

A Second Chance for 3-D

Trilogies are done. CGI is ho-hum. Now Hollywood directors are tapping into the third dimension—starting with Angelina Jolie in *Beowulf*.

BY FRANK ROSE

Beowulf used to be a Hollywood punch line, the cry agents uttered when confronted by arty screenwriters with an idea: "Oh God, just tell me it's not *Beowulf*!" So it was a particular triumph when two such scribes, indie filmmaker Roger Avary and graphic novelist Neil Caiman, took the stage at Comic-Con last summer to introduce *Beowulf*, Robert Zemeckis' retelling of the primordial Anglo-Saxon monster epic—in 3-D. "It's the oldest story in the English language," Caiman declared. "Told," Avary interjected, "with the most modern technology available."

Wearing special glasses that looked like Ray-Ban Wayfarers, the crowd of comic geeks sat rapt through scenes of menace and mayhem that rivaled anything in *The Lord of the Rings*. But the spine-tingling moments weren't when Ray Winstone, playing Beowulf, thrusts his sword at the audience—a 3-D cliché from the '50s. They came when he faces a digitally enhanced Angelina Jolie playing the mother of the monstrous Grendel, in a dank, forbidding cave. Jolie makes for a stunningly seductive sorceress, so it's all the more terrifying when her features momentarily morph into a death mask. A 3-D sword can make you jerk back

Close Enough to Touch

A slate of eye-popping 3-D flicks are coming your way.



The Movie	The Pitch	Watch Out For
Beowulf Paramount	Robert Zemeckis reinvents the Anglo-Saxon epic as a sword-and-sandals monster movie.	Angelina Jolie's 3-D braid: half bull whip, half snake's tongue, 100 percent badass.
Journey 3-D New Line Cinema	Jules Verne's sci-fi adventure <i>Journey to the Center of the Earth</i> gives James Cameron's stereo camera a test run.	Spewing volcanoes, dinosaur-infested grottoes, and anything else Brendan Fraser stumbles into.
A Christmas Carol Walt Disney	Robert Zemeckis gets in the Christmas spirit—now in 3-Dickens!	Jim Carrey's rubbery mug as he channels a hyperkinetic, performance-capture Scrooge.
Coraline Universal/Focus	Neil Gaiman's children's novel gets the stop-motion treatment, amped up by 3-D.	The bizarre world discovered by Dakota Fanning on the other side of her drawing-room door.
Monsters vs. Aliens DreamWorks Animation	The minds behind <i>Shrek 2</i> and <i>Shark Tale</i> do an animated update on classic 1950s sci-fi.	The first in DreamWorks' all-3-D feature lineup.
Avatar Fox	James Cameron's splashy \$195 million blockbuster wants to be the <i>Titanic</i> of sci-fi flicks.	Big, scary creatures from outer space. (In 3-D, by the way, everyone can hear you scream.)

in your seat, no question. But 3-D is even better when it draws you in—into the endless shadows of a cave, or into the vortex of a shrieking face.

The following day, the screenwriters were ecstatic. "It was like a third eye opened up in my forehead," gushed Avary, who was already plotting out *Beowulf* when he wrote *Pulp Fiction* with Quentin Tarantino more than a decade ago. "It's so large and extraordinary and hyperreal that I can't be anything but giddy. When I left the theater, I wanted the rest of the world to look like that."

Hollywood is betting that audiences will feel the same way. More than 50 years after its first run, 3-D is staging a comeback—this time in digital hi-def. Once a nausea-inducing fad, it's now touted as the biggest gun yet

in Hollywood's ever-growing arsenal of f/x. When *Beowulf* comes out in November, it will premiere on nearly 1,000 3-D screens—the most ever. (A standard performance-capture version—think motion-capture but better—that's not 3-D will be released simultaneously.) And nearly every major studio has a 3-D project slated for release in the next few years. DreamWorks Animation CEO Jeffrey Katzenberg has even announced that every release from his shop from 2009 on will be in 3-D. "It's a bigger quantum leap than talkies," declares Fox cochair Jim Gianopulos. "Talkies were an evolution of the medium. This is a complete transformation of the medium."

A half-century ago, when Hollywood first pinned its hopes on the third dimension, studio chiefs were desperate to win audiences

back from television. So they tricked out a run of B pictures—*Bwana Devil*, *It Came from Outer Space*, Vincent Price's *House of Wax*—with what was then the latest gimmick. It worked for a while, but the novelty faded because the herky-jerky analog technology sent audiences home with throbbing heads and queasy stomachs.

Now Hollywood is once again up against new media—video games, the Internet, home theater systems—and struggling to dazzle a moviegoing public accustomed to multi-million-dollar computer-generated effects. This time around, a handful of blockbuster directors are driving the action: Steven Spielberg, Peter Jackson, Robert Zemeckis, and James Cameron. "They're all feeding off each other," says Steve Starkey, Zemeckis' longtime producing partner. "Jim dreams in 3-D, but they're all pushing for it."

Almost a decade ago, Cameron, flush with profits from *Titanic* and bored with conventional moviemaking, began developing a stereoscopic camera system he would later use to shoot undersea documentaries for Imax. Then, when Zemeckis was making an Imax 3-D version of *The Polar Express*, Jackson stopped by his facility in Santa Barbara and was wowed by what he saw. Zemeckis' friend Spielberg soon became a convert, too. Now Spielberg and Jackson are planning a 3-D trilogy based on the Belgian book series *The Adventures of Tintin*. Zemeckis is working on a 3-D performance-capture version of *A Christmas Carol*, and Cameron is deep in production on *Avatar*, a live-action 3-D sci-fi flick that he boasts will be *Titanic* in space.

For A-list directors like these, 3-D is a cool new tool for storytelling. Like light and sound, it can alter a mood or highlight a moment—once you learn how to use it, that is. "It's a new frontier," Cameron declares. "Everybody's doing it differently. Peter Jackson's doing it his way, I'm doing it my way. There's no right or wrong. Do you feel ill after a screening or do you feel pretty good? We now know how to achieve the latter."

Audiences at a live-action 3-D movie are watching two images that have been shot with two cameras and then projected simultaneously. (If it's a performance-capture

flick, the original footage is run through software that splits the image in two for a 3-D effect.) Polarized specs enable moviegoers to see one image with one eye and the other image with the other. In the past, if those images were shot or projected even slightly out of synch—as often happens with analog 3-D setups—the brain would get disoriented. With digital 3-D, however, a rig housing two separate, synchronized cameras shoots "in stereo" and a digital projector displays the results. (Several companies, like Real D and Dolby, are developing different systems.) The result is sharp, eye-popping images—minus the 3-D hangover.

Cool tech, but for 3-D movies to be blockbusters, studios need to be able to show them on thousands of screens across the country. Which means theaters have to switch to digital projection systems, an overhaul they have long resisted. That's changing. After years of arguing over expense,

studios have agreed to shoulder a portion of the cost to convert theaters to digital, and the prospect of a big box-office take for 3-D films gives multiplex owners the motivation to pick up the rest of the tab. "Once theater owners realize there are enough huge filmmakers releasing 3-D content," says Starkey, "digital cinema will expand, and 3-D will be everywhere."

A warm fall day in Montreal finds James Cameron on a bustling soundstage at Mel's Cite du Cinema, checking out the shoot of *Journey 3-D*. The Jules Verne-inspired production is the first live-action feature film to be made with the latest incarnation of the stereoscopic camera system Cameron has spent years developing. In 1993, when he was shooting his first stereoscopic film, a 12-minute Universal Studios theme park attraction called *72 3-D: Battle Across Time*, he used a rig that was so ponderous, Arnold

Schwarzenegger's stunt double had to run at half-speed so the camera could keep up. Today, Cameron has a lightweight dual-camera system that's much easier to use.

Cameron is here to find out if his camera system is capable of executing a 3-D blockbuster. He has been in preproduction on the \$195 million-dollar *Avatar*, sci-fi action flick that pits humans against aliens in a death-match on a distant world. "We're trying to field a tool set to solve any situation, from underwater to hero close-ups," he explains. "So this is an interesting beta test."

And a wild ride. Affixed to a wall at the other end of the soundstage is the bottom half of an enormous, toothy, fiberglass dinosaur skull. Strapped inside are the star, Brendan Fraser, and two other actors. The script calls for the skull to be shot like a rocket from inside a volcano—and then to fall back in again. To capture this, director Eric Brevig has mounted the camera units

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from Cameron's rig onto a golf cart, which will be driven at top speed toward the wall, then thrust into reverse to simulate the fallback. On cue, the cart hurtles forward as the actors thrash about. Inches away from them, it halts abruptly, then slowly pulls back. The camera operator adjusts not just the focus but the convergence—the point at which the right and left camera eyes come together.

This scene looks straightforward, but it's actually revolutionary. When they had to rely on analog film cameras, including the refrigerator-sized units used to shoot in 3-D for theme parks and Imax releases, directors couldn't see where the dual images converged until the film was developed. As a result, shots had to be mathematically plotted far in advance, making the process slow and expensive. But with these new cameras—whether the stereorig developed by Cameron and videocam designer Vince Pace

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or a rival system developed by Cameron's former associate, Steve Schklair of the Burbank firm Sality Digital—directors can see the convergence in real time and forget the math. "Jim's edict is, throw out the rules," Pace says. "If it looks good onscreen, don't tell me the math is wrong."

While Cameron was working on the technology for live-action 3-D, trolling the ocean floor to shoot *Ghosts of the Abyss* and *Aliens of the Deep* in 3-D for Imax, Zemeckis has been pioneering a technique called performance-capture. Because the actors' performances are captured in three dimen-

sions by those Gollum-style motion-capture suits, the process of rendering them into 3-D is relatively simple and easy to implement after the fact: When Zemeckis was already well into production on *The Polar Express*, Imax asked if he'd do a 3-D version. After a screen test, he eagerly agreed, and along with Sony Pictures Imageworks created a 3-D version of the film. The audience loved it: When the movie opened in November 2004, the regular theaters were half full, but people were standing in line to see the Imax version, which brought in a fifth of the domestic box office

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receipts, even though it accounted for fewer than 2 percent of the total screens.

As long as 3-D was limited to a few dozen specially-configured Imax theaters, though, most people would never see either directors' work. While developing his camera, Cameron realized that most digital projectors being installed in cinemas were capable of displaying dual images. He took his discovery to 3-D software and hardware company Real D, which developed a ste-

for roughly a third of its \$98 million domestic gross—even though it played on only about 15 percent of screens. The 3-D treatment of *Tim Burton's The Nightmare Before Christmas* averaged more than \$24,000 per screen its opening weekend—impressive, considering it was originally released more than a decade ago.

By the time *Avatar* and *Monsters vs. Aliens* open in spring 2009, there will be 4,000 3-D screens across the country. And

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reoscopic system theater owners could add on to their existing digital projectors. Cost? \$25,000.

So in March 2005, Cameron got Zemeckis, George Lucas, and Robert Rodriguez to join him onstage at the ShoWest convention in Las Vegas wearing polarized 3-D shades to promote the technology. They screened footage from *Ghosts of the Abyss* and *The Polar Express*, plus versions of 2-D releases like *Star Wars* and *The Lord of the Rings*. Peter Jackson pledged his support via video from New Zealand, where he was working on *King Kong*. Lucas announced he wanted to convert the entire *Star Wars* epic—"that old group of films I did so long ago in a galaxy far away"—to 3-D. Not everybody was impressed: "It's a fad," sniffed one studio distribution chief.

But proof is in the ticket sales, and every 3-D picture that has come out since then has done eye-popping business. When *Chicken Little*—Disney's first 3-D film in more than 50 years—opened in November 2005, it played at about 100 digital multiplexes. Those theaters—with pricier admissions—did nearly three times the box office of the conventional theaters. Sony's *Monster House*, a 3-D performance-capture feature produced by Zemeckis, Starkey, and Spielberg, did even better. The 3-D release of Disney's *Meet the Robinsons* accounted

the home theater market is getting into the action, as well: Samsung just released hi-def flatscreen televisions with 3-D capability. So the question is not how much 3-D can we get but how much 3-D can we take. *Beowulf*'s getting major buzz, but can the thrill ride last? "Over time," says Fox's Gianopoulos, "there's no reason why every film couldn't be in 3-D, any more than you would make a silent movie." Or it could disappear all over again.

Digital technology has eliminated 3-D's most egregious side effects—the nausea, the eye strain, and the impulse to flee the room. But one relic still remains: those dorky glasses. The basic technology that would do away with them was patented in 1908, but no one has yet figured out how to make it work—and by most accounts, it will be years before they do.

Then there's the question of what will happen when 3-D trickles down to lesser filmmakers. "Bob Zemeckis instinctively shoots in 3-D," Starkey says. "But if you do it improperly, it can feel gimmicky. The subtler the better, I think." Hollywood, however, has never been much for subtlety—so when the lights go down, be ready to duck. IE!

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