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JESSICA RIEWE

Reel Breakdown

I Lighting and Shading: Death Dealer

SHADING AND LIGHTING: SPRING 07

COMPOSITING AND 2D EFFECTS: SPRING 07

SOFTWARE USED: ALIAS MAYA 7.0, PIXAR'S RENDERMAN 12/SLIM, COREL PAINTER X, APPLE

SHAKE 4.0, APPLE FINAL CUT 5.0

SHADING, LIGHTING, COMPOSITING, AND 2D EFFECTS BY JESSICA RIEWE

CONCEPT ART BY FRANK FRAZETTA

MODELING BY DON BUI

II Lighting and Shading: Styracosaurus

MODELING: FALL 05

SHADING AND LIGHTING: SPRING 06

ANIMATION AND COMPOSITING: FALL 06

SOFTWARE USED: ALIAS MAYA 7.0, PIXAR'S RENDERMAN 12/SLIM, PHOTOSHOP CS2, APPLE

SHAKE 4.0, APPLE FINAL CUT 5.0

MODELING, SHADING, LIGHTING, ANIMATION, AND COMPOSITING BY JESSICA RIEWE

RIGGING BY SETH FREEMAN

III Scripting and Modeling Research: A Virtual Sculpture

Based Morphable Face Model

MASTER'S THESIS RESEARCH: 2006

SOFTWARE USED: MATLAB, ALIAS MAYA 7.0, AMBROSIA SNAPZ PRO X, APPLE SHAKE 4.0,

APPLE FINAL CUT 5.0

EXEMPLAR VIRTUAL THREE-DIMENSIONAL SCULPTURES COLLECTED FROM SIXTEEN ARTISTS ARE USED TO DEVELOP A MULTI-DIMENSIONAL SPACE TO DESCRIBE FACIAL SHAPE, WHICH IS THEN USED AS A MECHANISM FOR MODELING NEW FACES. THIS IS ACCOMPLISHED THROUGH IDENTIFYING AND VARYING DERIVED PRINCIPAL COMPONENTS OF THE MULTI-DIMENSIONAL SPACE. THE RELATIONSHIPS BETWEEN THESE PRINCIPAL COMPONENTS AND THEIR EFFECTS ON NEW FACES ARE EXPLORED THROUGH THE CREATION OF NEW VIRTUAL FACES USING A GRAPHICAL USER INTERFACE. THESE NEW VIRTUAL FACE SCULPTURES ARE THEN MODIFIED BY

FACIAL FEATURE, GENDER, AND EXPRESSION USING A FEATURE-BASED TRANSFORMATION INTERFACE BASED ON DIFFERENCE VECTORS. FINALLY, ANIMATIONS ARE CREATED TO ILLUSTRATE THE RESULTS OF THESE APPROACHES. FACIAL MESH TRANSFORMATIONS BASED ON PRINCIPAL COMPONENTS DOES NOT GIVE DIRECT PREDICTABLE CONTROL FOR MODIFYING SPECIFIC FACIAL FEATURES. HOWEVER, IT DOES PROVIDE INTERESTING DESIGN CHOICES FOR ARTISTS, AND GENERAL PATTERNS OF THE DATA VARIANCE WERE OBTAINED. THE FEATURE-BASED TRANSFORMATIONS WERE SUCCESSFUL IN FURTHER MODIFYING CREATED FACES.
RESEARCH, SCRIPTING FOR GUI INTERFACES, MODELING AND ANIMATION, SHADING, AND DEMONSTRATION BY JESSICA RIEWE

IV Physically Based Simulation: Real-time Physically Based Particle System

CODING AND OPENGL RENDERING: FALL 06

PROGRAMMING AND RENDERING IN C++ AND OPENGL BY JESSICA RIEWE

V Physically Based Simulation: Real-time Physically Based Flocking System

CODING AND OPENGL RENDERING: FALL 06

PROGRAMMING AND RENDERING IN C++ AND OPENGL BY JESSICA RIEWE