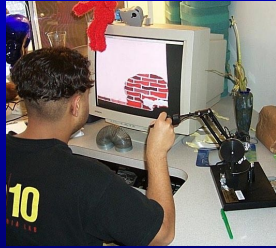


## Sculpting 3D Models – Overview



### Dorsey & McMillan

- Combines the fidelity of a boundary representations with the flexibility of a volumetric model
- Interactive surface modification
  - u Rich set of shaping tools
  - u Tools for simulating natural processes
  - u Tactile feedback
- Multi-resolution
  - u adaptive rendering speed
  - u quality and resolution on-demand

FOR MORE INFO... see [www.graphics.lcs.mit.edu](http://www.graphics.lcs.mit.edu)

## 3D Surface Exploration

### Next: Stage II

- Integrate head-tracked stereo display with haptic interface
- Large format plasma display
  - u Virtual working surface
  - u Usable in ambient light
  - u Flat (no projection volume)
- Natural interface
  - u Aids comprehension
  - u Direct manipulation of surfaces
  - u Interact with simulation



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## Future Directions

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- Multiuser stereo displays
- Modeling layered and composite materials
- Virtual user-guided simulation environments
- Materials that deform, change shape and appearance through manipulation
- Next generation 3D modeling system

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