



INTRO BY LAURA PAONE | INTERVIEW BY JOHN CARRAFA

Leadership, encouragement, and awareness are three of the most important ways director/choreographer **John Carrafa** feels directors can successfully spread environmentalism in the theatre. As the leader of a production, the director establishes the mindset that sustainable practices are part of every rehearsal, not something to be feared by members of the cast and creative team. “The director can create an environment where it’s okay for people to talk about it, where it’s not an unsavory topic,” says Carrafa.

As the SDC liaison to the Broadway Green Alliance (BGA), Carrafa notes that by addressing sustainability at the first rehearsal, the director makes green practices a priority for the entire production. There are processes through which directors and choreographers can make a production environmentally friendly, such as “rehearsing in work light, instead of rehearsing in full production stage light,” says Carrafa. Directors and choreographers can take simple steps to reduce the energy of the theatre, ultimately taking the entire production a step in the green direction. Carrafa also believes in the power of the Green Captain initiative, the system started by the BGA that appoints a member of the production to lead the team in sustainable practices. “The Green Captain empowers somebody in the cast to be in charge [of the production’s green policies]. Every Green Captain receives a packet from the BGA outlining sustainable practices for the rehearsal period through the run of the show, everything from everyone having their own water bottle to recycling corks. And casts often bond around this cause. Every cast finds a new way to be green,” says Carrafa. There is also a public nature to sustainable practices. “One of the most important things is for productions to be very public about their sustainable practices,” says Carrafa. “We in the entertainment industry are very visible to the public. What we do can have an effect on the general culture.”

On Tuesday, July 29th, Carrafa gathered six members of the theatre community for a panel to discuss the ways directors and choreographers, both New York-based and regionally, can adopt green practices. The panelists—including director Jeremy Pickard, set designer Donyale Werle, lighting designer James Bedell, costume designer Andrea Lauer, set fabricator Bob Usdin, and Vice President of Building Operations at Jujamcyn Theaters Jennifer Hershey—presented their individual green approaches for directors and choreographers across the country. Together the panelists noted that while small steps toward a green production should not be overlooked, the key to sustainability is a transformation of consciousness. “It’s about an attitude change,” says Carrafa. “A small amount of attention can raise awareness of green practices in every aspect of life.”

JOHN CARRAFA | Before we talk about anything green, talk about yourself, what your work is.

JEREMY PICKARD | I captain an eco-theatre company called Superhero Clubhouse. I run a few different initiatives under the auspices of this company, and all my work lies at the intersection of environmentalism and performance. For me, making eco-theatre is holistic; everything—content, process, and production—is rooted in difficult environmental questions.

JOHN | That’s amazing, Jeremy. I’m going to go after Jeremy. I’m a director and choreographer. I work on Broadway, Off-, and regionally. I’m doing a show at the Roundabout right now. What’s interesting is that I have not yet done any work that has environmental issues as its subject matter—I think like most of the Membership—but come at this from it being an issue that matters deeply to me.

JENNIFER HERSHEY | I’m Vice President, Building Operations, at Jujamcyn Theaters. We own a chain of five Broadway theatres. For the theatregoers, we make the theatre-going experience as beautiful, safe, and special as possible. For the theatremakers, we try to make them happy by adapting our theatres to fit their needs.

DONYALE WERLE | I’m a set designer. I work 100 percent in theatre. Sustainability is a huge focus of what I do, although it’s usually not

LEFT TO RIGHT Bob Usdin, John Carrafa, Donyale Werle, Jennifer Hershey + James Bedell



something I talk about with the production; it is just how I work.

JAMES BEDELL | I'm a lighting designer. I grew up doing Off-Off- and Off-Broadway shows. I did a lot of industrial work, some television. I still do a fair amount of industrial work, but the bulk of my work is in architectural lighting, everything from healthcare spaces to retail environments.

BOB USDIN | I'm a set fabricator. I own a company called Showman Fabricators that's been in business for 28 years. Broadway, television, and live events are our strongest markets. We get involved in all types of fabrication, engineering, metal work, wood work, plastics, laminates, scenic artist work, the full spectrum of different fabrication for every type of event.

ANDREA LAUER | I'm a costume designer, stylist, but I work in a lot of different mediums: theatre, I do some film, I do some commercial work. I actually work a lot in science. Sustainability is part of my job in that I think it's natural for a costume designer to always look for things that have already been used and put it into a show.

JOHN | Thank you. The reason I wanted to get you all together is so directors could gain a better understanding of what is already being done by designers and rock stars like Jeremy in terms of sustainability and green practices. We want to make them aware of sustainable practices and what that means. First let's talk about what you guys have done yourselves and then make suggestions of what you think directors can do to help you and be involved themselves.

ANDREA | As a costume designer, I will try to

recycle anything I can get my hands on: used fabrics, clothing, trims, etc. It is a reimagining of things that already exist. I think it's really important to be able to look at something and see the potential of a future as opposed to seeing a remnant of the past. I designed a ballet with the Ballet Company of the Trey McIntyre Project. I actually used costumes that I had already designed five years prior, and I did it out of necessity of budgets, but also time. I ended up making an entirely new piece. The piece had nothing to do with the original reason and concept of why the costumes were created. In the new work, I reinvented the garments by repainting and adding new materials for a layering effect. This is a case where something sat in the storage for five years, and now has a new life touring around the country.

JOHN | What was the change? Were they tights and leotards?

ANDREA | No, they were hand-painted body suits that seemed incredibly specific to a dancer's body. I thought, "How can those be reused when they are made for a specific body type?" I decided to focus on them as a shape and a color, and used it as a base to add to, as opposed to being fixated on "size." There was a big bin of scraps from when they were made. I went back through and added all the scraps that I had saved to create a new landscape.

I designed *West Side Story* last year at the Mundy. I wanted to do a version of *West Side Story* that felt really authentic to the period. I wanted the colors to be more subtle and for it to be almost a film version. The Mundy held on to it, and then this year I was asked to do *Grease*. I asked the director, "How would you feel if we did a really realistic version of this?" Meaning our pink lady jackets are

actually 1950 pink, not hot pink and shiny. Can we get people in things that have a lot of pattern, but the color is more subtle and realistic as opposed to having that really bright musical theatre palette? We had all of these things I designed from *West Side Story* and I knew it was in the stock. I used an entire show over again, but on different people and in with different pairings. The result was an entirely new show that served the story equally well as the last time the clothes were on stage.

JOHN | Both of these cases—*Grease* and the Trey McIntyre piece—it didn't add an expense. It was cheaper, right?

ANDREA | Yeah, I saved quite a bit of money on both pieces.

JOHN | Great. Go ahead, Donyale. A couple of examples?

DONYALE | I just finished *Encores! Off-Center* this summer. We do three shows in a really compact schedule. It makes no sense to build full scenery for these shows, although I wanted to have it as "real life" as we possibly could. I start in the studio with materials that are considered greener. I use cardboard, no foam core. I use packaging, like packaging from cereal boxes. I use that to build the model. I try not to waste things when I don't have to. The studio is very green and we recycle everything. We produce no more than an inch of trash per day. After we have designed the three shows, I go straight to the tech director, into the shops. We start to work this out and see what we can do to make it a greener show.

JOHN | Is this how you did it for this specific case? Or is this what you do for every show?

DONYALE | Every show. In this case, *Encores!*

was great because they are used to reusing things. It was *Pump Boys and Dinettes*, and I needed to have a lot of wood, tons and tons of wood. So I went to Build It Green. We found boxes of used Pergo flooring, which worked well in our compact schedule because we only had a day to load this in. We covered the walls with the Pergo. Pretty much a full set went up within one day. Now if we had gone a different route, say, cut individual boards, had them stained, and then fabricated it that way, it would be not only more expensive, it would also be much more time-consuming. I tend not to use materials that are more expensive. We find things that work for the design as opposed to forcing the design. The design is not one way. I always change the design based on what is found in the room, at the shop, what's available to me at the time.

JOHN | Donyale and Bob, do you guys work together on that?

BOB | Sure. When we were doing *Peter and the Starcatcher*, it was very much a collaborative effort. Donyale started out with her model: "This is what I want it to be. Now let's figure out how to make it happen with the available materials and still keeping within requirements, safety requirements, fire requirements that we have to work within." There are some things that had to be done a certain way that we had to use conventional materials. But it very much is a collaborative process, and as long as you have both sides of that collaboration working together, it works extremely well. If you're in a situation where it has to be this and only this, then chances are, whatever is in that direction is what you're going to end up with. That can be very stifling.

JOHN | You're doing this all independent of the director?

DONYALE | Yes. The thing is, the director wants it to look like the model. So my job is to deliver the model.

How Bob and I get there, that's our choices, as long as I stay within the budget. Really, the budget is the budget is the budget. I really feel strongly that I need to stay within that budget, and do.

JOHN | Bob, I imagine there's a whole range of how much designers are interested in this when they come to you. Donyale is very focused on it. But many designers you work with are...

BOB | No interest. As a business owner, I've got two approaches. One is: what can I do to run my business as green as possible and

make better choices? And then what can I do to support our clients that are interested or make it a priority? Within the business there's a lot that we can do. In terms of our energy, we use 100 percent renewable energy. We have a very high recycling rate; 88 percent of all of our waste stream is recyclable. Then, in terms of what we can do to support our customers, we're going to try and make the greenest choices we can make, regardless of whether the designer wants it or not. Then when you have a designer like Donyale, who it's a priority for, then we can really step it up a notch. But for the majority of our clients, it's just not a priority for them.

constantly fighting with the sets and cooling the actors. We recently came up with a solution for all of our shows where grill works get incorporated and painted.

DONYALE | Yeah, I've been guilty of this, because the vents, the A/Cs are not on the drawing. So it's not communicated to most designers. On top of that, designers don't think about it. So we're trying to start thinking about it, start asking the questions, start requesting those types of air patterns in the drawings so that it becomes part of the design. This stuff becomes part of our lives. It's not just something that's added on top of it; it's integrated.

BOB | If you're trying to take something and make it green, you're already in trouble. It has to be philosophically the approach that the creative team is going to take to be done with better and more sustainable practices. If you hire Donyale, that's going to be her approach, even if you're the director and you have no interest in it. She's driving that boat and it can only go so far. Whereas if the overall production is going to make it as sustainable a production as possible, then that's where you can really see some better choices and real things happen.

JEREMY | Yeah, it's actually a bigger cultural question. In this country, we say the bigger, the better, I'm going to try to realize whatever I want because those are the ideals I was brought up with. This way of thinking is celebrated in the arts world, and becomes the norm, especially when people give you the resources to do it. But what if you give yourself limitations and try to meet those limitations? Limitations are my best friends. I really love what happens in the rehearsal room and in the design process when we propose a bunch of limitations and then creatively press against them. The playwright, too, might work this way: what happens if you say I don't want my play to be long, because teching a three-hour show is going to use too much energy. My play is going to be an hour and a half. Chances are, the self-editing you'll do while pressing against this limitation is going to create a better piece anyhow.

So, absolutely it's philosophical, as well as practical.

JOHN | There's one thing that Bob brought up for me that is the center of this whole discussion we're having: a cultural change. That's our job in the theatre—to be a little ahead of the curve. In a few years, people will not even think twice about not having air conditioning vents on theatre drawings.

green your directing process

small things matter

First Steps for Directors in Sustainable Theatre

1. **Be open and public with your green intentions.** Partner with designers who make sustainability a priority. Request green options from your designers.
2. **Elect a Green Captain** to the cast on the first day of rehearsal and encourage the cast to follow their guidance.
3. **Educate yourself on the green practices** available to your designers at broadwaygreeningadvisor.org
4. **Use non-paper options** whenever possible.
5. **Rehearse in work light** instead of stage light in order to conserve energy and turn off the lights at the end of the day.

For more ideas, visit sdcweb.org/community/sdc-green-statement/

JENNIFER | You know, there's an aspect of set design that I see overlooked. And that is how it sits on the stage in relationship to the air movement for the actors. What I see all the time are these big boxy sets, and as soon as I see it at the load-in, I look to my coworkers and I say, "We're going to have hot actors, and we're going to be running our air conditioning a lot." They've absolutely provided no way for air to move on the set. I try to speak up as much as I can, because sometimes a show is designed and they don't know what theatre they're coming into. They don't know where the supply grills are for the air conditioning, or how the air conditioning moves. We are



Peter and the Starcatcher,
set designed by
Donyale Werle
PHOTO Deen van Meer

JAMES | What we're all talking about here is that, when we think about sustainability, it's this big problem. Whenever you walk into an individual production, there's a tendency to say my one little production can't really affect this big problem. My job is to get this project finished and I'm not going to really think about it. We think about this in terms of short-term cycles. The reality, though, is that we got here because of a bunch of short-term thinking.

You're talking about air conditioning. Lighting loads in a theatre contribute tremendously to the HVAC [heating, ventilation, and air conditioning] load both on stage and in the house. It's something that you don't think about and it becomes a problem in tech. You start to realize that the HVAC can't handle the lighting loads that you put in the ceiling. I was asked to do an industrial for *Wire Magazine*. We did a 60,000-square-foot pop-up store, and the run was going to be six weeks. The conventional way of doing that is you fly a tress and you hang 600-watt source scores and you light the space and you move on with the project. Instead, we did an 80 percent LED rig for white light, which was not really done at that point. We found that we were able to reduce the power draw by a whole panel, which is 600 amps of three 200 phase poles to the building, essentially cutting our entry load in half over six weeks.

JENNIFER | That's a lot. Just to put that in perspective, I think *Book of Mormon*, that whole show uses 800 amps. So if you cut 600 amps, that's a big number.

JAMES | Then there's a multiplier effect, because you're cutting a lighting load, which cuts your heating load, which cuts your A/C load. But the design benefit was not even that

I was able to save this electricity. The benefit came the day of tech when the producers walked through. They hadn't been there for the entire load-in period. At every design meeting, it was about the icy blue color they wanted to create in the space, but no one could define for me what "icy blue" meant. Traditionally, I would have had a crew of seven or eight guys with their rolls of gel go in and try different colors. I was able to go to the light board and shift with an LED. We dialed in until everyone liked the color and that was it. It was done. There wasn't, however, many dozen hours of man labor that would have cost to do that. Plus you get into maintenance. Now you're not re-lamping lights every 400 hours. You're never doing it because they're LED. So there are savings built into it.

If I'm coming into a production that's being designed completely by scratch, there's really no cost added to do it in a more sustainable way, at least from a lighting perspective. It's just a mindset and making sure you're picking the right tools for your job. This mindset is growing within the larger culture. The trick is going to be applying it to short-term projects that we have to deal with day in and day out.

DONYALE | One thing I just want to add—people might think, "I don't want to do that, the time, the effort, that's one more thing." I think James and I and probably everyone at the table looks at this as innovation. It is 100 percent the future, and it is the way things are moving. It's not ever a pain in the ass, because you feel enlightened.

JOHN | Creatively challenged, too, right?

DONYALE | Definitely creatively challenged. But, to me, being innovative is the key. And that's what moving forward is about. It taps

into a lot of our desire to move forward and be innovative as people.

JOHN | I know the *Peter and the Starcatcher* story, but I feel like it would be good to get that on the record because I don't know how many directors even know about that set and what you did. Want to give us that one?

DONYALE | This is a show that started up with a piece of rope, **Alex Timbers** and **Roger Rees** directed it, and Rick Ellis wrote it. It was very much about your imagination, and this rope became the entire basis of the show. We just took that concept and built the world around the actors out of as many found materials as we possibly could. We had a giant proscenium and Bob's shop, Showman Fabricators, built the entire thing. The base of it was built traditionally, and then all the detail was created out of things that we found: primarily toys, bottle caps, corks, ropes, telephone wires, and Q-tips, hundreds of things. The entirety of Act II was recycled. It was materials that we found from Disney. Disney was a co-producer on the show and they had a giant warehouse in Rochester. We tapped into a *Little Mermaid* set that was sitting in the warehouse. We used two rear projection screens and the swatches for the costumes. We had so much of those little scrap swatches that we passed them onto four other productions, totally different shows. They've gone onto regional productions, films, and high school productions.

We do these case studies. So every show gets documented relentlessly. We break every scenic element down and see how many things we were able to salvage, how many new materials we were able to use, and then write it all down. So we can really put a price on each scenic unit to say how much less or how much more that

unit cost compared to traditional scenery. At this point, all of them are cheaper. Every single scenic element is cheaper.

JOHN | Wow. James, you kind of addressed it. The thing I think a lot of directors will hear when they look at this article is it's a very good point to make to a producer to say that the set is going to reduce the air-conditioning bill.

JAMES | Right. Here's the big challenge with lighting. Regardless of anybody's feelings about sustainability, LED is becoming the norm and by its nature [it's] less energy-intensive than traditional sources. If your theatre has an 800-amp service, for argument's sake, now you're using half of that energy. You now have 400 free amps to play with. The temptation is going to be "I have all these free amps, the producers are used to paying for it," and you know everyone's used to seeing it. So why not fill it up? The mindset has got to shift toward what can I do in queuing, what can I do to collaborate with the director to create new looks that don't necessarily need another 200 lights in the grid?

JENNIFER | From a theatre operator's point of view, a lot of challenges we have with the sets, lights, and sound is when a director says, "I don't like the way the curtain is billowing right now. Can we see this scene without the main house fan on?" They'll try to get us to turn the fans off. From our point of view, to shut down an air-conditioning system in the middle of the show for 15 minutes, 10 minutes or 5 minutes is a disaster. It takes so much time to get back up that now you're going to lose your audience, you're going to have a lot of miserable people. I wish, as a theatre operator, directors had a better understanding of what it means when they ask to shut it off for 15 minutes. It's a tremendous amount of energy. It's not about the money; it's about the carbon footprint.

DONYALE | This is what I think we're tapping into: communication. It's us actually sitting around and talking to each other so we have a better idea. I don't really know that much about facilities. How many designers know anybody in facilities? We don't understand what goes on in this world. We're all so into our little compartments that there's this breakdown of communication in theatre. We're trying to change that.

JOHN | Jeremy, you're doing that in your theatre, aren't you?

JEREMY | I think this, again, is a wider problem. In the arts or in the sciences or wherever, we're used to functioning by saying *this* is my department, *this* is what I do; when I'm done, I go home and my life starts. Breaking out of our isolated job descriptions for the purpose of coming together over a larger purpose is

rarely prized or even possible in the U.S. How do we shift this within the arts community? How do we innovate such that our ways of working are continuously broken wide open? How do we make time to get in the room and talk about big things *together*? Maybe it means we need to prioritize these larger collaborative conversations when we're making our meeting agendas and scheduling our production and rehearsal processes. The lab my company hosts every other month is about collaboration across science, policy, and theatre. It's the same thing. We have different ways of working, we have different vocabularies, we have different agendas and jobs. But, really, what we're all doing is trying to figure out how to be better stewards of the earth, better citizens of the world, and partners of change.

JENNIFER | How do we make it cool? How do we get people on board?

JOHN | What I keep thinking about as you're all talking is the director/producer relationship because that's such a key relationship for the director. You can go to the producer with a way of putting a production together that saves energy, is more sustainable, and saves a tremendous amount of money for them, but also allows you to do something that you never would have been able to do otherwise. I'm trying to put together a top 10 list of what directors can do. One of the things is not rehearsing in show light, those basic tech principals.

JAMES | There are some basics that I feel we've gotten away from, just in practice. When I was learning how to do this, I was taught the concept of relative brightness, so that when you're the lighting designer, you start off in the theatre world in a black box. There's no light anywhere. You decide how bright "bright" is. You set that bar, nobody else, no other production, no other light source. I'm always kind of amazed when I see these big theatrical productions, and even small theatrical productions, where an immense amount of light is the base coat for bright. So if you need to get brighter than that, for a special moment in the show, you have to use an inordinate amount of light to get there.

JOHN | So, set your base level a little bit lower?

JAMES | Right. You can decide what bright means for your production. Our eyes are capable of adjusting to it.

JOHN | Is that a huge savings?

JAMES | It's a savings, but it's also about thinking more about how many resources a designer has to use to get the show to look the way it needs to look.

JEREMY | I think the list is helpful and

important, but it is also tricky to offer "the top 10 things directors can do" and then leave it at that. It's just like going greener in your personal life: it's not about updating your laundry soap; it's about updating your consciousness. That requires you to make choices about everything, even if it's not necessarily going to make a quantifiably big impact. It's about all of us shifting the cultural mindset. How can we adopt that idea as we're making work? So that directors, beyond ticking a box, can look at everything as a whole?

JAMES | You're absolutely right. It's not about how big the things are.

DONYALE | Baby steps actually do mean something.

JOHN | I get what you're saying about the list, but I also feel like if we set a practice, it's like a foothold for change. Let's shift it toward what we feel directors can do. I would say that maybe the most important thing is be conscious, open, and public about their support of sustainability in their productions.

BOB | If you, as a director, choose to partner with people who have it as a priority, then it becomes a priority for everybody. If you choose to partner with people who it's not a priority for, then it's only going to be little things here and there. Not to say that those little things here and there are not good. Those are good. They're better than nothing. But you could really be doing so much more by saying this is a priority for me as a person, for me as a citizen of the world, for me as a director—just like if you were an avid nonsmoker, you wouldn't marry a smoker.

JEREMY | I would add, in addition to encouragement, the ability to calm anxieties related to this kind of consciousness.

JOHN | How so?

JEREMY | When we produced our first show in New York, the theatre we could afford to rent had very old, dusty, inefficient lighting instruments. I was very proud of the show, despite the fact that the lights seemed hypocritical to our mission. Afterward, a friend who had seen the show, the first thing he said was, "You can't do green theatre with those lights." I was heartbroken, because we had been so conscious, had had so many conversations that most artists weren't having at all, and that theatre had been our only option. Since then, I've gotten better at making our green actions (both the successes and failures) more visible to our audiences. But also I feel like my take on eco-theatre has evolved: now I'm not so hard on myself or my collaborators if we don't tick all the boxes.

BOB | I think Jeremy touched on a great point

about calming anxiety. You can be the director who's the tyrant, in which case everybody who reports to you, which is essentially everybody—except for the producer—is going to be fearful they're not delivering, or their job's on the line, or the director's not going to be happy. Or you can be the collaborative director, saying this is a priority, but we wanted to do this, and we can't do this, so now we can do this, and we can make this happen. Then it becomes a very healthy and successful relationship.

JEREMY | Giving time for evaluation at the end is also something that could be added to our list. Sitting down at a postmortem and evaluating the sustainable goals we started with, what we were able to achieve and what we did not achieve, and how we can do it differently the next time we work together.

DONYALE | Yeah, that's something that we do on every single show. It makes a big difference. When you're in the heat of it and you're working, you don't know what kind of mistakes you're making, what's actually really great, what's not. Keeping track of things, and then talking about them and looking at them.

BOB | Some kind of sustainability post-discussion.

BOB | Right, and that's rare. The only time I've ever been involved in a postmortem on a Broadway show is if it's inevitable that you're going to do a touring production of it. Everybody's just moved on to the next project. But if you took the time to capture that, there's

a lot that translates to the next production that you are involved in, even if it's with a completely different set of people.

JOHN | You guys are so right. It's all about applauding any little thing.

JAMES | Everybody that works with a director knows they set the tone for the production. As a lighting designer, we would love that because it saves resources in tech. Are you getting out in front of the production and really talking it through and working as a collaborator ahead of time?

JOHN | How many set designers do you think share your consciousness about this? Or lighting designers share it as a concern?

DONYALE | There are a lot of set designers. A lot of them are in film, and a lot of them are younger, so they're doing Off-Off-Broadway shows, or regional shows, but there are definitely a lot. It's changed tremendously in the last five years.

JOHN | How about clothes, Andrea?

ANDREA | There's a lot of people who are thinking about it in terms of being conscious. People are using what they have, because costume designers have pretty limited resources, especially in Off-Broadway and Off-Off-Broadway. The younger generation certainly is thinking about it more in terms of a process they can adapt in the beginning stages, like allowing new, innovative technology to help us cut down on our waste.

Are there ways you can communicate visually without having to make so much waste? If you think about that at the very beginning, you can carry it all the way through the end process, even through tech. I can Pinterest all the way through, so I don't have as much waste at the end. The flip side of this is the movement for costume designers to be conscious is really limited to our own practices. We have no real collaborators to help us move through a design more economically in terms of materials, as costume designers are really their own shop. I find this part of design frustrating. I can be positive, but it would help things a lot if, as costume designers, we had more of a community with our builders and production managers. Unfortunately, we are often left to our own devices and end up working on everything from ideation to conception as a limited number of people. This also means we often do all the sourcing and budgets. It can be a lot to consider green practices when there are already so many other limitations due to workload, but as designers, we are stubborn enough to never give up.

DONYALE | Andrea's idea about Pinterest—she's not printing all of her research out; she's showing it online. Directors go directly to her Pinterest page.

JOHN | How about your peers? Is it starting to be accepted practice now?

BOB | I would say no.

JOHN | Really?

about the partners in change

JAMES BEDELL is a lighting designer based in New York City. Over the last 10 years, he has designed lighting for a wide variety of clients and organizations including Tirschwell Architectural Lighting, Pace University, and Abercrombie and Fitch. James designed lighting for Off- and Off-Off-Broadway theatre and dance companies including the critically acclaimed Brick Theater, ShakespeareNYC, Origin Theatre Company, the Looking Glass Theater, and many others. His work combines a passion for creating immersive and evocative environments, a love for collaboration, and a deep commitment to sustainability.

JOHN CARRAFA directs and choreographs for theatre, film, and television. He is the two-time Tony-nominated Broadway choreographer of *Urinetown* and *Into the Woods*. He's also received an Obie, Lortel, Dora Award, Outer Critics Circle, and Drama Desk nominations for his work, both on and Off-Broadway and in regional theatre. In film, he's received the 2005 Media Choreography Award for innovation in the use of motion capture technology to

create choreography for *The Polar Express* and recently the 2012 World Dance Award for feature film. His upcoming film work includes *If I Stay*, starring Chloë Grace Moretz, and *Let's Be Cops*, starring Damon Wayans, Jr. and Jake Johnson. He stages all the musical performances for the ABC television show *Nashville*. He is committed to the development of new musical theatre and musical film and is proud to serve as the SDC representative to the Broadway Green Alliance.

JENNIFER HERSHEY is the Vice President of Building Operations for Jujamcyn Theaters, which she joined in 1989. In her tenure, she has been involved with the complete historic restorations of all five theatres. She has enthusiastically supported the BGA since its inception and heads up the venue committee. Her passion for the Broadway Green Alliance has motivated her to make many choices in the ways in which Jujamcyn operates their theatres. She continues to find methods to lower Broadway's carbon footprint that are readily achievable and affordable. Jennifer is an

avid cyclist and encourages fellow employees to join her—she installed bike racks at all of her theatres, making Jujamcyn the first major theatre chain in NYC to have them. Jennifer is a graduate of the Yale School of Drama.

ANDREA LAUER is a costume/set designer and stylist as well as a multimedia artist working with clothing and interactive, responsive technologies. Her recent design credits include Broadway's *Bring It On*, *American Idiot* (Broadway and touring productions), STREB's *Forces*, and the 2012 London Cultural Olympiad in addition to theatre, dance, and opera productions in New York and around the country. Lauer is also a stylist for various artists, musicians, and publications. Her work can be seen in *Rolling Stone*, *Vogue*, *Interview*, *OUT Magazine*, the 52nd annual Grammy Awards, the Tony Awards, red carpet events, music videos, and promo shoots. Honors: Baryshnikov Fellow (NYU), NYSCA Grant 2011 as a STREB innovative collaborator; clothing design inducted into the Rock and Roll Hall of Fame;

BOB | I mean, Donyale obviously works with more shops than I do.

JOHN | She's shaking her head definitely not. Okay, what about in your community?

JENNIFER | The theatre operators are pretty much working together. Shubert, Nederlander, Jujamcyn—we're sharing ideas, which is something that never, ever happened before. We have meetings and we talk about challenges we have. Everybody's got a different style.

DONYALE | I love this, because learning so much about the facilities will really help inform choices we can make.

JOHN | What I'm getting is that, in general, it's about directors becoming conscious, supportive, encouraging, public about their support, gentle about what they're asking people to do, and applauding any step in the right direction. The example of don't rehearse in performance light is a good one.

DONYALE | Can I give one other? We'd love to see switching over from building sets out of lauan, traditionally sourced lauan, which comes from rain forests in places like Malaysia, to a scenery that's an American-produced wood source. There are a lot of different options.

JOHN | How can a director impact that?

DONYALE | You could request your set designer not to use traditionally sourced lauan.

BOB | I think it's to work with the designer and ask what are the choices that we can make in designing this set that are the best possible for the environment.

JAMES | Ask for paper tech, and nowadays, ask for pre-visualization.

JOHN | For the directors who don't understand this, we are talking about pre-visual advising on a computer, such as your lighting plot. Before you even go into tech, you can see your hues.

JAMES | Yeah, and you can do that to any level of specificity you want. You can just talk about the big six or seven moments in the show, and work through those, or if you want, you can go cue by cue. The savings in terms of efficiency in tech is tremendous. Tech is the most energy-intensive portion of the lighting project.

JENNIFER | The director sets the tone. Now we have a lot more shows that open in August and September. Teching a show in September is a killer. When you have a nervous director who needs the theatre cold because they're thinking if it's warm, people are going to fall asleep, they make sure it's 70 degrees in the theatre. But they've also teched the show for 12 hours, so it's hot. The director should say, I know the theatre's not as cool as it's going to be closer to opening, but we're going to get it worked out. So the director sets the tone.

JOHN | Anybody want to throw in the last word?

JEREMY | This speaks more to directors who are working not with a script that's handed to them, but in a more collaborative or devised way, which certainly is becoming more and more prevalent at all levels of theatre: look at what you have first and then play with limitations. Maybe don't start by dreaming as big as possible, but the other way around: what do you already have, and what parameters can you give yourself based on what you have?

ANDREA | Or dream big and take a step back and say, "We have this dream, but what do we have to start with?" Because that's what costume designers do. I dream big all the time and I don't ever stop. But I'm used to taking a step back and recognizing I have a budget and I have a specific amount of time. What do I know? What do I have that might already work? Who do I know that has something I can start with?

JOHN | Nobody wants to dream small, so I think we're redefining what dream big means. Dream big about the most amazing, huge, spectacular, sustainable events you can create.

JEREMY | I love that, redefine dream big. That's great.

BOB | I'd agree, because at the end of the day, we want the piece to be interesting and captivating—that's the priority. But there's so many different ways of getting there, so just choose the better path.

JOHN | Yeah, it's not about ticking boxes, it's about a change in consciousness.

nominee for the 2012 Lucille Lortel Awards and the NAACP Theatre Awards for costume design.

JEREMY PICKARD is the captain of Superhero Clubhouse, a collective of artists and environmental advocates working at the intersection of science, policy, and theatre. Since 2007, Jeremy has been at the helm of a number of eco-theatre initiatives including Big Green Theater (an annual eco-playwriting program for Brooklyn fifth graders), Climate Collaborations (multidisciplinary performances and sci-art labs created in collaboration with climate scientists), and The Planet Plays (a series of nine ecological allegories that together form a new mythology for our changing world). More information on Jeremy's work can be found at www.superheroclubhouse.org

BOB USDIN is President and CEO of Showman Fabricators, Inc., New York City's largest and most creatively diverse scenic shop. Bob takes tremendous pride in creating an

organization that is stocked with eager and talented professionals, the best equipment available, and resources to fulfill the demands of virtually any client on Broadway, television, live events, and themed/environmental design. In its 28-year history, Showman under Bob's leadership has taken a leading role in creating some of the most iconic entertainment events including scenery for the *TODAY Show*, *Good Morning America*, *CNN Morning*, *Little Mermaid* on Broadway, the *NBC Experience*, and scores of corporate events. All of Showman's projects have unique challenges, but shared a common thread of nearly impossible deadlines, tight coordination with construction trades, and permanent installations that are significantly more elaborate than conventional scenery. Bob graduated with a BFA in technical theatre from SUNY Purchase in 1984. He is certified as a LEED AP, which has provided inspiration for running Showman as an environmentally responsible company that can provide better alternative to its clients while practicing best methods in its own production.

DONYALE WERLE is a Brooklyn, NY-based scenic designer and sculptor. Credits include: Broadway: *Peter and the Starcatcher* (2012 Tony Award); *Bloody Bloody Andrew Jackson* (2011 Tony nomination). Off-Broadway: the upcoming production of *Brooklynite* (Vineyard), Encores Off-Center: *Tick, Tick...Boom!*, *Faust*, *Pump Boys and Dinettes* (City Center), *Too Much Sun* by Nicky Silver (Vineyard), *The Explorer's Club* (MTC), *Broke-olgy* (Lincoln Center), *The North Pool* (Vineyard), *BARE* (New World Stages), *Taming of the Shrew* (Theater for a New Audience), *Jollyship the Whizbang* (Ars Nova), Public Theater and New York Theatre Workshop. Regional: *Somewhere* (Hartford Stage), *Once on This Island* (Papermill Playhouse), *The Legend of Georgia McBride* (Denver Center), *Allegiance*, and *Rocky Horror* (The Old Globe). Awards: Tony, Obie, Lucille Lortel, Hewes Design Award, and Drama Desk nomination. Ms. Werle is co-chair of the Pre/Post-Production Committee for the Broadway Green Alliance. She speaks nationally and internationally on sustainable design practices for theatre.