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The Cher Show:

Broadway's Latest Biomusical

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Memoirs of a Diva

The Cher Show employs
a unified design approach
to explain how
the beat went on

By: David Barbour

Left: The scenic arches from a tunnel-like effect for "If I Could Turn Back Time." Above: The upstage video wall at work.

The latest entry in Broadway's lineup of pop star bios is also one of the most stylish and self-aware: Even the title tells all. *The Cher Show* tracks the gaudy, glittering, wildly up-and-down career of Cherilyn Sarkisian, who, with her distinctive looks and a voice that can move mountains, has been a reigning pop star for the last half-century—and a queen of reinvention long before Madonna began her perpetual makeover plan. Indeed, *The Cher Show* catalogs all the Chers that have been: junior partner in Sonny and Cher, deadpanning her way through "The Beat Goes On;" the Vegas headliner, teamed with Sonny Bono in a comedy and music act, like a hipper Steve and Eydie; the TV star, wisecracking and belting through each episode of *The Sonny & Cher Comedy Hour*; the serious actress, silencing naysayers with her Oscar-winning turn in *Moonstruck*; and the clotheshorse, stopping traffic in one campy Bob Mackie

ensemble after another.

Throughout the musical, Cher, in Rick Elice's book, is the personification of true grit, even when, her film and recording careers short-circuited by illness, she is reduced to hawking hair-care products on a television shopping channel; in the upbeat finale, she comes back yet again, this time as a concert touring queen of the road, spinning new hits in the 21st century. The show is frank about the rise and fall of her marriage to Bono, which was destroyed by his Svengali tendencies; it also touches on her times with Gregg Allman, who wooed her, then vanished in a haze of cocaine dust, and Rob Camilletti, the baker and sometime actor who opted out of life in the paparazzi's glare.

In the show, Cher has three incarnations—Babe, Lady, and Star—each of whom represents a distinct stage of her career. In Chicago, where the musical tried out last sum-

Photos: Joan Marcus

The designers pored over episodes of various 1970s television variety shows for inspiration. Above: The video wall forms a backdrop to Sonny and Cher's career-making appearance on the British show *Top of the Pops.*

mer, it was structured as the TV-variety-show version of the star's life, with book scenes functioning as comedy sketches; a script overhaul resulted in a looser, more free-wheeling approach. The entertainment at the Neil Simon Theatre is best described as the variety show in Cher's mind.

The Cher Show was a tricky project for its design team, for any number of reasons. The solution was an unusually unified approach, in which the contributions of the scenery, lighting, and sound departments are not easily separated; in addition, the sound design strove to reflect a concert touring patina but with a Broadway vocabulary. Together, they make *The Cher Show* into quite a show.

The Broadway variety show

The first thing that the visual design team—Christine Jones and Brett J. Banakis (scenery), Kevin Adams (lighting), and Darrel Maloney (video)—did was turn to YouTube, immersing themselves in episodes of *The Sonny and Cher Comedy Hour* (naturally), along with *The Carol Burnett Show*, *The Flip Wilson Show*, *The Brady Bunch Hour*, and *Donny & Marie*. "It was astonishing what some of those shows did," Jones says. "Many of them were cutting-edge

for the time, with incredible guest stars, like David Bowie." Adams says, "As the decade progressed, they got more visually layered and over the top. By the '80s, they just layered the glitter and sparkle and mirrors and other reflective surfaces. It was really fun, jaw-dropping at times."

Banakis adds that this video research was useful in more than one way: "The goal was to do a sparkly, jewel-tone world that feels like a blend of scenery, lighting, and video. Those shows also had a lot of dopey, static '70s-style scenery and we didn't want to get into that. The original version [of *The Cher Show*] had much more sketch-comedy stuff and a couple of dedicated sets. We, as a design team, weren't pushing that; we were trying to give it a more cohesive approach."

Jones adds, "Thanks to Darrel, we also looked at *American Idol* sets, which need to accommodate so many different performers. We searched for something that could be a basic framework throughout the evening. In no version was it a variety show of the 1960s or '70s. It was always one of today, which can go back in time to certain moments." The one remnant of the old format is the scene where Cher meets Allman, staged like a Wild West spoof.

Everyone interviewed for this piece also raises the same

concern: "We knew that with Bob Mackie designing the costumes it would be a parade of styles," Banakis says. "We knew we would have to allow for quick changes and for the clothes to shine in front of the scenery. It required a set that could go away if needed, and that wasn't in conflict with the clothes."

The solution came in the form of a set of scenic elements, fitted with lighting and video capability, that could be used in various contexts. These include a pair of curved walls, each featuring five flippers with faceted mirrors on one side and arrays of Ayrton IntelliPix-Rs on the other; these semi-transparent modular beam projection panels serve as light sources and also take video feeds. The edges of the flippers are lined with LED tape, as are the porthole-style circles arrayed above the flippers. The walls are fitted with curtains that, when deployed, can act as projection screens. Located upstage of the flipper walls is a video wall consisting of ROE Visual Hybrid 18mm panels with integrated LED spotlights.

This basic arrangement covers a multitude of moments. With one flipper wall placed upstage of the other, they form the set of *Top of the Pops*, the British television show where Sonny and Cher first scored a hit. In another arrangement, they suggest the recording studio where Cher sang backup on a number of hit songs; for a recording session, the flippers open, revealing an upstage band. During

Gregg Allman (played by Matthew Hydzik) first appears in a sketch set in a saloon done entirely in white.

Costume designer Bob Mackie (played by Michael Barresse) is a character in the show.

a sequence depicting Sonny and Cher's rise in Las Vegas, the upstage wall and IntelliPix-Rs (located at stages left and right) alternate one-arm bandit imagery with the logos of such hotel/casinos as the Flamingo, Sahara, and Caesars Palace. (The iconic Las Vegas sign sneaks in there, too.)
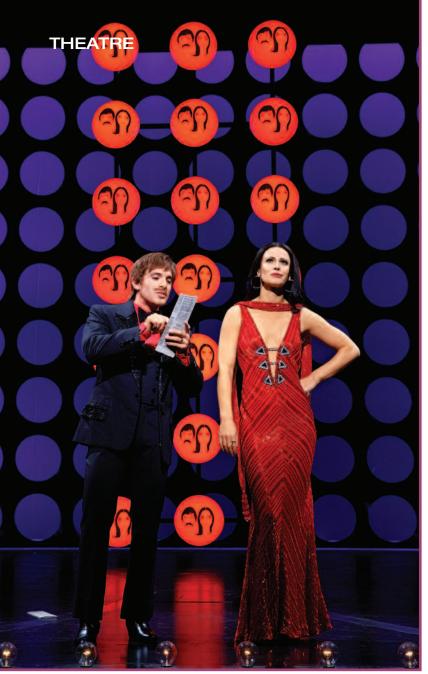
Noting the flexibility of this strategy, Jones says, "We were pretty clear that we wanted to go into concert mode, matching the level of spectacle and sparkle that Cher has in her concerts. But we also had to be able to do a scene in, say, her closet." At the same, she adds, "The crossover between design disciplines is becoming more blended in some of these moments. It puts a greater onus on the designers: Who is leading and who is following? The answer changes from scene to scene and moment to moment." The integration of disciplines is obvious in the preshow look. The metallic proscenium arch is lined in tiny lights and features portholes for Adams' lighting units to shoot through. A large disc hangs in place, serving as a show curtain of sorts, in front of a black drop. Projected on the disc is the show's logo, which changes colors every few seconds; as the show begins, the logo splits into three.

This kind of integration was possible in part because Jones and Banakis frequently work together as a team, and Adams and Maloney are regular collaborators. For example, Adams says, "About a year before we were in Chicago, Jason, Brett, Christine and I spent hours in meetings, sifting through early drafts of the script and discussing the basic storytelling elements. We didn't get around to talking about what the show could look like for some time. We all agreed that every element would have some kind of sparkle or reflective element to it. This is why the two large moving walls are covered on one side in faceted mirrors and on the other by Ayrton light panels. We did a series of tests, looking at these panels; and, finally, ended up diffusing them somewhat, as the beams were narrow and blindingly bright in their original form."

Other scenic elements add detail to certain book scenes. An early sequence set during Cher's California childhood employs a backdrop depicting a Chinese-style arch, and a number of waist-high rolling palm trees. The arch assumes greater prominence in the following scene, depicting a trip to the movies with Cher's mother and stepfather. The flipper walls' curtains come in, and palm trees

Above: The cut drop, built by Rose Brand, and the array of globes featuring the logo of *The Sonny and Cher Comedy Hour*. Hudson Scenic Studio built and automated the scenery.

are projected on them; the words "Grauman's Chinese Theatre" are projected on the arch. In the Gregg Allman wild-west scene, the curtains, which are on a closed loop, travel to the back of the flipper walls, revealing their reverse sides, which are white, which match the all-white saloon furnishings. And, says Banakis, "The mirrors on the flipper walls reflect the curtains, making it all look even more white." He adds, "The idea for the curtains came from Jeffrey Seller [one of the show's lead producers], who was rightfully worried that seeing mirrors and lights all night long might prove fatiguing."

Also featured is a series of scenic arcs, lined with light bulbs, which are seen at several points, including the opening when they form a tunnel effect for "Turn Back

Time." Three arches, turned 90°, fly in during the finale to form a large "C." For scenes on the set of *The Sonny and Cher Comedy Hou*r, a matrix of orange, internally illuminated, globes flies in, each embossed with the show's logo.

Not everything is meant to glitter. A sequence set to "Ain't Nobody's Business" in Bob Mackie's costume studio, outlining Cher's increasingly outrageous fashion sense and Bob's influence in advancing her body-forward image, is set around a series of costume racks containing a rainbow-colored array of clothes. Other scenes benefit from a simpler approach: Her Broadway audition for the director Robert Altman is done in front of a black backdrop, and the climactic three-way confab, in which all three Chers debate the wisdom of retirement, downplays scenery for a fairly stark lighting look—an appropriate palate cleanser for the finale, a disco remix of "Believe," "Strong Enough," "Woman's World," and "You Haven't Seen the Last of Me," all featuring appropriately Cher-tastic lighting and video effects.

Hudson Scenic Studio built and automated the scenery (including a lift at downstage center), which features soft goods supplied by Rose Brand. Tom Sullivan, senior project manager at Rose Brand, recalls that Jones and Banakis "had a design concept that required a fabric they could project on, but they wanted something with a sparkly texture. Neil Mazzella [co-founder and CEO of Hudson Scenic Studio, also the production's technical supervisor] invited me to join them to review samples of materials." He cites three disc-shaped elements: "Rose Brand provided a dozen samples so the design team could experiment with light and projection in the studio. The potential choices were all narrow fabrics, so the samples were prepared with seams, to show how they would appear." "Out of town, [these surfaces] looked a little washed out," says Banakis, "so we put a bobbinette over it [for the Broadway run]."

Chuck Adomanis, senior engineer at Hudson Scenic, adds, "We and Rose Brand went through different rounds to get the right surfaces. Brett and Christine didn't want traditional projection screen surfaces but, at the same time, there are many moments when they needed to have crisp looking live video projection. "

Sullivan adds, "Rose Brand worked with the shop to define a construction technique that would address the behavior of the fabric. Some pieces are quite large and the fabric they selected, White/Silver Domino, is an open weave synthetic with polyester and metallic threads. It's quite pliable and stretchy, even though there is no elastic in it. It's important to attach the fabric to a frame, with a method that allows for that stretch. In this case, the fabric covers were sized to wrap around the frame and attach to the back, so the edge, as seen from the front is smooth and free of puckers and sewing finishes."

Sullivan says, "The other large piece we worked on with Hudson is the 'cut drop,' a full stage drop about 47' wide

Photos: Joan Marcus

Adams deftly layers saturated colors onto "Dark Lady," which features a rousing dance sequence.

x 31' high with a regular rectangular array of 22" diameter holes over the entire area. Hudson chose to have this built as a drop. We used a synthetic fabric called Encore, which is stable and can be cut cleanly and left unfinished without fraying. We used a precision-cut laser technology to cut the hole pattern in the individual pulls of fabric and assembled the pulls to create the full array of holes. This drop hangs downstage of a bounce drop, which can be lit in a variety of ways, so the appearance of the hole pattern can be varied."

Rose Brand also supplied the flipper wall curtains, which are made from a glittery material named Black/Silver Domino backed with a white Rose Brand material called Tendo.

Speaking of Hudson Scenic, Banakis says, "Neil Mazzella is a long-term friend of Christine and myself. He has a way of supporting what the designers are really after. I appreciate this way of cutting through things. He asks us, 'What are you really trying to do here?' And then he tries to make that happen."

Expanding on this point, Adomanis says, "Christine and Brett knew they wanted big moving walls and felt they should have different rotating elements. We did early studies for them of wall geometries: Could they pivot, or did they need to pivot and track? We also worked on the geometry of the spinning panels. We had a collaborative process, working through the different parts and pieces. Obviously, we had to get the projection and lighting folks all dialed into it. We did most of that overall coordination between video and lighting and scenery and lighting; we

There is very little scenery in *The Cher Show* that does not have lighting built in; even the upstage ROE Visual Hybrid panels have LED spotlights integrated into them.

also have sound gear on the flipper walls. Everyone was involved in figuring where to put their gear and how to get wires to it. We were able to short-circuit many rounds of everything going around and around for approvals."

Just as the design disciplines work together, so do their control systems. "Automation is linked to video," Adomanis says. "We do a lot of mapped video on scenery. Using the PosiStageNet protocol, we send out position data to the video department, using it to do the mapping of various scenic elements. Video and lighting are tied together, and there is a lot of tie-in between them and the audio department, to keep everything in synch.

Such is the flexibility of the scenic-lighting-video concept that it could bear the extensive revisions and shift in concept that *The Cher Show* underwent. "You could strip it away and still have that essential quality of the show coming from her kaleidoscopic mind," Jones says. "The design could accommodate a different approach."

Video

The Cher Show's original television show concept would seem to mandate the use of video, and, Maloney adds, "Cher is known for having a strong media presence at her concerts," making such an element even more crucial. In fact, video is so pervasive in the show at the Neil Simon that, he says, "One of the trickiest things was the number of surfaces that take video and how different they all are. We have front projection on various surfaces; the upstage LED wall; and the flipper walls, especially, the IntelliPix-Rs, which take video." As you can guess, the resolutions vary wildly. "The upstage wall is 15mm, which is medium resolution, but working with the Ayrton gear is like working with a Lite-Brite. Basically, every surface is another resolution.

"The upstage wall has a black RP and a white RP that fly in front of it, which can change the way images look. We tested all sorts of fabrics, which gave us all sorts of variables in terms of the look. I had a section of the back wall in my office, which we used to test different RPs."

In a sequence depicting the rise of Sonny and Cher as Vegas stars, content is delivered to the upstage video wall and Ayrton IntelliPix-Rs on the walls at left and right.

Banakis adds, "We had a lot of back and forth with Darrel about which products would work best. The [IntelliPix-R] is really a moving light product; it is extremely bright and narrow, and meant to be really beamy. We used it in such a specific way. We tried different ways to make it punchy at its brightest and delicate at its softest. It was exciting to work with. It had that chunky Lite-Brite quality that feels sophisticated in some cases."

Maloney adds that he worked closely with Banakis and Jones on graphic effects that could be front-projected, seen on the video wall, and sent through the IntelliPix-Rs. "There's a lot of stuff in the Mackie sequence, mostly drawings with graphic shapes. I would give Brett and Christine a template, little circles, for example, or swirls of lights." The number "Dark Lady," which features an extended dance break, also makes use of a crescent moon image on the upstage video wall.

However, a great deal of Maloney's design involves live video. The opening features IMAG of the company per-

forming "Turn Back Time." The *Top of the Pops* and *Sonny and Cher Comedy Hour* sequences feature live video, treated like black-and-white videotape footage, projected on the previously mentioned discs. Other such moments include the shooting of video for "I Found Someone," featuring Camilletti, and an interview with a reporter from *Entertainment Tonight*.

"With live video, there's always a lot that can go wrong," Maloney says. "It's always an interesting process. We have three wireless cameras onstage—two that come in on gimbals, one that looks like an old-fashioned studio TV camera, two at the front of house. Originally, [Jason Moore, the show's director] talked about using Steadicams, but you need to train on them for years. We looked at these new camera gimbals, which are very intuitive once you get them up and running. They offer the best chance for actors to use repeatedly every night and they work pretty well." He adds that working with wireless gear poses challenges: "You have to tune the system and

Most of the time, the cast members are fitted with head mics, but the remix finale calls for handhelds.

find the right channel. The wireless mics in the show aren't an issue but once you add an audience, with all their phones, it can be tricky. At first, we were having trouble finding a channel, but we did a firmware update that does the job."

Video imagery is delivered using one disguise (formerly D3 Technologies) gx 1 and three disguise 2x4pro media servers; also employed is Notch, the real-time workflow for production of video content and live visual effects. Other gear includes four Epson Pro L25000U WUXGA laser projectors. Live video is delivered using three Panasonic AW-HE130 full-HD PTZ cameras, two Panasonic AW-RP50N PTZ camera controllers, and one Canon XA35 professional camcorder. (The gear was supplied by WorldStage.) In terms of control, Maloney says, "Both the lighting and video departments get time code from the sound department, and we also get cues from the lighting console. The IntelliPix-Rs are controlled via DMX. The disguise's DMX acts as an interface to let lighting program the spotlights on the Roe Hybrid 18mm units and also translates cues to video."

Lars Pederson, vice-president, innovation and technical solutions, New York, at WorldStage, says, "WorldStage was tasked with providing a solution to a problem that was evidenced by unstable video playback on two banks of digital fixtures [the Intellipix-Rs]. Symptoms included tearing and lagging imagery across the fixture banks. Control to the fixtures was accomplished via Art-Net protocol, delivered from a disguise media server system as well as an industry-standard lighting console. Forty Art-Net universes per source were used to control the various features of the digital lights. The issue was traced back to the inability of the fixtures to reliably handle the amount of data that was being broadcast to each of the fixtures.

"WorldStage implemented a software solution, built upon Waltz, that merged and parsed the Art-Net data from the disguise servers and lighting console. Waltz is our proprietary show control platform that is extremely flexible and diverse in terms of its capabilities and features. In this case, the software was programmed to support Art-Net input and output and deliver the data in smaller chunks that were relevant only to those fixtures that needed that data. In other words, rather than all fixtures receiving all data, the software analyzed, deconstructed, and repackaged the data so each fixture only saw the information it needed to see. The successful solution took one day to implement once the problem was identified."

Another big challenge for Maloney was the addition of much additional content between Chicago and New York. "The entire Las Vegas section is new," he says. "The end of Act II is all-new. From the middle of Act II to the finale, there is a lot of new content. Also, I had to rethink the distances for the Neil Simon," which is rather more intimate than the Oriental Theatre, home of the tryout. "The biggest

challenge was working with all those surfaces," he adds. "Everything was so integrated that there is so much going on at so many different times."

Banakis adds, "One of the biggest challenges was how we put so many eggs in the basket of the different walls and surfaces. We were ceding so much of our control as set designers to video and lighting. We all had to work together. I'd be thinking of an image for the sidewalls and Darrel would think of something else; there was a lot of back and forth about content. It was a different process than normal, when you can compartmentalize a little bit more. There were times when we weren't happy with what we had onstage, but we didn't know what to do; so many options were available that it was limiting. I think we're all pleased that we designed something that isn't all high-resolution surfaces. But sometimes it's challenging to have as much flexibility as we did."

Lighting

Adams has a knack for designs with a pop art sensibility in terms of colors, patterns, and cueing, all of which are put to good use here, providing all the concert-touring flash needed for the big production numbers. "I started the plot with an overhead grid of [Philips Vari-Lite] VL3500 wash units, which I love, and then filled in with [Martin by Harman] MAC Viper Profiles," he says. "We wanted a concert unit that could create a different kind of detail texture that would allow me to get more specific. PRG [the show's lighting gear supplier] has the [Claypaky] Mythos [hybrid unit], which we used to wrap the proscenium; we also put them on a couple of electrics upstage. Benny Kirkham [the production's automated lighting programmer] has programmed pop and rock shows for decades; he calls this kind of lighting 'Diva Pop,' and it defined what the numbers would look like."

Because of the relatively open set design, Adams notes, "I sometimes have nothing to light but the floor, the air, and the costumes, so the air is especially important. The Mythos units are more detailed and specific in what they can do; they are especially helpful in creating the Diva Pop look, which is very specific. It's not in-your-face rock-and-roll. It's a different kind of style that, to me, is a series of heroic beam-in-the-air gestures. They make formations, then sweep together and out into the audience."

Also, Adams says, "I knew, early on, that I wanted a few things in the proscenium: a line of incandescent clear light bulbs; a line of LED multi-color tape; blinders that would have some kind of circular shape; and moving lights. The light bulbs are clear, round globes that were a staple of '70s-era variety shows; they also run across the front of the stage and across some of the scenery. The contemporary four-color LED tape is uncovered and is similar to the vertical lines found in the flipper walls. The blinders are individually controlled LED Martin Rush PAR 2 Zooms,

revealed through round holes in the proscenium. These elements can be used by themselves, or together, to create redundant frames of light around the proscenium, as well as different scales of spectacle."

The Mythos is not typically seen on Broadway and neither is the Chauvet DJ Intimidator, which is also featured in the rig. Because of the new, turbocharged remix finale, Adams felt that something new was needed, but most of his budget had been allocated. "We added two vertical trusses that fly in for the finale, which are fitted with moving lights," he says. "I couldn't add to my weekly rental, but I was able to purchase 26 Intimidators, which weren't that expensive." They supply the extra sizzle needed.

"Other than all the LED on the scenery, there wasn't a big LED lighting component to the show," Adams says. "We originally had a layer of [TMB] Solaris Flares that we had to cut for budget, but I have a couple all the way down left and right, hidden low in the proscenium; they make great low single-source washes for the entire stage. After working with all-LED Lekos in *SpongeBob [SquarePants*, his previous Broadway musical], I returned to [Wybron Coloram-IT] scrollers and Source Fours as frontlight and sidelight on the onstage ladders. I have a layer of tall vertical mini-strip booms, offstage and upstage, that are mostly used as scenery and are reflected in the spinning mirrors. Because of all the curved, actor-moved scenery, we have no low sidelight at all. It made lighting all the large dance numbers really tough, but even if we had the units hung, the flipper walls would have blocked them. It was definitely a challenge lighting the large ensemble numbers with no low sidelight."

Of course, Adams was also in on the choice of the IntelliPix-Rs. "They Ayrton product looks the best when it isn't being used; it has more character than a pure video screen," he says. "Also, it's really bright. It's also heavy. Neil Mazzella originally told us that they were too heavy to use, but, a week or two later, he said, 'Let's give them a try'."

Adams says the lighting and projections came together easily. "In Chicago, I would lay in palettes and general ideas," he says. "Darrel would produce a piece of content that was more than what I had made, but with a similar motion and palette. The thing that took forever to tech was the live video; we lit it for the camera over and over, and it was a slow, complicated process. Benny was a big help, as this isn't something I typically do."

In addition to the gear already mentioned, the lighting rig also features Altman Lighting Scoops, ARRI Fresnels, GAM StarStrobes, Lycian 1293 followspots, Philips Color Kinetics ColorBlazes, MDG Atmosphere hazers, Le Maitre Radiance hazers, a Look Solutions Power-Tiny (used in the "I Found Someone" sequence), RSC Lightlock stabilizers, City Theatrical SHoW DMX wireless lighting control, ETC Sensor dimmers, Motion Labs power distribution racks,

One of the circle drops, designed to serve as a projection surface.

Pathway Connectivity Pathport Octo DMX Gateways and VIA 10 Gigabit switches, and—how could it be otherwise?—two 30" mirror balls. Lighting is controlled by two MA Lighting grandMA full-size consoles. (All told, Adams says, the production requires 7,432 fixtures and 3,608 cues.) Lighting gear was supplied by PRG.

"I like how extreme the vocabulary of light is in the show," Adams says. "There are a lot of tonally somber scenes about marriage and career and most of these are illuminated with a single unit or two, usually a VL3500 Wash, and they float in inky blackness. The dark scenes are, I think, surprisingly dark, and not what the audience is expecting. At the other end of the spectrum is a show that is extremely bright, big and aggressively pushing toward the audience with layers of sparkle and illuminated surfaces."

Audio
Interestingly, despite a resume that includes nearly 50 Broadway shows, the sound designer, Nevin Steinberg, notes that *The Cher Show* represents only his second pop-catalog musical. (The other is *Tina,* about Tina Turner, which opened in the West End last year and comes to Broadway in the fall.) "It was definitely a learning experi-

ence," he says. "It was exciting to see what it was like to approach a musical that tells its story using existing songs. We're still in the world of Broadway musicals, but I was also asked to deliver a concert-type experience, and, of course, that affected my gear choices. There was also a big difference between Chicago and New York, when the extended dance remix was added at the end."

No matter what style of music is employed, however, Steinberg says, "My job is to manage the show's dynamic range—when do you want to draw the audience in and isolate a performer, and when do you want to blow the doors of the theatre? All shows require this examination. The lesson of doing *Cher* and *Tina* is that, often, rather than trying to deliver the [full concert experience], we're trying to deliver its spirit. To me, that's an interesting distinction."

The Neil Simon Theatre, Steinberg notes, "is a great venue, although my only other experience there was doing *Elaine Stritch: At Liberty*," a show that couldn't be more different than *The Cher Show*. His choice of loudspeakers, he adds, "is more a response to the venue than anything else. It's a pretty tidy system, not extravagant, and yet it delivers a lot of bang for the buck." This was an especially important feature, he notes: "It is as shiny a Broadway

Abstract video content combines with the silhouette of an Oscar statuette in a sequence depicting Cher's rising film career.

show as you're likely to see. I and my team were required to deliver an experience that lives up to the visual experience. At the same time, I put stock in the humanity of the performers and musicians. That's the core of the game."

Steinberg's basic layout features an extensive array of loudspeakers from d&b audiotechnik, including Y8 and Y12 line arrays; Y7P, V7P E4, and E5 point-source boxes, and, for low end, J-SUBs. Also used are K-array KAN 200+ units on the curved walls, Alcons Audio VR8 and SR9 monitors, and, for the surround, EAW JF80zs.

What with all three stars (Stephanie J. Block, Teal Wicks, and Micaela Diamond) popping in and out of a variety of outrageous costumes and wigs—which is also true of Jarrod Spector, who plays Sonny, and such members of the supporting cast as Michael Berresse, who undergoes a series of total transformations while playing the likes of Mackie and Robert Altman—Steinberg notes that mic placement became a major concern early on. Fortunately, he adds, Mackie and his costume design team were true

collaborators. "We had a close working relationship, because we had to," Steinberg says. "I was very star-struck when Mr. Mackie came into the room; luckily, he is a delight. Also, my staff is so good at solving such problems, working with the backstage crew." (This is, of course, the only musical ever in which a member of the design team is also a featured character.)

The key, Steinberg says, is to "track it all out early, and make a plan. But, as things develop, you have to be able to pivot. There are tons of wigs on all the performers." In some cases, big hair proved to be helpful: "We have two transmitters in each of our Cher wigs." (Charles G. LaPointe is the hair designer.) The performers are fitted out with DPA 4061 and 6061 lavalier mics, using a combination of Shure ADX1M and Sennheiser SK 5212 body-pack transmitters and Shure AD4Q and Sennheiser EM-3732-II receivers. In certain instances, including the final remix, Shure AD2/KSM9 handheld transmitters are used, as well. The orchestra is fitted out with a range of mics from Shure,

Audix, Beyerdynamic, DPA, and Radial Engineering.

The sound is controlled using a DiGiCo SD7T, the optimized-for-theatre version of the SD7. "There's a lot of synchronization with lighting and video," he notes. "It involves receiving time code from the orchestra pit, which drives many projection and lighting cues. The console passes along much of that information, distributing it to different departments. QLab [which plays back the production's sound effects] can also pick up this data." (Audio gear was supplied by PRG.)

The WavesLive plug-in provides the necessary audio processing, which is important to solving one of the show's major challenges, which Steinberg calls the "time-travel aspect, the idea that we're listening to music ranging over decades. It involves applying to a scene a vintage, either through reverb or EQ or the way the mix is set up for a song. Some moments are very presentational, like when Sonny and Cher are speaking to the audience in a Vegas showroom or Cher is auditioning in a Broadway theatre. The challenge involves doing this in a subtle way. Waves does most of it but sometimes we achieve it through the console."

Other key personnel on *The Cher Show* include Mary Hamrick Williamson (associate set designer), Paul Toben (associate lighting designer), Jason Crystal (associate sound designer), Matthew Young (video programmer), Todd Frank (production/head carpenter), Gregory Husinko (production electrician), Shaina Graboyes (advance carpenter/automation), Brian Messina (head electrician/board operator), Kim Caldwell (deck electrician/video engineer), Brian Dawson (followspot operator/moving light technician), Michael Wojchik (production sound), Jake Scudder (head sound engineer), Bobby Hentze (assistant carpenter), A Ram Kin (assistant set designer), Timothy Reed (assistant lighting designer), Connor Wang (assistant sound designer), Scott Silvian and Duane McKee (deck sound), Denise J. Grillo (production props supervisor), Diana Rebholz (head props), and Peter Grimes (assistant props).

Even as *The Cher Show* has settled in at the Neil Simon, Cher herself is still hard at work, combining touring with a Vegas residency. As the musical makes clear, her gift for survival is remarkable. As one of her more recent songs, heard in the finale, notes, "You Haven't Seen the Last of Me." 🔊