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Dirty Dancing emerges as an international—and critic-proof—stage hit

By: Julie Rekai Rickerd

The title—*Dirty Dancing: The Classic Story On Stage*—is unwieldy, but the grosses are impressive. Eleanor Bergstein's stage adaptation of her phenomenally successful 1987 indie film is causing hormones to rage in audiences worldwide. The tale of the unlikely romance, at a Catskills resort, between the innocent teenager Baby Houseman and Johnny Castle, the street-wise dance instructor/gigolo, has played to sold-out houses ever since it opened at the Theatre Royal in Sydney, Australia in November 2004.

Following an 18-month run Down Under, Jacobsen Entertainment, in association with Lionsgate and Magic Hour Productions, opened the show in Hamburg, Germany. An open-ended production at the Aldwych Theatre in London celebrated the first anniversary of its opening last October and is offering tickets for sale well into 2009.

A $10-plus million production that costs $500,000 a week to run, *Dirty Dancing* recently had its North American premiere at producer David Mirvish's Royal Alexandra Theatre in Toronto, co-produced with Jacobsen Entertainment, Lionsgate, and Magic Hour Productions. The theatre's box office set a sales record on the first day of ticket sales, and the clamor for seats has continued since then. For the week of December 26-30, sales set a new record of $1,347,525.

Reviews have ranged from good to don't ask, but reviews aren't the point. As the famous line in the film goes, "Nobody puts Baby in a corner." And, in fact, Baby won't budge; she's doing far too well. *Dirty Dancing* joins the current list of critic-proof hits—including *Mamma Mia!* and *We Will Rock You*—that draw on a far broader audience than the normal core group of theatre fans. They're lured by the opportunity to see a spectacular, live recreation of a beloved pop experience—the music of ABBA or Queen, or a film favorite. What separates *Dirty Dancing* from the rest is the fact that it's not a musical. Instead, it's a fairly literal transcription of the screenplay, complete with soundtrack; the dance sequences are set to the pop tunes immortalized in the film: "(I've Had) The Time of My Life," and "Hungry Eyes." It's a strange new theatre-film hybrid, and, as such, it poses any number of design and technical challenges.

"There are 106 scene changes in the show—one change takes place after three words of dialogue—and 640 automation effects," says Richard Martin, who has overseen each of the productions to date. "There are double revolves onstage. LEDs enhance the scenes and the automated lights and sounds are intermingled with the actors. Stephen Brimson Lewis designed a seamless set. There's not a lot of scenery, but the change of visuals is constant, through the lighting, video, and projection designs." Martin, who works for the Jacobsens, is the "conduit of information" for all productions of *Dirty Dancing*; his job is to facilitate and supervise the continuity of the creative team from venue to venue. "I haven't been home [to Australia] for seven months," says the veteran technical director, whose background includes 10 years at the Sydney Opera House, a stint with Cameron Mackintosh, the Sydney Olympics, *Phantom of the Opera* in Australia, and *The Lion King* in South Africa. (Prior to overseeing future *Dirty Dancing* companies, he'll squeeze in the mounting of an Australian production of *Spamalot*.) "*Dirty Dancing* is a marriage of energy and technology," he says; "backstage is just as much a marathon as onstage, just as exciting as out front. There are 40-odd performers who share 600 costumes, seven dressers, 50 stage crew—all in constant motion."

Although the creative team changed as each production of *Dirty*

Photo: Cylla von Tiedemann

Dancing evolved, the Toronto production's lineup worked together on the London edition. Lighting designer Tim Mitchell worked with set designer Stephen Brimson Lewis, video and projections designer Jon Driscoll, and sound designer Bobby Aitken. The four have produced any number of remarkably cinematic interiors and exterior effects—in an innumerable variety of moods, natural settings, and climatic conditions—seamlessly and at a galloping pace.

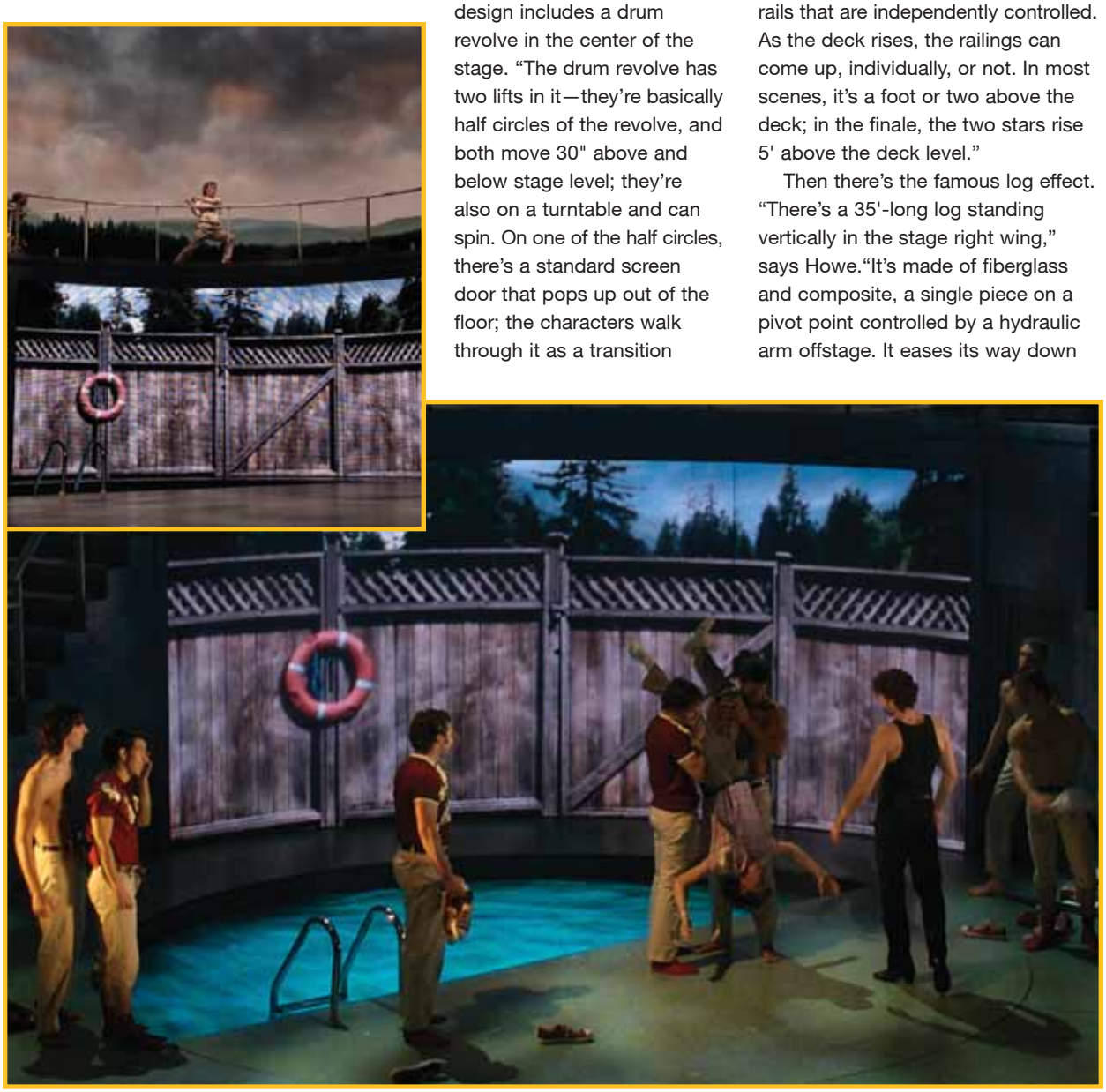
The Catskills surround

Lewis's set is designed to facilitate the play's many scenes and locations; Driscoll's video projections provide most of the crucial scene-setting information, often in collaboration with Mitchell's lighting; the importance of the projections can be seen in the fact that Driscoll even designed gobos to be used in part of Mitchell's lighting rig.

According to David Howe, of Hudson Scenic, the company that built much of the scenery, the set design includes a drum revolve in the center of the stage. "The drum revolve has two lifts in it—they're basically half circles of the revolve, and both move 30" above and below stage level; they're also on a turntable and can spin. On one of the half circles, there's a standard screen door that pops up out of the floor; the characters walk through it as a transition element; this center revolve is also where Baby and Johnny take part in a mambo contest at a neighboring resort. "Outside of the drum is the ring revolve," he adds. "It's basically a donut turntable, about 4' wide, which spins around the drum."

In addition, Howe says, "There are two deck tracks that come from stages left and right. Further downstage, at the apron, is another elevator, which comes from the deck level and rises about 6' above the deck. On that lift, there are two curved hand rails that are independently controlled. As the deck rises, the railings can come up, individually, or not. In most scenes, it's a foot or two above the deck; in the finale, the two stars rise 5' above the deck level."

Then there's the famous log effect. "There's a 35'-long log standing vertically in the stage right wing," says Howe."It's made of fiberglass and composite, a single piece on a pivot point controlled by a hydraulic arm offstage. It eases its way down



The exterior scenes blend projections on the upstage cyc and on the Daktronics screen.

The Daktronics screen also serves as a projection backdrop for the interior scenes.

and lands on one half of the drum lift; that's how they do the scene where Baby and Johnny are walking across the river."

Upstage is a stationary bridge, with staircases at both stages right and left. Beneath the bridge is a Daktronics Pro Tour PT-8i 8mm LED screen, which is used by Driscoll for scene-setting video work. Upstage is a large cyc made of Gerriets Revue fabric, on which are projected any number of sky vistas. Besides Hudson's contribution, most of the flying elements and some rolling units were built by Hamilton Scenic Specialty Inc., of Dundas, Ontario. Softgoods were supplied by Rose Brand.

"All of the flying pieces are automated," adds Howe, noting that everything is driven by Hudson's motion-control system. "There are 27 axes of fly control—including three sets of Chinese lanterns, chandeliers, and a bunch of flying drop pieces. There's also a chassis with two different car bodies on it; for the opening, it's dressed like the Houseman family's car in the film; later; offstage, it's switched to the '58 Chevy that Johnny drives."

Apart from the framework of the set, which allows plenty of space for the non-stop motion on stage, nearly all the scenes are conjured via Driscoll's projections, Mitchell's lighting, and modest-sized flats or props from the flies. Three windows descend from the flies to recreate Johnny's dance studio; the room belonging to Penny, Johnny's dance partner, is a series of log cabin wall projections, as are the guest log cabins. In many cases, different design disciplines combine to create a single effect. A projection of an outdoor swimming pool looks real; the addition of lighting to cause ripples renders it even more authentic. Beds, tables and chairs are among the few props that dress some scenes.

Driscoll describes himself as "someone who likes absorbing light. I love the challenge of these fast-moving shows. It's really like a huge puzzle I like to solve." In *Dirty Dancing*, Driscoll's transitions are tight and seamless, bouncing from scene to scene, indoors and out, sunrise to sunset. "The show content is supplied to the screens by three Catalyst media servers," he says. "The Catalysts are driven by two [High End Systems] Wholehog III PC consoles following MIDI show control from the lighting department's Strand desk. The lighting and video cues have the same numbers and trigger simultaneously, keeping a very tight sync."

Driscoll works with many different projection surfaces. There's the Gerriets Revue cyc upstage, and there's the video screen, also upstage, under the bridge. "Working with the Daktronics Pro Tour PT-8i LED screen is a thrill, a technology not usually affordable to theatre productions," he says. "LED technology usually comes with the problems of heat and noise, but Daktronics and Sound Associates of New York [the video gear supplier] solved the problem for us with the Pro Tour panel specification." The Daktronics screen, he adds, "is articulated, with a center section that can open; it looks like a Cinemascope wedge, and can slip into four quarters, with members of the cast in the middle of it. Hudson fabricated the entire movement of that piece. It is similar to a bus door; when it closes, it closes flush. They drive a car through it on two occasions." The screen provides important location information; in the early sequence in which the family drives to the Catskills, the car unit is positioned in front of the screen, which shows images of the countryside passing by. At other times, four robotic cameras captures the action onstage live in some of the dance sequences—and the imagery is transferred to the Daktronics screen, helping to "amplify the energy" of the dancers, says Driscoll.

Photos: Courtesy of Jon Driscoll

There are 27 axes of fly control, for such pieces as the Chinese lanterns seen above.

In addition, there's a big front scrim. "Its primary function is to act as a huge, semi-transparent screen onto which we project wide landscape images," Driscoll says. "The actors will appear to be within the projected field or the lake by standing in the crosslight behind the front scrim." There's also a curved scrim that circles around the drum revolve at the opening of the show, which the projection of the "Magic Moment" dance sequence is keystoned onto. Driscoll also projects images on other parts of the set, including the deck. Finally, working with Mitchell, he designed projection gobos and scenic panoramas for many of the lighting units (more about it in a minute).

In Driscoll's gear list, there are two Digital Projection Lightning Pro Series projectors, which are used for the front scrim images; a Barco CLM R10+ projector, which delivers images of rushing water to the deck for the log scene; and four Panasonic AW-E750 2/3" 3CCD remotely programmed motion-control cameras for the IMAG content. The images on the big upstage cyc are largely created by custom gobos in the lighting units.

Driscoll's images were created using material from his photographic and film archive, in combination with material shot specifically for this production. To evoke the Houseman's car trip to the Catskills, the designer shot thousands of photos in New York City and along the road to the Catskills. "The journey sets the whole thing up—it sets a style that we stick to," he says. "It is derived from photo realism, but then edited and assembled into a montage to become quite theatrical. I'd be looking out for things like a diner—iconic little things. I came across perfect old buildings in Brooklyn. To create the footage, I worked with animation director Gemma Carrington, creating the 1963 period by compositing all the separate elements into animated sequences. The footage is entirely designed, and we can control the speed and direction of the sequences."

Lighting up the skies

Even Mitchell's lighting gets into the projection game. Behind the curved RP screen located upstage is a wall of lighting units, approximately 150 in number—both VL3500s and ETC Source Fours, outfitted with custom gobos from Apollo Design Technology; these units, placed on ladders behind the RP cyc, are used to create the various sky-and-cloud looks that are a dominant part of most of the stage pictures. ("Eleanor Bergstein had opinions about this, saying it's a piece about skies and light and space," notes Mitchell). The Vari-Lite units are particularly useful here, he adds, because "we can use the units' shutters to feather the edges between each gobo, so we don't have to angle-correct them. It's a neat way of doing scenic projections." He adds, "We also have some sets of color and gray-scale glass, which combine to create vast panoramas that Jon designed, in keeping with the video design, on some units in the house; we do front projection to get some depth of field on the RP screen." Additional VL3500s project onto the legs framing the set.

"The whole of the RP screen features skyscapes most of the time," Mitchell adds, "and most of this is done with metal and glass gobos.

Behind the RP screen is a wall of lights—about 150 units with sky gobos. We also front-project on the screen to get some depth of field. There's also a bounce cloth at the base of the RP, with 40 [ETC] Source Four PARs that provide the horizon line; they are covered by a Plexiglas piece put there by Stephen, with trees and the horizon painted on it." The Source Fours are fitted with gobos and have Wybron Coloram IT scrollers, which are set up in a unique way. "We have a whole frame of color followed by a half frame, and then another whole frame. It's a 32-frame scroll, with 16 full colors and 16 half colors." With this setup, the designer can create subtle, progressive time-of-day changes with shifting colors, moving, say, from a late-afternoon sky look to a full sunset, as the scenes unfold. ("The skies are constantly changing," the designer notes, adding that many viewers think the sky look is the result of a video effect.)

There were many challenges in Toronto, not least of which is that the audience rocks out so much during the dance numbers that the balcony rail position bounces up and down, throwing the units off their focus. "Onstage, it's very, very tight," says Mitchell. "Everything is on split pipes," in order to fit around the many flying scenic elements. In one clever solution, the designer built a set of Source Fours into industrial lighting units, to create overhead lighting for scenes in the staff quarters. "We built the pieces around a Source Four body," he notes, adding he has more leeway behind the upstage RP screen, where units are on ladders.

Overall, the lighting is defined by plenty of saturated colors and a nearly constant parade of cues that fade from one scene to another, in the manner of a film. "The lighting is very heightened," says Mitchell. "This is a show about memory, about two people falling in love. It's a warm show. The greens are really quite green and the blues are really quite blue."

The lighting rig, supplied by Q1 Production Technologies, includes 25 Vari*Lite VL3500Q Spots, 13 VL2000 Washes, 37 VL1000TS units, six Martin MAC 2000 Performances, 22 Mac 700 Profiles, 267 ETC Source Fours and Source Four PARs of various degrees and sizes; 17 PAR 36 ACLs, 27 L&E Broad Cycs, 13 Philips Solid State Lighting ColorBlaze 72 LED units, two Robert Juliat Cyrano followspots, four ETC Source Fours outfitted with Diversitronics strobe caps, Martin Atomic strobes, and 112 Wybron Coloram IT scrollers. For fog and smoke effects, there are four City Theatrical SS6000 dry ice foggers, two MDG Atmosphere hazers, five Martin Magnum 800 smoke machines, and four Jem AF-1 fans. Accessories include 25 White Light VSFX optical effects systems. Dimming is provided by ETC Sensor racks, plus six City Theatrical WDS radio control dimmers. The lighting is controlled by two Strand 520i consoles, one of which serves as a backup unit. The lighting was programmed by Andy Davis; Vivien Leone is the associate designer.

Mitchell readily admits that his work on *Dirty Dancing* required a "gargantuan effort, like a nucleus, and all these atoms bouncing around—they're all bouncing off us—and everyone is permanently tired. It's a big rig and we use all of it all the time.

The drum revolve lifts for the dance sequence seen above.

We have 2,000 moving light groups; Vivien worked with Matt Peal from the RSC, who has developed a databasing system to handle this sort of information—it runs through the Strand console. But it's a really busy show."

Mixing live and recorded sound

Sound designer Bobby Aitken's resume includes *Mamma Mia!* and *We Will Rock You*. He is also noted for his work in large-scale, in-the-round opera.

"*Dirty Dancing* is very complex,"

Photos: Courtesy of Jon Driscoll

The images on the upstage cyc depict a variety of sky looks, as per the vision of the author, Eleanor Bergstein.

he says. "Musically, it combines a nine-piece band in the sub-stage, live music played onstage, ProTools augmentation, and a stack of remixed hit songs from the '60s. All of this runs simultaneously with a constantly shifting cinema-style surround soundscape. It's not musical theatre in the accepted sense; for example, the principal characters don't sing to each other." Nor, indeed, do the songs serve to illuminate the characters or move the story along, as happens in a traditional musical.

Nevertheless, Aitken's design is responsible for *Dirty Dancing*'s perfect amalgam of technology and live music. "The monitoring systems are very important," he says. "Many times during the show, we will have a band onstage playing with a band offstage, both of which are locked to ProTools. If they can't hear exactly what they need, then we are sunk!

"The bands all have Formula Sound Que-18 mixers and set their own mixes," he adds. "They are originated on a DiGiCo DS00 board. When the band is onstage, they make use of Sennheiser EW 300 in-ear monitors."

At the front of house, there is a lot of movement in the sound as well. "The 'soundscape' is central to the success of the design," says Aitken. "Following on from the cinematic origins of the piece, we envelop the audience in an ever-changing environmental atmospheric track. I use QSC, a system developed in the U.K. It's a multi-channel PC-based system." As a result, he adds, "Programming is a constant operation—as scenes get tighter with rehearsal, their timings have to be altered; it's never-ending!"

Aitken's primary loudspeaker systems are manufactured by Martin Audio. "In Toronto, I use W8LCs and W8LCDs for the left and right, and W8LMs for the center fill," he notes. The other front-of-house loudspeakers consist of a mix of units from d&b audiotechnik and EAW. Amplification is provided by Lab.Gruppen fP 3400s and fP 2600s, and d&b D12s.

Onstage, the loudspeaker monitoring is a mix of d&b E3s, and, from Meyer Sound, UPA-1Ps and UMS-1Ps. All of the system processing is handled by a variety of XTA DP448 units.

The front-of-house sound is controlled by a DiGiCo D5T 12 console. "We use 127 inputs to the D5, which means we have to sacrifice the on-board effects package," says Aitken. "For outboard gear, I use four T.C. Electronic 4000 reverbs, two XTA DP324s for vocal processing, two T.C. Finalyser Express processors, one T.C. G Major unit for guitars, and one Alesis DM5 drum module to occasionally replace the kick drum." Sound Associates in New York supplied the audio equipment for the Toronto production.

Dirty Dancing's Toronto run is open-ended; a Utrecht production is scheduled to open in March, followed by another production in Stuttgart. The show's North American tour will begin performances at Chicago's Cadillac Palace Theatre on September 2. There appears to be little doubt that Baby and Johnny's many fans will be able to savor their romance in countless venues for years to come.

Photo: Courtesy of Jon Driscoll