Sci-Tech Oscars: Academy Honors Scientists and Engineers behind Special Effects

Sandy Cohen, AP Entertainment Writer

BEVERLY HILLS, CA (AP) — The scientists and inventors who make big-screen superheroes, spectacular explosions and other only-in-the-movies effects possible have their own Oscar ceremony.

Kristen Bell and Michael B. Jordan hosted the film academy's Scientific and Technical Awards February 15, 2014, at the Beverly Hills Hotel, recognizing more than 50 of the most creative scientists and engineers in the movie business.

These are the men who developed the computer technology behind the bullet scene in *The Matrix* and the animation techniques in *Life of Pi*. They're the visionaries who build the things the film industry needs that don't yet exist, like advanced remote helicopter cameras and the Pneumatic Car Flipper (which does what it sounds like), for which they received certificates and plaques from the Academy of Motion Picture Arts and Sciences.

One honoree, Joshua Pines, who helped develop image-processing mathematics to standardize color, called the evening "this year's annual winter Olympics for geeks."

The two Oscar statuettes were presented among the night's 21 awards: The Gordon E. Sawyer Award to Peter W. Anderson for his contributions to 3-D technology, and an Academy Award of Merit in honor of the countless owners and operators of film-processing labs over the past century. *The Dark Knight* writer-director Christopher Nolan accepted the film lab Oscar, which will be on permanent display at the Academy Museum of Motion Pictures in Los Angeles when it opens in 2017.

Nolan described film processors as alchemists who "(turn) silver and plastic into dreams — and not just any kind of dreams, but the kind of dreams you can unspool

from a reel and hold in your hand, hold up to the light and see, frozen: magic."

He also contributed to the film-versus-digital debate that other honorees nudged at during the night.

Film is "the technology that lies at the heart of filmmaking," Nolan said, "and still represents the gold standard in imaging technology."

Still, the majority of the awards honored research and inventions related to digital filmmaking.

Eric Veach was recognized for his Stanford doctoral thesis that incorporates the physics of lighting into computer graphics. Dan Piponi, part of a team who created a system to simulate smoke and fire first used in films such as *Avatar* and *Puss in Boots*, joked about his unlikely road to Oscar recognition.

"Nobody told me if I wanted to get an Academy Award, I should study mathematics," he said. "But that's what I did, and here I am."

Bell said she learned new scientific concepts and vocabulary as she prepared for the show, adding she was happy to help honor the artists deep behind the scenes.

"A lot of the science and technology behind making movies seem realistic, all of those geniuses are here tonight," she said, "and I'm excited to celebrate them."

The rest of this year's Academy Awards will be presented March 2.

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