch into the [PRG V676] console software offline on my laptop and start to build my palettes, channel groups, some effects, and a basic cue structure ready to start on WYSIWYG,” he explains. “I’ll also get the beat and bar timings for each song from the tempo and then work out the step and cycle times for any effects and how to apply them to the geometry of the design.”

The cue list is an early priority. “A



Strictly FX provided the pyrotechnics as well as other effects such as the 50' silhouette known as Pyro Girl, seen in the drawing on the opposite page.

main cue list, with others for effects and accents, often includes follow-on times that are rhythmically tricky or detailed," he says. "On this show, we were aware that the artist liked the lighting to reflect the accents and changes, so it was useful to at least build the structure for all these cues as early as possible."

WYSIWYG wasn't the only program in Owen's arsenal. "We used Andy Voller's Moving Light Assistant to import accurate 3-D positioning of channels from the CAD plot," he says. (Voller is a UK-based lighting designer who works in England and on the continent, where he specializes in musicals; he has also worked as a programmer on such events as the Eurovision Song Contest and the London Olympics opening and closing ceremonies. Moving Light Assistant is the fruit of his extensive experience.) "I use this to draw the 3-D plan view in the V676 so that I can accurately use

the 3-D graphic in the console. I find this a very useful offline tool, especially when working out effects."

Owen's pre-viz work was critical to the project. "Given that all our key lights were a minimum of 180' away from their targets, the WYSIWYG system was remarkably accurate—especially with the framing and zoom parameters of the VL3500 spots for example," he says. The time line for the production also entailed some last minute work for him. He says, "Some sequences were worked out very late, and I was still programming offline an hour before the game started."

He adds, "On the Super Bowl, there is obviously a large emphasis on the TV production, but that doesn't necessarily preclude the live audience from seeing an appropriately scaled show, and any bigger picture live looks are consciously designed to work in close-ups and mid shots."

In the mix of special effects

One change in this year's production was the extensive use of effects. The team brought in Strictly FX, of Chicago, to bring another dimension to the performance environment. "Because we're a special effects company, we were allowed to add elements into the show that they might not have normally had if they were dealing with just a pyro company," explains Mark Grega, partner and effects designer at Strictly FX.

The effects were evident from the moment the face silhouettes ignited during "Crazy in Love." Grega explains, "We couldn't do it with propane because there would be too many connections to make." The solution was 50' long-duration flame projectors for each side of the face built into the stage. "For the opening cue of the show, when the flame chase reveals the face, we had to make sure



Super Bowl XLVII Halftime Performance
Starring Beyoncé

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Bruce Rodgers		
CONCEPT BY		
Beyoncé Lafroy Bennett		
DRAWN BY		
Sean Dougal Douglas Cook		
SCALE		
2		

that there was absolutely no one in the pit because there were 100 pieces going off in that chase.”

The faces of flames segued immediately into massive flames—from four MKII liquid propane Venom cannons upstage behind Beyoncé. Grega explains, “Because of the camera angle, when you saw Beyoncé, it looked like a 6’-tall flame—but that was only because the flames were 90’ away from her. The flames were actually 30’ tall.”

This was followed by one of the most unexpected elements of all—a 50’-tall silhouette nicknamed Pyro Girl. “Bruce [Rodgers] drew a conceptual drawing that looked like flowing lava, which we can’t do,” Grega says with a chuckle. The first thought was propane. However, he adds, “No one wanted to make a propane bar that was 180 linear feet, and the idea of putting so much propane on it presented a lot of problems.” More research and development was warranted. “In the end, we had Next FX [of Columbus, Montana] make us a

custom flame-and-spark device.” Pyro Girl, with 178 separate charges, flew in and then almost disappeared back into the catwalk above.

“Crazy in Love” also featured a custom gag for the guitarist Bibi McGill, which was comprised of ten 5’ silver duration gerbs triggered using a FireOne wireless module. At the end of

the number, there were a barrage of white comets with tails; all the pyro was done with low smoke products to keep the show clean for the cameras.

The production included mini-Venom propane flame bar cannons, SFX static high-output CO2 jets, a Le Maitre LSG (Low Smoke Generator), and a Le Maitre G150. “This is about a



The extensive amount of sideline space allowed the lighting team to install a permanently supported floor truss along the back wall and fill it with Clay Paky Sharpys.

Photo: Harry E. Walker/MCT via Getty Images; Drawing: Courtesy of Bruce Rodgers

football game and, most importantly, the field that it's played on," Grega says. "Consequently, we had to have trays for the smoke machines so that no juice would fall. We had to have our vents wrapped in plastic and an absorbent material so that if there were any leaks they would be absorbed and not go onto the field." The High End Systems F100 foggers and Reel FX DF-50 Hazers had to follow the same decrees regarding potential fluids on the field.

Although Strictly FX can provide lasers, they were never really a part of the creative meetings until late in the process, when the discussions moved to the hair gag for the finale. "For the hair elements, they were talking about outlining it in propane," Grega says. "Even if we were setting it up from the start of the show and it was preset, we couldn't do a 400' flame bar. Then all of a sudden, they said, 'What if we project hair with lasers?'" Grega, a fan of the artistic use of lasers, was


somewhat piqued by the idea: "I thought, really, that's what we're going to do? Can't I put them on floor and shoot them at the camera and make them look awesome?"

As it turned out, the laser effect worked, thanks to the projection surface: a giant piece of white fabric with fans underneath, which was deployed by volunteers. Grega notes, "It was the perfect surface for lasers. If we had had to project onto the field, the green color of the field would have eaten up a lot of the color." There were four top-projected 30W RGB diode lasers. "It allowed us to paint a picture of something beautiful onto a large canvas, and no one knew it was lasers," he says.

Control for the projectors was achieved through a combination of several consoles receiving SMPTE signal. There were two FireOne FireLite controllers used for the pyro and four Pangolin QM2000 consoles for the lasers, which inter-

faced with an MA Lighting grandMA ultra-light console and an MA onPC command wing as backup. "We invested in that console specifically for Super Bowl. It was on SMPTE, but we also had manual overrides on channels," Grega says. The hardware also included Doug Fleenor DMX relay packs and Elation four-way DMX distributors.

Typically, the halftime show has one or two large effects moments. "Our job is always not to distract but to add to the production and not make it seem like it's one big moment. When we search for cues in the music, it has to warrant the effect, and on this show, we were able to provide eight or nine moments within the production," Grega concludes.

Next year, the Super Bowl will be played outdoors at MetLife stadium in East Rutherford, New Jersey, and there's already speculation on how the halftime will be handled there. 

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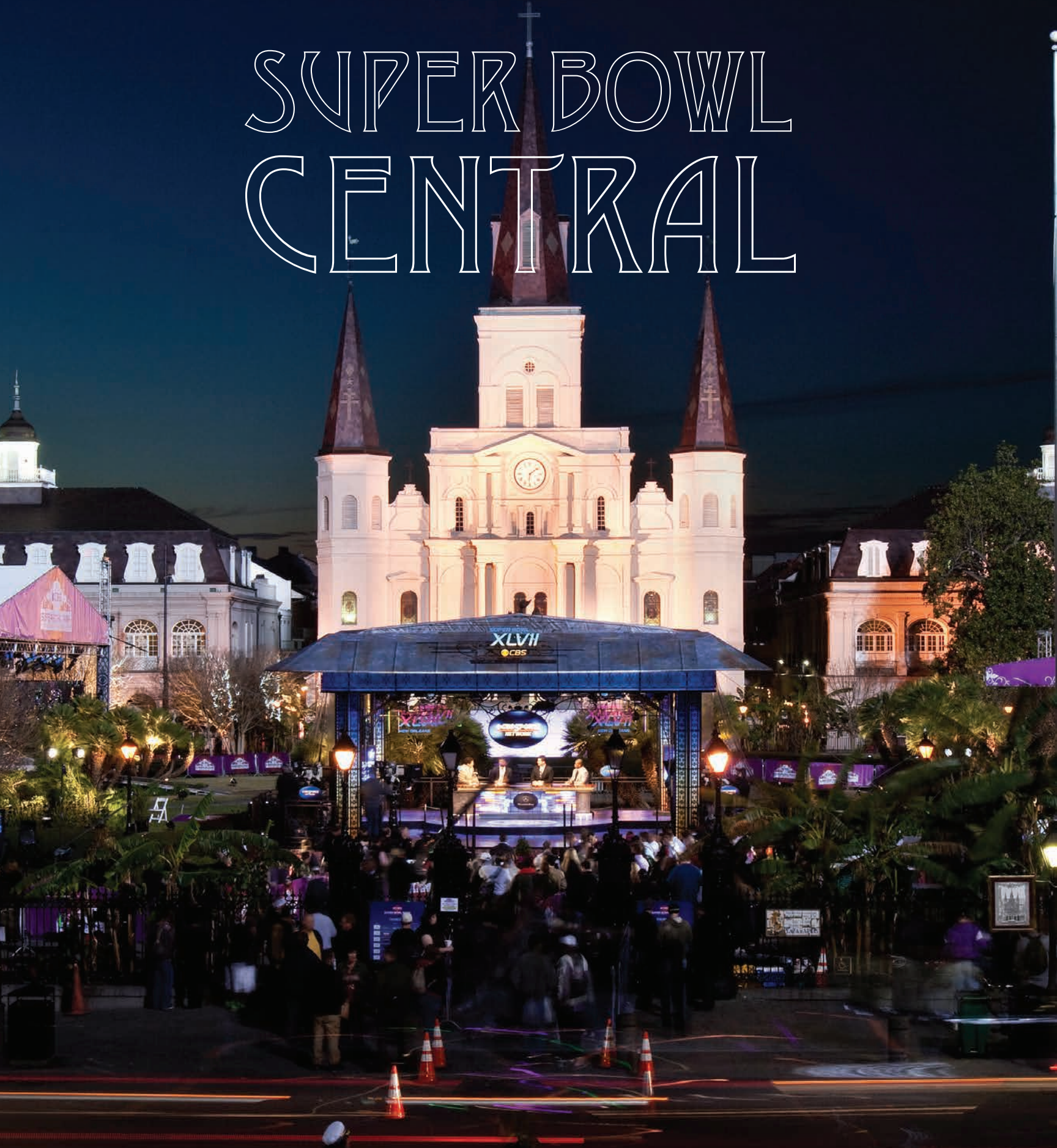
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SUPER BOWL CENTRAL



Inside CBS Super Bowl Park at New Orleans' Jackson Square

By: Sharon Stancavage

During the run up to Super Bowl Week, CBS had a sizeable presence in New Orleans. The network had 40 hours of programming from the city, including entertainment, sports, and news; much of it was broadcast from the French Quarter's historic park, Jackson Square, renamed CBS Super Bowl Park at Jackson Square for the week of the big game. "It's the first time CBS worked all of their departments—news, entertainment, and sports—to have them all in one village sharing a stage. It was unprecedented," explains Gary Solomon Jr., president of Solomon Group, one of the many firms working with CBS on the project.

Solomon Group is based in New Orleans and thus had an insider's perspective. The city, Solomon says, "has such a great rising-phoenix kind of story, and it was important to use that in the design. So we tried to use reclaimed elements where possible. A lot of the material that served as the decks for the desktops or the fasciae was reclaimed wood [sourced locally through the Green Project, a local recycler of building materials] we planed down. It had a really natural element to it, but it also had a sports-television edge to it as well."

A bridge over Decatur

One of the most iconic symbols of the CBS compound at Jackson Square was the decorative, yet utilitarian, cable bridge crossing Decatur Street, designed and fabricated by Solomon Group. "It started as a practical need for passing a ton of transmission cable across the street, and it became this really exciting signature element," Solomon says.

The process was far from simple. "We were in a historic neighborhood, and we wanted to be respectful of it.

So we engaged Rick Fifield, a New Orleans historical perseverance architect and historian, as a consultant," Solomon says. "He looked at what we were doing in terms of design and made suggestions for tweaks to make it more historically relevant. It wasn't a caricature of New Orleans; it was really rooted in the architecture and the real wrought-iron designs that would have been present if they had been built originally in the quarter." The company also found a subtle way of integrating the network's branding into the design; viewers who looked closely could see the familiar CBS eye logo woven into the ironwork patterns.

The cable bridge, which was 60' wide and 32' tall, included what appeared to be a good amount of wrought iron. Jonathan Foucheaux, partner at Solomon Group, says, "The underlying structure of the bridge was an Applied Electronics [of Newport News, Virginia] truss system. In our shop, we built the steel and aluminum structure that clamped onto the Applied structure, which created all the framing the wrought-iron patterns would be mounted to." Inside the framing, the team used a form of high-density PVC known as Sintra. Foucheaux explains, "We used our CNC machines to cut 4' x 8' sheets of it into thousands of pieces of wrought-iron patterns ranging from a few inches square to over 6' x 3'. Once installed into steel or aluminum frames, the entire assembly was treated with a special blend of paint and sand and some other components we created to make it look like aged wrought iron." The cable bridge also contained 800 linear feet of weather-resistant Titan LED T-8 tubes, which were located between the interior gray scrim and faux wrought-iron cutout. That aspect of the project was

handled by lighting designer Bill Brennan. "It made it glow and really come to life," Solomon says.

The entertainment set

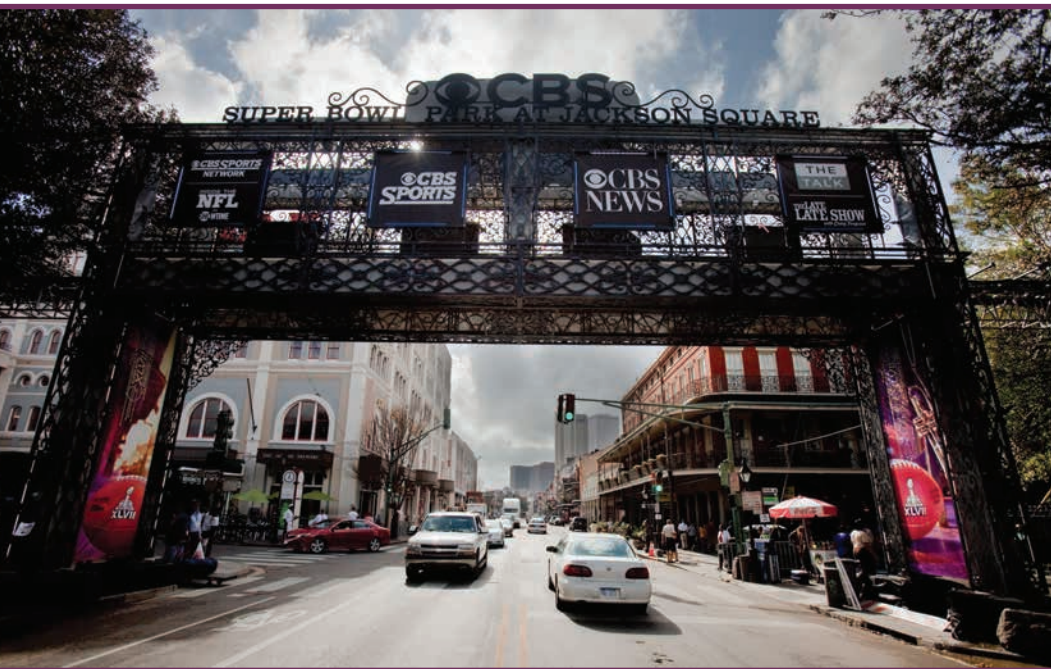
The network also sent its premier talk show, *The Talk*, to New Orleans for the week. The New York-based creative agency 513 designed the set and incorporated Solomon Group's custom CBS wrought-iron look into it.

The entertainment set, which was also used for Craig Ferguson's post-game show, featured seating for 140. Foucheaux says, "The first row of the audience was 3' above the ground due to all the trees and plants and flower beds that we were straddling with everything." Not only were there plants and trees and flowers that had to be preserved but also historic urns, permanent benches, and immovable trash cans. "Unlike a festival in, say, an open field, we had a lot of history to protect and to work around—that became the challenge of this park," explains Solomon.

Deke Hazirjian, of New York City Lites, designed the lighting for the sets. The rig included 12 Philips Vari*Lite VL3500 Spots, 30 Martin Professional MAC Auras, eight ARRI



Wrought-iron work that incorporated the CBS logo.



One of the most iconic symbols of the CBS compound at Jackson Square was this decorative, yet utilitarian, cable bridge crossing Decatur Street, designed and fabricated by Solomon Group, using an underlying structure from Applied Electronics.

2K Fresnels, one Lycian HMI 1.2K followspot, 25 ARRISUN PARs, and ETC Source Four Lekos and PARs. PRG, 4Wall Entertainment, and Cinelease supplied the lights.

The sports set

The sports set, designed and fabricated by Solomon Group, integrated a variety of Mardi Gras elements. “The front of the desk for [talk show host] Jim Rome was internally lit, with color-changing LED tape inside of the wrought iron,” Solomon says. “There was also a shutter element at the center of it that glowed beautifully. Beneath the reclaimed wood top was a bass drum motif inspired by the famed jazz club Preservation Hall. If you do any research on Preservation Hall, even the graphic style of the show cards that went into the center of the drum spoke the same language.

“The sports set is a great example

of what collaboration was like between the different departments of CBS,” he adds. “It really doubled as a lot of things; at one point, Rachael Ray was cooking on top of our desk.”

Hazirjian designed lighting inside the park, employing a package of Philips Vari*Lite VL3500 Spots, Martin Professional Mac Auras, Chroma-Q Studio Force V 12s, Chroma-Q Color Force Compacts, a variety of ARRISUN PARs, and ETC Source Four Lekos and PARs.

The news stage used the same wrought-iron motifs as well as the reclaimed wood. There was also a separate stage, built by New York-based Showman Fabricators, which was used by CBS Sports and also *CBS This Morning*. “All of the design partners worked in a collaborative way,” Solomon says. “The guys from Showman were great. They collaborated with Applied on their structure. They knocked out that set pretty fast, and it looked great,” he says.

The company also had a presence outside of CBS Super Bowl Park at Jackson Square and handled a variety of other projects, including one at Radio Row in the Convention Center and a game day set outside the Superdome. This ambitious

agenda was achieved in relatively harmonious fashion. “I don’t think anyone else has been as respectful as CBS in regards to the neighborhood,” Solomon says. 📶



Much of the material used for the decks of desktops or the fasciae was reclaimed wood sourced locally through the Green Project, a local recycler of building materials.