GADGETS

Two Cameras That Are Raising the Bar

IMAGE CAPTURE ON THE BLEEDING EDGE | **BY DAVID HEURING**

AFTER A CENTURY in which feature cinema production depended almost exclusively on a handful of cameras, the array of options available to today's filmmaker can be mind-boggling. Some cameras are designed to fill a niche; others seek to become the Mitchell BNC of the 21st century—one camera to rule them all. Here are two recent entries, each using high-tech innovations in a distinct way.

» **RED DIGITAL CINEMA WEAPON 8K S35**

BY THE NUMBERS: The Weapon 8K combines Red's compact DSMC2 form factor with its latest sensor technology, Helium. The 8K 35.4 Megapixel sensor can deliver 17 times the detail of HD at up to 75 frames per second.

WHAT THEY MEAN: The bigger sensor is compatible with a wide range of cinema lenses, and 8K means greater flexibility for visual effects, reframing or stabilizing in post, as well as the ability to scale down to smaller delivery formats with reduced noise and artifacts.

IN PRACTICE: The Red Weapon 8K was introduced in early October. Director of photography Christopher Probst, known for shooting director Joseph Kahn's stunning music videos for Taylor Swift, has tested the camera. "The fact that the Helium sensor can shoot even higher ISO, noise-free with smooth, natural color rendering sets the bar for all other imagers," says Probst. "The sensor, which is about 40mm by 20mm in size, gives you the ability to adjust aspect ratios and scale on a per-job, or even a per-shot, basis."

TAKEAWAY

"8K resolution is not just about 'pixel bragging rights,' "It's about flexibility."

—CHRISTOPHER PROBST

PHOTO: COURTESY OF RED DIGITAL CINEMA

» **LYTRO CINEMA LIGHT FIELD CAMERA**

BY THE NUMBERS: The Lytro prototype captures 755 RAW Megapixels at up to 300 frames per second, with up to 16 stops of dynamic range. The plenoptic sensor sees objects from multiple points of view and creates a holographic digital model of the scene.

WHAT THEY MEAN: Filmmakers can use this mountain of picture information in post to manipulate frame rate, aperture, focal length, focus, 3D depth and more. Depth information can be used in background replacement, obviating the need for blue- or green-screen shoots.

IN PRACTICE: Director Robert Stromberg made a short film titled *Life* to explore the Lytro camera's potential. "What we were able to achieve is what I think the future of filmmaking will look like," he says. "Lytro opens up a new set of creative tools. It allows storytellers to deliver a narrative, but with a spectrum of options when the shoot is over. Over time, the camera will be reduced in size. Once you're able to put it on a Technocrane or a traditional dolly, it should smoothly sync into Hollywood productions. Storytelling has always been consistent. We are finding new ways to visualize these stories."

PHOTOS: COURTESY OF LYTRO

Although the Lytro is quite cumbersome, a sleeker version is expected to "smoothly sync into Hollywood productions," says director Stromberg.

TAKEAWAY

"We see technology constantly changing and advancing very quickly, with cross-pollination of several new fields. Lytro's powerful technology will help storytellers create cinematic experiences. What they're doing is fantastic, and a short time away from becoming commercial."

—ROBERT STROMBERG