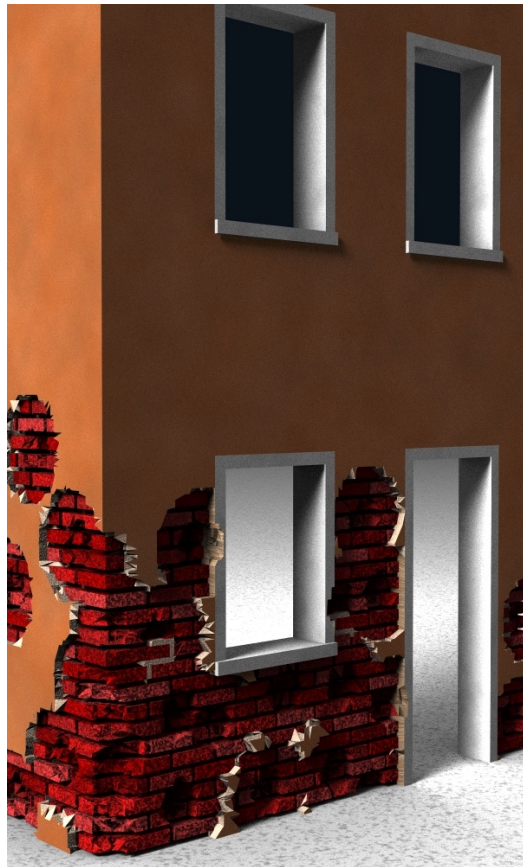


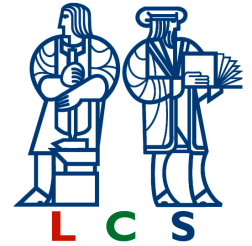
Project Overview



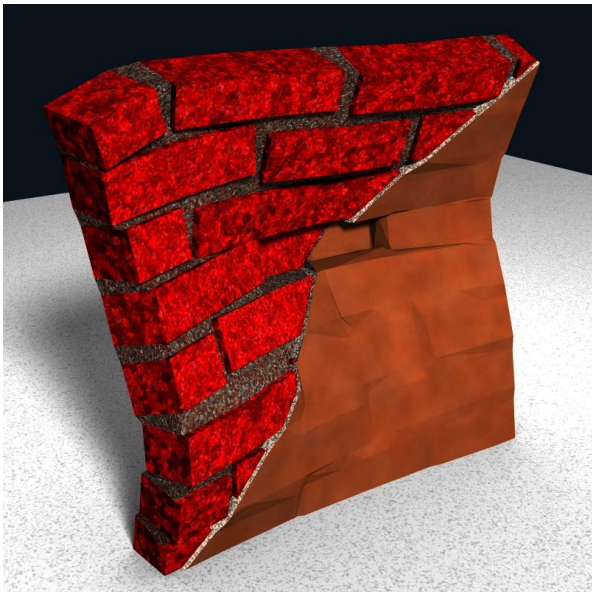
- Combines the fidelity of a boundary representation with the flexibility of a volumetric model
- Interactive surface & volume modification
 - Rich set of shaping tools
 - Tools for simulating natural processes
 - Tactile feedback

9809-MIT01: Interactive Sculpting of Virtual 3D Materials

Julie Dorsey & Leonard McMillan, MIT LCS



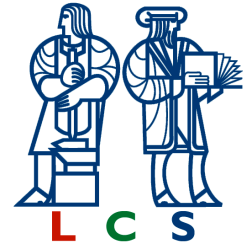
Progress Through December 1999



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

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Research Plan for the Next Six Months

- Higher-resolution representations
- Extended tool libraries
 - Drilling, chiseling, and painting
 - Localized modification of material properties (heating/cooling)
- More complex physical simulation
 - Gravitational forces
 - Complex fracture simulation
 - Melting
- Three-dimensional display technologies