

hat have they done to the Imperial Theatre?
As you enter it these days, you notice that the lobby has been transformed into a cheerless gray bunker, the walls adorned with torn posters—many of them in Cyrillic—advertising Russian music acts, among them the notorious

Pussy Riot. Then you pass into the auditorium, and the effect is not unlike the moment in the film *The Wizard of Oz* when Dorothy leaves her black-and-white world Kansas farmhouse to enter the Technicolor world of Oz. Red is the predominant color; the room has been turned into a kind of fantasy vision—with contemporary touches—of pre-revolutionary Russian nightlife. You could call it the Tolstoy Cabaret.

The theatre isn't the only thing that has been reimagined. The revitalization of the Broadway musical continues apace with *Natasha*, *Pierre*, and the Great Comet of 1812, which opened in November at the Imperial, earning rave reviews and instantly joining the club of shows earning more than a \$1 million a week. Dave Malloy, who is responsible for the show's music, libretto, and orchestrations, has found fertile material for this post-modern update of the pop opera format.

The action focuses on young and innocent Countess Natasha Rostova; having been raised in the country, she arrives in Moscow as the fiancée of Andrey Bolkonsky, who is off fighting the war against Napoleon. Dazzled by the fashions and personalities of the big city, she is swept off her feet by Anatole, also a soldier—and a practiced seducer. Natasha entertains Anatole's attentions, unaware that he is already married; she breaks her engagement to Andrey, risking a scandal that could ruin her life. Watching from the sidelines is Anatole's brother-in-law, Pierre, who has retreated from the world following his disastrous marriage to the dissolute, adulterous Hélène. As Natasha's situation becomes increasingly desperate, Pierre is roused out of his spiritual torpor and takes bold steps to save her from herself.

Even this relatively simple slice of *War and Peace* presents many challenges to those who would present it onstage. There are 11 principal characters, forming a net of relationships founded on marriage, friendship, blood ties, and rivalry. It's also necessary to clarify for the audience the mores of Tsarist Russia, which allow men like Anatole (and Pierre, who has his own rakish past) to run amok while for young women like Natasha, a single, relatively minor, misstep could end in social banishment.

Interestingly, Malloy has conceived *Natasha & Pierre* and the *Great Comet of 1812* as a kind of intimate opera, staged in a cabaret format, with the cast moving through, and interacting with, the audience. The music has a distinctive sound pulled from various sources, including Russian folk songs, indie pop/rock, and EDM. The result is a musical like no other, a bold vision that requires a unified

style of presentation. The director, Rachel Chavkin, known for bold, often immersive, staging concepts, has provided exactly that.

Interestingly, *Natasha, Pierre and the Great Comet of* 1812 traveled a long and winding road to Broadway. It was first seen in 2012 at Off Broadway theatre company Ars Nova, followed by an expanded production in a pop-up tent, Kazino, located downtown in Manhattan's Meatpacking District and later in Midtown, only a couple of doors down from the Imperial Theatre. Before Broadway, the show played a tryout engagement at American Repertory Theatre (ART) in Cambridge, Massachusetts. Between Ars Nova and the Imperial, the production has grown enormously, achieving a rare confidence and panache, while retaining most of its original intimacy. Of course, achieving this has not been a simple task.

Scenery

The walls of the Imperial's auditorium have been covered in red drapes and adorned with paintings, each of which comes complete with its own picture light. On what would normally be the front of the stage, spilling out into the front orchestra, are audience seating areas on different levels, with barstools and cabaret seating-bentwood chairs arranged around tables. There is also conventional theatre seating on the orchestra floor, some of which is broken up by little tables with lamps. A number of short runways are scattered throughout the orchestra area; they are commandeered by the actors from time to time. In the center is an orchestra pit from which Or Matias, the musical director, conducts the show. (Josh Groban, who plays Pierre, spends much of the show here, occasionally talking over piano duties from Matias.) The musicians are otherwise scattered throughout the house in several groupings. This pit is surrounded by a passerelle on which many key scenes play out.

The stage and orchestra floor are linked by a pair of staircases. The theatre's proscenium has been obscured, and onstage is more seating on two large banks of audience banquettes at left and right. Two sweeping stairways running alongside the banquettes lead to a central upstage platform, where characters enter through a pair of large and ornate double doors. It is, in all, a remarkably warm and inviting environment, exactly the kind of place you'd like to be on a cold winter's night.

Mimi Lien, who designed the scenery, says the idea of stylizing it as a cabaret was part of Malloy's original conception. "At our first design meeting, Dave told Rachel and I about a trip he took to Russia when he was writing the piece. In Moscow, he was taken out by a friend; he was led through unfamiliar streets and back alleys and into a courtyard, where they entered into a bar. It was filled with warmth and music and people and life; the musicians were all around the room, playing; he loved that atmosphere

and had it in mind for the show."

This anecdote helps to explain the intentionally utilitarian look of the lobby. "We wanted to create a similar journey for the audience," she says. "The journey that Dave took that night in Moscow was through exterior streets and back alleys; instead, we use the architecture of the building." She describes the lobby as resembling "a Soviet bunker that became the site of a punk rock club. The grand purpose was to create a contrast between the interior and exterior. As the company sings during the prologue: 'There's a war going on/Out there somewhere,' but inside, it's champagne and caviar."

Indeed, the contrast between lobby and auditorium couldn't be more marked. Lien says the red curtains were chosen because "from the very beginning, our goal was to envelope the audience in a decadent space, a room that felt a bit like a warm cocoon." She adds, laughing, that, when a theatre was being chosen, the Imperial's red interior "definitely put it in the 'pro' column." Adding to the luxurious feel is a set of golden, starburst-shaped chandeliers, which, the designer notes, pay homage to the not-dissimilar fixtures seen in the Metropolitan Opera House (which also features a luxurious red interior). The units fly out when the show begins. "I've always loved watching the chandeliers go up at the Met," she says, adding the units seen at the Imperial have both "a kind of Sputnik feeling and also an opulent, 19th-century quality."

The contrast between the starkly modern lobby and the interior, with its period feel, is part of the show's DNA, Lien notes, adding that Paloma Young's costumes range from gorgeous Empire line dresses to outfits with anachronistic modern touches. In one scene, members of the ensemble are dressed like club kids at a rave. These are clues to the production's fractured time frame, which places one foot in the 19th century and another in 2016: "We're not telling the story in a historically accurate way. This approach arose from Dave's music, which is anachronistic and also has electronic elements."

Thus, speaking about the paintings, she says, "They are painted by Russian artists, from different time periods. We have a few little Easter eggs in there; somewhere, there's a photo of Pussy Riot, although, from a distance, it could be a religious painting. There's also a photograph of Audrey Hepburn from the [1956] film [of *War and Peace*, in which she played Natasha]. Otherwise, there are various genres—landscapes, battle scenes, opera houses—a reference to the scene in the piece when the characters attend the opera—Russian interiors, and a corner of religious paintings. "Most are from the Ars Nova production. We had \$500 to do it there, so we found public domain images online and printed them. For Broadway, they were put on coated canvases using inkjet printers, mounted on wood, and flame-proofed."

Having designed the musical for four very different ven-



The passerelle around the orchestra pit, located in the middle of the theatre's orchestra level.

ues, Lien says, "The design at the Imperial is very similar to what we did at ART, where the goal was to discover how to do it in a proscenium-like space. It served as a stepping-stone to the Imperial, where the ground plan is quite similar. The biggest transition was from the tent version to ART; we went from 199 seats to 500 seats, to a proscenium as opposed to a rectangular box."

Nevertheless, when planning for the Imperial, Lien adds, "There was a lot to figure out; sightlines and sound were the big things. A huge part of the show involved putting the actors close to the performers; the MO is that everyone is in the same room—actors are everywhere and the audience is everywhere. The first thing I did was to put the pit, with Pierre, the piano, and a couple of the musicians, in the center of the room. We wanted their presence to be felt and to have many pathways radiating out from them."

Lien adds that she did some analog sightline studies of the theatre (i.e. putting a "head" on an extension pole, holding it at the height of proposed platforms where actors would be standing, and sitting in different seats all over the theatre to make sure it would be visible), after which she went to work in her computer: "I did sectional studies. I drew the ground plan, projected 2-D sections from that, and eventually built a 3-D model, which allowed us to go to any particular seat and reconstruct the point of view from there. We especially needed to do that for the onstage seating and the extreme side seating in the house." Altogether, she says, given the varying arrange-

ments of seating, the set plays out across ten different levels. The Broadway set was built by Hudson Theatrical Associates. Josh Alemany, director of products at Rose Brand, notes that the company supplied the 16oz Cherry Princess velour to cover the theatre's walls.

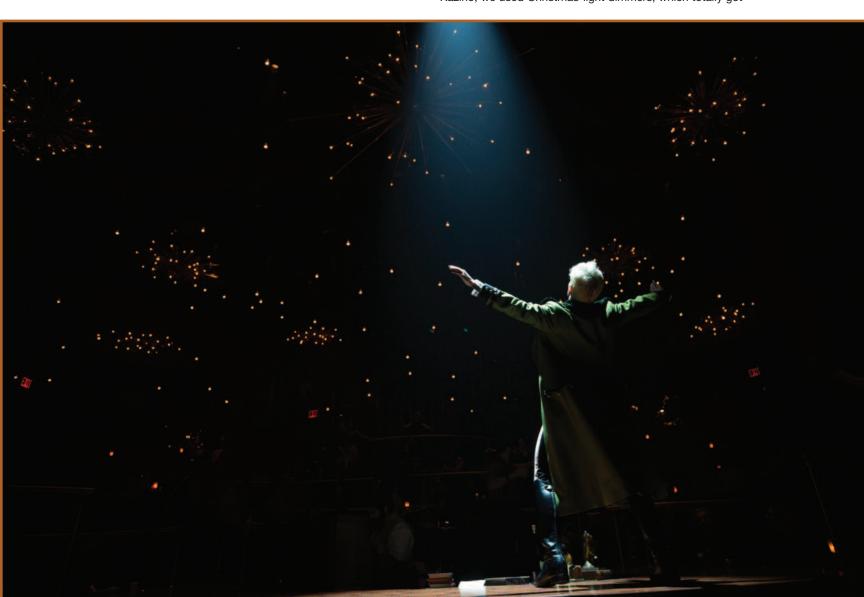
"I think for me the biggest challenge was putting scenery and lighting everywhere in the house, where people don't usually put stuff," Lien says. "There were no section drawings of the house; everything stopped at the stage. To get accurate drawings, to draw and build the curtains, was a huge task of site-surveying; every time something was to be added, I had to go back into the theatre and crawl around with a measuring tape and a laser pointer. To have lights everywhere—with no hanging positions over the audience—we had to go up and weld hanging points, and create a superstructure grid over the seats."

Lien also notes the unusual nature of this project, how what started out as a design for a tiny space with a tiny budget, reconfigured and grew. "The show just kept scaling up," she says. "We had, essentially, a four-year period of developing the design incrementally."

Lighting

As Lien's scenic design spread through the theatre, so too did Bradley King's lighting design. "The ART production was really important in figuring out how it was going to work," King says. "When we went from Ars Nova to Kazino, we took the same rig and stretched it; reconfiguring it for a proscenium house required major changes." Speaking of the array of lightbulbs that fly in at certain moments, he says, "The DNA of the show has always been in those bulbs, because we couldn't get Source Fours into Ars Nova; we also kept the painting lights and the lights on the cabaret tables. But the big question was, how do we get enough coverage? Top light was the only way to get a consistent angle to reveal people across the room. The big add for Broadway was followspots, which really changed the game." Indeed, these units prove crucial to the task of keeping tabs on the constantly moving cast.

Finding power for such a vast rig was also a challenge. "I have to imagine we have more racks [seven] than any other show on Broadway," King says. Noting that so many of the practical units are so low-wattage, he adds, "At Kazino, we used Christmas-light dimmers, which totally got





King's lighting is designed to pick out performers all over the theatre.

the job done, but, for Broadway, we needed something a little more consistent and better made." The solution was ETC dimmers and an ETC Eos Ti console. "We fit all of the practicals onto two racks, and the whole show fits in one console." And, to accommodate the extra coverage he

needed to provide, he says, "We added two full-length trusses downstage of the furthest downstage point; we also added a bunch of upstage-downstage trusses. We put in close to 30 holes in the ceiling."

Describing how his design has evolved, King says, "It's



Pope's sound design must account for the fact that the performers are usually standing in front of the loudspeaker rig.

layers upon layers, all the way back to Ars Nova. It has been really helpful to be with this show for four years now, adding idea on top of idea. The show file that we loaded into the Imperial was the show file from ART, and that was the show file from Kazino. Of course, we moved channels and deleted some things. But what the picture and table lights are doing [including some chases] dates back to 2013. We weren't starting from scratch; this allowed us to move quickly through our short tech period at the Imperial." When he says short, he isn't kidding: "We had the actors onstage for the first time on a Tuesday and the first preview was the following Tuesday. Without ART, that would have been impossible."

One major idea that got implemented along the way is the wall of lights that appears when the upstage doors open to reveal Anatole. "That dates back to Kazino," King says. "We wanted a blast of light for Anatole's entrance. We tried arc sources and a big 5K unit, but it needed a rock-and-roll nine-light idea, so we ended up with two 9-lights bolted into the wall behind the doors. We did an array of nine-lights at ART, but then I talked to Kevin Barry, the assistant production electrician, who prefers Source Four PARS, for their reliability and easy maintenance, so now we have a wall of them; I think there are 72 up there. We split them into a red set and a white set; the red is an idea I added after ART, when I really missed red backlight for Marya D's entrance in the scene in which she denounces Anatole." [Marya D. is Natasha's godmother.]

King notes that the Ars Nova rig had no moving lights, and for Kazino, he had eight Claypaky Alpha Spots. "At ART, Christie Lites supplied the package, which had [Martin by Harman] MAC Vipers. Their light is fantastic.

When we switched to PRG for Broadway, they had enough Vipers [32] available for us." In addition to the quality of light, he says, size and lack of noise are major factors in choosing the Vipers. "For example, when Natasha and Pierre have that duet near the end, with only the acoustic piano, we had to be as quiet as we could."

Also, King says, "At ART, we used Vipers as followspots, which was awesome, because the ability to do live color-changing is a big thing for me. Surprisingly, we couldn't find a followspot that does color-changing. On Broadway, we've ended up with four [PRG] Bad Boy Spot HPs, and they've turned out great."

The show's blinder cues are handled by six Philips Vari-Lite VL3500 Wash FX units, placed on a newly installed pipe. "Rachel really liked them as a whole stage idea versus blinding the audience," King says. "Sometimes they do a blinder cue and then turn down and hit the stage. Around the time of Anatole's numbers, we pull out their lenses to get super-tight, collimated beams."

Also, King says, "Since the Imperial has a mezzanine, we now have two levels of audience. One big challenge was how to make sure that people in the rear orchestra have as good an experience of the design as those in the mezzanine. We built a grid under the rear orchestra ceiling and, oddly enough, we were back to the ceiling height problems we had at the Ars Nova. If you stand on one of the platforms [placed in the orchestra for the actors], you're about 1' from the grid. To deal with this huge sightline issue, we're using 47 ARRI 300 Fresnels for the area light and 14 very compact Martin Rush MH2 Washes. They don't do anything except change color and move; there's no zoom. But they get the job done." Also in the rig are 28

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Martin Atomic strobes, two Philips Color Kinetics ColorBlaze 48s and one ColorBlaze 72, seven Elation Professional ELAR 108 PARs, 137 Source Four PARs, approximately 240 Source Four PARs in varying models and degrees, 18 Mini-10s, two MR16s, sixty-eight 30W pinspots, four MDG Atmosphere hazers, one City Theatrical DMX snow drum, and one Look Solutions Viper NT fogger.

The appearance of bulbs during "No One Else," an aria sung by Natasha, was facilitated by the installation of Wahlberg 10 LX winches, also supplied by Rose Brand. "I'd been on the search for something like this since ART," says King. "I knew that, with the mezzanine, we'd have a sightline problem with the lightbulbs. We needed an ultralight winch that could deliver power and line-lift on the same cable." Enter the Wahlberg 10 LX, which, according to Rose Brand, 'combines a light duty load rating with an integrated electrical circuit in the lifting line...eliminating the mess created by having to rig secondary electrical circuit.' (It is one in a series of Wahlberg products recently brought into the Rose Brand product stable.) King adds, "It was a little complicated because it's a winch, so it fell under carpentry, but it's DMX-controlled, so it can't go into a traditional automation console. I brought in an Ion programmer: The lon controls the winch's up-and-down movement. The console sits next to the Hudson Autofly controller and the flyman controls them both. The turning on and off of the bulbs is handled by the Eos."

King notes that he received plenty of assistance from Jimmy Maloney, the production electrician; the previously mentioned Kevin Barry; Nick Solyom, his associate; Bailey Costa, an assistant in charge of followspots, and production stage manager Karyn Meek, who has been with the show through various iterations.

King's work here is protean, draws on a variety of



The onstage banquette seating.

styles, including theatre, dance, rock concerts, and opera —even turning startlingly contemporary for a sequence that resembles a rave. "I have no idea how it happened," he says, laughing. "A lot of coffee and post-production meeting Manhattans!"

Sound

King says that, during previews, "I never saw the show from the same seat twice," as he checked out sightlines from every angle. This goes double for Nicholas Pope, the sound designer, who also notes the unusually brief tech period. "This is probably one of the most complex sound challenges I've ever run into, which provided me with a lot of unique opportunities," he says. "There are audience members throughout the theatre, sharing the same space as the performers. The orchestra is 100% distributed; they couldn't even rehearse without turning on the sound system. Also, there are roving musicians; those are always a challenge." (Many members of the ensemble play instruments.) He adds that, with actors and musicians spread around the room, it's quite a task to keep them playing in time together: "Also, every single microphone is in front of the PA at all times; that's a giant red flag."

All of this, plus a show where intelligibility is paramount: In the first number, "Prologue," the company introduces the principals, explicating their relationships. It's an enormous amount of exposition, delivered via choral singing. And yet, in Pope's design, the words come through.

Pope notes that, by draping the room in red velour, Lien provided him with an opportunity to deliberately manipulate and create the acoustic space he was looking for; looking it more analytically, he adds that, with the proscenium removed, "we essentially had three separate acoustic spaces to deal with: The orchestra area, mezzanine, and onstage area all had to be treated differently."

As a result, he says, "I spent months coming up with a system design. I did a lot of computer analysis and a lot of drawing. We used d&b audiotechnik's ArrayCalc system, as well as Meyer Sound's MAPP, and I did a lot of drawing in Vectorworks." His goal, he says, was "to allow the performances to be in the same acoustic space as the audience, so that they are enveloped in the world created by the production. There are so many shows where the voices sound disembodied. I didn't want that, and that drove a lot of the system design. We track the performers through the entire space. To do that, we developed some specialty software. We are relying on Meyer's D-Mitri [digital audio platform]; it does the core of processing for the show. The software we wrote is a control interface; we have a secondary operator at the front of house who is mostly dedicated to doing localization of the performers and tracking them. We have to track them in a 360° space, making the sound seem fluid as they move."

The show is mixed on a DiGiCo SD7T console. Pope



Lien notes that the starburst chandeliers are in part an homage to similar fixtures in the Metropolitan Opera's auditorium.

says, that with the dedicated software, "We cut off the front end of D-Mitri and the back end of the SD7 and glued them together. D-Mitri has enormous matrixing capability; we are using its full 288 x 288 matrix; this allowed me to use most of the processing power of the SD7 on the front and also get a very high channel input count. It's the best of both worlds, if you will."

In assembling his loudspeaker rig, Pope says, "I broke the room down into sections, based on angles and localizations; after I had that breakdown—which was intense—I designed little chunks of the system for those individual sections and then integrated them into one big, coherent system." He adds, "Take out a chunk and it all falls apart."

Speaking about his individual speaker choices, he says, "Size was certainly an issue. The two large [Meyer Sound] LEOPARD center clusters had to break across a couple of electrics, because otherwise they would have hung too low; the set's verticality didn't affect the sound, but it did affect sightlines, pushing the locations that were available to me into places that weren't necessarily sonically ideal. But the audience has to see the performers."

Pope adds, "The main line arrays are Leopards, 32 of them. [Meyer Sound] CQ-1s are another big element; we have 19. There are 50-some [Meyer] UPJ-18Ps as well. The other main box is the [d&b] E3, for delays. I wanted to keep the system relatively simple, to allow for smoothness throughout. When localizing vocals and instrumentation, I wanted to have a constant tonality as they move through the acoustic space." Masque Sound is the gear supplier.

With a substantial portion of the audience seated onstage, Pope notes that there is no foldback system: "The same system that provides the PA also functions as foldback for the performers." However, he adds, "We have an extremely large monitoring system. The roving musicians, who use in-ears, really need that monitoring to lock in the musical time as they move in space. We're using DiGiCo's SD10 RE [for "redundant engine"], which was made as a backup engine for the SD10 console. I use it to do all the processing for the monitoring system. We have 130-some odd channels going in and 56 mixes coming out of it. This goes downstream and breaks into the Aviom 360

system, which allows the musicians to have a blend of mixes." He adds that the performers are using Shure SE215 in-ears in conjunction with Sennheiser EK 300 iIEM G3 body packs; there are approximately 30 in use.

Pope adds that, as a result of the staging of the show in a cabaret setting, the performers move and dance with their instruments, "requiring each instrument to have its own wireless, in most cases Lectrosonics' SSM micro belt pack transmitters, which were chosen because of size restraints." Since the moving performers also sing, he says, "Each vocalist has a separate wireless and, of course, the IEM packs. The wireless system has to cover an entire Broadway house—mezzanine, orchestra, and stage—with RF. We have 56 channels of receivers, 16 channels of IEM transmitters, and 16 channels of comms." The cast members wear DPA d:fine 4066 mics.

There is a fair amount of vocal and instrumentation effects processing, which is confined to the Waves SoundGrid system. "It's injected directly into the SD7," Pope says. "I'm maxing out their Extreme Server. It really allows me to acoustically manipulate the space. Because of all that velour, the room is much drier than it would have been, which allows me to make strong choices liked to the emotional states of the characters. As Natasha falls in love, the room swells and grows lush, responding back to her. When Marya D. sings "In My House" [when she uncovers Natasha's alliance with Anatole], the room turns cold, harsh, and tight."

As mentioned, Pope roamed the theatre during tech and in previews, checking out the quality of the sound. "The front-of-house mixer hears not a different show, but a very isolated show," he says. "If you stand in one location, you have no idea what is happening on the other side of the room. Moving through the room is essential." He also notes the contributions of Walter Tillman and Scott Sanders, who mix the show, John Cooper and Jim Bay, who handle the backstage end; Mike Wojchik, production sound; his associates Charles Coes and Sam Lerner; and his assistants Beth Lake and Stephen Dee.

Natasha, Pierre and The Great Comet of 1812 continues its open-ended run at the Imperial