

# The Volcano Roars:

## Meyer Sound at the Mirage, Las Vegas

Among the sights and sounds that define the Las Vegas Strip, there's the Mirage Volcano, which is arguably the world's largest fire show. The Mirage recently completed a multimillion-dollar renovation of the attraction, with new pyrotechnics and an audio design supported by a Meyer Sound MILO line array loudspeaker system.

The new Volcano features an original score by the percussionists Mickey Hart and Zakir Hussain, highlighted by FireShooters in the waters surrounding the island, choreographed to move with the music. The project was a new venture for Hart, who immersed himself in the legends and myths of the natural phenomenon before creating the audio track. "You wake up one morning and are given the task to birth a full-blown volcano," he says. "You need the most powerful and dependable sound reinforcement equipment on the planet. There is only one choice—Meyer Sound. From a whisper to a volcanic fury, the Meyer Sound system packs a sonic punch that brings The Volcano to life. The result, a true union of the senses, will rattle your bones, just like a real volcano."

"When it came time to choosing a sound system for our new Volcano, we looked immediately to Meyer Sound," says Scott Sibella, president and COO of The Mirage. "We have a Meyer system in our LOVE Theatre [for the Cirque du Soleil Beatles show], and, after hearing the quality firsthand, we knew without a doubt Meyer could deliver the depth needed for our dynamic, percussion-driven Volcano soundtrack."

Overseeing The Mirage Volcano project was Sun Valley, California-based design firm WET, working with Acoustic Dimensions and systems installer Technology West Group. "In most sound designs, we're working with a stationary audience, and we surround them with loudspeakers. In this case, the audience surrounds the speakers, and they move around freely," says



Ryan Knox of Acoustic Dimensions.

As onlookers can view The Volcano from areas on either side of the water—one in front of the hotel and the other on The Strip—the system uses multiple point sources. It features a total of 25 Milo line array loudspeakers, clustered in small stacks of two, three, or four boxes strategically placed throughout the lagoon.

The loudspeakers are custom-painted green to blend with the foliage, and largely hidden behind fake rock façades, providing camouflage and weather protection. Each stack also has its own dedicated 700-HP subwoofer, along with several others on the island. A Matrix3 audio show control system allows the image of the music to be manipulated over 180°. Signal processing is handled by a Galileo loudspeaker management system.

"The music travels over a large reflective pool of water, which requires a fair amount of power," says Brad Cornish, of Technology West Group. "That water is being blasted by jets of flame. Between that and the natural desert heat, we've essentially created a microclimate, giving us an exceptionally high level of humidity to pass sound through. It calls for a lot of power and some rather unique and meticulous system tuning." Under the water, the

signal runs over fiber in PVC pipes to avoid potential interference from the adjacent gas jets and circuitry.

"When we involved Mickey in this project, it added a new dimension," says Jim Doyle, WET's director of technical resources. "The soundtrack went from an organic volcano to something wonderful and the sound system had to match it. No other speaker sounds like a Meyer—sharper attacks, better voice imaging, sharp transients, crystal-clear, even at very high levels—and the show would not be the same without them."

Cornish adds: "Mickey's perspective is that the Meyer system is one of his instruments, and he rightfully stood up for it. The loudspeakers are well-suited to the high dynamic range of the music, particularly the low end. The Meyer subs are a very amazing feature of this project."

The Mirage Volcano officially reopened on December 8. (On December 31, the daredevil Robbie Knievel jumped over the volcano on a motorcycle.) Acoustic Dimensions' Knox sums it up: "We were attempting something that hasn't been done before on this scale, and there were a lot of unknowns. Projects like these keep us involved and excited to be in this industry." 📞