



*Evita*  
Today

*Peter Pan*  
Tonight

Quick-Change Artistry  
at The Stratford Festival

By: Alan Hardiman

This season, the Stratford Shakespeare Festival, in Stratford, Ontario, is presenting 12 productions at its four theatres, including four plays by Shakespeare and four musicals. Given that Stratford is a repertory company, players are frequently double- and triple-cast. The entire cast of *Evita*, for example, also appears in *Kiss Me Kate*. The technical staff also carries much of the responsibility for Stratford's success as a rep company, since two or more shows are always in production at each theatre simultaneously.

For example, new productions of *Evita* and *Peter Pan* are playing alternately at the 1,185-seat Avon Theatre. The scheduled run includes 102 performances of *Evita* and 110 of *Peter Pan*, 80 of them matinees. The matinee is never the same production as the evening performance, and the logistics of changing over from one huge show to another on any given day are colossal.

While the designers are charged with making each show look fantastic in its own right, they must also meet a stringent requirement to facilitate the changeover in less than 90 minutes with a 12-person crew. Fortunately, Stratford has become well-practiced in the art of the changeover in its 57 years as a repertory company.

Tight cooperation between departments—design, lighting, projection, and sound—and thorough practice of the logistics of the changeover during rehearsals assures that it all runs like clockwork.

#### Coordinating the designs

"I knew that I couldn't be flying a lot of elements in *Evita*, as a result of the flying rig and the specific requirements of *Peter Pan*, so I designed a show that was primarily ground-based to facilitate getting in and out of it, and to not drive the technical director and the crew crazy," says the designer Douglas Paraschuk, who spent 23 years as design coordinator at Stratford before going freelance as designer of the Winter Olympic ceremonies in Vancouver last February. (See *LSA* April, 2010.)

Paraschuk accomplished his goal by minimizing the number of flown elements in *Evita*, sharing the floor and a backdrop with *Peter Pan*, and employing a small number of versatile set pieces together with large doses of projections to create the required scenic elements.

"They are two very different shows, which helps to a great extent," says Elissa Horscroft, technical director at the Avon Theatre. "We're able to restrict the flying pieces in *Evita* to the chandeliers, two giant portraits, and a forestage lighting truss, so there's a minimal number of flying pieces to take down in order to clear space for the Flying by Foy rig in *Peter Pan*. On the other hand, *Pan* is largely a truck show, with five major set pieces all on casters. In the Avon Theatre, we're able to store them in our large rehearsal space just offstage and in what we call the 'parking lot' at the rear of the stage."



The Darling children fly in front of the star drop used in both shows.

*Peter Pan*'s designer, Carolyn M. Smith, says the crew did everything possible to make the changeover easier. "Each one of our sets is enormous. The crew not only have to change over with *Evita*, they have to get massive things onstage and then off again. On top of that, three of our sets come back later in the play. I rely so heavily on the entire technical staff to make it work, because the director, Tim Carroll, and I certainly had big ideas, and *Peter Pan* is not a small show."

The crew spent eight hours of tech rehearsal coordinating the scene changes in *Peter Pan*. "If a particular move took too long because someone had to go and open a door, for example, then we found someone else who could do that instead, until we finally got it down," Horscroft says.

Initially, each show was slated to have its own floor, but the designers agreed to share a common surface, finished in black lacquer, that would work well for both productions. "The minute you're taking up one floor and putting another one down, that adds another 10 to 15 minutes onto the changeover," says Horscroft. The shows also share a fiber-optic star drop that looks just as magical behind Paraschuk's architecture in *Evita* as it does behind the flying children in *Peter Pan*.

One backdrop was cut from Smith's design, partly because of the changeover, but also because of the restricted space over the stage. "With the flying, you've got to be really careful about where things hang; in the end, there were no compromises made to my design for the sake of the changeover," she says.

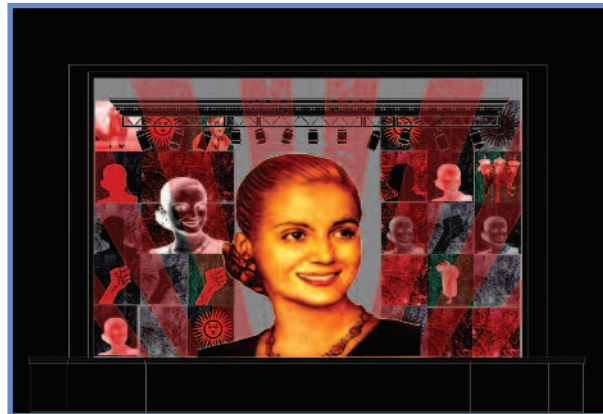
In order to update *Evita* for contemporary audiences and give it a 21st-century quality—the musical is firmly rooted in the rock opera genre of the 1970s—Paraschuk



Top: Much of *Evita* makes use of a two-story structure that stands in for several locations.

enhanced the graphic feel imparted by the production's extensive projections by designing a series of iris curtains and drapes at the front edge of the stage that open and close the aperture of the proscenium arch. Resembling Kabuki screens, the iris curtains incorporate doors and drops, and occasionally transform the proscenium opening into a screen for projections of various images, including an enormous brick wall and the intermission artwork.

"I tried to create an architectural background that would address a lot of the specific scenes in the play," Paraschuk says, explaining that much of what he does in design is architecture-based. "We made our own trussing, clad with just a hint of Spanish colonial architecture, which creates a two-story half-circle from just three individual set pieces and divides the upstage area in two. This becomes the inside of the palace, a night club, a train station, Luna Park Stadium, and other locations. I wanted surfaces that could take light in a really interesting way. We also had a series of laser scrim drops on rollers up in the cornices of the architecture that roll in and out. We project onto these at various points, transforming them into flags and banners. We also needed to be able to change the color temperature of the set with reflected light, so we polished the steel and clear-coated it; every time a light is turned on, it takes on a different hue and texture."



*Evita*'s iris curtains can be used as a projection screen.

#### A flexible lighting plot

The rep plot for both shows includes 390 ETC Source Fours, 18 Source Four PARs, four Philips Vari\*Lite VL3500Q Spots and six VL1000TS units, two City Theatrical AutoYokes, 35 PAR 64 MFLs, one Martin Atomic strobe, 53 Rainbow and 35 Chroma-Q Broadway scrollers, six DHA digital light curtains, eight Ampro cyc lights, 14 L&E MR16 ministrips, two Wildfire LT-250 UV long-throw fixtures, two Lycian M2 followspots, one fiber-optic star drop, 10 Lumi LED PARs, one City Theatrical EFX Plus 2 effects projector, eight GAM Stik-ups, and 30 channels of RC4 wireless dimming.

Kevin Fraser, who designed lighting for both productions,

outlines a few shortcuts that he used to effect the changeover in the short time allotted, with just one electrician. "Nothing overhead gets changed, because it wouldn't be practical to get a ladder out," he says. "Anything in the front of house that's accessible by catwalk can be changed over. We change color, we change gobos, but we don't actually refocus anything because, when you get to a particular lamp, you may not have the right set or scenery in place to be able to see what you're doing."

The Stratford Festival has developed a process over the years for creating changeover templates that makes it unnecessary to reset shutters between shows for many of the lamps. At the beginning of the season, during tech for each show, a piece of photo-sensitive paper is sandwiched in a gobo holder with a piece of aluminum oven liner, held in place with muffler tape. When this is put in the lamp and exposed briefly to the light, the photosensitive paper shows a clear impression of the aperture. A few cuts of the aluminum with an Exacto knife produce a template that can be changed as quickly as a gobo. The process is repeated for each lamp that is accessible during changeover.

"We have a set of shutter cuts for each show, so it's a simple procedure of taking one out and putting the other in. This way, we can change all the shutter cuts and gels in the lamps along our front-of-house bridge, our balcony,

and in the side coves. That's a fair number of lamps that we can easily reach during the changeover," Horscroft explains, adding that it's becoming a challenge to secure a supply of photosensitive paper in these declining years of analog photography. "We found five boxes of it on eBay, but we don't know what we'll do when it runs out."

Each of *Peter Pan*'s five sets requires a different approach to lighting, because the scenery is so different. "Because there's a different lighting plot for each scene, it's like having six shows in rep, five of them being *Peter Pan* and one being *Evita*," Fraser says.

*Peter Pan* is an adventure story with a good dose of humor, so the lighting has to be bright enough to avoid creating a dark and moody atmosphere, while being sufficiently controlled to eliminate reflections from the flying wires. To deal with these potentially contradictory demands, Fraser often uses moving lights in the flying scenes to pick out narrow paths of light.

"We go moment to moment, lighting the people and not the wires as they move around, not using followspots but rather selectively lighting them so we're not catching the wires. The Flying by Foy rig also dictates a lot to us about where we can and cannot hang lights, because they require specific parts of the stage overhead for their equipment where we can't hang lights. Between the two shows there's a good deal of scenery, so the hanging positions are limited



*Peter Pan* features five major set pieces on casters; the crew spent eight hours of tech rehearsal coordinating the production's many scene changes.

Top photo: David Hou; Bottom photo: Courtesy of Douglas Paraschuk

Photo: David Hou

to five overhead pipes, plus a forestage header for *Evita* that drops to different heights, depending on the size of the proscenium aperture in each scene.”

Fraser’s approach with *Evita* is to do as much side lighting and as little front lighting as possible when there are projections, in order to pick up the characters and not light the projection surfaces. When projections are not being used, he uses gobos on the scrims and screens to give them a different look. Of course, when the forestage scrim is deployed as a projection surface, he has to restrict the amount of light on the set behind.

“It’s a case of constantly balancing lighting with the projections,” he says. “Our technical rehearsal process is very long. From a lighting perspective, both shows are complicated and it takes a long time to get it right. The toughest part of the job is probably the physical stamina that it demands.”

**Focusing on projections**

Sean Nieuwenhuis, the video designer, created the projections for both shows, which helped ensure a lack of difficulties between them. He used three Sanyo PLC XF60A projectors, mounted left, right, and center on the balcony rail, for *Evita*, and only the single center projector for *Peter Pan*.

“We were able to set a focus position on the one projector used for both shows that works for both productions, even though *Pan* went in a month before *Evita*,” he says. “We laid that out in such a way and streamlined it as much as possible so that we don’t need to refocus on the changeover. *Pan* uses a projector only for the effect we created for Tinkerbell; for *Evita*, there are all sorts of projection elements going on throughout the show, both downstage and upstage.”

“For *Evita*, we make extensive use of the warping and blending capabilities of our Dataton Watchout multi-display production and presentation system, because of the requirement to project onto the laser scrim drops deployed in a large, semi-circular arc upstage. That is achieved within Watchout, as opposed to image warping in the projectors, and it’s quite effective,” he adds.

Greg Bride, Avon Theatre’s master electrician, has tied the ETC Eos lighting console and Watchout system together using MIDI show control commands. Whereas in prior years the Watchout computer was cued manually by the operator, this season it’s integrated, and the Eos runs independent cue lists for video and lighting. “Since it all comes through the same console, the operator has his focus spread slightly less,” Nieuwenhuis explains.

Having separate Watchout show files for each production makes the video projection changeover fairly straightforward. “We created registration slides based on the physical set so that the changeover crew has a reference to ensure exact registration,” he says. “In *Peter Pan*, there are a bunch of reference marks that line up with different

features of the nursery set at the start of the show. Similarly with *Evita*, we pick another physical element and they just call up that slide when they’re doing the changeover to make sure everything’s in place. Sometimes they need to push the projector around a little bit electronically, just shift something over a few pixels electronically to make sure everything is in the right place.”

The sole projection element in *Peter Pan* is a 15-pixel high Quicktime movie of a flying and fluttering Tinkerbell, with an added particle effect layer that imparts twinkling fairy dust to her. “It would be great to have a much bigger, brighter projector to make it work, but that’s the reality of what we have to work with,” says Nieuwenhuis. “We adjusted it as much as possible, and we worked with Kevin in lighting to arrive at a happy balance between what we can throw at it from the projector and what he is doing in the rest of the scene. Much of the time, Tinkerbell is projected onto the set itself. When the children fly to Neverland, there’s a scrim downstage that comes in with some cloud-gobo rotating imagery on it, and Tinkerbell plays well on that. Once they’re in Neverland, we fire her across the cave set that the lost boys live in, which is more of a challenge because it’s brown concrete—not an ideal projection surface, but we make it work.”

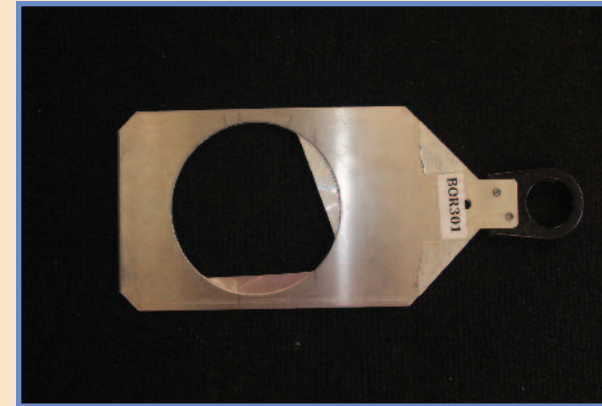
“Tinkerbell is a little low-res animated image, but still way more than the traditional flashlight or spotlight behind the set,” he adds. “I think we’ve managed to create a character and give her a bit of personality as well. From their reaction, it sounds like kids in the audience love it!”

**Musical and straight-play sound**

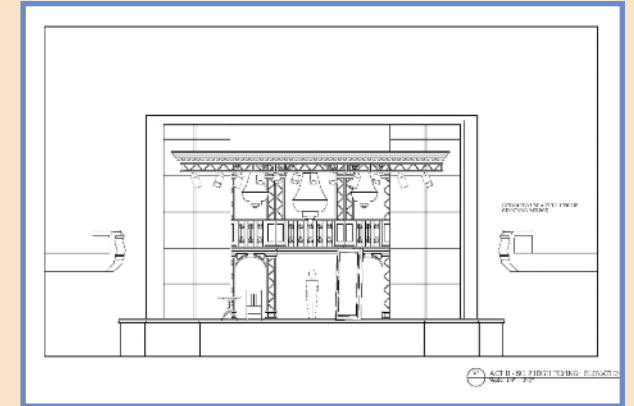
The sound system remains the same for both shows, with no change in loudspeaker locations. The requirements for *Peter Pan* are minimal, since it’s largely a playback show with a few music and sound effects files, and one wireless mic used occasionally on the narrator. Some narration is pre-recorded, since the actor playing author J.M. Barrie also plays Captain Hook. When both characters are visible onstage, a stand-in occupies Barrie’s armchair and the actor’s pre-recorded lines are played back.

The sound for *Evita* is much more complex, with 30 wireless mics, 40 channels of instrument mics for the orchestra, 24 channels of sound effects playback, and several channels of in-ear monitors. “Monitoring is the critical issue for the musical. We need to fold back the orchestra to the stage because the orchestra is scattered all over the building. Many players are in the orchestra pit, but it’s not the friendliest place to put a band, due to the physical limitations of the building,” says Jim Neil, sound designer for both productions.

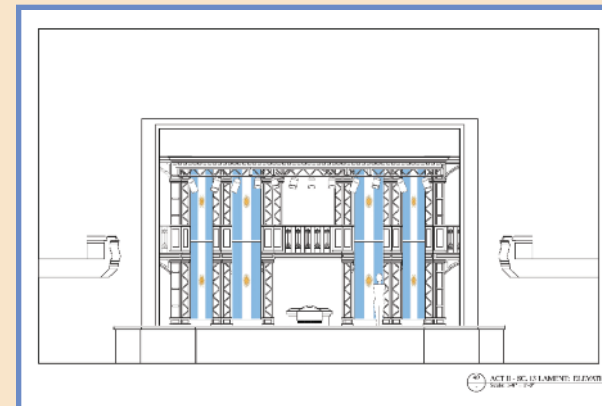
“We have to put a drum kit in a room down the hall, the bass player in a separate room, and two percussionists in another large room. This necessitates both video and audio monitoring, back to the pit for the conductor. The



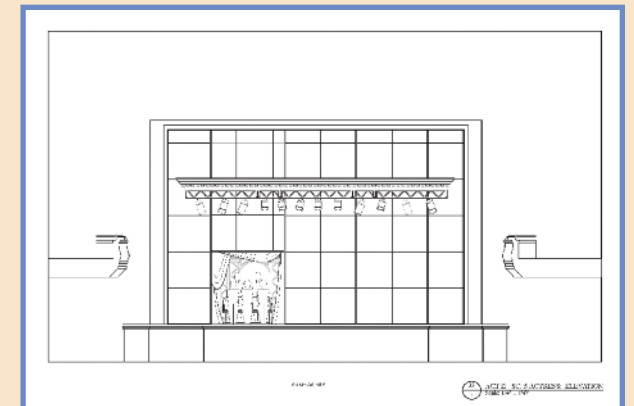
One of the shutter cuts used by the lighting department.



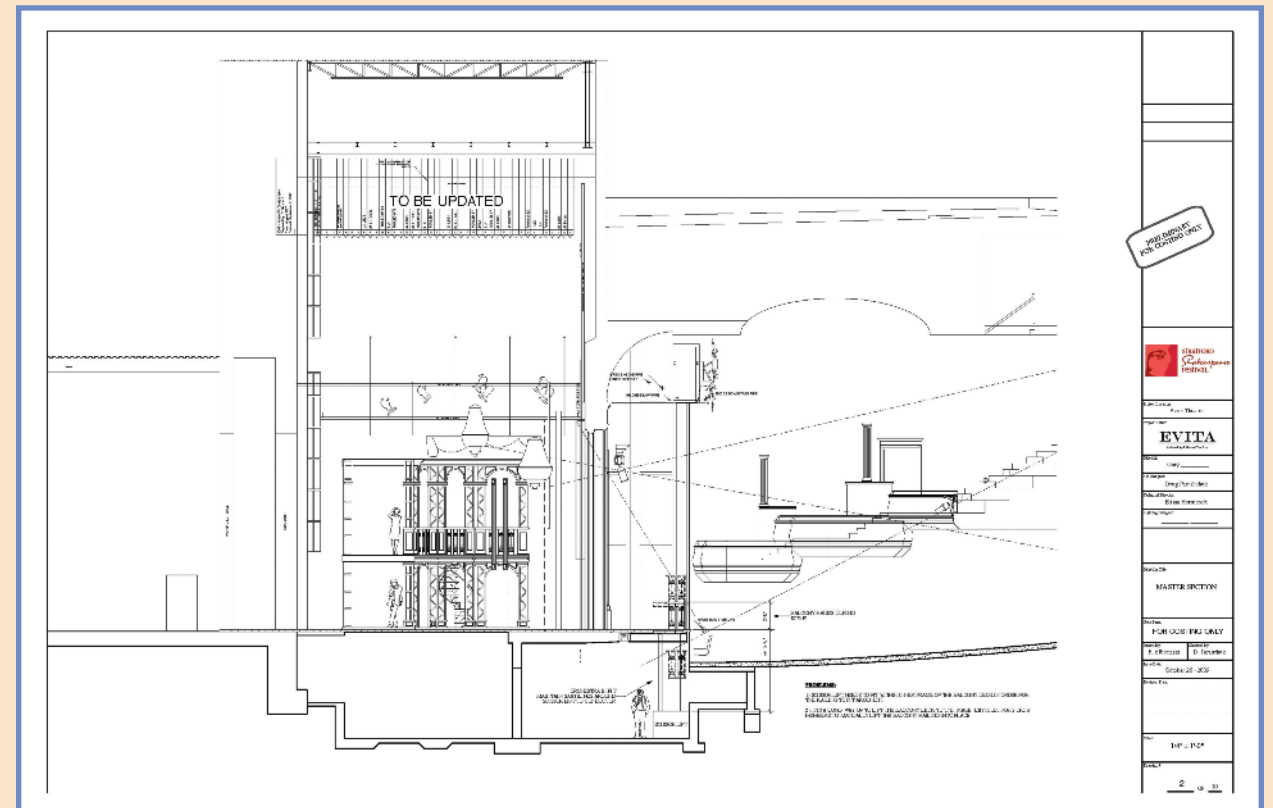
An elevation of “High Flying Adored” in *Evita*.



An elevation of *Evita*’s final number, “Lament.”



The iris curtains incorporate doors and drops.



An elevation showing how the two-level *Evita* set fits into the Avon Theatre.

Top photo: Courtesy of Stratford Shakespeare Festival; All drawings: Courtesy of Douglas Paraschuk

big question was, How do we set up the monitors for *Evita* and deal with the changeover? In *Evita*, we mount some loudspeakers in the set pieces that go away in the changeover. That's probably the biggest challenge.

"We're using Aviom personal mixers for everyone in the orchestra, so our pit rehearsal turned into a real sound check—we had to get all the communication lines working first before they could play a note together," he adds.

The sound rig includes two clusters of Meyer Sound UPA-1Ps—one for the orchestra and one for the balcony, both laid out in an A/B/C configuration. Meyer UPA-2Ps are placed on the proscenium left and right balcony level, with UPA-1Ps on the proscenium left and right orchestra level. Two Meyer 700-HP subs are found on the left and right proscenium. Front fill is provided by 12 Meyer MM-4s, in an A/B configuration, with six more MM-4s for stage foldback. Eight Meyer UPMs are placed in an A/B configuration under each balcony tier, with eight more UPMs over the balcony. Twenty Apogee ACS1s constitute the surround system, with box fill provided by two Tannoy i8s. The effects system includes two Apogee ACS1s, eight Electro-Voice 1082s, four Meyer UPA-1s and two Meyer UPM-Ps. The wireless microphone system is entirely from Sennheiser: Transmitters include ten 5212, two 5012, twenty-one SK50, and two EW 500 G2 units; receivers include ten 3732, fourteen 3032, nine EM2004, and two EW 550 G2 units. Also used are four Sennheiser SR 2050 and EK 2000 in-ear monitors. Orchestra

mics include units from DPA, Shure, Audio-Technica, Neumann, Schertler, AKG, Earthworks, Beyerdynamic, and Audix. Sound is controlled by a Meyer LCS Cue Station, with 24 channels of Wild Tracks playback; outboard gear includes two TC Electronic M1 and one TC M2000 reverbs, plus one Lexicon PCM80 digital effects processor.

The changeover process involves recalling the appropriate show file in the Meyer LCS console, with separate cue lists for front-of-house and monitor mixes and playback of sound effects and click tracks as required. Occasionally, a singer's mic must be switched from the "A" left-center-right loudspeaker system into the duplicate "B" system to eliminate the possibility of phase problems when two singers, in close proximity, are picked up by each other's mics and summed electrically. This output switching is included in the cue list.

**The simple approach**

The Stratford festival crew achieves its quick-change artistry using an ingenious mix of old and new technology, combined with great planning. On the day I witnessed it, the changeover from the *Peter Pan* matinee began at 4:40 p.m. and was completed by 5:25 p.m., with just the lighting check to go. Unless you knew the two shows were playing the same stage just hours apart, you'd never guess. As Horscroft adds, "The secret is keeping it simple without affecting the quality of the art." 📶

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