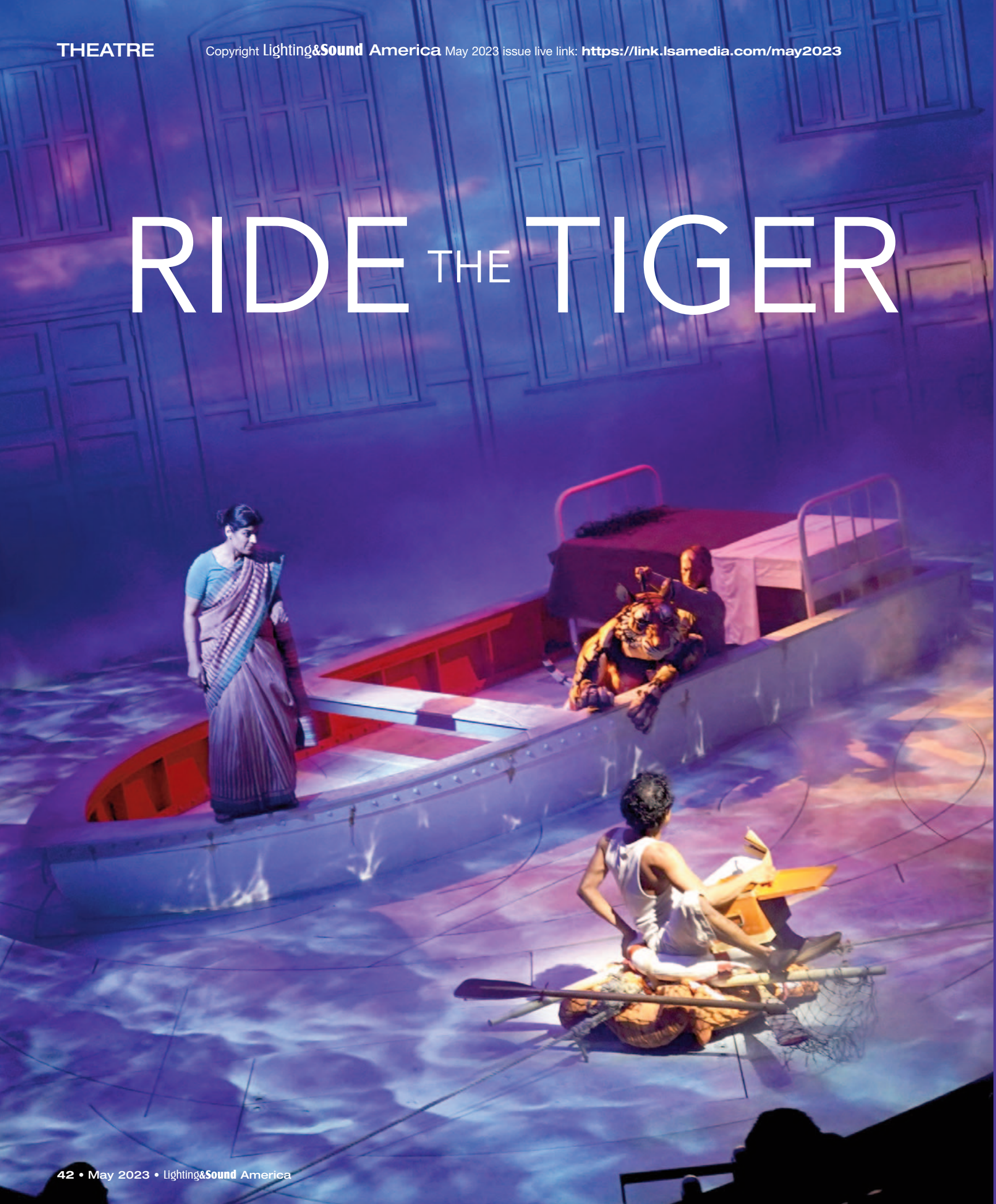
RIDE THE TIGER



Teamwork is the key to creating the perilous world of *Life of Pi*

By: David Barbour

Many novels, from *The Great Gatsby* to *Nicholas Nickleby*, have been adapted to the stage but few have posed as many challenges as *Life of Pi*. Taken from Yann Martel's blockbuster best-seller, it is a story of high adventure that would seem almost impossible to render in a theatre. And yet, Max Webster's production, which began at the Crucible Theatre in Sheffield, UK before arriving at Broadway's Gerald Schoenfeld Theatre in March, achieves one bravura sequence after another, thanks to the application of extraordinary stagecraft. Scenes that by all rights should only work on film—and, indeed, *Life of Pi* was filmed by Ang Lee in 2012—are rendered with remarkable confidence and panache.

Lolita Chakrabarti's script, which closely tracks the novel, focuses on the adolescent Piscine Patel—Pi, for short—growing up in Pondicherry, India in 1978. His parents operate a zoo, its animal population here rendered by a crack team of puppeteers operating creations designed by Nick Barnes and Finn Caldwell. The zoo's newest acquisition is a tiger, whimsically named Richard Parker, who, in an early scene, nearly devours Pi. Most of the time, Pi enjoys an idyllic existence, spending time at the local market where he is wooed by representatives of the Hindu, Muslim, and Roman Catholic religions. But it is a time of political and religious upheaval in India, so Pi's father makes the decision to take his family and animals to Canada.

However, when the ship transporting them is wrecked in a storm—a harrowing sequence, during which the animals escape their cages—Pi, apparently the sole human survivor, ends up adrift in a small lifeboat, eventually joined by Richard Parker. Desperate to survive, he learns to dominate the tiger, allowing them to settle into an uneasy, but more or less peaceful, co-existence. But more challenges lie in store, including near starvation and dehydration. And is Pi's tale of six months at sea with a savage carnivore believable? Or is there a darker, if more realistic, narrative waiting to emerge?

Faced with the challenge of creating locations on two continents and in an ocean, and knowing that the stage would be populated with puppets, scenic (and costume) designer Tim Hatley took his cue from the script, which employs a dramatic framing device: Pi, rescued and recovering in a Mexican hospital, is visited by a Canadian diplomat and a Japanese government functionary who are investigating the shipwreck; the action slips back into the past, offering Pi's version even as his listeners challenge his testimony.

"The hospital scenes," Hatley says, "felt like the key needed to unlock the play; it was good to have a place to come back to." Thus, he notes, the design "became about the transitions, being able to go, seamlessly, from the real world into Pi's imagination. It was the starting block, the thing I needed to get right." To accomplish this, he adds, the scenery needed to move swiftly to maintain the narrative's driving pace.

Hatley adds that, reading the script, he was reminded of his work, some years ago, with the theatre troupe Complicité, which is known for its adventurous, often surreal, stagings. Meeting Webster, he discovered the director was also steeped in Complicité's aesthetic. "Max gets that world of simplicity," he says. "It's about telling a story with very little and always trying to hang onto that. We knew we didn't want lots of trundling sets; it was more like turning the pages of a book and revealing another image, and it had to be achieved with economy."

Indeed, Hatley achieves fluidly cinematic transitions. The closed louvers of the hospital room open, animals appear, and suddenly we are in the zoo. The metal walls that define the marketplace become, with a slight positional adjustment, the deck of the ship. The outline of the lifeboat rises from the ship's deck, encompassing Pi's hospital bed. A few basic pieces of scenery and an all-important turntable create a sense of spectacle.

Once the hospital scene was conceived, the rest of the design began to snap into place, Hatley says. "The zoo came quickly once we had the hospital, the boat also, once I hit on that idea in a workshop. There are lot of ways to do a boat—for example, several actors holding up driftwood or a lot of bamboo. But we needed the actors to handle the puppets, so the boat had to be done by me."

At the Crucible, which has raked seating, Hatley says, the deck functioned rather like the upstage wall of the set, playing an important role in the oceangoing scenes. Unsurprisingly, Hatley says, "the last thing" anyone wanted to see was real water, but the ocean had to be rendered somehow. That's when video designer Andrzej Goulding got involved. A division of labor quickly emerged. "Andrzej's world is the weather," the set designer notes. "We don't rely on him to create scenery. He does some architectural bits in the zoo and texture on the wall. But we wanted to get a fusion between disciplines; you can't quite tell who did what. It's the same with Tim Lutkin's lighting: Getting all of us to gel, and work together, was hugely important."

Photo: Courtesy of Tim Lutkin

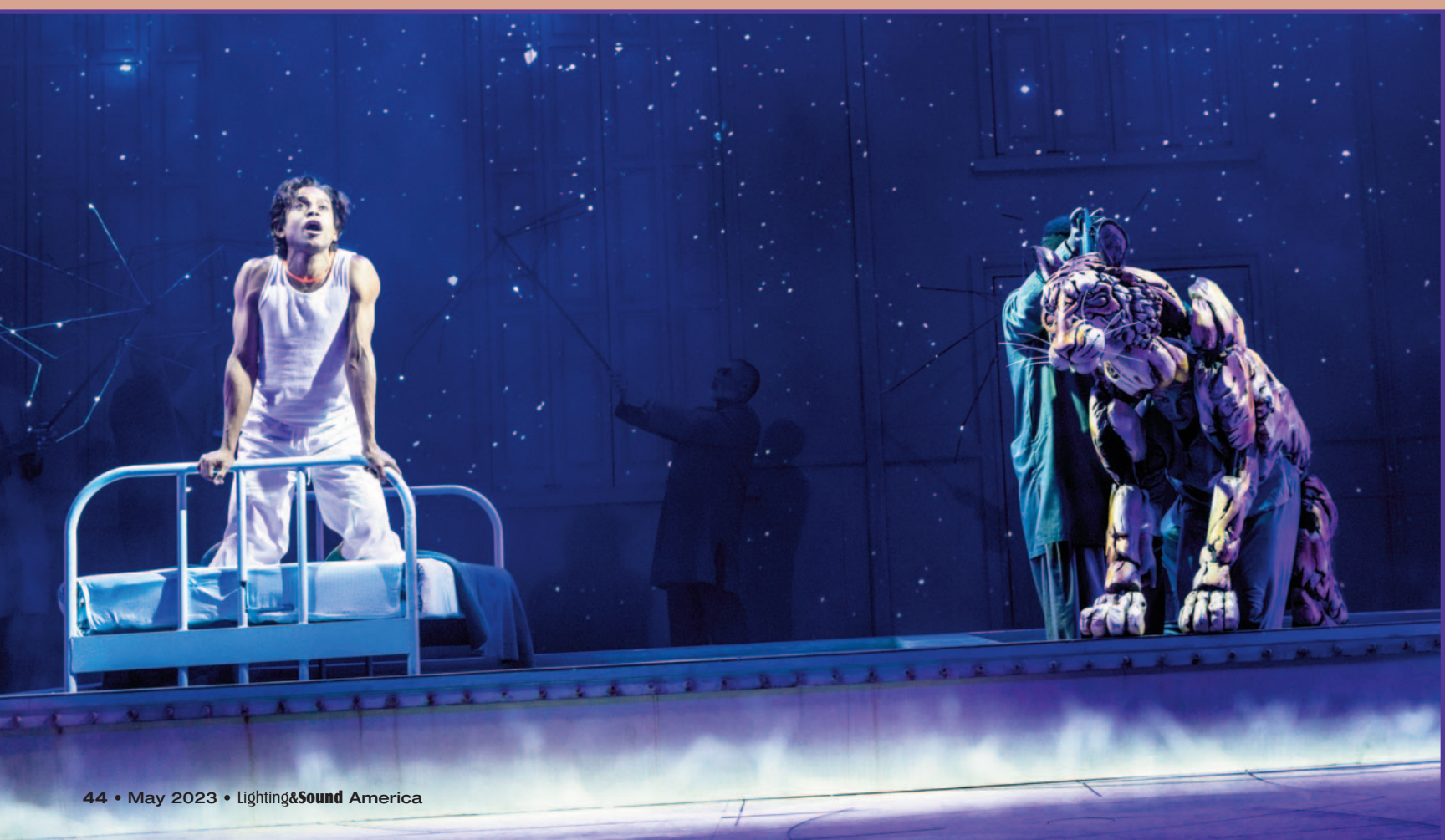
"It's a gift, really, for me," says Goulding, acknowledging the centrality of video to *Life of Pi*. He adds that he took his cues from Hatley's design. "There are only so many real objects in the show; that influenced the style of the video. I never sought to create realism with respect to the water; it wouldn't work with the set design. Just putting a filmed version of water on the set wasn't what I was after."

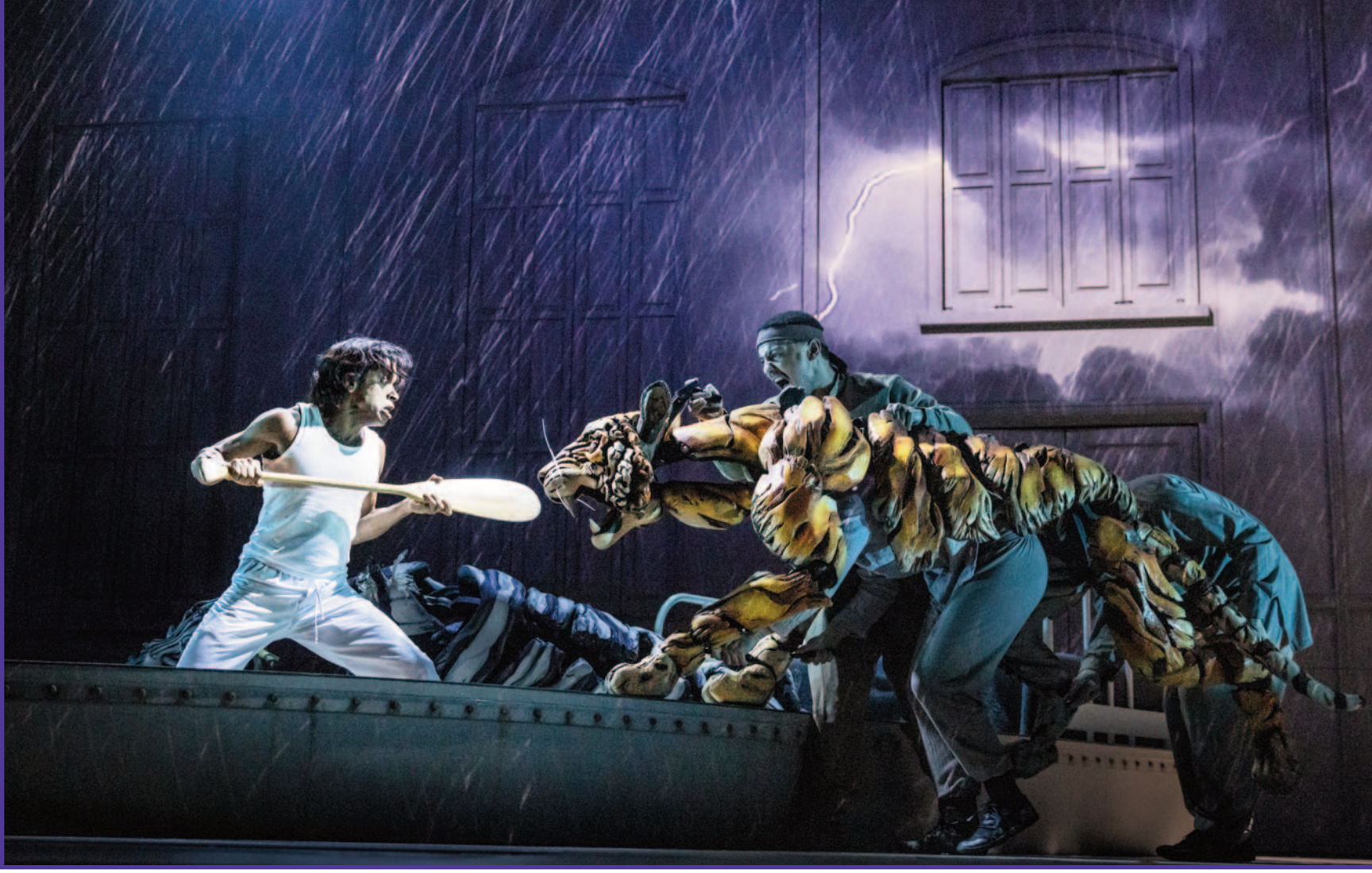
Instead, Goulding works with multiple layers of imagery. "I have real water footage, animated footage, and a depiction of lighting, with separate color control in the media server to match Tim Lutkin's lighting. It is so much better than showing real water; all you need is to tell the audience that something is moving. The focus is on the boat; the water is designed to be seen on the periphery. The surrounding skies are images of the real thing, but we graded them differently and mixed in lighting. Tim [Lutkin] uses saturated light at a very low level on the floor and back wall, which helps to merge lighting and video."

Offering another example of lighting and video working together, Goulding cites the Act II sequence offering the alternate version of Pi's ordeal. "When we get to that scene, the shadows you see on the back wall are supplied by Tim. But the inside and outside of the boat are lit with video; we have a top light on it, and we also light the side of it. It gives you a look you can't get with lighting units alone, due to the precision of tracking the boat shape. The scene had to be stark and cold. I also lit the 3D water from the same positions as Tim's lighting, allowing the lighting and video to merge even more."

Four projectors deliver imagery to the deck, each covering a quarter of the space, with two more units focused on the upstage wall. "One is aimed at the wall downstage," Goulding says. "When the wall tracks up, another takes over for the upstage position," where it spends most of Act II. "Another projector from the front of house does the front of the boat and certain onstage objects, creating caustic light, which is the reflected light on the side of the boat; without that, the boat feels quite detached from the deck. A center overhead projector hits the top rim of the boat and its interior. We gave Tim the ability to control intensity and color from the light board. Between the two of us, we can light the entire boat." (He adds that the video cues are driven by the lighting console. "If there isn't a lighting cue where we need it, we ask for a dummy cue. Some effects are cued from sound to lighting to video.")

The production's storm effects are, again, a mix of actual footage and animation. "This is one time that we don't put saturated light on the floor to create high contrast," Goulding says. "It's the motion that sells it. It's completely unrealistic for the open ocean but works for a theatre space. I pushed it in the grading, adding rain spatters and displac-





Previous spread: To create watery effects, Goulding works with multiple layers of imagery. "I have real water footage, animated footage, and a depiction of lighting, with separate color control in the media server to match Tim Lutkin's lighting," he says. Left: Projections treat the side of Pit's boat. Above: "Each [puppet] has a [zactrack] tracker in its head or chest," Lutkin says, "and each cast member wears two trackers. The tiger puppet has two and Pi has three.

ing it so it undulates a bit. Having rain come down gives it some motion as well; it's another layer that gets the eye excited. Then there are lightning flashes on the side of the boat."

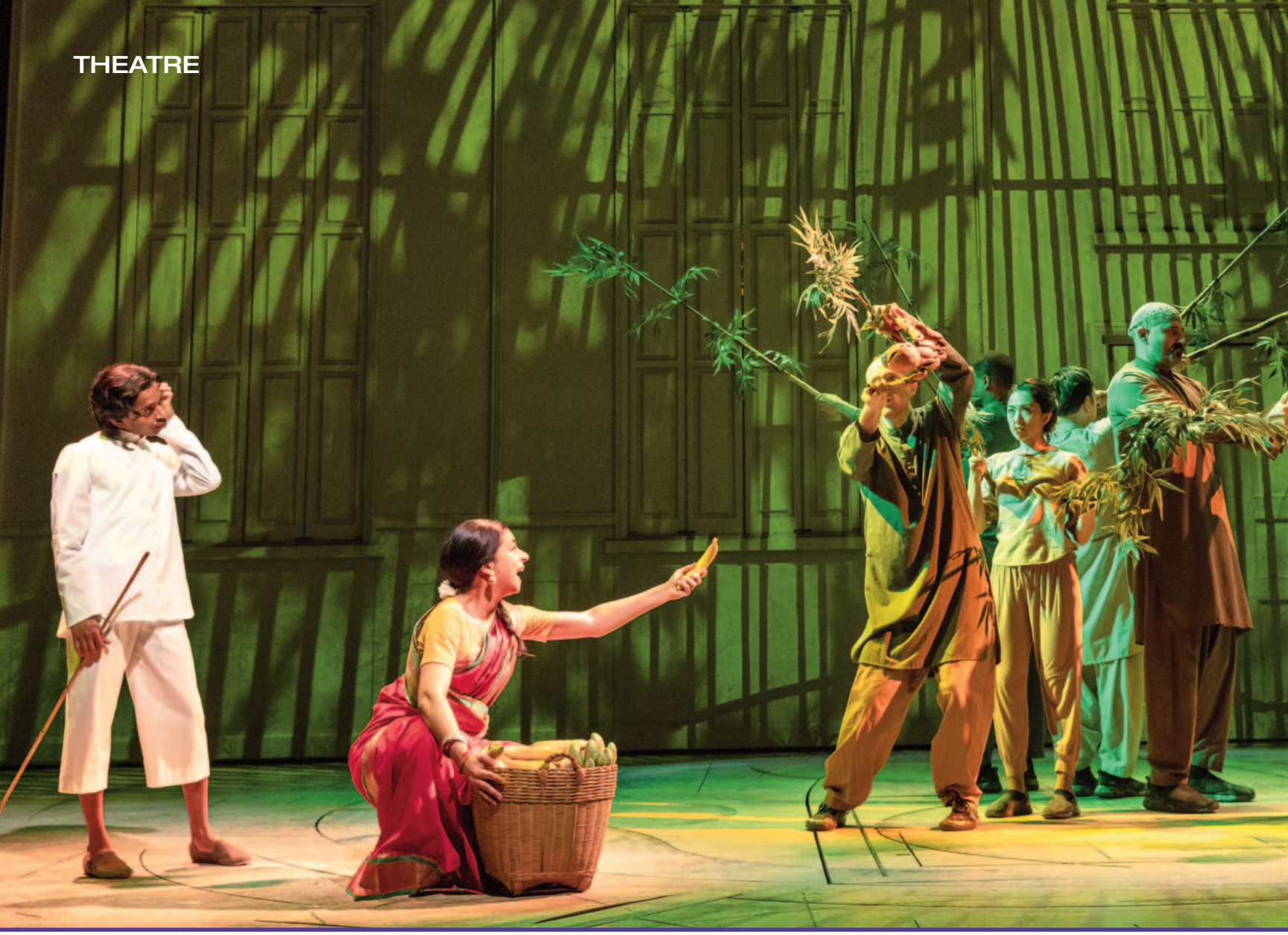
Moving from theatre to theatre—including stops at Wyndham's Theatre in the West End and the American Repertory Theater in Cambridge, Massachusetts—Goulding says, "Each time, I've had to 3D-model the stage floor and walls. If the stage is smaller, I can generally reuse imagery. But if it goes wider, I need to re-render it. Everything grew for Broadway; the relationship of the boat shape to the stage is quite specific." Discussing his tool kit, he says, "I use Cinema 4D for the 3D stuff; I learned how to do particle effects, water, smoke, and tree animations. That gets pulled into After Effects. I sometimes do stuff in Procreate in an iPad, and that also gets pulled into After Effects, which renders it and sends it to the disguise media server, which does all the tracking and access as well." The projector system includes four Panasonic PT-R721Ks aimed at the deck and two Epson EB-PU2220Bs on the walls; all are 20K units. A single Epson Pro L1755U covers the boat top and interior, with another hitting boat's sides; these are 15K units. Gear was supplied by Sound Associates.

Goulding uses a disguise vx 2 server "because of all the tracking, really. We didn't have the wall tracking until we got to the West End. In the original version of the show, the walls were pushed by people. Each time the walls moved, we had to take the video off them and light them in some way. The automation allows us to keep video on the walls. It's about as seamless as you can get. It's one of the big advantages of video that you can jump locations and change the entire space in an instant. There's not a lull between scenes. It's a lot of cues, many of them linked through sound. But if we don't all go together, the flow doesn't work."

Both the deck and hospital wall take the video extremely well, but Hatley notes that neither is specially treated. "We selected a pale color of paint with a metallic pigment. A few tests were done, and it seemed to be absolutely fine. It's a simple matte surface."

On the road to Broadway, the production has been refined in a series of quite different environments. Small changes have been made along the way; a second upstage

Photos: Matthew Murphy and Evan Zimmerman for MurphyMade



"The zoo sequence is yellow, amber, and green, then we go into indigo, red, and blue," Lutkin says. "And whenever the video is doing a big green breakup on the floor, I'm always contrasting with a deep amber. That combination creates a layered effect with a lot of depth."

door was added for London and accommodations were made because Broadway stages are wider than their British counterparts. "We made no major adjustments for the Schoenfeld," Hatley says. The Cambridge/Broadway version was built by Show Motion. "They did the most fantastic job," he says. "It's the best of the three we've had."

One eye-popping effect features Pi falling out of the boat and into the water—really, a small hole cut into the deck—only to surface in another location several seconds later. Hatley says it is simply done, again borne out of his work with Complicité. "It's a square frame of elastic, covered with a piece of Lycra. It's not the first show where I've said to a director, 'We can always have someone run through a wall'." Faced with the need to show Pi plunging into the ocean, he adds, "I said to Ross Edwards, my associate, 'Get out the frame!'" It offers proof that theatrical thrills can be spun from the simplest of means.

Lighting

Lighting designer Tim Lutkin notes that the project raised all sorts of questions: "How do you do water successfully? How do you go seamlessly from hospital to boat? How do you light people on the revolving boat and not ruin the video?" He adds that he, Hatley, and Goulding immediately opted to tackle these issues as a team, aiming to create a seamless meld of visual elements.

Nevertheless, the lighting is marked by strong color choices that chart a path through the narrative. "We open in the hospital room," Lutkin says, "and it was always the intention to make it a cold, clinical space. In Sheffield, it was quite dark as well." For Broadway, he made this scene brighter, in part to help out the actors: "Trying to deliver lines to the back of the mezzanine is hard if the lights are on at 20%." In any case, the stark look of the hospital contrasts strongly with the zoo, which he describes as "this

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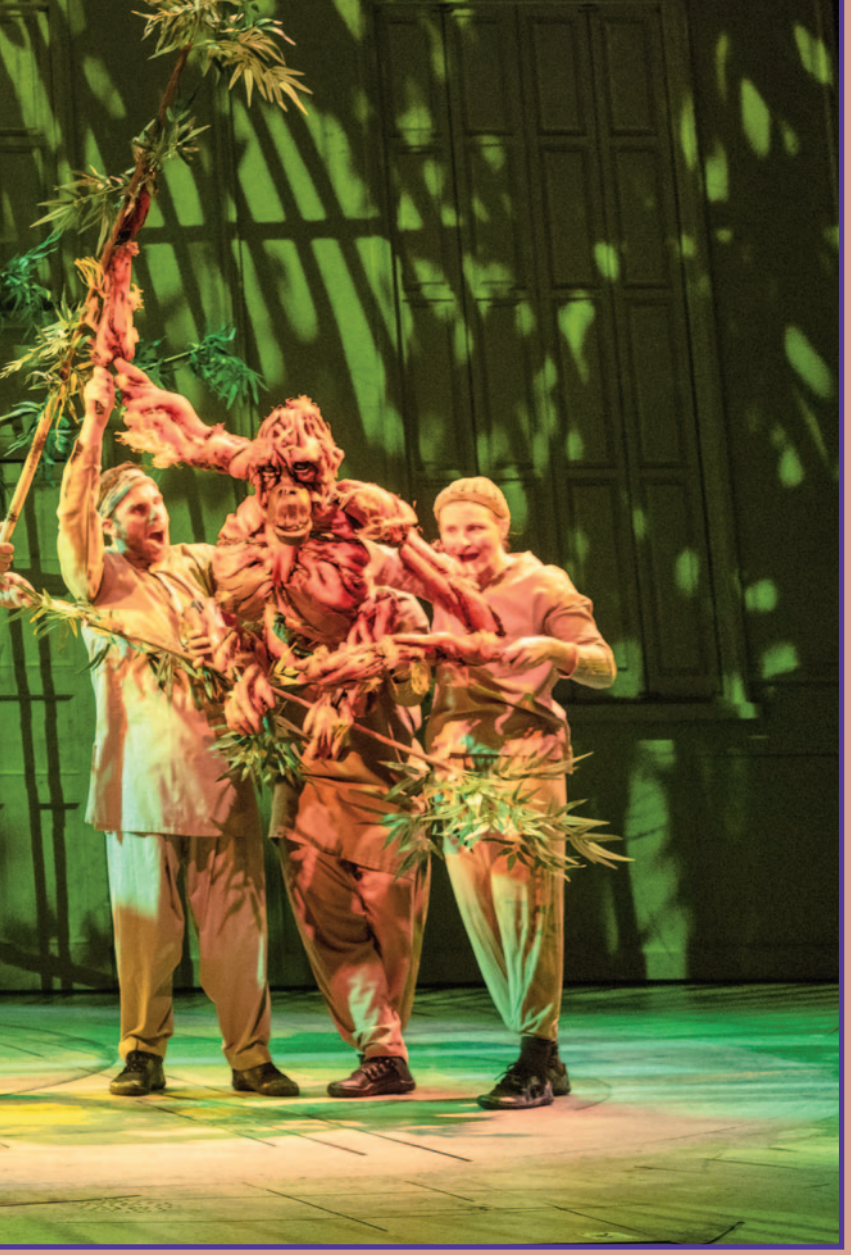


beautiful, colorful, playful space." The lighting "also make the market into this magical, beautiful, spiritual world."

Especially in terms of color, Lutkin echoes Goulding's comments about the close cooperation of lighting and video. "There are quite monochrome moments out at sea because these are real down moments for Pi. But we usually complement the video with a deep, saturated color top wash, sometimes in a color that the projectors can't actually achieve, like deep indigo, which really brings the video to life. When Andrzej and I work together with color, the video really sings out. When we're on top of each other with color, or similar colors, we blend each other out and neither department sings through."

Among his color choices, Lutkin says, "The zoo sequence is yellow, amber, and green, then we go into indigo, red, and blue. And whenever the video is doing a big green breakup on the floor, I'm always contrasting with a deep amber. That combination creates a layered effect with a lot of depth. When Andrzej is supporting the movement onstage with animation, I drop right down all the top light and use heavy sidelight, so the cast feels like they're popping out from the stage. We're lucky that we don't have sidewalls, so we can light into the wings with cross light." (Finding adequate positions at The Crucible was a challenge because the theatre's thrust configuration didn't allow for side light, which, he says, "I use quite often because it really pulls the cast and puppets out from the wall and floor.")

If the world of Pi's imagination is filled with color, other scenes, especially the final account of his voyage, look very different. "In that scene, I use a front light rigged in the trap downstage," Lutkin says. "It comes on like a footlight. It's the only tungsten bulb in the rig and it flickers away throughout. The angle creates shadows on the back wall for the first time; until then, you don't see shadows of humans. It's very simple, very old theatre and it marries up with this heavy story that he tells about his family."

A crucial tool, added to the rig for Broadway, is the zactrack tracking system. "One reason I absolutely needed it was because we couldn't have steep followspots on Broadway," Lutkin says. "We'd end up with very flat spots from the back of the mezzanine and the light would have been all over the wall, making it all look a bit amateur, to be honest. We needed a steep followspot position. I've got experience using zactrack for light shows in the Disney parks; it's good for doing soft-edged, beautiful followspotting when people aren't running around too fast."

However, he adds, with zactrack, "you need to use LED units because their motors move quickly. We have Martin by Harman MAC Aura PXLs, which are super-fast." Zactrack allows him to "have followspots from every single angle. When you have five or six units on a person at a very low level, say 30% each, by the time it's built up, they're singing out against the projection and the saturated lighting world." He adds, "We use zactrack Smart, which is big enough for a play of that size. You would need zactrack Pro if you wanted to track more people."

Zactrack is particularly useful for handling the puppets, he notes. "Each one has a tracker in its head or chest, and each cast member wears two trackers. The tiger puppet has two and Pi has three. At any point, we can follow anybody from anywhere in the lighting rig. It's smooth, it looks beautiful, and it's taken a long time to get it there. That's not because the system is clunky; it's just that with actors moving around in a space and a show settling in, takes a while. I'm pleased to say that Paul Toben, my associate and programmer, and Tim Reed, also my associate, did an amazing job of looking after that system.

"The producers and my team took a bit of a leap of faith in me saying we need to use the zactrack system as our sole followspotting system," Lutkin says. As he notes, the product is not yet widely used in the theatre. But, he adds, "It has made the show look like it does now. To have four followspots on the ends of LX 1, following Pi and the tiger at a super-steep angle that lands in the boat, and

then all the beautiful projection surrounding them and deep saturated lighting—it's magic, actually. Just ten years ago, we would not be doing that. With the zactrack system, I feel we've created something pretty groundbreaking. Lots of lighting designers were texting me and saying, 'Oh my God, you're mad using that system and not using followspots.' And then they came to see it and were, like, 'Oh, right, I've got it on my next show'."

Lutkin says his rig rests on four units. "[Martin] MAC Aura PXLs [20 total] are the wash lights. They're absolutely fantastic, the colors are brilliant, and they're extremely bright. The profile units are [four] MAC Ultra CLDs with shutters. We also use [ETC] Source Four Lustr 3s and [10] GLP [impression] X4 bars. We have a row of [X4s] downstage of the hospital wall. We have four in the wings that do side light. That combination of fixtures delivers the whole show." The rig includes a sizable complement of ETC Source Fours and 20 Elation Professional ELAR 108 Par RGBWs. "We also have MDG Atmosphere units to do nice, settled haze," Lutkin says, plus "smoke machines in the deck and four foggers that do the low fog upstage." These include Look Solutions Viper NTs and Unique 2s.

Lutkin credits Hatley for helping to facilitate the lighting's fluid cueing. "His concepts of a boat that appears out of the floor, of creating the world of the market by just spinning the walls around, and then spinning them around a little bit more for the boat, are super-helpful for me and Andrzej. The set does the work for us." He stresses the importance of their three-way collaboration. "Everything you see comes from total teamwork. There isn't any lighting state nor any piece of video content that I haven't discussed with Andrzej. Tim Hatley has been on our case every five minutes with tone ideas, asking, 'Have we gone too colorful? Why don't we try something drastic here because we need a new shift?' It's when departments don't work hand-in-hand that you get a clunky-looking thing."

Pi encounters a school of eerily glowing fish.

The production's teamwork extends to the control systems. "The lighting console triggers the video cues," Lutkin says. "We receive lots of triggers from the sound desk and that triggers video. If the sound department needs to trigger video without us, we put a blank cue in, and it goes through the lighting desk." The show's lighting is run using an ETC Gio. Lighting gear was supplied by Christie Lites.

Lutkin concludes by noting that close collaboration was essential to guiding *Life of Pi*. "When you've got an imbalance on a team—say, somebody who's all about detail and somebody who isn't—there's an instant clash. There's never that with me, Andrzej, and Tim. There have been huge leaps of work from Sheffield to London and London to New York and it's all been done with a loving and fun spirit. No one's been made to feel like they're bothering the other department at all."

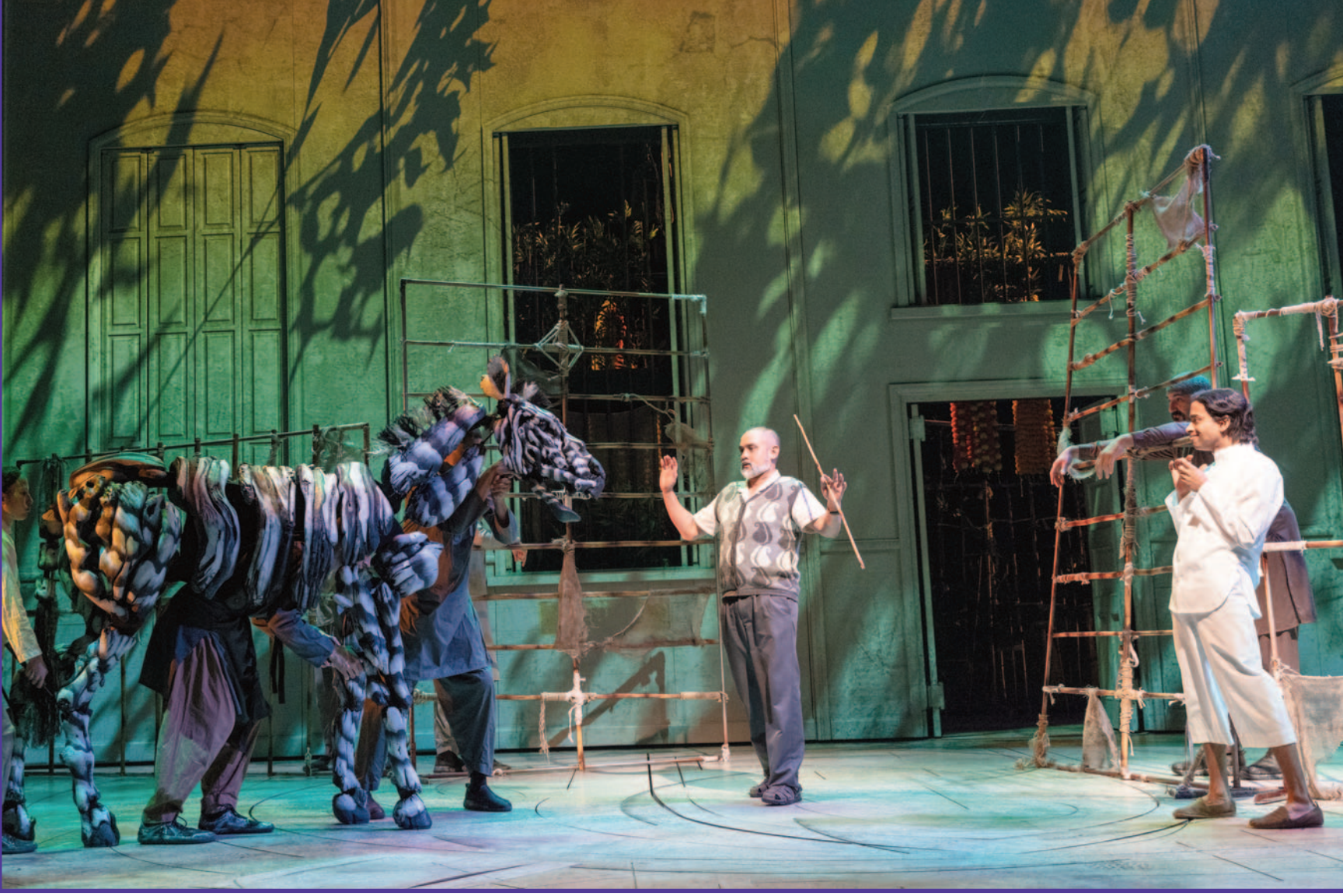
Sound

Sound designer Carolyn Downing came onboard early, for several reasons. "We knew it needed to achieve a kind of rich, epic scale of sound design and needed to be very real," she says. "To create a sense of the ocean, we needed to feel the water. As my mum said on the press night, she felt like she was in the boat with Pi, which was amazing and incredibly satisfying to hear."

The sound content Downing created had to be integrated with the actors' reinforced voices and Andrew T. Mackay's musical score. "The concept was to use radio mics as you would in a musical," she says. "We start with it sounding very natural; it's important that we connect with the performers onstage, with their humanity. But, as the soundscape and music score grow, the increase in vocal reinforcement level is imperceptible to the audience. It's a key concept. If I hadn't been involved early, it might not have been as successful."

The trek from Sheffield to New York posed its own set of challenges. "I tried to make a footprint, but the auditoriums are so different," Downing says. "So, I had to make different design choices to get broad, even coverage to all the seats and deal with any unusual acoustic properties in each room. The Crucible is a thrust stage with seating on three sides, which required a completely different way of looking at it. Wyndham's is a Victorian playhouse, small and narrow but very tall with a beautiful acoustic; we put the show in a proscenium there. On Broadway, the set comes out a little bit, like an apron, which is very challenging. I needed precision with both vocals and effects; I want to help people connect with Pi, believing that he touches the water and that he jumps into the water. The sound needs to be located at specific points onstage."

Therefore, she adds, speaker placement—both for



"The animal sounds are made by the puppeteers," Downing says. "Their voices are very much like a dialogue; all of them are miked and we blend them to get intricate chorus effects."

vocal reinforcement and effects—was crucial. "In Sheffield, you get a wide, open space that sound can move around in. It was weird at first at Wyndham's, but we could locate sounds more easily and precisely, which was more challenging in Sheffield. American Repertory Theatre got a bit of the Sheffield feeling back. Broadway feels like both ideas brought together; you get the gravitas of the space and the intimacy with the performers and story.

"Basically," she continues, "we have two speaker systems. In the main house, it's a proscenium, left and right, point-source system for music and soundscapes, with a center cluster for the vocals, imaged to onstage where the actors' voices are coming from. In a wide space like the Broadway house, we feed a little of the vocals to the near and side fill speakers; there are lots of little nooks and crannies in the Schoenfeld that need particular attention. The composer works in stereo, and of course he was keen to retain the spatial feel of the instrument recordings." At the same time, she says, "we don't want people in seats on the extremes of the auditorium to feel the sound is one-sided, so we feed a little of the music and soundscapes to the centers. But we're careful not to dilute the stereo image. It's a delicate balance." She adds that the system "is delayed upstage for the ambient atmospheric sounds, for example, the marketplace scene. The mains, fills, and delays under the balconies and top level are all imaged down to that upstage point; I can route ambient soundscapes to upstage speakers, for example, and then reinforce it with the full system to make it clearly heard throughout the auditorium but ensure it still feels like it is in the world of the play."

The main system draws on Meyer Sound gear. "We have ULTRA-X40s and 42s, which are just wonderful," Downing says. "I first tried them on a musical in Manchester, staged in-the-round, and I loved them. They have such beautiful voicing. I have [four] 40s at left and right, [four] 42s in the center, and [six] 900-LFCs and [two] 1100-LFCs on the front-of-house truss, in the auditorium boxes, and under the slopes used by the actors; subs are a huge part of the show." The Meyer units are processed using four Galileo GALAXY 816s.

Onstage, the designer places loudspeakers in various locations for delivering special effects. For example, she

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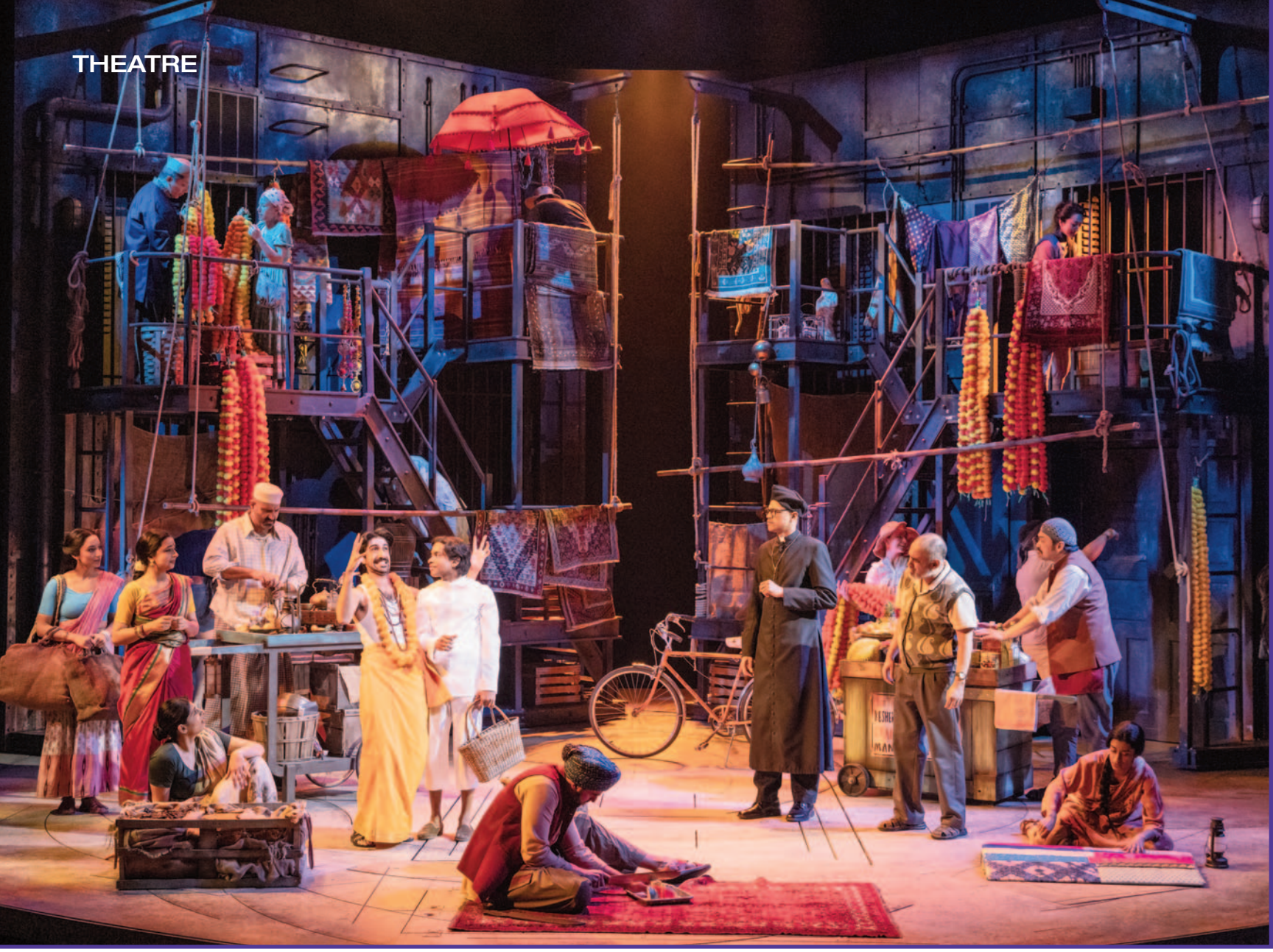

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says, "We have a ring of eight d&b [audiotechnik E6] speakers around the revolve. They sit under little grills, which are painted to fit with the visual aesthetic. The rest of the speaker system is zoned, so I can route to a deck speaker in a specific position closest to the action as well as to the rest of the system to give you a reinforced version of that specifically located sound. We also have two [d&b] E12s behind the flats, having done EQs to ensure the sound is as transparent as it would be in free space. There's also a speaker upstage when the walls are open, which is helpful for creating a central upstage image. And we have front fills as well, feeding the first few rows; they're part of the main system."

The rig includes eight Meyer UP-4XPs (front fill), eight UP-4slims (near, side, and box fill), seven Meyer UPM-1Ps and 10 d&b E4s (orchestra delay), two Meyer ULTRA-X20s (mezzanine side fill), five UPJ-1Ps (mezzanine delays), 32 d&b E5s (orchestra and mezzanine surround), two d&b E8s (stage foldback), six additinal E5s (wing foldback), three Meyer MPS-488HPs (fill amplification), 12 d&B D6s (delay and surround), and eight D6s (stage amplification).

Downing drew on many sources to get the full range of required sounds. "I have a library of my own; I have favorites that I knew would work. I also use Soundly, a subscription-based library with a fluid workflow and I did a variety of recordings. The animal sounds are all made by the puppeteers. Their voices are very much like a dialogue; all of them are miked and we blend them to get intricate chorus effects. We were all striving to make them precise; each voice comes through the mic and the animal voices express a variety of emotions—aggression and contentment—as well as delivering comedic moments. It was a real team effort with

Photo: Matthew Murphy and Evan Zimmerman for MurphyMade

the A1, the choreographer, the puppeteers, and the director.

"In the zoo," she continues, "I recorded the puppeteers voicing the animals, thus creating our own unique animal sound world. I made object recordings to create some sounds, such as bird wings flaps, using leather gloves, and delicate water splashes created in a container. I also looked for libraries of very high-quality recordings, for example, Hiss & Roar, a library from New Zealand-based sound recordist Tim Prebble. I was very keen that it all sound absolutely real."

The actors are miked using Sennheiser MKE1s—"so tiny and just lovely," Downing says—and Shure Axient Digital ADX body-pack transmitters. Thanks to the theatre's location in the always-busy theatre district, she notes, "The ambient noise level is more pronounced, so the reinforcement level is heavier than we had in Wyndham's and in Sheffield. But I think we've kept it natural." Another reason for the boost in sound levels is many members of the cast speak with authentic accents; the extra reinforcement helps make them more intelligible. She adds the sound department collaborated with Hatley to disguise the mics in wigs and costumes without compromising audio quality.

Sound is controlled using a DiGiCo SD10. "I tend to go the DiGiCo route," Downing says. "The flexibility of it is incredible, which is very important to me. I used to mix musicals, in my early 20s, and I've always found it invaluable to understand the ins and outs of the desk. It allows you to understand the opportunities available as a designer. I worked closely with the A1, John Dory, and associate, Sam Clarkson, who leads on the programming of the desk. The teamwork we established is key. I like being responsive to the work evolving in the room." Processing gear includes TC Electronic 4000 reverbs. Audio gear was supplied by Sound Associates.

Key personnel includes Sharika Niles (production stage manager), Luke Anderson (stage manager), Jonathan Castanien (assistant stage manager), Ross Edwards (associate scenic designer), Caroline Bowman (associate puppet designer), Paul Toben and Timothy Reed (associate lighting designers), Sam Clarkson and Rob Bettle for Sound Quiet Time (associate sound designers), Francis Rapp (production carpenter), Justin Stasiw (production sound), John Martinez (house carpenter), Tim Perry (automation), John Dory (head sound engineer), Brad Peterson (video engineer), Mike Samuel (video system engineer), Dan Trenchard (video programmer), Bentley Heydt (DMC lighting assistant), ien DeNio (assistant sound designer), Darren Shaw (assistant sound), Jeremy Wahlers (production electrician), Mike Hyman (head electrician), Sandy Paradise (house electrician), Dan Brown (production props), Eric Stewart (head properties supervisor), and Steve Mcdonald (house props).

Having earned five Tony and five Drama Desk nominations, *Life of Pi* continues its open-ended Broadway run.