



The biggest challenge for Hancock's vfx team was how to make Will Smith look like the kind of hero no one wants to be saved by.

All images courtesy of Columbia Pictures.

How do you make a larger-than-life superhero come across as less than super on the big screen? It sounds easy unless you have the ever charming, international phenom Will Smith starring as the troubled "hero." And how do you make the biggest box office draw in the world look like the kind of hero no one wants to be saved by? That was the challenge for Digital Effects Supervisor Ken Hahn and Visual Effects Supervisor Carey Villegas of Sony Pictures Imageworks on director Peter Berg's new action-comedy, Hancock (now playing from Columbia Pictures).

Working under the designs of the legendary John Dykstra, Imageworks took on the bulk of the vfx creation for this film which looks at what happens when the good guy has a lot of "issues" to work through. Hahn and Villegas talk to VFXWorld about how they dealt with all the epic sized demands of one of this summer's most anticipated blockbusters.

—07/07/2008

HANCOCK

Off-the-Cuff VFX by Tara Bennett

Tara Bennett talks to Ken Hahn and Carey Villegas of Sony Imageworks about the unconventional yet satisfying demands of *Hancock*

Tara Bennett: What were your roles on Hancock?

Carey Villegas: I came on after the shoot, which is sort of late in the post-production process to help out with some of the more complicated shots and sequences. We just tried to make sure that our visual effects were in line with the style of Peter Berg's film.

Ken Hahn: My primary responsibility from day one, once we were awarded the project, was breaking down the scripts, bidding it, cleaning up who we needed based on the initial script. I did some on-set work along with John Dykstra, who was the show's overall visual effects supervisor, and then overseeing the technology aspects back at Imageworks.



TB: Hancock isn't your typical superhero film so what was Peter Berg's vision for how to bring this atypical story to life through visual effects?

KH: I remember from the very beginning you could tell it's not the typical, classic superhero film, where he's got a really nice outfit or he battles a true super-villain. Hancock has his own inner demons. It's funny because when I first read the script it wasn't a visual effects gore-fest. It wasn't a crazy amount of stuff but just a few choice sequences that had some cool moments visually. Of course, once we started shooting... there weren't any storyboards for this film and it was all done as animatics. Pete Berg thinks straight off the top of his head as different ideas would pop up. He would say let's do this and that, which is great. I love that sort of spontaneity of ideas but with visual effects we don't respond as quickly to those kinds of changes. They take time with R&D so that turned out to be fairly challenging... adapting to his style of working.

CV: For me, the biggest challenge of that is that he has a very unique way of working. His photography is very high energy. He thinks fast and moves fast so we had to keep up with him. If you watch his films from the past, they have a very specific style with frenetic camera movements, with long lens shots with snap zooms. It's a really handheld style that has a lot of energy. We have had to learn to adapt to that over the years because things have changed so dramatically. We try to get away from motion control and slowing down the process and production. We're trying to be an invisible part of the filmmaking process.

TB: Did you know you could take on the majority of the work from day one?

CV: At Imageworks, we have a lot of deep resources here so typically we have the capacity to handle large amounts of work. There are some types of work that we do farm out like basic comps were farmed out to Luma Pictures and X1FX. But we try to take on the meaty stuff and the bulk of the heavy effects work and then place less complicated shots to other facilities.

KH: One nice thing about Imageworks is that we are large in nature so not only can we tap into personnel but a lot of technologies that haven't been done previously. When something new comes along, we always take a look at



The train sequence required choreography to make the effect of havoc caused by Hancock work.



previous projects like *Spider-Man 3* or *Beowulf*, where we might have some similar type of things that we can leverage off of.

TB: How many shots did you budget for and did your final deliverable numbers come in close?

KH: I remember when I read the script our estimate for the bid was like 300 at the most. Of course, as you go through, and Pete had multiple camera angles on almost everything, it grew over the course of the show to about 600 shots that were turned over. There are about 525 shots in the movie.

TB: How long did you have to create the work?

KH: We were in principle photography for most of the summer of 2007 and we finished sometime in early Oct. Our first turnovers came in around the same time for a teaser trailer and our final deliverable was May 30th. A lot of films nowadays are a lot of shots and not a lot of time.



Veteran VFX Designer John Dykstra understands how to integrate the reality of a stunt person with wire work, rigs and CG.

TB: Did you have or create new technologies to accommodate the work you needed to develop for the film?

KH: On this show there wasn't anything truly groundbreaking. I try to leverage anything done before so for the climactic Hollywood Blvd. sequence where there are a lot of elemental effects, we wound up using a lot of similar techniques developed for Sandman in *Spider-Man 3*. We kept extending those toolsets more. We wrote a fair amount of extensions into Houdini and took advantage of the plug in architecture. With Maya

we took advantage of the plug in architecture too. We did a little bit of facial motion cap for Will and Charlize but there was a little bit of assisted technology that had been done for *Beowulf*. To me, it was more of an R&D project because in this film we definitely had shots with visual doubles and shots that transition from the CG version of Will Smith to live action and then back to CG all in one shot. The thing we didn't have them with was any lines of dialogue. With the motion they were just angry and such, so we tried to capture some of those mo-caps with lighting information simultaneously. We coupled those and it worked out fairly well and wasn't perfected on this show. But the next project that comes along that might need this we'll take a look and learn from our mistakes and successes so the next generation will be that much better. Imageworks has so many great tools from these projects but we're not ignorant of the fact of great work being done outside the facility as well so we'll leverage off their work too. There's no reason to reinvent the wheel.



TB: Berg said he wanted to make Will's flying seem as practical as possible so he used a lot of wire-rigging and not just greenscreen. Was there a lot of instances of practical and CG working in tandem on Hancock?

CV: John Dykstra [has] got a lot of past experience with superhero films so he had a feel for what works and what doesn't. The challenge is trying to relay your experience onto a production. They want the reality of the set with a stunt person so there was a combination of wire work and rigs to suspend Will to make him appear to be flying. Then a lot was done in CG. You take all those pieces and see what works or what doesn't. You have to adapt to that and fill in for the things that aren't successful and try to make them more successful.



For Hancock, Imageworks leveraged personnel and technologies from Spider-Man 3 and Beowulf.

TB: With Berg's off-the-cuff style, what noteworthy shots came into being unexpectedly?

KH: One example of something that came up was a scene that was always in the script and animatic. It's a scene in the jail sequence where Hancock is putting on a new face and goes to prison to show he is reforming. Of course in prison he meets every convict he's ever put away. There's a little confrontation and irritability when he says, "If you don't get out of my way, I'm going to take a person and stick someone's head up another inmate's ass." You read it in the script and you formulate a picture in your head. When they went up to the location, they tried to shoot it in camera because that's what Peter likes. We shot it with multiple cameras and some of the angles sort of worked, but it was a sleight of hand where you never saw the vulgarity of the gag. Ultimately he wasn't satisfied with any of the camera angles that he got. After reviewing the sequence after principle ended and Pete's like, "You know what would work—if you could make a CG guy to do this." This was never in the plan, it was never budgeted and we have no data acquisition on the two actors in the



scene. Josh Jaggars, our visual effects producer, turned around and looked at me and I'm just shaking my head thinking this is just terrible news. But Pete is like, "Oh, you have to do this! It's going to be a hilarious scene and it won't work without it." We went back to Imageworks and I gathered my team together and showed them the shots. There was an awkward silence [afterward] but the guys said let's go for it... We had to be on our toes because of the director's style and the guys bought into that. Pete would go one way one day and then changed around a couple days later and they rolled with the whole thing. If we had full data acquisition, like the digital doubles for Will and Charlize, great. In cases where we didn't like this jail scene, we worked with what we had. In the end, I was very dubious about the success of the execution of the shot when it was turned over to us but the end result was pretty great.



Veteran VFX Designer John Dykstra understands how to integrate the reality of a stunt person with wire work, rigs and CG.

CV: There are a couple shots like where Will jumps out of a window in a hospital 10 stories [high]. There were a couple shots planned there where he jumps out of the window to street level where there are two buses that he crashed into. But there was a shot in between those shots which is in the interior of the hospital where Peter decided he wanted to see a close up of Hancock breaking through the plate-glass window from the exterior at that level. It's not something we had planned but we had to create a combination of matte painting for building, a digital version of Will Smith that we had to reanimate and re-light. Plus, there are the effects of the breaking glass and debris. So that's just an example of one shot that was fabricated at the request of the director.

KH: And that shot came very late in the schedule. I think we only had six weeks left. Pete was working in the editing process and would find he really needed this one little bit here or just holding onto the beat. For any given director we are subservient to their needs, so if the requests come through, then they come through!



TB: What sequences stand out as your favorites now that you've seen the finished film?

CV: For me, there are some sequences we are pretty proud of. There are a couple shots in particular that I like a lot like a fight sequence on Hollywood Blvd. Basically two characters get into a big fight and in their anger they are able to summon storms and tornados on Hollywood Blvd. There are some cool elements in there. We got a chance to be creative and not just follow reality in terms of strictly creating the look of the tornados and be more stylistic. We got to be more creative than maybe other films.

We got to choreograph all these elements of blowing palm trees, twisters and lots of blowing debris with the timing. Another [instance of] the choreography [making] the shot work is where Will steps in front of the train and it crushes around him. There are big crane shot that follows that starts to show the aftermath of the havoc caused by him with the other cars derailed and stacked up one on top of each other. The timing of the camera movements and seeing all the elements all at the right time—we were able to do that draw the eye by adding choreography.

KH: Any chance now where we get to put our creative stamp on a sequence is always a reward. For that Hollywood Blvd. sequence—so much of that sequence was designed in post. We were able to contribute a lot of ideas and suggestions on how to keep the energy of the sequence to the level Pete was looking for. And then what might be more mundane or commonplace shots, the invisible shots are pretty rewarding as well. They play through the screen and nobody knows there are visual effects in it or how much work went into what you created.

Tara Bennett is an East coast-based writer whose articles have appeared in publications such as SCI FI Magazine, SFX and Lost Magazine. She is the author of the books 300: The Art of the Film and 24: The Official Companion Guide: Seasons 1-6.