HIT! BAT! IT!

~ Hideaki Maegawa video portfolio title ~

Hideaki Maegawa

Tamura Mansion 605, 32-6, Aobadai 1 Chome,
Aoba-ku , Yokohama-shi, Kanagawa-ken, Japan

hideaki1@mx5.nisiq.net

Abstract

Today's high technology is tomorrow's standard technology. In this rapidly progressing computer graphics world, my goal as designer is to polish and improve on the "old" and well-used skills.
This production was originally made as title for my personal video portfolio.
Therefore, one of the main criteria was to make it something that could be used for a relatively long time so I took particular care in character motion and camera work, as they are the basic factors of animation.

Keywords: Animation, Camera work,

1. STORY

The plot of this animation evolves around the hero, a goblin, wandering through an undefined space.
The goblin picks up a huge hammer and swings at the stonehenges in front of him. With each powerful swing, he knocks out one stonehenge after another. On the face of each stonehenge knocked to the ground, is engraved a Japanese character.
At the end, you see that the four characters together represents the author's name.
This action of knocking out one stonehenge at a time is based on an old traditional Japanese game called "Daruma-Otoshi".

2. DESIGN

Throughout this work, I have been conscious of incorporating my Eastern ideals into the design.
The model for the hero (character) is based on a goblin from an old Japanese tale, "Hundred Goblins Walking in the Night". This goblin swings his hammer the slower goblins around him to the ground. *(Figure 1)*
On the hammer, "bon-ji" (a Buddhist written character) is engraved. In this one character, "bon-ji", the universe is expressed. Therefore, this hammer represents the power of the universe.
The fire torches are also Buddhist ritual instruments. The motif on the torches, "Gokosho" has the power to ward off evil spirits.

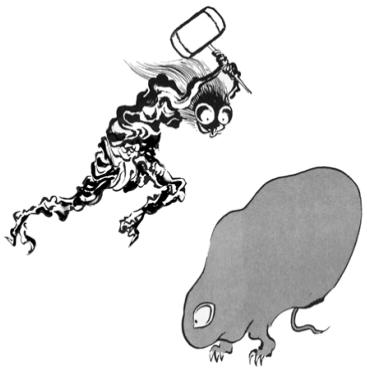

Figure 1

The written characters on the stonehenges are Japanese characters each representing a different word or meaning. Together, these four characters spell my name, Hideaki Maegawa.

3. MODELING

All the models were built with NURBS. The stage of this animation is very limited but it is necessary that it can be viewed from various directions. There are even some extreme close-ups. However, rendering time will take very long if minute heavy model is used.
Therefore, by using NURBS model, it's possible to shorten unnecessary rendering time by setting correct numbers of subdivisions during rendering.
For example, the surface on the engraved stones were transformed not by modeling but by Displacement Mapping.

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4. SHADING

Except for the calligraphic Japanese characters, I applied texture produced from Alias/Wavefront PowerAnimator shader in everything from the granite texture of the stones to the exterior or surface of the hero character.
Even for the torch flame, from flare up to burning flame, I deliberatly chose to use shader rather than the particle technique. Because speed is important in animation rendering, it was my judgement that particle technique would not be suitable as it takes too much time. For the ball, I applied mapping with Cloud shader and displaced the ball's surface with Fractal noise shader. With this technique, I succeeded in creating the mysterious atmosphere essential for this animation.

5. ANIMATING

My greatest challenge in this work, was to make the character's movements and actions as realistic as possible. The most important factor of animation is, after all, the creation of lively "animated" characters.
The challenge was to make each action he takes; picking up the heavy hammer, swinging of the hammer and knocking out of the stonehenge, look smooth and realistic without relying on special techniques such as motion capture.
Each motion was carefully created frame by frame, taking great care in the input of the keys and checking its timing to make it perfect.

6. CAMERA WORK

To create the best camera work, I experimented with a number of test using simple models and selected the best timing for the cuts. *(Figure 2)*

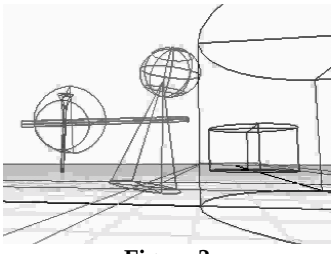

Figure 2

For it to work as an instrument to express the intention of the creator, rather than just for the purpose of rendering image frame, I carefully set the motion, lens focal length, lens F-stop, and focal length. In order to make the space in which the hero character lives look as realistic as possible, I chose not to use unbelievable or unrealistic cuts as much as possible. Of course, there are some playful or funny cuts characteristic of CG.

I also took much care to emphasize the subtle blur of the camera after rendering using Adobe AfterEffects. What's more, I was able to reproduce lens distortion by slightly bulging the rendering image.
Most of these effects may not be apparent unless specificed but I believe that they unexpectedly add a vividness or "life" to an otherwise rather flat and one-dimensional CG.

7. POST PROCESS

The paint touch is rather unique. It is not the effect produced by 3D rending such as the toon shader but a 2D effect with Adobe Photoshop.

With this paint touch, I succeeded in creating a very subtle atmosphere with ambiguous outlines and visual effects unachievable by cartoon and unlike puppet animation or like vivid CG.

CONCLUSION:

Today's high technology is tomorrow's standard technology. In this rapidly progressing computer graphics world, my goal as designer is to polish and improve on the "old" and well-used skills.
I believe that I have successfully expressed my taste to the fullest.
In the future, I hope to develop my skills further, experimenting with compositing with live action material to create even more lively and expressive CG animation works.

ACKNOWLEDGEMENTS:

My deepest appreciation to all my teachers and friends, especially my beloved wife who has supported me throughout this project.