

JOSE GUINEA MONTALVO

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Objective

VisualFX TD
Resident

Skills

Programming

C / C++, RSpec, RSL,
MelScript, Python, HTML,
PHP, MySQL

Applications

Autodesk Maya, MentalRay
Pixar's Renderman Studio,
Adobe Photoshop,
Adobe Illustrator,
Adobe Dreamweaver,
Adobe After Effects,
Adobe Premiere

OS

Linux, Mac OSX, Windows

Reel Breakdown

Giornata della Memoria

Ident for La7

Art direction and editing by Carlo De Agostini

Procedural modeling and animation for the barbwire/vines.

Shading, lighting and rendering

RayTracer

C++

Raytracer developed from scratch in C++.

Implemented features: distributed raytracing, glossy reflection, motion blur, ambient occlusion, depth of field, soft shadows, area and volumetric lights, imaged based lighting and colorbleed.

Lighting exercise

Autodesk Maya – MentalRay

Accumulation system

Autodesk Maya – RSL – python

Irregular Surface

The amount of displacement is determined by two custom RSL shaders which through message passing, calculate the correct distance value at each frame. A python script creates the accumulated value sequence by comparing the value at the previous state with the present frame and selecting the highest value in the comparison. A custom displacement is used to apply the accumulated values which are not determined with the surface normal but the Y-axis direction.

Candle Study

Autodesk Maya – MentalRay – Renderman

Realistic candle study with Maya Fluids simulation for the flame. All lighting and shading of the candle is done in Rendman, while the flame is rendered in Mentalray.

A painterly approach to light transfer in participating media

Master Thesis Research

Goal:

To develop a simplified light transfer model for participating media, focused primarily on the perceptual and aesthetic value of the images and not focusing on the physical accuracy of light and its interaction with the media of the elements.

To develop a method that approximates light transport through a volume by calculating the light contribution in the volume with discreet sampling and then gathering these values to determine a diffuse scattering contribution as dominant visual component for the volumetric visual results. Light transport will be calculated in several passes and begins primarily with environment illumination.

This method as a stand-alone rendering system.

To develop tools to allow the artists to organically control the glow and temperature of the effects of participating media and mold the value and hues wrapping around the surfaces.

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