

AVATAR: CHANGING THE GAME

Words **Aisa Valenzuela**

One of the main reasons for the hype around James Cameron's epic sci-fi adventure film *Avatar* is the director himself. You might even have heard of him; after all, he only directed the biggest and most successful film of all time. But it has been 12 years since *Titanic* sailed and then sunk on our big screens. What has the erstwhile King of the World been up to since then?

MOST TECHNICALLY COMPLEX PRODUCTION

"I've been the busiest unemployed director in Hollywood," he answers in one interview. It turns out that the director has spent the past few years researching and developing the technologies needed to create *Avatar* on the scale he wanted.

The film began as an 80-page treatment that Cameron wrote back in 1995. At the time, he was also busy developing another sci-fi adventure, the adaptation of Japanese comic book *Battle Angel Alita*. But when that project fell through, he dusted off *Avatar*, which he hadn't touched for five years.

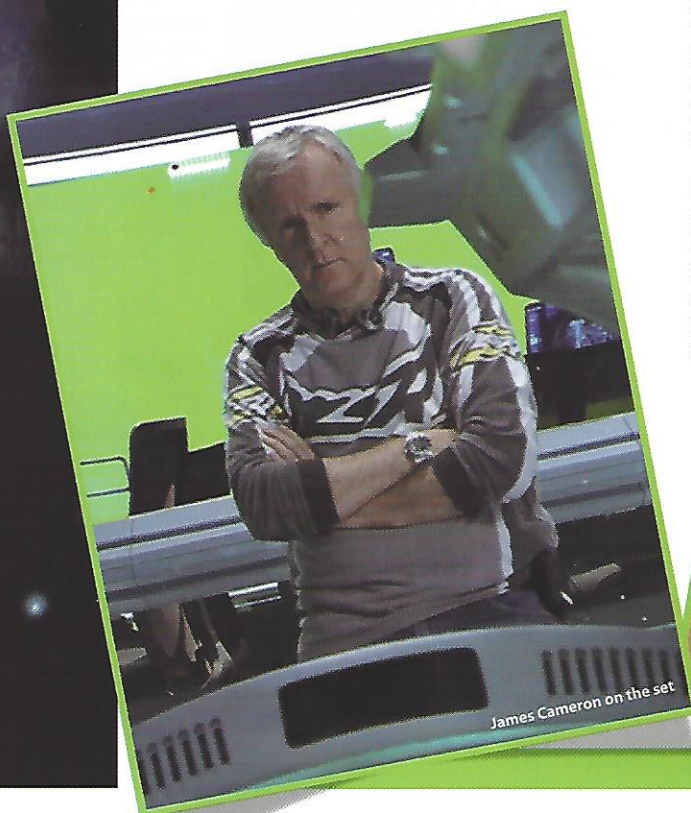
Cameron started designing the movie in May 2005 and wrote the script from January to April 2006. He says he waited to make the film in order for the technology to catch up with

his vision. And what a vision it is. *Avatar* has been hailed the most technically complex production ever mounted. Not only was the entire film shot in stereoscopic digital 3D, Cameron calls it a "true hybrid"—mixing full live action shots with computer-generated characters in both CG and live environments. The director estimates that the movie will end up being composed of 60% computer-generated elements and 40% live action. "Ideally at the end of the day the audience has no idea which they're looking at," he says.

EPIC SCALE

Fittingly, the movie's story is on an equally epic scale as the technology used. The film centers on a paralyzed ex-Marine named Jake Sully, who undergoes an experiment to transplant his mind into an avatar, a body that resembles those of aliens living on the faraway planet Pandora. Regaining the use of his legs through his avatar, he is sent to settle the planet and to assimilate himself among its primitive inhabitants, the Na'vi. He subsequently becomes immersed in the aliens' world and culture, gets caught up in their battle for survival, and even falls in love with one of them.

Hollywood newcomer Sam Worthington was chosen to play Jake, while Zoe Saldana plays his Na'vi love interest. Sigourney Weaver, on the other hand, stars as Grace Augustine, a botanist who is also part of the *Avatar* program. Other actors in the film include Stephen Lang and Michelle Rodriguez.





During shoots, Cameron had his cast wear motion capture suits that looked like black leotards dotted with tiny, white sensors. These sensors would capture the actors' movements and feed them back into computers for digital editing. Such technology has been around for awhile and been used to great effect in films such as *The Lord of the Rings* and *The Polar Express*. What makes Cameron's work groundbreaking, however, is the introduction of a skullcap with a still camera attached at the top to record the character's facial movements. This innovation allows for more accurate facial recognition than ever before, making it possible to render 100% of an actor's facial expression and nuance digital.

On top of this, cast and crew worked on a performance capture stage six times larger than any of its predecessors. Called the "Volume," the stage allows the director to view the actor's performance in real-time on a monitor that shows the digital translation onto the virtual set. Normally, directors would have to wait for the digital environment to be added after the actors' motions have been captured; the new technology, however, allows the director to shoot an animated film the same way they would a live action one.

FUTURE OF CINEMA

The results have been hailed as the future of cinema. No more Uncanny Valley or an

uncomfortable deadness in the eyes of computer-generated characters. Add this to the revolutionary, digital 3D reality camera system that Cameron developed himself and used throughout filming, and you can understand why *Avatar* has been called a game-changer.

Although Cameron is known for pushing the boundaries of cinematic technology with films such as *The Terminator*, *The Abyss*, and *Aliens*, he insists he made *Avatar* with purer intentions than simply wowing us with his new gadgetry. "I wanted to create something that I would have loved when I was a kid," he explains. "Something that takes place on another planet, something that is visually completely imaginative and original."

His goal is to rekindle the "amazing mystical moments" his generation felt when they first saw *2001: A Space Odyssey* or *Star Wars*. Unlike so much of Hollywood's recent crop of big-budget movies, *Avatar* is neither a sequel nor a remake.

Adds Sigourney Weaver, "I think what astonished me when I first saw the footage was that you could see everything breathing and glistening—it was just so real. I think it will certainly raise the bar for the bigger movies." She believes the film, whether in 2D or 3D, will stand on its own for quite a long time.

A WORLD ALL ITS OWN

Will kids and other moviegoers flock to the cinemas this December and love it? Reception was particularly warm at this year's San Diego Comic Con, where Cameron and cast screened an unprecedented 25 minutes of footage from the movie. Reviews were unanimous in saying the film had succeeded in creating a world all its own. The movie studio is even betting on it; already, there are talks of two possible sequels.

Will *Avatar* really change the game for cinema? Can a movie possibly live up to so much hype and weighty expectations? In the end, *Avatar* will have to go the way of all movies and have its fate decided by the person sitting in his seat once the movie house lights turn off. "It has to live and die on its merits," Cameron concedes.

And the King of the World seems okay with that. 