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# FROM BROADWAY TO HOLLYWOOD

Computerized lighting has been a key part of legit theater for years; now, movie and television professionals are embracing its flexibility and creative potential

by PAULINE ROGERS / Photos Courtesy of KEITH J. DUGGAN AND ERIK MESSERSCHMIDT





IN THE EARLY 1990S BROADWAY BEGAN TO INCORPORATE MOVING LIGHTS INTO SUCH MUSICALS AS **SHOGUN**, MOSTLY FOR SPECIAL EFFECTS. **MISS SAIGON**, **JELLY'S LAST JAM** AND **KISS OF THE SPIDER WOMAN** BEGAN EMPLOYING MOVING LIGHTS IN A GREATER CAPACITY, USING THEM FOR GENERAL LIGHTING IN ADDITION TO SPECIAL EFFECTS. "AS SHOWS GOT BIGGER, 10 TO 20 MOVING LIGHTS TURNED INTO 40 TO 60 TO 120," SAYS BROADWAY LIGHTING PROGRAMMER TIM ROGERS, WHO HAS ALSO WORKED ON TELEVISION PROGRAMS LIKE **AMERICA'S GOT TALENT** AND FEATURES LIKE **BURLESQUE**. "DIRECTORS AND CHOREOGRAPHERS REALIZED THAT 'ANYTHING IS POSSIBLE - IF YOU DON'T HANDCUFF YOURSELF TO A PARTICULAR LIGHT OR COLOR OR FOCUS.' THESE LIGHTS ARE NOW A PERMANENT PART OF THE BROADWAY WORLD."





**T**hey are also very effective when transferring a show from one location to another. When Rogers had to take *Rock of Ages* from The Venetian to the Rio in Las Vegas, space didn't allow the necessary follow spot. "The angles didn't work," he says. "Simple solution: PRG supplied their PRG Ground Control follow-spot system, which we could control remotely."

Traditional concert tours have also been a natural for these programmable lights. "They are perfectly engineered for both concerts and Broadway markets," says VER's Paul Kobelja. "They allow one person [the lighting board programmer] to single-handedly change focus, color, direction and intensity from his isolated location in the lighting booth. More importantly, this also allowed for the creation of 'moving cues' to add a kinetic dimension to lighting that, previously, could only be achieved with spotlights. In short – it revolutionized lighting for those markets."

Crossovers began when people started to think outside the box and look for alternate ways to give their productions a touring, Broadway or alternate-reality look.

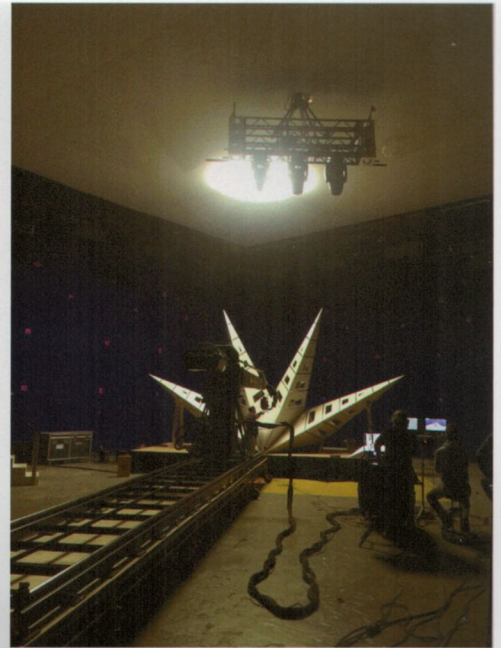
People like VER's Fred Waldman brought moving lights to *Batman & Robin*, *A.I. Artificial Intelligence* and *Minority Report*. "Still – moving lights were not eagerly embraced [by the film and television industry]," adds Kobelja.

But the surge of high-concept science-fiction and comic-book franchises like *Star Trek*, *Iron Man*, and *Super 8* changed that. Companies started working with gaffers and DPs to smooth out the technical issues that were preventing the lights from entering the motion-picture arena. It was about color mixing, fan noise, lamp power, throw distance, speed, light control (shutters) and other issues. But they were still somewhat stuck in that "fantasy" style, i.e., *Jupiter Ascending*, *The Hobbit*, and *The Jungle Book*.

For a while, the other logical use was to replicate concerts (*Almost Famous* and more), strip clubs (*Burlesque*), or party scenes – until gaffers, programmers and lighting designers took a look at these "different" lights as they sat around on the stage.

"With my current gaffer, Tony Lullo, we are always looking to make the most of each lighting setup, and when we have moving lights on set, we often find more-





conventional lighting uses for them,” describes Lighting Designer and Programmer Nic Jones (currently on *Chicago Fire*). “Sometimes it’s a last-minute swath of light on the background, or a lesser used color to bounce light onto the talent. We always find a practical use for them. The sheer speed and flexibility of these fixtures is a huge sell in the film world.”

An example of this speed and flexibility was when Jones was working with DP Alwin Küchler and gaffer Len Levine on *Divergent*. “We had a large cave set covered in Image 85 top light, Arri Max 18Ks rigged on MAX movers above, and all around the perimeter we had Studio Force LED’s on *Apollo’s* moving yoke,” he remembers. “I could walk around with Alwin and Len, and, using my iPad, set our overall ambiance, our big beams of daylight, and more. Fast. No lifts. No running around. Not even having to describe where the unit that needed to be worked on was. Just a gaffer looking at a number and telling me where he wants the light to go. Not only could these looks be created quickly, but every look could be recalled at anytime to eliminate any re-light time, whether on the day or a month later.”

The name of the game became flexibility, and Hollywood loves that. “Industry professionals are realizing that a few moving lights can now take the place of large-scale conventional stage washes; we are able to blend these fixtures lamp to lamp, controlling beam parameters and shuttering, creating a huge advantage when having limited time while on location,” says Full Flood’s Matthew Firestone.

“On many large-scale award shows and concerts, we use more than 1000 moving lights,” shares Lighting Director and Programmer Michael Appel (iHeart Radio Festival, MTV, CMT Awards). “On many shows, we

have replaced the conventional Leko with automated lights that have zoom, color-temperature adjustments and framing shutters. LED Lekos are also supporting smaller productions, or where space is at a premium. With all the video elements on many of today’s sets, high color temperature of the key light is critical for making the broadcast picture true to the designer’s intent.”

Appel says a typical scenario for a televised live performance will usually include Var-Lite VL4000 Spots, Vari-Lite VL3500 Spots or Martin Viper Performance units. “They are great effects lights – so we have a full rig of them; we pull the ones we need for key light/back light and use the rest for effects,” he adds. “It’s all about flexibility.”

**Commercials and smaller productions are also turning** toward moving lights. “When I was doing a film called *I’m in Love With a Church Girl*, the director wanted to feel the red and green signal lights on their faces in a driving sequence at a particular moment in the dialogue,” recalls cinematographer Keith. J. Duggan. “Ryan Hisey at Synthe FX, who was working on the new Luminair software, helped me control the lights – red, green, yellow – whenever the director wanted to see them on their faces. It was a simple solution that creates movement in a frame when the camera is unable to move.”

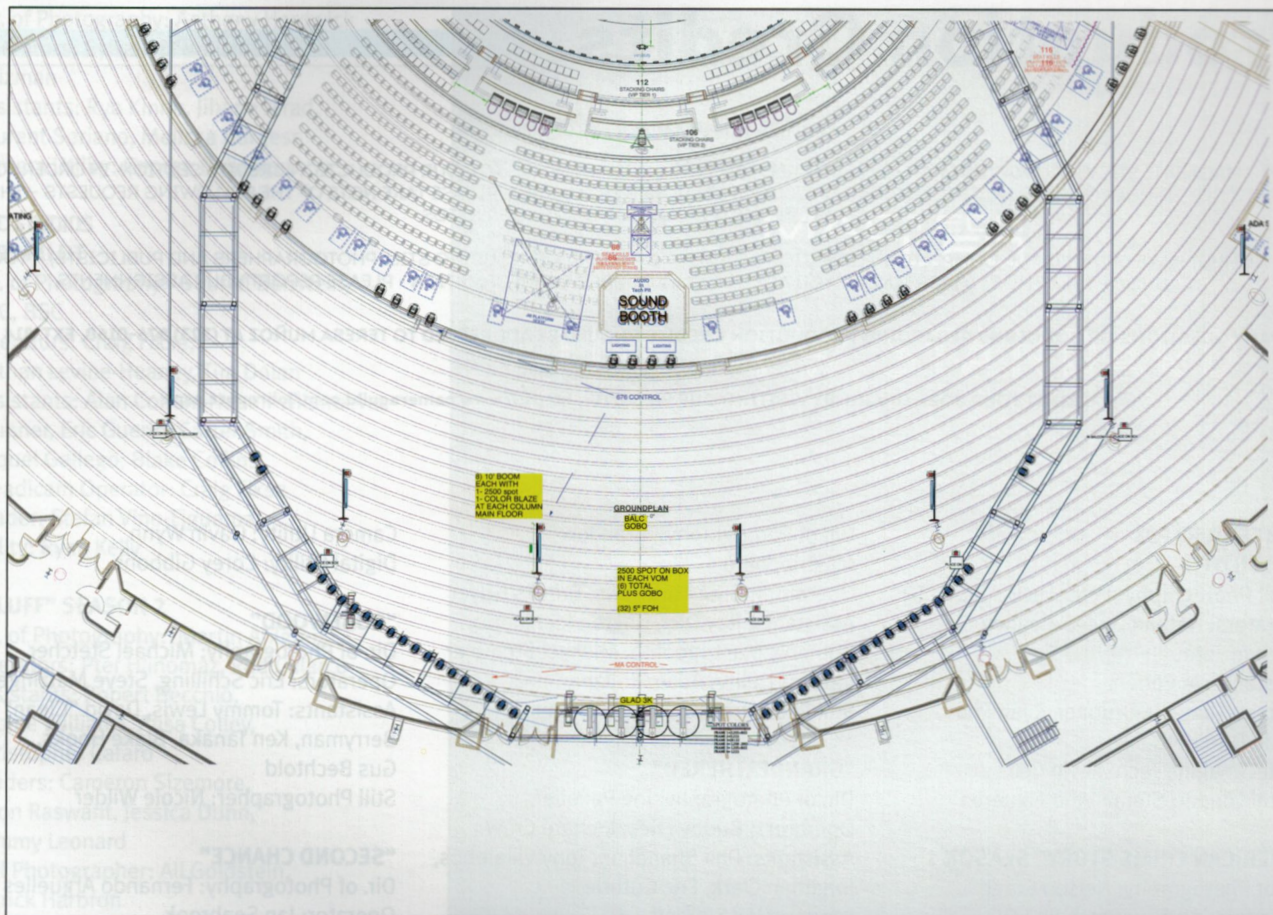
Since then Duggan has used the Luminair software to control dozens of moving lights on everything from projects like SyFy’s *Face Off* and Food Network shows to indie films and major commercials. He says it’s “changed the way we approach these projects.”

While moving lights are now a natural part of a feature package, they are sometimes employed in the most unexpected of applications. Like when Gaffer Jay Fortune









Moving Light plot for Miss Universe Pageant

saw the turtle lair set being built at the Marcy Armory in Brooklyn for the upcoming *Teenage Mutant Ninja Turtles: Out of the Shadows*, with no standing grid from which to work.

"The idea of using a moving light system that we could operate from the floor popped into my head," Fortune says. "We rigged 24 Mac 2000 Spots and 24 Mac 2000 Washes throughout the set on truss that was rigged from the roof structure. We were even able to move very quickly from setup to setup and also record all settings in the board for each scene, which made matching shots and reshoots very simple."

Jeff Cronenweth, ASC, and Gaffer Erik Messerschmidt found an interesting use for these lights for VFX shots in *Gone Girl*. "They were a great tool for the fantasy sequence where Rosamund Pike's character, Amy Dunne, is floating in the water," Messerschmidt remarks. "We shot dry for wet, and created interactive lighting effects on her face and body with bounced Clay Paky 1500 Alpha Profiles – to make it look like as if she were underwater. It would have been challenging to achieve the effect without moving lights."

Messerschmidt has found another plus when using moving lights. "I often use movers in situations where it would otherwise be difficult to reach a conventional

light to adjust focus or color," he explains. Green screen and process work is easier with moving lights. "They are obviously really helpful to sell movement for driving sequences."

Companies are even designing products specifically for television and film. Take PRG's Best Boy and Bad Boy, for example. "They include graduate CTO and minus green filters," explains PRG's Brian Edwards. "PRG also engineered the fans to be quiet and made the dimmer curve smooth." These lights were a key part of one of the most talked about moving-lights setups that Matthew Libatique, ASC, and Gaffer Mike Bauman created for two of *Iron Man 2*'s largest setups.

From Broadway to Hollywood and beyond, moving lights have found a creative home in the film industry (at last!). It maybe a streetlight feel on poor-man's-process night scenes to dry-for-wet shots for VFX or putting actors into the story – instead of taking them out and trying to match different realities. Or replacing massive lights that have to be manipulated one by one – in non-stage setups and who knows what else. These lights are extending the ability of cinematographers and gaffers to give productions more freedom to support their story in ways they never have been able to do before. ☘