



Images: Twentieth-Century Fox

*Avatar is now number one worldwide, but not because of its reception by the critics. Its meticulous technical details and magical alien ecosystem explain much of its success. Also, the avatar concept tells us something deep about ourselves.*

## Avatars 'R' Us

By Andy Ross

A little over a month since its release, James Cameron's movie *Avatar* has become the biggest grossing movie of all time. Since the second biggest is Cameron's *Titanic*, this puts the 55-year-old Canadian director comfortably on top in the Hollywood pecking order, where box-office success always trumped art for art's sake. The 3D buzz certainly helped *Avatar*, as did a momentary lack of strong competition, but obviously the movie has something going for it. So what is it that makes *Avatar* such a hit?

It certainly wasn't the critics. Most of them snootily panned much of what held the story together, from its gung-ho celebration of violent conflict involving as many helicopter gunships as possible to its tree-hugging anti-imperialist fundamentalism. They compared it dismissively to *Dances with Wolves* (Kevin Costner's 1990 homage to Native Americans) and other cinematic subversions of America's civilizing mission, as well as to Cameron's earlier movie dramas, such as *Aliens* and his Schwarzenegger vehicles *The Terminator* and *Terminator 2 – Judgment Day*, where Cameron seemed to be down on the human race as he pitted gun-toting humans against giant alien insects or terminator robots. Unsurprisingly, Christian critics attacked the eco-pagan goddess worship in *Avatar*, as if to say their own Biblical patriarch theology was the only acceptable religious spin for a big-budget movie. Generally, the political right had a field day with the

idea that Cameron, whom they'd formerly sussed as a tech-obsessed gun nut, had gone soft and melted into green slime. They even objected to the subversively satirical insertion of the phrases "shock and awe" and "fight terror with terror" into the mouth of the hardball marine-colonel villain (played by Steven Lang) in the director's own tightly scripted but evidently too opinionated screenplay.

More yet, some critics accused Cameron of racism. Because the hero, a disabled white marine called Jake Sully (Sam Worthington), ended up becoming the great savior to a tribe of near-naked blue tree-dwellers, the self-righteous anti-racists decided the tale was just another white-boy messiah fantasy. Even more absurdly, Cameron was accused of sexism on the grounds that Sully's Na'vi avatar body was bigger and more muscular than the elegantly slender form of his Na'vi lover (Zoe Saldana), whose sleek contours were surely a turn-on for most young male moviegoers. And as a final insult, Cameron was accused of laxity about smoking for the reason that the human lead scientist (Sigourney Weaver) on planet Pandora was shown smoking to set off her waspish character. All in all, the critics probably kicked their own butts by outing themselves as a bunch of small-minded spoilers.

Whatever made the movie take off, then, it wasn't the ecstatic reaction of the critics or others in their cultural circles. No, this was a popular movie. What struck me most in many of the critical reactions was the tone-deaf reaction to the movie's lovingly detailed futuristic machines and its beautifully realized alien ecosystem (though, to be fair, the critic in *The New York Times* enthused with gratifying warmth to the latter). Anyone with a sharp eye for good science and

technology will find *Avatar* so far ahead of the competition in this respect that few other movies have a chance. In fact, all of Cameron's movies are impressive on the science and tech front. The only other director I can think of who achieved such solidly realized clarity in future tech was Stanley Kubrick, and that was forty years ago in *2001 – A Space Odyssey*. If you're into helicopter gunships, for example, the *Avatar* versions are a delight to behold with their bilateral, maneuverable, shrouded contra-rotors. Otherwise, their detailing makes them look just like hybrids of contemporary U.S. Black Hawks and Apaches, which may seem odd for a story set in the year 2154. The mining gear, too, was good, with giant dump trucks taken straight from the Canadian tar-sand quarries yet just right for their role in the story.



As for the cannon-toting robotic exoskeletons, like big transformer bots with marines inside, they look great, even if they don't make very convincing weapon systems. But it's the science of Pandora's ecosystem that takes the prize here. Six-legged animals, giant flying reptiles, and phosphorescent plants may not be too exciting by themselves, but as an integrated system held together by a planet-wide network of sensitive trees – a trillion of them, each with root links to ten thousand neighbors, to give more connectivity than in the human brain (said Sigourney Weaver) – it was all just magical.

My guess is that younger viewers are much more likely to respond strongly to the machines-and-ecosystem aspect of *Avatar* than are the sort of adults who make careers as critics. The human-interest aspect of *Avatar* was formulaic and unsubtle – as unsubtle as “being hit with a baseball bat,” in the words of one critic – but kids will be untroubled by that. In fact, they may be grateful to have the human plot spoon-fed and undemanding, to leave more of their attention free for luxuriating in the 3D magic of blue natives riding horses and dragons facing off against heavily armed human air cavalry.

Recalling cinematic history, I found the most obvious movie comparisons to be with Francis Ford Coppola's 1979 Vietnam classic *Apocalypse Now* and Roland Emmerich's 1996 sci-fi thriller *Independence Day*. Cameron was as influenced as anyone a generation ago by the disaster of the Vietnam War, so much so that a dozen scenes in *Avatar*, from the first exploratory nature walk in Pandora's jungle to the

dramatic return of the savior to the awed natives, show big resonances with scenes in *Apocalypse Now*. More hauntingly, the tone of voice of Sully's soliloquies as he records his science log sent my mind straight back to the deep-throated reflections of Colonel Walter Kurtz (Marlon Brando) in *Apocalypse Now*. As for *Independence Day*, who can forget the stirring speech by the president (Bill Pullman) as he rallies his fellow citizens before stepping into a fighter jet to attack the alien invaders? (The speech is good, by the way, because it's a straight lift from the St. Crispin's Day speech in Shakespeare's *Henry V*.) Cameron has his Sully avatar make a similarly moving speech to the Na'vi before their final attack on the sky people. And the *Avatar* line-up of helicopter gunships to attack the “Hometree” is distinctly like the *Independence Day* line-up of fighter jets to attack the alien saucer, right down to the big crash of the target that follows. There must be another dozen scenes with prototypes in earlier movies, from *Papillon* to *Starship Troopers*. But this is par for the course. From such borrowed tropes have Hollywood hits been made since time immemorial.

All this is a lot of fun but it doesn't yet touch what is arguably the biggest winning ingredient in *Avatar*. That's the sheer idea of avatars as bodies you can project yourself into by having a big machine tune the two sets of brainwaves. This not just the sort of techno-babble you get in *Star Trek* and similar fantasies but an idea I can imagine neuroscientists seriously entertaining in future. I've attended several professional neuroscience conferences in recent years where the speakers aired equally wild ideas about nonlocal resonances and phase locking between neural groups. So Cameron's sense here for what could happen is impressively well tuned. Moreover, and this is more important from the box-office standpoint, how could any ripening boy whose virtual avatars in computer games are so painfully short of what he'd really like, namely a physical body with superhuman athletic powers and a sexy girlfriend, do anything but thrill to the fantasy of inhabiting a Na'vi body that rides flying dragons? In an economic environment where Hollywood is taking heavy hits from a booming games industry, the *Avatar* revenge must be sweet indeed.

The idea of avatars as bodies that we can inhabit via brainwaves is a winner for another more serious reason. According to some contemporary philosophers of mind, we actually do inhabit our own bodies as avatars. One of the best popular expositions of this view is the 2009 book *The Ego Tunnel* by Thomas Metzinger, a professor of philosophy at the Johannes Gutenberg University in Mainz, Germany, but many neuroscientists share the view. Essentially, the idea is that we're ego machines, where the ego is essentially a software construction, indeed an avatar in the gamer sense, installed in the brain. Equally, our own bodies are like the avatars in Cameron's movie. So we're avatars in both senses. We're avatars and avatars are us.

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