

THE THIRD DIMENSION

Does anyone remember a world pre-*Avatar*? A world where everything was in 2D and you could go to the movies without having to borrow a pair of somebody else's glasses in order to be able to see the screen? So what does the new post-*Avatar* 3D world mean to the people on the ground — the people who have to deal with the day-to-day business of shooting on location? **Julian Newby** investigates

A WAVE of concern rippled through a certain group of people within the movie business when, in 2009, James Cameron's *Avatar* became the biggest movie of all time. "The actors aren't real, neither are the locations. We're all out of a job!"

But as with 1995's *Toy Story* before it ("The actors aren't real, and there are no locations. We're all out of a job!"), the panic calmed quickly. *Avatar* was shot on location and the avatars were played by actors. What *Avatar* actually did as far as the history of the film industry is concerned — apart from set new box office records — was to move 3D technology further than anyone might have imagined was possible. The story goes that James Cameron's movie had to wait for its director, and the good people at Sony, to invent the new technology before it could be made — 10 years in total. And whether or not *Avatar* is a great movie is immaterial: it changed cinema forever.

Pre-*Avatar* almost nobody was making 3D movies. Look at the post-*Avatar* list: *Toy Story 3*; *Voyage Of The Dawn Treader*; *Pirates Of The Caribbean*; *Tron: Legacy* — a tiny selection of the many major movies that have been made (or even re-made) in 3D since the success of *Avatar*. When the making of the third Narnia movie *Voyage Of The Dawn Treader* was chronicled in this magazine back in 2009, it wasn't even billed as an up-coming 3D movie; the 3D for that one was something of a retro-fit — of which, incidentally, James Cameron highly disapproves.

Addressing the Digital Entertainment Group in Hollywood at the end of 2010, Cameron highlighted the fact that some produc-

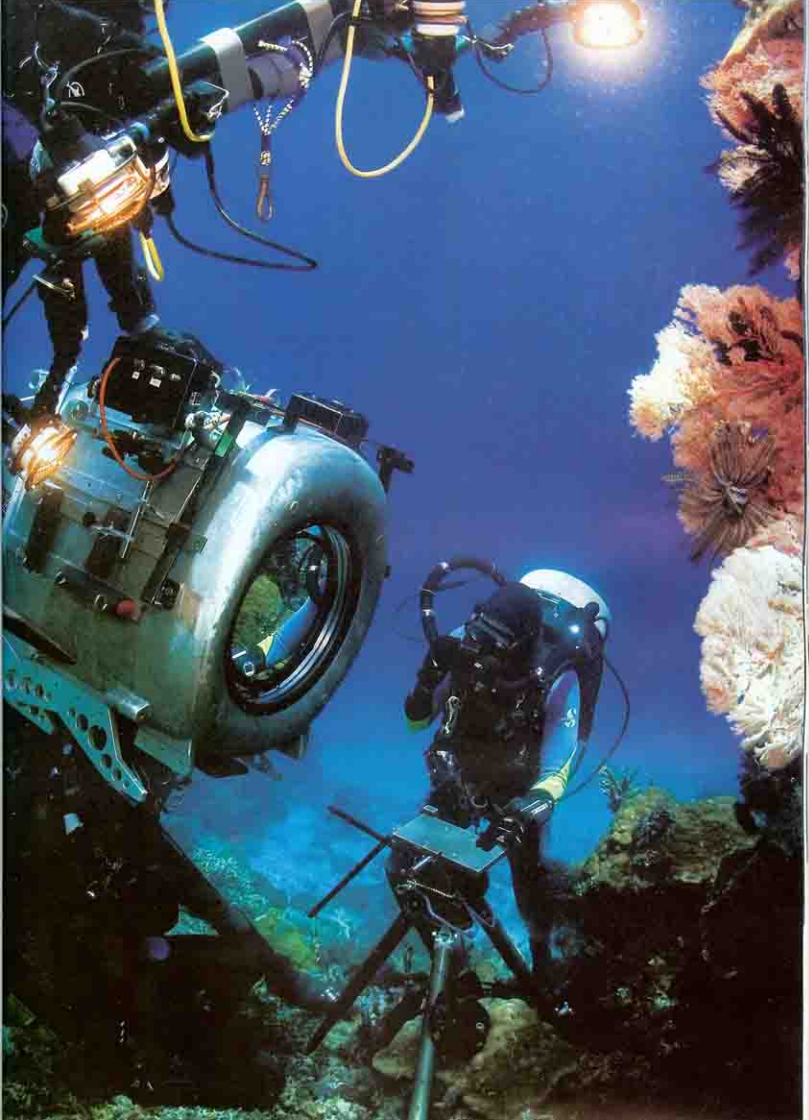
ers had attempted to enter the 3D world at the eleventh hour. "I maintain you can't do a good conversion of a two-hour movie with high quality in a few weeks like they tried to do with [2010 re-make] *Clash Of The Titans*," Cameron said. "I don't mean to throw that movie under the bus because my buddy Sam [Worthington, star of *Avatar*] is in it, but I think everybody realized that this was a point at which people had gone too far." He continued: "You see another stumble with the most recent *Harry Potter* movie, from the same studio making the same mistake — except

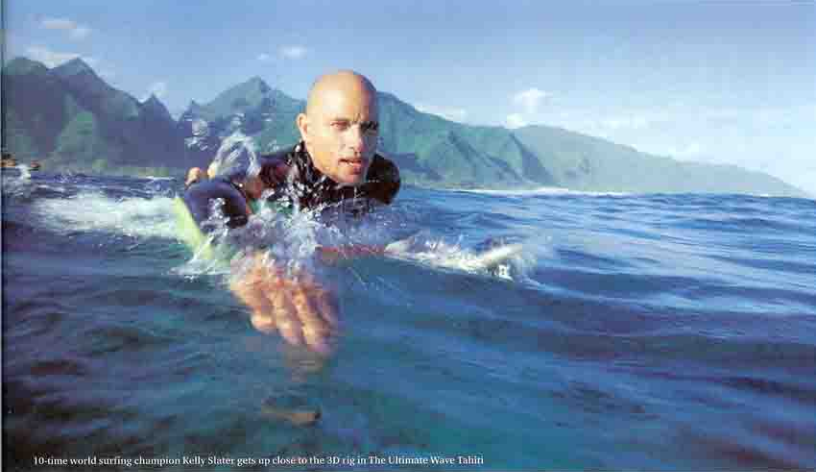


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really getting spanked for it now because they didn't get the film done. They announced it in 3D, threw a bunch of money trying to convert it to 3D in post-production and it simply didn't work. They just didn't get it done." It had been announced just a few weeks earlier that Warner Bros. could not complete the 3D conversion of *Harry Potter And The Deathly Hallows: Part 1* in time for its November 19, 2010, UK and US release date. Warner Bros. said it did not want to keep fans waiting for the film. "Unless you have a time machine to go back and shoot it in 3D, you have no other choice. The best alternative is if you want to release a movie in 3D, make it in 3D," Cameron said.

And so things have started to calm down. The big boys are us-





10-time world surfing champion Kelly Slater gets up close to the 3D rig in *The Ultimate Wave Tahiti*



"The more aggressive the 3D, the more time a viewer needs to process it"

sive the 3D, the more time a viewer needs to process it. Having the right technology does not really guarantee a successful 3D film."

The Stephen Low Company is known for its documentary productions — one of the most recent of which is *Rescue*. Filmed for presentation in IMAX 3D and 2D, *Rescue* documents the work of the Canadian Navy and its international counterparts as they respond to major disasters and emergencies around the world. "When making a documentary, you have to go where the story takes you, but you are also looking for ways to utilize the 3D medium — otherwise why bother? A lot of films are made now in 3D simply because it's the trend, but they don't necessarily have stereoscopic value," Alexander Low says. "For *Rescue*, the urban environment and rescue action offered lots of possibilities, but also continuous challenges in terms of getting the camera and subject matter together."

Another recent project, *The Ultimate Wave Tahiti*, took Stephen Low and crew into the ocean to shoot extreme surfing action. "It was a challenge getting the camera in the water with some of the largest waves on the planet," Alexander Low says. "On that shoot we were using four different camera systems. In general, we're shooting with very wide angle lenses for the giant screen. The camera and subject have to be near each other in a serious way. When you shoot with longer lenses, you loose the 3D. For key material on *The Ultimate Wave*, it helped to have surf specialist Mike Prickett handling the camera and 10-time world champion Kelly Slater as the subject who could bring his surfboard right up to the camera while coming off a wave."

>> If shooting on the water in 3D isn't a tough enough proposition, how about going under the water? 2009's *Under The Sea 3D* is directed by Howard Hall, narrated by Jim Carrey. And shot in the waters around Bali, Indonesia. Hall directed 1993's *Into The Deep*, the first-ever underwater IMAX 3D film. Since its release in 1994, *Into The Deep* has grossed more than \$70m and

has become one of the five highest-grossing IMAX 3D features.

"Working in 3D is much more complicated than working in 2D regardless of capture format," Hall says. "The size and bulk of the equipment is much greater. An underwater IMAX 2D camera system goes into the water weighing about 250 pounds — and is neutrally buoyant underwater. Two strong men can lift and carry it." The underwater IMAX 3D camera system, on the other hand, weighs over 1,200 pounds. "It must be moved with a crane. The overall package of gear is similarly increased when shooting in 3D. It requires shipping of more weight, larger boats, and more personnel."

To make *Under The Sea 3D* Hall and his team shipped some 8,200 pounds of equipment to Bali. "The gear was loaded onto our boat, The Seven Seas, and we spent five weeks filming around Komodo and in the Banda Sea. The gear was then returned to Bali via trucks from Maumere."

The logistical planning had to be meticulous, Hall says. "At each stage and at very remote locations, we had to have machines available to lift and move pieces that could not be lifted by hand. Making our logistical plan work would have been impossible without the help of Deborah Gabinetti at the Ball Film Center and Gary Hayes of Syzygy Productions.

"Working in the open ocean and often in substantial currents was very challenging," he says. "The 2,000 feet of 70mm film loaded into the camera runs for only three minutes before the camera must be returned to the surface and reloaded. This turn around takes between 20 minutes and an hour."

One incident during the making of *Under The Sea 3D* illustrates perfectly the difference between shooting 2D and 3D. "We filmed giant garden eels near the Sangeang Volcano. These were, by far, the largest garden eels I have ever seen," Hall says. "Some rose more than seven feet tall from their holes in sand. The area was often swept by strong currents. We brought down ropes and sand anchors so that we could tie the camera down against the current. After the anchors were in place, we dropped the camera upstream and floated it down over the eels and tied it to the anchors. All this activity disturbed the eels who then retreated into their holes. We then waited nearly three hours for the eels to re-emerge. Each time we shot a three-minute load, we had to repeat this process. It took us three days to get good footage of the eels, but the scene in *Under The Sea* was more than worth it." ■