

WORDS: ADRIENE HURST
IMAGES: COURTESY WARNER BROS FILMS



ABOVE: As well as precise tracking and match moving, Freddy's face required detailed sculpting and blending to augment the prosthetic make-up created for the character.

Freddy Krueger's infamous face has now become even spookier 16 years after the original 'Nightmare on Elm Street' was released. Method Studio jumped at the chance to rebuild the face in Samuel Bayer's 'Nightmare', fit to frighten a new generation of viewers.

This film presented Method with an opportunity to tackle a mainstream production with a recognised character, and show the breadth of their skills. Nevertheless, the team were mindful of the movie's small VFX budget from the start when the initial award was to be a smaller-scale, CG augmentation of the prosthetic make-up created by artist Andrew Clement, only affecting one side of the face.

SPIDER BITE

But as production progressed, the producers wanted more. They liked the looks of what Method were doing, the facial damage expanded to both sides and, consequently, the number of shots almost doubled.

Freddy's 'new' face was based on initial production concept art provided by Creative Character Engineering, evolving from client feedback into a final look that opened up larger, deeper holes that were wetter than the original concept. "In order to find the fresh wound look, our artists sampled some pretty disgusting spider bite reference as well as flesh-eating disease images," said Sean Faden, Visual Effects artist at Method Studios. "Our goal was to prevent audiences from seeing where the makeup ended and CG began."

Sean worked on set throughout the 45 day shoot. "What CG can do and prosthetics cannot, is give the wounds more depth into the face without interfering with the physical actor," he said. "To blend to specific areas, we had to create many FX on the surface of the skin, and blend back down into the prosthetic." Sean reckons that in the film, the audience is seeing about half CG, half makeup.

HEAD GEOMETRY

The shots were tracked with PTrack and matchmoved, and then imported to Maya to fine-tune the matchmove and align Freddy's expression and animation. These files were then

exported to Houdini for lighting and rendering through RenderMan. Compositing was done in Nuke where they also did a lot of their 3D work using the geometry of Fred's head.

They could develop a matchmove animated sequence of objects for the head in Nuke, texturing each object with UVs. These allowed the compositors to draw roto mattes on the tracked geometry, which could carry through the whole shot. If the compositor wanted to blend a bit closer to the mouth with the CG, he could move the roto shape on one frame and it would 'stick' to the face, without having to re-animate over the entire shot. This helped them quite a bit to speed up their work.

NUKE MAGNETS

Nuke was also used to attach 'magnets' to 2D tracking points. Because Fred's face was never static – he moved and yelled a lot, moving the skin in ways that couldn't be replicated in 3D – and because the prosthetic did not move as predictable as they had hoped, they could control the CG by setting these 2D tracking points up as an array of magnets and tell the CG to stack very closely to these. The compositors had good control over the fall off of these points. The technique was a huge help.

When he started on Nightmare', Sean had recently finished working as CG supervisor on 'Terminator: Salvation' at Asylum, where they worked on Marcus' face. "It was a similar problem – an actor with CG stuck to his face. We also used an array of magnets, but in Houdini. We tried doing this again for this movie but one of our compositors, Chris Bankoff, wanted to try building one in Nuke, which would mean we could keep the work in 2D, and the compositors could fine-tune the face in their own way. After all, they would be able to see best and keep control of where the troublesome areas were and the blood points would be."

SCULPTING DISPLACEMENT

ZBrush was also very useful for sculpting. Starting with a 3D scan of the actor in makeup, the face and damage could be sculpted and painted in ZBrush, which has brushes and tools that are more similar to a real sculptor's tools than Maya's. Different brushes and tools deform the geometry, pushing it in and out, shredding it and so on. "This work gave us a true, 3D displacement to generate a displacement map from, instead of just painting something that looks as if it should work," said Sean. "It was like working in clay. One artist especially, Masa Narita, did the sculpting and texturing on the face with ZBrush and Photoshop."

Method's work on the film was not confined to Fred's face but extended to developing a dreamlike, or rather a nightmare-like, quality to the footage. This started out with an ambitious plan but grew simpler at the producers' request. Nuke was used once again to replicate a lens the unit were shooting with off-set, creating what they called a 'squishy lens' that put a subtle distortion on the plate and was applied to several shots of Fred toward the end.

MOTION CONTROL

A very time-consuming sequence for the team involved a motion control shoot over eight or nine shots, showing the character Nancy in a chemist's shop intercut with shots of Fred in his fiery boiler room environment. Method's contribution to the sequence was on-set, designing and choreographing the action. The whole sequence of shots was planned in pre-vis by the company Halon. Sean edited a concept together in FCP, and showed it to the director and producers.

On approval, he carefully designed the shots. They shot Nancy first, without Freddy, plotting the camera moves and transferred these to the motion control camera. Then a boiler room shoot took place out at an actual derelict factory. To mirror the aisle set-up in the chemist's shop, a stack of pipes was added to form a corridor. The motion control system was brought into this set, where they could re-shoot the same sequence of moves with both Nancy and Fred in camera, trying to link Nancy to her previous performance and figure where Fred would need to be.

METHOD MAGIC

Based in Los Angeles, with locations in New York and London, Method Studios provides conceptual design, look development, on-set supervision, 3D animation/CGI, matte painting, and compositing and finishing. The company is led by creative director Dan Glass, senior visual effects supervisor on 'The Tree of Life' with film credits including 'Batman Begins', 'Speed Racer' and both 'Matrix' sequels. Method combines traditional filmmaking techniques with 2D compositing and 3D animation, and provides services to stereoscopic film productions, including the creation of stereo 3D content. Apart from 'Nightmare', Method has been working on 'The Sorcerer's Apprentice' and 'I'm Here'.

Sean Faden recently joined Method Studios as a VFX Supervisor to help expand their feature film department. Sean came from the Features and Commercials department at Asylum Visual Effects where he was VFX Supervisor both for features, such as 'The Amityville Horror' also produced by Michael Bay, and commercials. During his five years at Asylum, Sean also worked as a CG Supervisor on 'National Treasure', 'Phantom of the Opera' and 'Pirates of the



ABOVE: Adding digital snow and breath were Houdini effects Method contributed to the project further to the work on Freddy's face, such as when it begins to snow in Nancy's bedroom. They augmented existing snow throughout the scene.

Caribbean: Dead Man's Chest'.

Most recently, he finished work as Asylum's CG Supervisor for 'Terminator: Salvation', with a team responsible for the Marcus body and face, and the T-600. Earlier on, Sean worked at Digital Domain for seven years, where he CG Supervised the tornado sequence in 'The Day After Tomorrow', the avalanche for 'XXX' and worked on 'The Time Machine', 'Fight Club' and 'Titanic'. Sean started his career in the model shop at Digital Domain, contributing to models on 'The Fifth Element' and 'Titanic' before moving into digital effects.

In April this year, Method's LA studio made moves to expand its feature film VFX offerings by appointing some new artists. Stephane Ceretti joined from MPC in London, where he recently completed work on 'Prince of Persia: The Sands of Time'. [See our feature on page 22.] Before MPC, Ceretti was visual effects supervisor at Buf Compagnie in Paris. At the same time, Drew Jones also came from MPC. As executive producer he worked on 'Percy Jackson & the Olympians: The Lightning Thief' and 'Prince of Persia' as well. Prior to MPC, Jones spent over 11 years as executive producer at Framstore-CFC.

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In the final edit, the shots were cut together, back and forth, which the motion controlled moves allowed to be seamless. In the planning stage, they had envisioned elaborate transitions between the two sets. One remaining example is Freddy taking a swipe at the wall in the factory, which shifts to the shop where the same swipe sends bottles and jars cascading from the shelf.

Not surprisingly, the sequence needed a lot of last minute-storyboards to choreograph. Once they had all the shots at both locations, he helped the editor to intercut and decide where to make the changes but the edited pre-vis was their principle guide.

BREAKTHROUGH

When Fred breaks through the wall, a signature scene, they had to consider the earlier film, which had used all practical effects. They considered how they could use new technology to make it better and scarier. "Now, we can control fall-off, detail, how much of Freddy the audience sees - the challenge, in fact, was in not revealing too much, not pulling the viewer from his victim-like role, going with dream-like darkness and mystery instead of realistic clarity."

In the end, they used a combination of character animation, cloth simulation with Maya's nCloth, and more work in Houdini for additional cleanups and wrinkling, 'shrink-wrapping' the character to emphasise selected details. This time they rendered with V-ray out of Maya. Lighting was done in Houdini and rendered in RenderMan, however.

It took them a few months to work out, naming the effect their 'stretchy wall', though it only involved a handful of shots. "The 80 or so shots of the face were finished relatively quickly,"

Sean said. "We could rely on the actor's performance to carry the CG and effect of the face whereas effects like the wall, which are the centre of attention, have to be done more carefully."

DIGITAL SNOW

Adding digital snow and breath were other Houdini effects they contributed to the project, such as when it begins to snow in Nancy's bedroom, which then turns into a pre-school. They augmented existing snow throughout the scene, building up to the moment when Fred licks Nancy's face - with a 2D warping extension made to his tongue to stretch and exaggerate it.

Method Studios is one of the Ascent Media Group of companies, along with Company 3 where Colourist Stefan Sonnenfeld carried out the DI and graded 'Nightmare on Elm Street'.

The close working relationship, as well as being physically close to them, helped streamline post production on the film. Whenever scans were ready - such as element shots, extra material or new takes - the team could immediately take them from the volume they share with other team and start working on their plates. It also made it easier to reach a final look on shots, having direct access to the grades from Company 3, and reviewing shots with the client in their calibrated theatres.

LIGHT AND SHADOW

Company 3 does all of its final colour work with DaVinci Resolve systems. The film was shot anamorphic 35mm and scanned at Company 3 as DPX files on the ARRISCAN. Stefan worked with Sam Bayer and created a pre-grade LUT to the film, prior to the creation of visual effects. This guide gave Method a sense of how the images would look after the final grade. Because of the company's relationship, the calibration of the projection systems at both facilities could be precisely aligned.

The most significant grading issue had to do with how much of Freddy's face is visible or in shadow at any given moment. Initially, the plan was to conceal more of his face in shadow, but as the Method team showed the filmmakers how realistic their work could be, that aspect of the grade changed somewhat. Stefan could monitor what Method was doing quite closely and had the option to adjust his pre-grade so everyone could follow how the effects would look with a less shadowy grade. General colour casts were established in-camera as far as possible by the cinematographer on-set through the lighting and were then fine-tuned in the DI and grade.

BELOW: A challenging motion control sequence showed Nancy in a chemist's shop, intercut with shots of Fred in his fiery boiler room. The settings were linked together with eerie transitions.



WORDS: ADRIENE HURST WITH RYAN GROBINS
IMAGES: COURTESY OF RYAN GROBINS

Animator Ryan Grobins first had the idea of "sneezing with one's eyes open to enter another world" about nine years ago, but made little progress on his story until mid-2007 when he decided to make it his first animated short film, 'Sneeze Me Away'.

In 2007, Ryan had been working on the animated features for over 10 years and was itching to make an animated short, but never had the time to commit to it. "I was working as lighting supervisor at Photon on the Gold Coast on their first animated series, 'Animalia'. I spent evenings and weekends for six months getting the story right in previs and creating an animatic. I always knew I wanted it to have a 2D style, as I have a love for that look, so while I was doing the previs, my wife, Hyojung, was painting some backgrounds for look development.

FULL TIME COMMITMENT

At around the same time, Ryan began asking a friend, orchestrator, composer and musician Nicole Brady to work on this project, which he had code-named 'Sneeze' before settling on a title. "I wanted a big sound for the music, and Nicole jumped on board." When they knew that they had something good on their hands, Ryan and Hyojung made the decision to both work on it full time. "We decided to make it in Korea, where my wife comes from. Living costs are cheaper there, and we could rent out a small studio apartment from Hyojung's parents to turn into our office.

"From January 2008, we began working on it full time, but then around May of that year, Photon in New Zealand came to me with a six month contract to be their lighting supervisor on 'A Warrior's Way'. Because Hyojung and I needed more funds to put towards our short, we agreed to take a six month break."

On returning from New Zealand in October, they dove full swing back into production. Some of Hyojung's friends donated desktop PCs that they could use to render the film. "It was around then that we hired Stanley Darmawan, based in Sydney, as a character animator, as animation wasn't one of my strong suits. We also hired a couple of extra background painters to help with the work load, and after that, it was basically full time on the film. We used Audacity in Adelaide

to do the voice recording, foley and sound mixing. We have used orchestras in Austria and Czech Republic to perform music, as well as some local Sydney artists we met through Nicole."

LIVING BACKGROUNDS

One look that Ryan has aimed for in the film is what he calls a 'living background', in which some kind of movement is always visible in the backgrounds wherever possible to make them come alive. "Too often in 2D style animations, the backgrounds are static," explained Ryan, "For example, in many of the forest shots, I have mapped each tree onto geometry that slowly sways, or I have little insects flying around or clouds that not only move, but slowly warp.

"Hyojung uses Photoshop with a Wacom Cintiq to paint her backgrounds. We discuss what each background needs, and work out how many layers to create in order for me to be able to do the living backgrounds."

BELOW: Ryan says his animation style was a little less fluid than characters normally animated in 3D, holding poses a little longer and making the movements snappier.

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