blender™

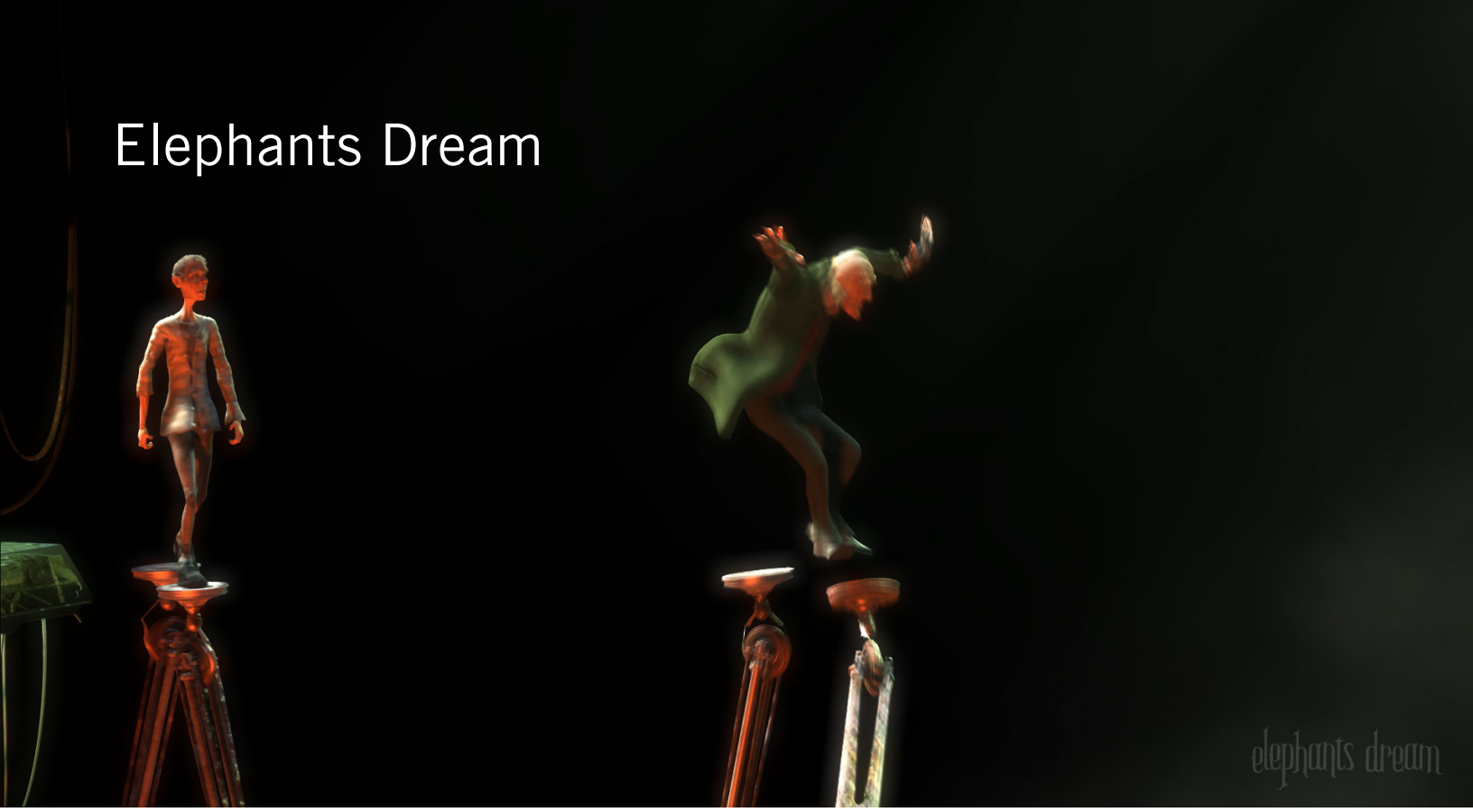
and the open movie project

About Blender

Blender is an open source 3d content creation suite. It provides tools for modeling, shading, 3d animation, dynamics, and game development. The blender community is very strong and is only getting stronger, with downloads of the software in 2005 recorded to be 1.5 million (Plohman, 2005) and in 2009 more than doubling to 3.9 million (Roosendaal, 2009).

One of the ways they foster growth of both the software and the community is through open movie projects. This Started in 2005 with the movie Elephants Dream which was actually the very first open movie in the world. What an open movie means is that all the models, scenes, animation, rigging and effects are available for download under a creative commons license. One can re-make the whole movie or take a character and make an entirely new animation. This allows for professional projects to become available to anyone for them to analyze, learn from, and use. The projects also help to increase the development of the software. Effects and tools that end up being needed through the process of making the movie are developed and then inserted into the next blender release.

Elephants Dream



We see at the beginning of Elephants Dream one of the first uses of fluid dynamics in blender. At that time it was very new and still under development. It gives an eerie start to an animation that is just going to get weirder. Full character animation was perhaps a bad idea. This is because the realism in the textures and models is not matched in the quality or style of the animation and it comes across as being a bit choppy or strange.

The most interesting scene in the film is where Proog (the elder) dances on air, being caught by small platforms as he moves across an empty chasm. In contrast, Emo slowly follows behind, walking normally. In this scene, the music, dialogue, and gestures blend very well together. The arcs of motion are much more precise in this scene than in the others.

The idea of secondary motion is taken to a new level when we consider that the story is conveying a living machine. In every background something is moving. Sometimes there are even small creatures. The tiny creatures and the machine itself often seem to have more life than the two characters, perhaps due to the previously mentioned attempts at realism.

Big Buck Bunny

The fur and hair system in blender underwent a serious overhaul for the next open movie, Big Buck Bunny. Previous effects like water dynamics are used as well and blend seamlessly with the environment. The difference in the environments of the two animations is quickly evident nature rather than a machine.

The largest contrast to Elephants Dream is in the mood of the story which is immediately brighter and softer. The story has a much clearer plotline, a comedy with lighthearted revenge. To some extent Elephants Dream seemed to be more about seeing what was possible with the software rather than just telling a story.

Animation matches the mood and style of the story with an excellent use of secondary animation for the ears of the bunny. Not needing voice most likely helped the animators in that it forced them to try to convey emotion through face and gestures. Every character in Big Buck Bunny has unique facial features which are brilliantly animated to help convey the story. For example, they use the face to help convey that the characters are planning or are about to do actions which brings up the anticipation of the audience.

Every Blender open movie goes by a different fruit which to some extent matches the approach of the animation. In Elephant's Dream the fruit was an orange, Big Buck Bunny was a Peach. Durian is for the next open movie.

Using storytelling to help drive creative development is a very effective approach. For example, looking at Pixar, the quality and complexity of their animation continues to increase but what is driving this is the stories they wish to tell. For Blender, if the progress from Elephants Dream to Big Buck Bunny is any consideration, the next open movie promises to be even stronger.

concept environment for the next open movie project

Reference List

Big Buck Bunny official website: http://www.bigbuckbunny.org/

Blender homepage: http://www.blender.org/

Durian official website: http://durian.blender.org/

Elephants Dream official website: http://orange.blender.org/

Goedegebure, S. (Director) Rosendal, T. (Producer). (2006). Big Buck Bunny [internet video]. Retrieved November 21, 2009 from: http://www.vimeo.com/1084537

Kerlow, I. (2009). The art of 3d computer animation and effects (4th ed.). Hoboken, New Jersey: John Wiley & Sons.

Kurdali, B. (Director). (2006). Elephants Dream [internet video]. Netherlands: Netherlands Media Art Institute. Retrieved November 21, 2009 from: http://www. vimeo.com/1132937

Plohman, A. (July 2005) August 2005. Website Statistics. Retrieved November 21, 2009 from: http://www.blender.org/blenderorg/blender-foundation/website-statistics/

Roosendaal, T. (April, 2009). April 2009. Website Statistics. Retrieved November 21, 2009 from: http://www.blender.org/blenderorg/blender-foundation/website-statistics/