# LIVEDESIGN



Thank U, Next: LeRoy Bennett Designs Ariana Grande's Sweetener World Tour

Meghan Perkins | Jun 05, 2019

Ariana Grande launched her *Sweetener World Tour* on March 18 in support of her fourth and fifth studio albums, *Sweetener* and *Thank U, Next*, with production and lighting design by LeRoy Bennett who worked closely with the artist on her vision for the show. The creative team went through three separate versions of the design before settling on the current delicate design, featuring lighting from Upstaging , video from PRG /VER , audio from Clair Global , and scenic from Tait .

## **Lighting Equipment**

63 ACME Solar Impulse

64 Elation Professional Dartz 360

250 GLP impression X4 Bar 20

62 GLP JDC1

66 LED

11 Robe Robin BMFL Spot

80 TMB Solaris Flare

2 MDG The One Hazer

2 MA Lighting grandMA 3

1 MA Lighting 2randMA 2

#### **Vendors**

• Lighting: Upstaging

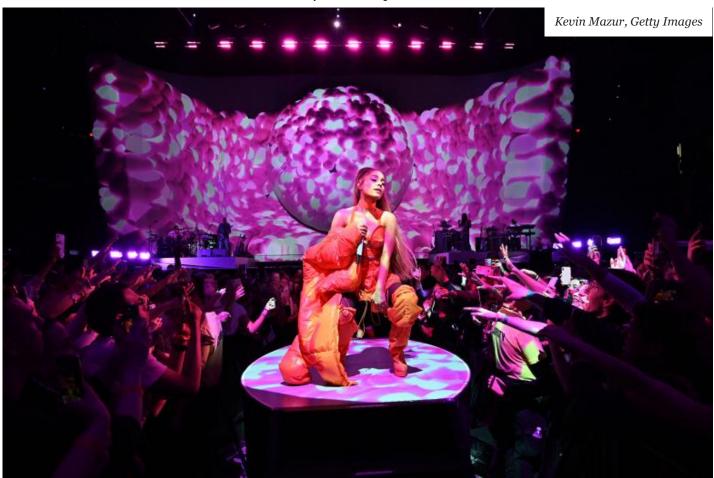
• Video: PRG /VER

• Audio: Clair Global

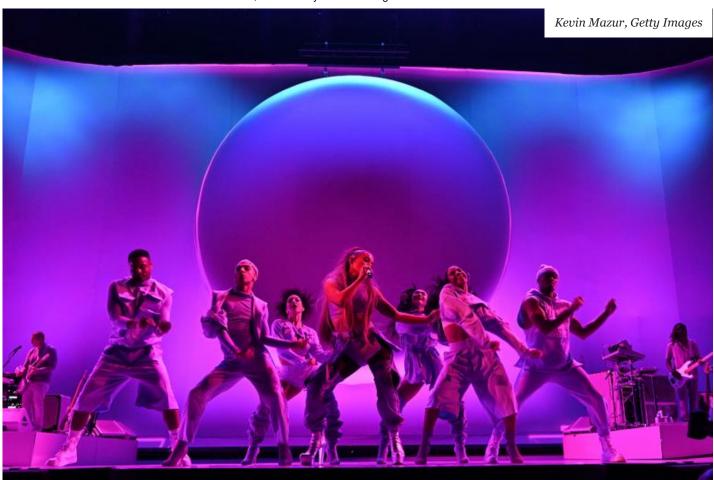
• Scenic: Tait

### **Credits**

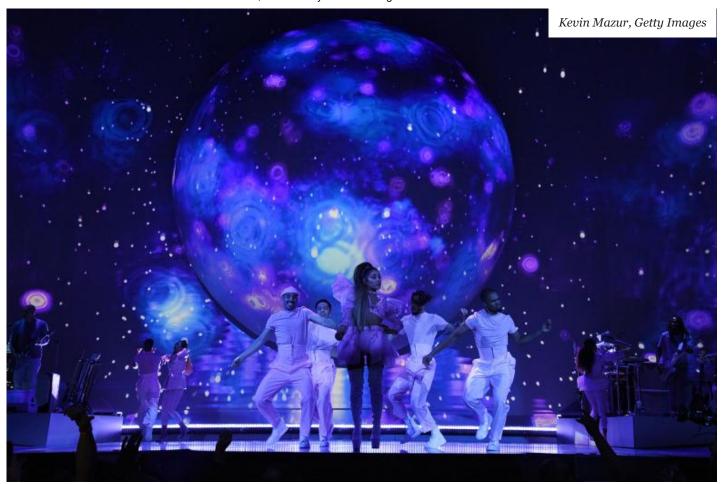
- Harry Forster: Associate Lighting Design and Programming
- Loren Barton: Video Direction and Programming
- Jason Baeri: Assistant Lighting Design and Programming, Lighting Director
- Ben Keightly: disguise Specialist
- Zak Haywood: disguise Specialist
- Michael Figge: Creative Director, Possible Productions
- Jason Zito: Production Manager



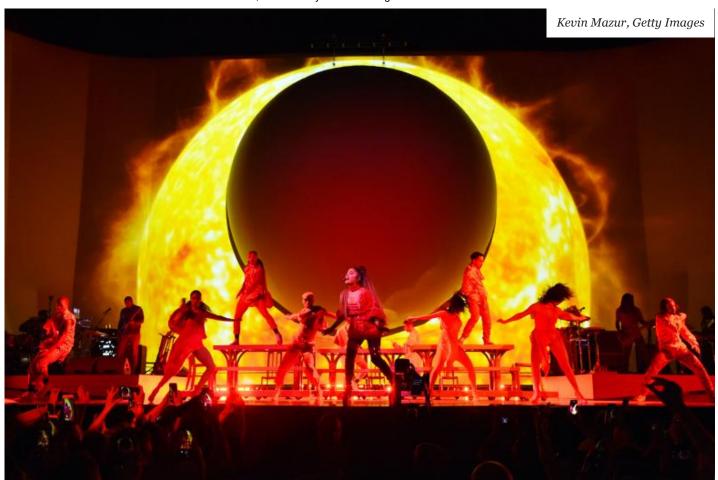
"She wanted this to be a story told about her life, mainly the last year that has been scrutinized in the public eye and has shaped who she is as a person," explains Bennett. "The overall shape of the stage reflects the exaggerated and theatrical nature of the minutia of life scaled up cosmic proportions. It is based around a grand volumetric cyc with large curved forced perspective wings and a hemisphere protruding through it, reflective of the invasive and pervasive."



To make it softer and more feminine than the traditional pop show, they exchanged harsh LED walls for soft projection that bounces off the curved inflatable and hard surfaces. An inflatable cyc back wall with a partial hemisphere flows out of the stage. A large, inflatable sphere descends from the ceiling. The stage deck and apron stretch out into the audience. All the inflatable products are covered in a light grey, stretchy fabric while the stage deck is skinned with a concrete-color Marley that takes light well while providing a safe surface for the performers.



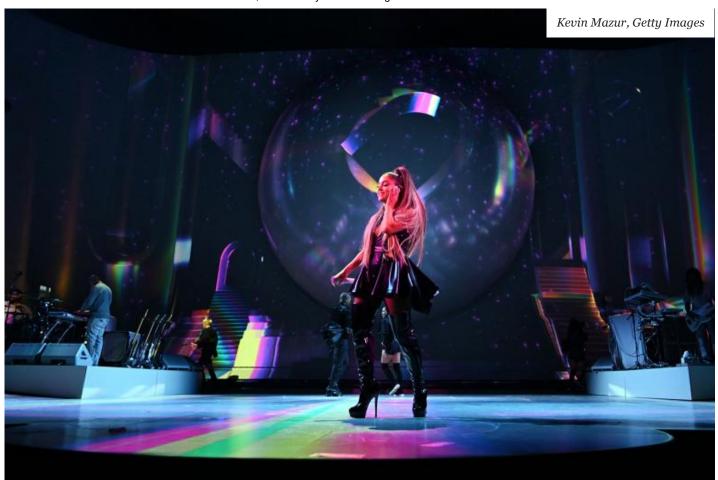
The song "Dangerous Woman" stands out as a highlight of the show, says Bennett. "Not just because of the content that sees a slew of cascading mylar sheets flowing over the architecture, but because of the immense power that she unleashes during that song. It is the best example of her powerful and room fill-in vocal range. 'NASA' is another amazing moment when the 28' diameter sphere deploys from under the scoreboard in the arena and fills in the space over the VIP pits that before had been open, and the audience takes a collective breath. When the song starts and the visuals of space start to appear, it's an incredible experience. Over the course of a couple of songs, the sphere becomes planets, a moon, and a galaxy and makes such an incredible statement about the human scale and our place in this universe," notes the designer.



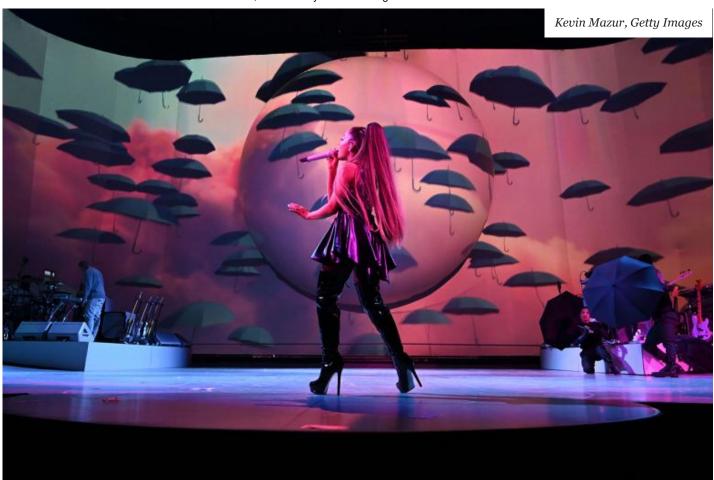
"By far, this has been one of the more collaborative projects I've ever been involved with. Everyone from her creative team, led by Tiffany Olson, was more than open about discussing the direction we all wished the show would take...everyone in every department seemed to work together to make the show into the cohesive work of art is has become," says Bennett. The show is organized into five thematic acts. "Since the stage is essentially one big projection surface, Michael Figge from Possible started each song with a thematic idea that he devised from conversations with Ari. From there, choreography and lighting would find the best way to integrate into the motion and flow of the look."



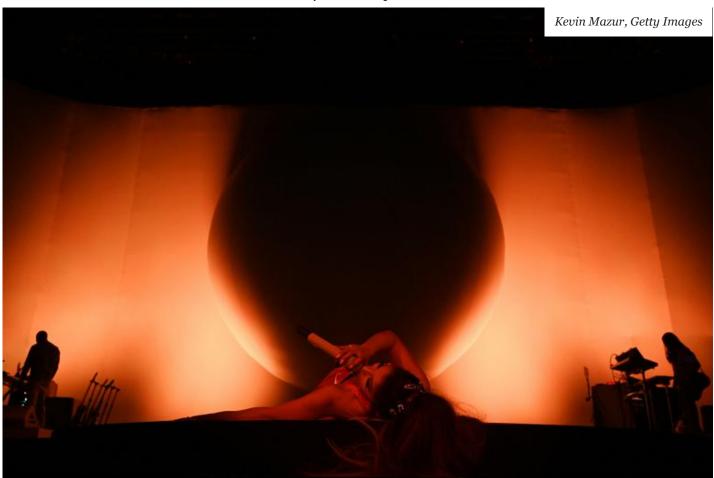
Grande does not wish to be lit like the classic pop star, "white and flat from all angles," says the designer. "She wanted to be lit dramatically and colorfully, much like the overly exaggerated nature of the show. Her keylight is unconventional, using more mixed artistic colors than would normally be acceptable for a pop star. AG wanted to be daring and bold and be anything but just another pop star, so we took a chance and lit her with wild and bold colors, never once casting her as the perfectly balanced-for-camera pop princess." The lighting team turned to Robe 's RoboSpot system to replicate the exacting needs and complicated set of mechanical requirements.



As the most followed woman on Instagram as of February 2019, Grande needs to be lit flatteringly and evenly for any social media posts. "We carefully chose to light her at a lower level than most contemporary artists so that photos taken on phones by fans attending the concert are balanced correctly," Bennett notes. "There are many examples on social media and YouTube of media taken by fans at concerts being washed out because of the lighting levels. We embraced this challenge and worked out a system using a small network of iPhones and an app-based 'tv studio' that allowed us to balance lighting and video to the camera that the majority of the audience would be capturing her performance with while also keeping a close eye on how it looked in the room and to the cameras shooting for the side screens."



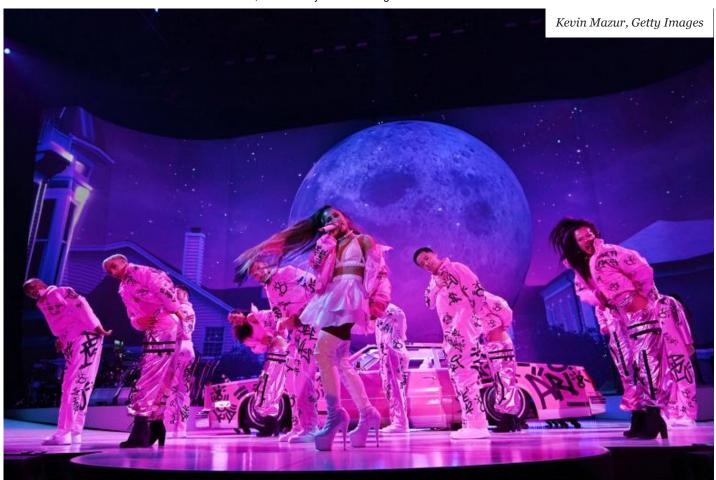
The creative team approached the show with a desire to keep the levels for lighting and video elements as similar as possible. "It was very important to us that we extend the visual world of the show to every audience member, regardless of which ticket they purchased. We project not only on the set elements, but also on the entire stage deck and apron so that even the seats high above the arena floor get a great view and are drawn into the world that extends onto the cyc and sphere elements. Video creates an ever-present environment in which she can exist. Unlike traditional surfaces of this size, we're not competing with the cyc, but trying to live in the environments created by it cohesively with her. Lighting followed suit by maintaining levels not normally seen in a pop show. Lighting is there to accent and provide enough light to see the dancers but is always conscious of the balance that is needed to keep that environment alive and present."



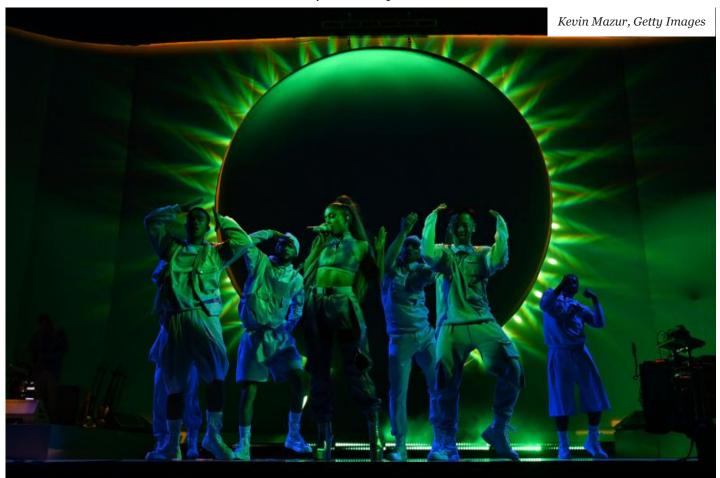
Previsualization was minimal. Harry Forster, associate lighting designer and programmer, and Jason Baeri, assistant lighting designer and programmer and lighting director, spent a few days at PRG, but since the rig is so video-specific, the majority of songs could not be lit without live balancing them with the actual video. Disguise was used in advance to place projectors and calibration sensors in virtual space so that they could get a feel for what to expect on-site. Both the lighting and video systems are controlled by the same session of MA Lighting grandMA2 software running on new grandMA3 hardware.



The projection system consists of 30 Barco UDX 4K32 31K Lumen projectors, which cover three different surfaces in the show and two side screens. Five disguise 4x4pro media servers drive the projectors using the VFC cards to output 3G-SDI signal via fiber to the projectors. The grandMA3 hardware provides the sACN data stream to these servers for control along with an LTC timecode track from the playback system.



"By far, the most complex aspect of this projection system is the method used for calibrating the projectors to the set each day," explains Bennett. "For the first time on a tour, we deployed the disguise system OmniCal, which uses hard-wired machine vision sensors to scan the set, evaluate the data points, and construct a 3D model of what it sees and then compares and reconciles that model with the 3D model built ahead of time. In a perfect world, this allows for very complex warps and alignments to be done automatically that would take days to achieve with other methods. While Omnical was deployed for the Sphere and Cyc/Hemisphere surfaces, a more conventional QuikCal method was used to line up the projections on the stage and apron. The seams in the decking system provided a grid to line up to and allowed us to calibrate the stage even when other work was going on in the room."



"One of the most rewarding developments to come out of this tour was a simple solution to the problem of remotely focusing the Omnical sensors once they are 50' in the air in the rig," he adds. "After a couple of shows, it became clear that bounce-focusing these sensors was taking too much time. So Upstaging retrofitted 14 GLP Impressions with a mount for the sensor and a pass-through CAT6 cable so that we could pan and tilt these devices and more accurately focus them from the ground.



"This is an ambitious production for an arena show, especially with no pre-rig days," Bennett concludes. "The crew is in at 4 a.m. every day to mark the floor. I have never encountered a better example of hard work and dedication from a crew, led valiantly by Jason Zito and his amazing team of talented professionals."

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