

9809-MIT01: Interactive Sculpting of Virtual 3D Materials

Julie Dorsey & Leonard McMillan







- Combines the fidelity of a boundary representation with the flexibility of a volumetric model
- Interactive surface & volume modification
 - Rich set of shaping tools
 - Tools for simulating natural processes
 - Tactile feedback



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Progress Through June 2000



- Rich libraries for physical simulation
 - Parameterized simulation based on realistic material properties
 - Fracture of static materials
 - Bending of malleable materials



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Progress Through June 2000 (Continued)

- Dynamic Simulation
 - Gravitational forces
 - Object interaction
- Collision Detection
 - Object inter- and intracollision
 - Ground-plane collision
- High-quality rendering of results