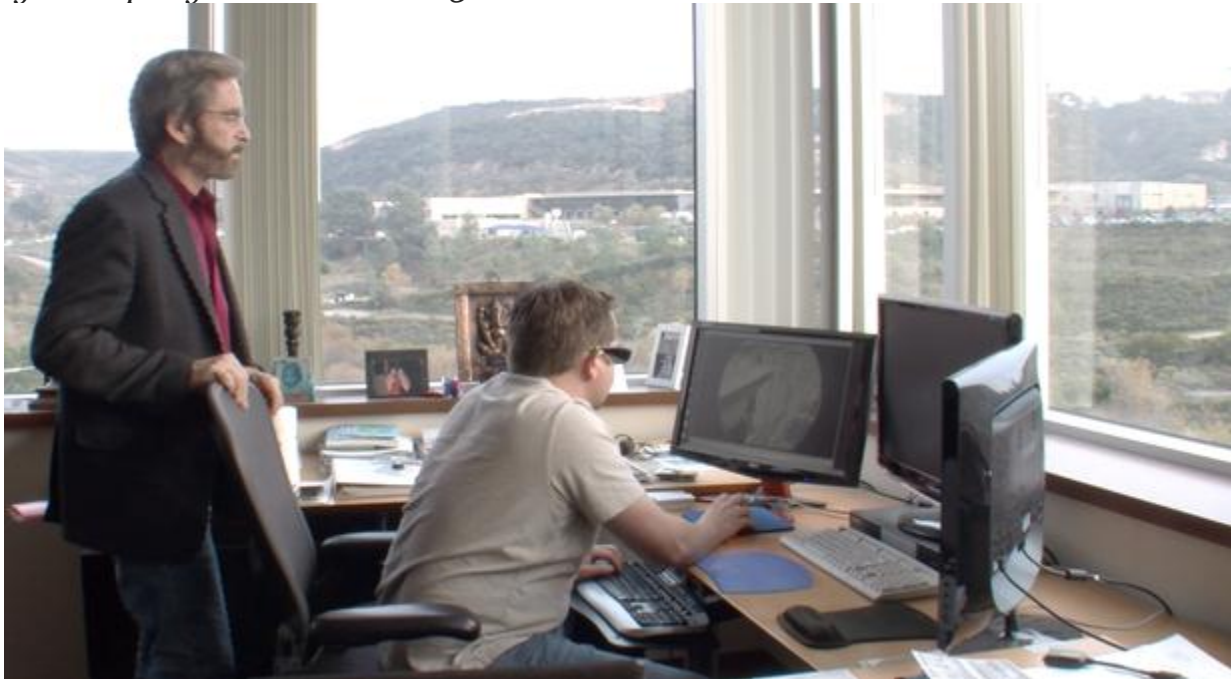




Cinema Junkie

Profile: Legend 3D

San Diego Company Excels at 2D To 3D Conversion



Credit: Nicholas McVicker

Above: Legend 3D founder and COO Barry Sandrew with VFX producer Matthew Akey.

Friday, January 6, 2012

By [Beth Accomando](#), [Nicholas McVicker](#)

The Academy just announced the 10 films that remain in competition for the Visual Effects Oscar. Three of the films had 2D to 3D conversion done at [Legend 3D](#). Listen to my profile of San Diego's Legend 3D and watch the video to see how 2D to 3D conversion is done.

Back in 1987, visual effects pioneer Barry Sandrew invented a digital colorization process that Ted Turner tapped into to colorize many of the classic films in his library. Then 5 years ago, Sandrew saw the prototype for a new 3D ready television.

"I instantly saw the future and I was obsessed by it," says Sandrew.

Expanding on the technology he had created for colorization, Sandrew founded Legend 3D and set about marketing his company as the premier place for turning standard two-

dimensional flat images into state of the art 3D, also known as stereo visual effects. Work was initially slow because there weren't enough venues equipped to show 3D. But all that's changed. Legend 3D now employs 240 at its San Diego office and about 350 in India. They've also worked on more than a dozen major Hollywood productions including "Alice in Wonderland," all three "Shreks," "[Hugo](#)," and the one Sandrew is most proud of, "[Transformers 3](#)."



Paramount Pictures

Above: "Transformers 3: Dark of the Moon" is one of the films that Legend 3D did 2D to 3D conversion on.

"In 'Transformers,' one robot had 78,000 pieces," explains Sandrew, "And we had to figure out how to bring that into our process and make every aspect of that robot accurate in terms of volume and 3D."

"It's all about scope," adds Matthew Akey, "It's about an entire city, giant warring robots blowing up skyscrapers. So there's a lot of depth outside the screen, a lot of depth behind the screen."

Akey is a visual effects producer at Legend 3D. He says a complex effects shot for a film like "Transformers 3" can have "Up to 150 layers. You can imagine the work it takes when explosions happen and there's a zillion dust particles that you literally have to place into different levels of depth. I mean there's a lot of work throughout the shot."

Legend 3D developed new software and technology just to manage the enormous workload for "Transformers 3." But when the film opened last summer, Paramount and director Michael Bay asked Legend 3D not to talk about the work they'd done.

"There was an attempt to prevent the audience from prejudging the movie as a converted movie," says Sandrew, "And that's why I think it was presented as maybe only 25% of it was converted. But when it was all said and done after about two weeks. We were allowed to tell everyone that we actually did about 52 percent of it."

[Profile: Legend 3D](#) by [KPBSSanDiego](#)

But it irks Sandrew to hear people malign conversion and insist that only 3D shot in 3D can look good. He says there are some things 3D cameras cannot capture: "If you have a highlight in a pool of water or something like that or a shine on a car it looks other worldly and that all has to be fixed."

And Legend 3D can fix it. Big visual effects are their specialty but they also excel at faces. For "Hugo," they tapped into both their 2D and 3D toolbox to work on the vintage George Melies footage that figures crucially in the climax of the film, says Sandrew.

"[George Melies](#) was one of the first visual effects pioneers," Sandrew says, "And what he did was absolutely magical. And here we were able to take that and turn it into 3D the way he might have done it."



Image Entertainment

Above: George Méliès' "Le Diable au Couvent"

The task for Legend 3D was not only to convert the 100 year old clips into 3D but to make sure the images looked good at the higher resolution of a theatrical projection.

"When we get footage like this that's vintage," says producer Matthew Akey, "You are maintaining the integrity of the technology of the time by helping match and preserve that feel."

The result is footage that looks charmingly hand painted but at the same time uses state of the art 3D conversion to pull audiences into Melies' delightful and fantastical world. The success of films like "Hugo" combined with the momentum in consumer electronics and the film industry give Sandrew confidence that 3D is here to stay. And he sees Legend 3D as here to stay in San Diego where he can mine young talent from the nearby Art Institute.

"Yeah I think it's much better to be in San Diego than in LA," Sandrew states, "The lifestyle is better, quality of life is better, and we can get this young talent right down the street. I think it's wonderful."

Next up for Legend 3D is something that also has a San Diego tie: "Top Gun." The company will be converting the 1986 film for an upcoming 3D theatrical release.