



Deak Ferrand on 'The Skeleton Key' *Posted by [ianfailes](#) on Aug 20, 2005*



For *The Skeleton Key*, Hatch Productions was called upon to create the film's final pullback shot revealing the mysterious swamp environment that surrounds an isolated plantation house in Louisiana. Hatch co-founder and lead matte painter **Deak Ferrand** tells vfxblog how the shot was accomplished.

Interview by Ian Failes

How did you get involved with this project?

Universal called us because they had a problem. They had put this shot in the movie and it was pretty late in production. They asked us to do something with the shot. I knew it was pretty big for the time we had.

What opportunity did you get to conceptualise the shot?

I had one pass at coming up with what I thought the production would need. They gave me a very small black and white thumbnail idea of what it should be. It was pretty vague, so I did something that I thought looked like a swamp. I gave them that concept pretty fast. Because of the time constraint on the shot, I did the concept as a large full-res image, so if they liked what I had done I could keep it and use it. That was the only time I designed it. After that I went ahead and did the matte painting.

It's a pullback shot, so how did that affect your matte painting technique?

We knew we had to do a 3D matte painting. The problem with this visual effect was dealing with the trees, having to project the trees in 3D. It was fine for all the stuff that was far away, but the trees close to the house were problematic. So we were still able to put some trees close to the camera, but not as close as the production wanted. Because they had shot the plate without us, we just had to say it was something we couldn't do. We couldn't build super-highly detailed trees for close shots in the time we had. They were OK with that.

What other issues did the shot bring?

The water. I thought at the beginning that I was just going to paint the land stuff and we could do some full 3D water. We did some tests with that and it looked fake. It looked too perfect in fact. But we still wanted to add some reflections of the sky in there. I thought a blue sky with fluffy clouds would be cool to see in the water as a reflection. But when you do it in 3D it looks too perfect. So I painted the water, especially a darker water where you can see under the water to see more of a muddy bottom. Then I painted the matte for the water, did a projection for the matte, rendered that, then we did a pass with 3D water with the clouds and everything. That looked pretty fake and so we just comped this fifty per cent over the matte painting. So it reveals a little bit through the shadows in the water, but you still have reflections of the moving clouds.

We did a lot of stuff to remove the sharp reflections in the water. Just by doing this and doing a lot of masking by hand, not frame by frame, but by following the edges of the water to reveal the bottom, it really had the look of real water. Then we also added a fake reflection of the sun in the water, which was totally wrong because it wasn't backlit, but it just gave it a reality. It's very subtle, but you can certainly tell on the big screen. We based our look on the little pools of water from the plate, which was very, very black with a little reflection of the sky. When I tried to do that on the painting, I had to really desaturate the look.

Can you talk about how the team at Hatch work together to pull a shot together?

Basically, I will do the concept. From that concept I will work with everyone else. We 3D track the shot and build the basic 3D elements. Then I will start the first painting based on the 3D elements by working out the perspective placement of objects like trees. I will not constrain myself by painting trees where I have geometry. I'll put them where it feels right. Then I'll give this to Dominic Daigle first as one layer. Then he'll adjust the geometry in terms of half-spheres and cards to cover the trees. Then we'll project the image first on this and run the shot entirely to see where it's stretching and duplicating. From that I'll pick my second painting, either patching or nesting and I'll paint on that.

At that point Dominic will do multiple projections. We go like this back and forth to the end. We'll render the matte painting in all different passes. We then do the compositing to put all the elements together. At the end I'll do the colour correction. I always like to do some tricks with haze in After Effects. When we're all happy, we just render it out. We share the tasks in compositing.

With this shot where you ended up doing a lot of augmentation, do you sometimes wish it had been a fully CG job?

Yeah. Most of the time when they shoot something from a helicopter, the composition is not always very good because, well, here they have a house in the middle of the field and they tend to focus on the house. But really the shot is supposed to reveal the environment. They just fixed the camera on the house, which in the end I thought was bad for composition. I wish they had been able to tilt the camera up a little more to show the horizon line, with the house on one side of the frame.

But you're stuck with the camera. Depending on what the move is and the complexity of trying to create a full 3D environment with projection, well, if I have to chance to do that, I will. This is because we can skip the tracking. Most of the time the 3D tracking takes a day or two to do, which is fine, but sometimes it's really problematic because of a wide

angle lens or the camera is moving. So it's good sometimes to skip that part and recreate the movement by hand with a reference of the original plate, and just move it to change the composition. After that it's the same pipeline anyway. It's nice to have control over the shot. I always try to add things into my total CG shots like camera movement or shake to make it look more real.

What sort of reference did you look to for the swamp?

We were given some pictures by production of other locations they shot for the movie, not an aerial view but from a very low camera point of view. So I didn't know what it looked like from above. I looked on the web and there wasn't a lot of stuff. When I was in Florida prepping for another movie, I had shot some photos from the helicopter of a kind of swamp below. So I used these photos for reference. It was very hard to get the patterns of the water and how they make the little islands. I tried to invent it but it looked fake, so I had to find something real to rely on for the pattern.

What software packages did you use to accomplish the shot?

For the matte painting we used Photoshop. For the 3D animation we used the old Softimage 3.9 (which I use) and then Dominic uses XSI. I've never had the time to learn XSI so that's why I use Softimage. I look like an old dinosaur! But it's fine and it works really well because I'm really fast on it. The compositing was done in After Effects. We do all our comps in 16 bit. So we can take the Cineon file, flatten it to 16 bit and take it back to a 10 bit log Cineon. Now we're trying to do matte paintings in 16 bit, so that we can do night scenes and daylight stuff and it all looks the same.

We always like to put smoke and haze into our shots in a subtle way. I use this small particle software called particleIllusion, which is very cheap and easy to use software. 3D tracking is done in MatchMover.

What other projects have you completed recently, and what's coming up?

We worked on the Heaven imagery for *Constantine*. We've also finished work on *River Queen* for Vincent Ward. We're starting some concept designs for a Disney movie which I can't name. I'm also waiting for some matte paintings for *Narnia* and then hopefully I'm working on *King Kong*. Finally, I'm still waiting on Guillermo del Toro to start *Hellboy 2*, and hope to be working on that.

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