

Declaration of Independence

Hamilton rewrites the rules of musical theatre

By: David Barbour





This page and opposite: The young, multicultural cast of *Hamilton* gives a contemporary spin to the story of the founding of America.

The rumbling emanating from the Public Theater this spring was the sound of an earthquake in the form of the new musical *Hamilton*. Based on Ron Chernow's biography of American founding father Alexander Hamilton, the show was a hit even before the rave reviews started pouring in. Since its move to Broadway's Richard Rodgers Theatre in late July, it has become a national phenomenon, as confirmed by the attendance of President Obama, First Lady Michelle Obama, Vice President Joe Biden, and Secretary of the Treasury Jacob Lew, as well as several of his predecessors. It's not insignificant that *Hamilton* premiered at the Public's Newman Theatre, where *A Chorus Line* started out in 1975; not since that groundbreaking smash has a musical been so justly acclaimed both for its stylistic innovations and its ability to penetrate the public mind.

All of this for a hip-hop musical about the birth pangs of America, the writing of the US Constitution, and the creation of our national system of finance. Sounds crazy, no? Although there is a certain precedent in terms of the subject matter in Sherman Edwards and Peter Stone's *1776*—a groundbreaking hit of the 1968-69 season—*Hamilton*'s combination of hip-hop music and early American history sounded like a classic mismatch. Furthermore, in covering the whole of its title character's adult life, the show breaks a cardinal rule of biographical drama.

But what initially seemed strange about *Hamilton* is, in the end, the key to its success: Lin-Manuel Miranda, the show's librettist-composer, will go down in theatre history as the man who noticed that hip-hop—specifically, its subgenre, rap—is the contemporary pop style most suited to musical theatre, thanks to its unmatched ability at conveying information via lyrics. In *Hamilton*, Miranda, a gifted rapper with a broad knowledge of musical theatre history, has managed a stunning stylistic coup: Borrowing the through-composed musical structure popularized in *Evita* and *Les Misérables* and infusing it with a distinctive, densely layered blend of hip-hop, funk, jazz, and Britpop, he captures the broad sweep of Hamilton's life and sets it

against a tumultuous background of revolution, war, political infighting, and scandal.

The show establishes *Hamilton* as the first significant American immigrant, escaping a sordid, poverty-ridden youth in St. Croix and arriving in New York, where he quickly makes his mark as a law student with a taste for fierce debate. A brilliant writer and a gifted administrator, he becomes right-hand man to George Washington during the darkest days of the Revolutionary War. After the British are defeated and Washington becomes president, Hamilton becomes secretary of the treasury and begins the work of establishing a national bank and currency. But his rapid rise to power, combined with his arrogance and unwillingness to surrender an argument, makes him many enemies; he also possesses a vision of a strong central government that alienates many in the agrarian southern states. Ultimately, he is brought down by a series of scandals and tragedies, climaxing with his fatal duel with Aaron Burr.

The use of rap is central to *Hamilton*'s ability to dramatize such an eventful life. Chernow told the *New York Times* that, in the first number alone, Miranda "had accurately condensed the first 40 pages of my book into a four-minute song." He's right: You only have to hear the first four lines of the show ("How does a bastard, orphan, son of a whore, and a Scotsman, dropped in the middle of a forgotten/spot in the Caribbean by Providence, impoverished, in squalor/Grow up to be a hero and a scholar?") to realize that something entirely new is afoot. Miranda's lyrics explore the characters' complexities, encapsulate opposing political points of view, and deftly condense key historical events. Nervous audience members—especially the largely middle-aged and white contingent who frequent Broadway shows—who may have preconceptions about rap are in for a big surprise: *Hamilton* is arguably the most learned of recent Broadway musicals.

In addition, *Hamilton* is a teeming canvas filled with memorable characters: Thomas Jefferson and James Madison, Hamilton's ideological enemies; Eliza Schuyler,



Binkley makes good use of sidelight positions to carve the cast out of the set.

his fiercely devoted wife, and Angelica, her witty, worldly sister, who may have been the real love of Hamilton's life; Washington, the adult in the room when the young country is riven by rancorous political debates; a distinctly put-out King George III, who, on the sidelines, observes the new country's growing pains with no small amount of *schadenfreude*, and, most of all, the cynical, slyly ambitious Burr, his silken, evasive manner standing in contrast to Hamilton's almost compulsive honesty. Throughout the musical, they cross paths and trade barbs, Burr's envy of Hamilton growing until their fateful, fatal meeting on the New Jersey side of the Hudson River.

The extra bit of invention in Thomas Kail's production, which features restless, nonstop choreography by Andy Blankenbuehler, is that, in keeping with the show's highly contemporary music and language, the cast is both young and highly multicultural. This is American history in a kind of feedback loop—the founding of a nation, presented by a company very much representative of today's America, told in a way that reveals that the issues that drive and divide the nation today were present at its birth.

Kail's production also achieves a rare seamlessness, with all the creative elements blending together so naturally that the production's complexity may not be apparent at first glance. Writing in 1975 about the similar qualities of *A Chorus Line*, the critic Walter Kerr wrote, "A simple falling into place took my breath away." You very well might find yourself feeling exactly that way at *Hamilton*.

Scenery

The challenge facing set designer David Korins involved creating a suitable environment for an 18th-century story with a 21st-century sensibility, which unfolds across

several decades and dozens of locations. "We started with a lot of research," Korins says. "We knew we couldn't fully render every single location onstage, from Washington's tent to the Schuyler home to the Continental Congress. We had to be able to transition from one place to the next in just a beat." The trick, he quickly realized, was to "put as little scenery on stage as possible, but with enough detail to flesh out" each scene.

In addition, Korins says, "We talked about using a bigger theatrical metaphor, perhaps something more 21st century—but, between the casting choices and the way Lin wrote the show, it's already very modern. Instead, we ended up with a kind of tapestry of early American architecture." Noting that most of the carpenters of the era also worked as shipbuilders, the designer created a two-level wooden structure with scaffolds, two sets of stairs (plus a movable staircase unit), and various ropes deployed in block-and-tackle arrangements: "It's all shipbuilding methodology," the designer says; you could say the set is, in a most apt metaphor, a construction site for the ship of state. The structure is placed against a surround of brick wall; for all one knows, one might be looking at the actual back wall of the Richard Rodgers, but Korins confirms that it is specific to this production.

"The idea [of the design] that isn't overtly obvious," Korins adds, is that "this story isn't about the people who built the country; it's about the people who built the scaffold on which the country was built." He adds that the set changes subtly between acts. "There's a back wall and, in front of it, another, halfway-built wall, which grows about 8' between the acts to suggest the progress in the building of the country."

The turntable at stage center is so crucial to Kail's staging

and Blankenbuehler's choreography that one easily imagines that it was there from day one. However, Korins confirms that it "was a relatively last-minute addition at the Public." When interviewed for the job of designing *Hamilton*, the designer says, "I couldn't help thinking that there is a cyclical, swirling motion to the show. Halfway through our process at the Public, my associate designer, Rod Lemmond, and I went back to my early sketches, and one of them had a turntable. Rod said, 'We should look at this again'."

By this point, however, the show was already being staged. Korins floated the idea to Kail and Blankenbuehler, who asked for suggestions of moments in the show where a turntable might work. "I drew a bunch of different ideas," Korins says, including the climactic duel, which features a line of cast members moving in formation, like the hand of a clock. The director and choreographer then took two days of rehearsals to work with the turntable concept.

of men at war. It proves especially useful in the complex sequence in which Hamilton meets Eliza, jumps ahead to their engagement and wedding, and "rewinds" to show how Angelica, for calculating reasons of her own, brought her sister to Hamilton's attention.

Otherwise, there are few moving parts to the set, among them a rolling staircase unit. The use of props is kept to a relative minimum. "The writing is so good, you don't need much," says Korins. "In the battlefield, we have guns and nothing else. For the White House, all you need is Washington's desk, a pair of shot glasses, and a bottle of whiskey. A chandelier flies in for the tavern scenes." Also, Lampposts appear on the turntable for scenes set in the streets of New York.

One of the more decorated scenes is the "winter ball," where Hamilton and Eliza meet (and which includes the wedding and aforementioned "rewind"). "The party is thrown



Binkley creates a number of multi-layered looks for different sequences.



Four of the principals on the turntable at the center of Korins' set.

"Andy had staged a lot of dances using cyclical movement," Korins says. "We put a dance on the turntable—and it didn't work as well as we had hoped it would. There is so much movement that, combined with the revolving of the turntable, you couldn't register it all. I said to Andy, 'Try having every other performer stand still'—and it was a breakthrough moment."

Indeed, the turntable proves endlessly useful: It works as a kind of graph on which the characters' relationships are charted—for example, the hopelessly intertwined lives of Hamilton, Eliza, and Angelica, seen as different points on the circle. Also, the number "Yorktown," about one of the war's key battles, ends with members of the company on the turntable, each brandishing a weapon and isolated in his or her own pool of light, a powerful and economic image

by one of the wealthiest families in the city," Korins says. "I wanted to use historically accurate items and décor to show their wealth and status, while being able to move seamlessly between the party and wedding." The solution proved to be four wagons loaded with candles, plus a set of lanterns that fly in to create what the designer calls "a very glamorous star field of the time." The candles, lanterns, chandelier, and lampposts were illuminated with the aid of RC4 Series 3 wireless dimming Off Broadway. On Broadway, City Theatrical's SHoW DMX Neo system is used.

Many have noted that *Hamilton* sits very nicely in the Richard Rodgers, and Korins notes that the move didn't require as much expansion as one might think. "Most of the time when you transfer a show from downtown to Broadway, there's room for the set to get bigger," he says.

“The footprint of the Newman Theatre is really big. Of course, there, the masking on stage right and stage left was the actual building and the back wall of the set was the back wall of the theatre. Here, it got 1' wider, but it is also shallower, and we had to recreate some of the architecture from the Newman. In building the wall for Broadway, we added a lot of details, including archways. We also built a portal with ropes, to make it look as if the set is in the process of being built.” He adds that about 25% of the Off Broadway set has been carried over to the Rodgers, with the rest being built by Hudson Scenic. Custom furniture and specialty props were built by Jerard Studio, Daedalus Scenic, and Zoe Morsette.

Korins says that he feels doubly lucky to have worked on *Hamilton*, as he is the only member of the creative team who didn't take part in Miranda's debut show, *In the Heights*. “It's a perfect storm of these incredibly talented professionals working at the top of their games,” he says. “I was just trying to keep up.”



Steinberg uses a mix of headworn and boom mics to accommodate Paul Tazewell's period costumes.

Lighting

Hamilton has called forth from Howell Binkley one of his most protean lighting designs, blending sculpted white washes and blasts of saturated red for the battle scenes and shimmering blue for the onset of a hurricane. When needed, he picks out individual performers with uncanny precision. And he works intensively with the turntable, framing in white, laying other geometric forms on top of it, and, at times, seemingly cracking open a kaleidoscope and crowning it in complex, jewel-toned patterns.

Speaking about his approach, Binkley says, “I've got to give the credit to Tommy and Andy; they made my work easy. There are 50 songs in the show and each one is a major event. There's no repetition at all. The challenge was to keep it seamless, so the show can roll along without stopping.”

He adds, “Another challenge was to layer the lighting. We're working with a single unit set, and being able to carve into it was a big challenge for me. With the staging, and because the set has those upper levels, it doesn't feel like a single set; it can create streets, alleyways, meeting rooms. It was my job to make those seamless transitions, from indoors to outdoors. And it was a challenge to keep it fresh all the way through. The music was very helpful, as well as the staging. It gave me the freedom to go from the sepia world [of, for example, a New York tavern and George Washington's wartime tent] into color motifs—red for battle and blue and greens for the hurricane.”

In musicals, Binkley typically ties his work to the score, but here his lighting almost functions like another musical instrument, with precisely timed bumps, sweeps, and color shifts, as well as cues that reframe the stage space. The number of cues in *Hamilton* is stratospheric. “A few hundred cues are triggered, by MIDI, from the DiGiCo sound console, especially in the battle scenes, in ‘Satisfied’ [the wedding scene of *Hamilton* and Eliza], and the ‘rewind’ sequence. These scenes are so tightly layered and we needed total consistency for the performers.”

Binkley adds that being able to sit in on the show's workshops was “a major help. You have to get the show in your bones, to dissect it. It was great to have the Public Theater as a place to experiment, to figure out what we were doing.” Although the footprint of the stage didn't increase substantially when the show moved to the Rodgers, Binkley had to address the additional height. “We went from the Public, where we were fixed at 17' high to the Rodgers, where we're at 24' — 25',” he says. “I was very nervous about that. It works to the show's benefit to have that extra height, and David expanded the walls, so we were able to light the upper levels better. I think it fits in the Rodgers perfectly.”

Once again, Binkley has brought new gear into his rig. “Downtown, we had the little [Martin Professional] MAC Auras, but, with the additional 7.5' in the Rodgers, they



Binkley's lighting often isolates the actors while providing architectural treatments on the set's upstage walls.

wouldn't work." He mentions as an example the number "You'll Be Back," in which King George is picked out of an otherwise relatively dark stage. "The Aura is a great accent light we needed with a nice, tight beam." Thus, the Auras were replaced by Martin's Mac Viper Performances. One imagines that the unit's framing shutters and 1.5 zoom, with auto-linked focus, were especially useful in this context, not to mention the product's gobo animation system. For washes, the designer made use of another new-to-Broadway light, GLP's impression X4 XL, which is, like the Aura, an LED unit. (It employs 19 RGBW LEDs, each rated at 15W with 7° – 50° zoom range.)

In terms of numbers, the gear list includes 35 Vipers; 26 impression X4 XLs; seven Philips Vari-Lite VL3500Qs; 56 Philips Color Kinetics ColorBlast 12 TR4s, five ColorBlaze 48 TR4s, and nine ColorBlaze 72 TR4s (all for uplighting the set); 12 Elation ELAR 108 LED Pars and 26 PixelRange PixelPar 90s (the latter two for sidelight); approximately 400 ETC Source Fours in different degree sizes; 52 Altman Lighting PAR 64s; 19 MR16s; 13 GAM/Rosco Stik-Ups; and three Lycian 1290 followspots. Control is provided by an ETC Eos console. (The show was programmed by David Arch.) Extensive use is made of Morpheus Lights FlipBox swinging wing truss. Binkley notes, "All the electrics, the apron grid, and the moving lights are on separate pipes, so they can fly in for maintenance." Lighting gear was supplied by PRG.

Interestingly, for such a cue-intensive show, Binkley says, "We did it in eight days at the Public, working with Tommy and Andy, getting the vocabulary. Then we were fortunate to have previews and afternoon sessions to do

more delicate work. We only had a week uptown, working with a whole new crew, from dressers to followspot operators, but it still went really well."

Sound

Intelligibility is a prime goal in any Broadway sound design, but, in the case of *Hamilton*, it is of the utmost importance. Unless audiences can fully understand Miranda's densely packed, intricately rhymed lyrics, they will be unable to keep up with the show's torrential narrative. And, as Nevin Steinberg, the show's sound designer, notes, "People don't seem to notice that *Hamilton* is sung-through. There are, maybe, two or three paragraphs of spoken dialogue." He adds that intelligibility, "which is always Job 1 is, in this case, Job 100%. The good news is that everyone understood that, including [orchestrator] Alex Lacamoire, who is incredibly sensitive to making sure the story is heard."

Indeed, *Hamilton* is Exhibit A in the argument that a good orchestrator is the sound designer's best friend. The score blends keyboards, percussion, and electric guitar and bass with viola, violin, and cello; the sound can be as expansive as anything on the Billboard Hot 100, but it never overwhelms and, when it really counts, as in the number "Burn," when Eliza, wounded by the news of her husband's infidelity, destroys their correspondence, the underscoring expertly plays a supporting role to the voices.

Smart planning was a key to the show's success, Steinberg notes. "There was a sense from the beginning that there might be a commercial run. Even though we opened at a not-for-profit theatre Off Broadway, they did a great job with the budgeting, and, even with limited



Korins' model for the set. "It's all shipbuilding methodology," he notes.

resources, we had the support we needed. And one of my big tasks at the Newman was to allocate resources in a way that was forward-thinking, so we wouldn't be limited when moving to a bigger room."

Of course, the Newman and Rodgers are very different spaces. "The Newman is narrow, with a low ceiling; the sound didn't have anywhere to go. It made for an exciting laboratory and real intimacy, but, given more cubic feet, I knew the show would blossom in a larger space. It was an extremely gratifying moment when, on Broadway, we were really able to let go, not just with the audio, but with the emotion in the piece. We also had the great advantage of knowing that we would probably go to the Richard Rodgers," a familiar spot to most of the creative team, as they did *In the Heights* there. "The challenge was to capture the essence of the show in the Newman and scale it up for the Rodgers."

Steinberg notes that Kail and Blankenbuehler made his job easier. "The way that it is staged, you always know where to look. That's why the designs feel so organic. The storytelling is so unbelievably clear that we could focus completely on just shaping it. It never felt like having to solve problems."

The Richard Rodgers has an unusual layout, with its partially raked orchestra and enormous mezzanine, but, Steinberg says, "I went in there knowing what the complications were. The steep rake of the orchestra and restricted underbalcony are the first things to address. Also, it's a very live room, and can be easily excited, which isn't a great help in a show with densely packed lyrics."

Steinberg says he addressed the underbalcony issues

with some gear that is new to Broadway: Alcons Audio VR-8 compact loudspeakers and Sentinel 10 amplifiers. "The Alcons boxes, with their compact ribbon drivers, are beautiful to listen to up close," he says. "Even at louder volumes, they sound good, more like studio monitors." This makes them suitable for an area of the theatre that is "so isolated, you're delivering the show to the audience in a distinct environment. I also used a trick I learned when I worked on *In the Heights*: I mounted three subwoofers to the ceiling of the underbalcony area; that way, I don't have to drive the low end from the front of the theatre to the last eight rows. I think that the people who sit there get a very satisfying experience of the show."

At the front of house, Steinberg installed d&b audiotechnik Y-Series compact loudspeakers. "They are new to me and were the right fit for *Hamilton*," he says. "We have a split center cluster for the main floor, and, outside of that, two [d&b] V-Series arrays for the mezzanine, with subs for both arrangements. There are four clusters on the apron truss, with some resolution in the clusters, in the way the routing is done, in terms of far or near throw. We also have stacks of L-Acoustics ARCS on the sides and ARCS WIDEs for a far throw from the proscenium, to give me some extra fill."

The show has a surround system, using EAW JF-60s, for sound effects and reverb from the orchestra, but, Steinberg adds, "It's a funny room and a funny play; the more tricks you try, the less interesting it becomes. It's all about simply delivering the story and the music; in this case, the surround is more about support and filling out the space."

Running the numbers, the loudspeaker rig includes, from Meyer Sound, four 600-HP powered subs and two 1100-LFC subs; from L-Acoustics, ten 108Ps, six 112Ps, four LA8 amps, four ARCS, and two ARCS Wides; from d&b audiotechnik, twenty Y8 and four V-8 array elements, four Y-Subs and two V-Subs, and seven D-20 and three D-6 amps; from Alcons Audio, twelve VR-8 and eight SR-9 compact loudspeakers and four Sentinel amps; 44 EAW JF-60z compact loudspeakers; from Bag End, three D12E-DA and two Infra-MXB subs; four Lab.Gruppen 2400Q amps; and 12 Yamaha H5000 amps. On-stage foldback is provided by twenty d&b E-0 and eight E-3 speakers and 15 Galaxy Microspot boxes, supported by three d&b D-6 and eight E-PAC amps and one Lab.Gruppen fP6400 amp; Sound gear was supplied by PRG.

The musicians use the Aviom A360 personal monitor system. “One of the most fun discoveries during the move to Broadway was finding that the musicians could hear

Sennhesier SK-5212-II transmitters and EM-3732 receivers. “It’s a mix of headworns and booms,” he says. “It had to do with the style of the singing and some hair and costume situations. I was worried about showing this modern technology on stage in a period show, but, in a weird way, it turned out okay. We see so much technology, including Howell’s lighting and the loudspeaker system, that technology is unavoidable.” Handhelds, specifically Shure SM58 capsules on UHF-R transmitters, are featured in the “Cabinet Battle” sequences, rap competitions in which Hamilton and Jefferson furiously debate policy under Washington’s watchful eye. “Daveed [Diggs, who plays Jefferson] is an accomplished rapper, Chris [Jackson, who plays Washington] is an accomplished singer and recording artist, and I think Lin was born with a microphone in his hand. The tricky part was making it sound different, to imply a whole different environment; that took some finessing.” The orchestra mic package includes a mix of Audix, beyerdynamic, Countryman, DPA, Radial Engineering, Shure, and Yamaha.

The sound is controlled by a DiGiCo SD7T console. “We had the same desk for the downtown production,” says Steinberg. “But at the Public, we had legacy racks. For Broadway, we were able to upgrade to the [DiGiCo] SD-Racks and a 96K sample rate, which I love. We also have some outboard gear, including the TC Electronic 6000 for orchestra and vocal reverb; and, for a couple of moments, I use the TC Helicon VoiceLive to get flavors that you can’t get with any other piece of gear. It’s very subtle, but it’s there.”

Other personnel on *Hamilton* include J. Philip Bassett (production stage manager), Scott Rowen (stage manager), Deanna Weiner (assistant stage manager), Ryan O’Gara (associate lighting designer), Jason Crystal (associate sound designer), Amanda Zieve (assistant lighting designer), Justin Rathbun (sound engineer), Anna-Lee Craig and John Senter (deck sound), Nick J. Borisjuk (production sound), Denise J. Grillo (production props supervisor), Eric Castaldo (head props), James J. Fedigan and Randall Zaibek (production electricians), Christopher Robinson (head electric/board operator), Sandy Paradise (head followspot operator), Brian Frankel and Jon Mark Davidson (followspot operators).

Given its stratospheric box office, *Hamilton* is set for a multi-year run. Cameron Mackintosh has announced his intention of taking it to London, and national tours and/or sitdown productions must surely follow. These are exciting times for musical theatre; the last few seasons have seen an explosion of fresh thinking in such shows as *Here Lies Love*, *A Gentleman’s Guide to Love and Murder*, *Fun Home*, and *Hamilton*. (Most of them started at the Public Theater, which has established itself as New Musicals Central.) Taken together, they constitute a kind of declaration of independence from the formulas of the past. 📡



Loading in the set into the Richard Rodgers Theatre.

everything more clearly,” Steinberg says. “In the Newman, they were on a platform upstage left that left them pretty well isolated from the stage. On Broadway, they’re in the pit and can see Alex conducting. There’s not a lot of acoustic energy in the pit, but we worked with David and Howell to leave a grating overhead, so there’s some open space to let it out. It’s good for the audience to know there are musicians in there; it connects the dots with the audience in a way we didn’t have downtown.”

In terms of mics, Steinberg deploys a mix of DPA 4061 headworn omni booms plus Sennheiser MKE1s, with