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Front Cover:

Augmented-reality ultrasound system (view within head-mounted display). Several GPs perform volume reconstruction (on-line resampling of 2D ultrasound slices into a 3D volume). The ultrasound probe, shown in wireframe, appears to emit volume material as it is being moved through the box.

Interactive Volume Visualization on a Heterogeneous Message-Passing Multicomputer
State, McAllister, Neumann, Chen, Cullip, Chen, and Fuchs (pp. 69 – 74)

Back Cover (clockwise from top):

A colloidal gold ball is being maneuvered into a gap in a gold wire. The tall vertical line shows the position of the hand over the surface. The short yellow lines mark the tracks of where force has been applied.

Surface Modification Tools in a Virtual Environment Interface to a Scanning Probe Microscope
Finch, Falvo, Chi, Washburn, Taylor, and Superfine (pp. 13 – 18)

The exploded view tool.

Interactive Design, Analysis, and Illustration of Assemblies
Driskill and Cohen (pp. 27 – 34)

Metamorphosis of surface shapes in 3-space: 0%, 33%, 67%, and 100% versions of the David to Heidi sequence.

Interactive Shape Metamorphosis
Chen, State, and Banks (pp. 43 – 44)

Los Angeles MTA Visualization Project: View Along Wilshire Boulevard.

An Environment for Real-time Urban Simulation
Jepson, Liggett, and Friedman (pp. 165 – 166)

Overhead view of the Brooks House, showing portal culling frustrums active from the master bedroom (mirror frustrum shown in red).

Portals and Mirrors: Simple, Fast Evaluation of Potentially Visible Sets
Luebke and Georges (pp. 105 – 106)

Virtual Environment Vehicle Interface (VEVI) (left) and OTTER Underwater Vehicle (right).

Underwater Vehicle Control from a Virtual Environment Interface
Fleischer, Rock, and Lee (pp. 25 – 26)

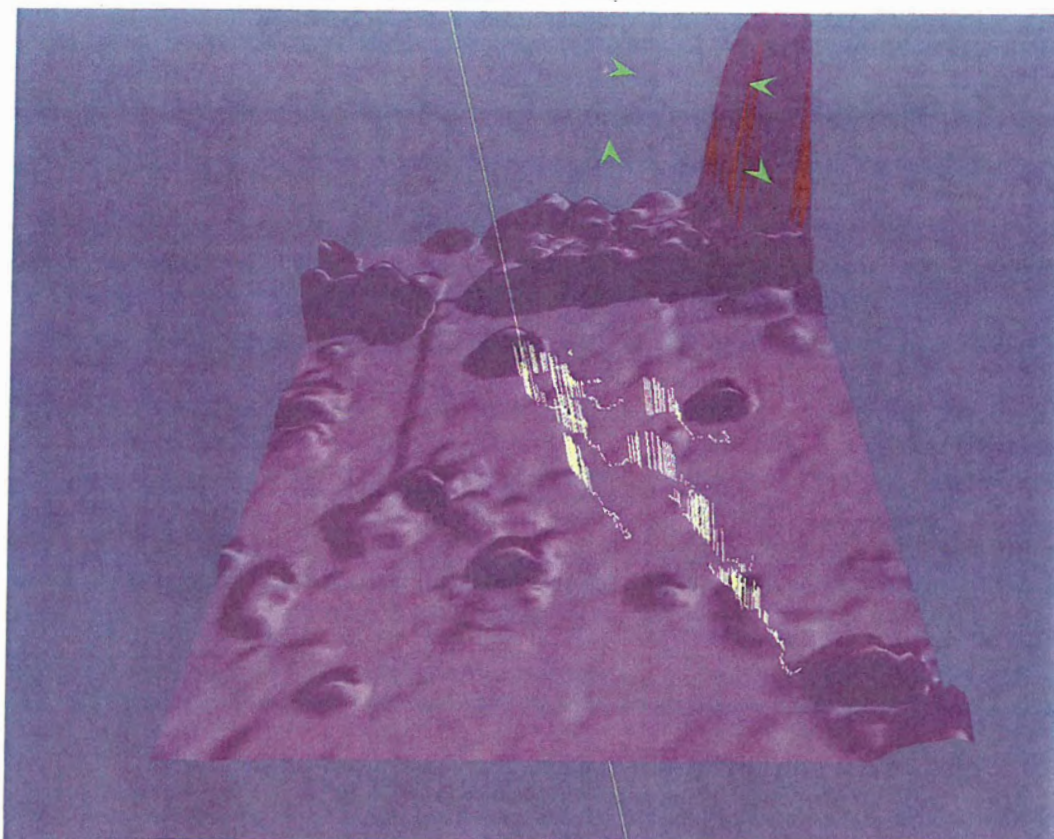


Figure 4 - A colloidal gold ball is being maneuvered into a gap in a gold wire. The tall vertical line shows the position of the hand over the surface. The short yellow lines mark the tracks of where force has been applied.

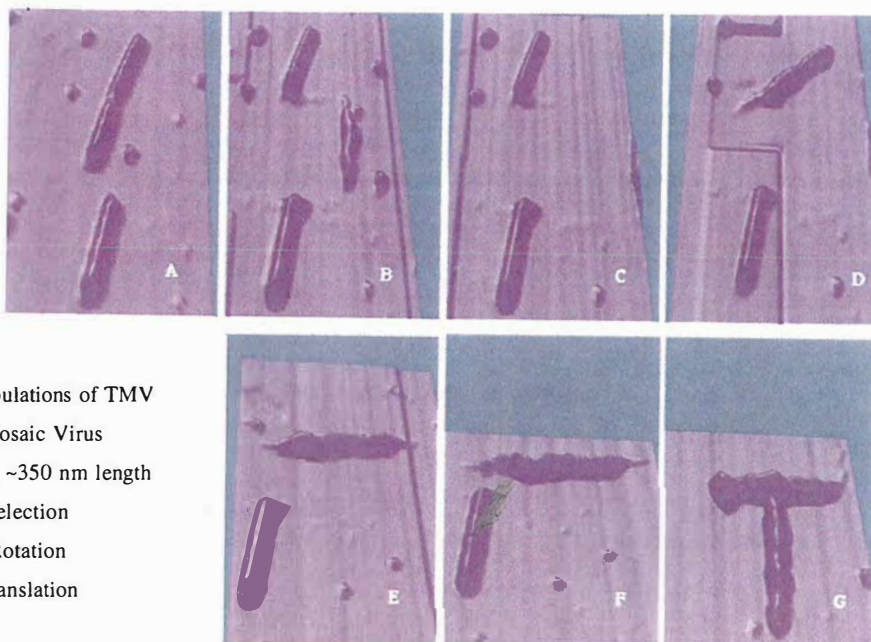


Figure 5 - Manipulations of TMV
Tobacco Mosaic Virus
20 nm diameter, ~350 nm length
A-B) Selection
C-E) Rotation
F-G) Translation

Finch, Falvo, Chi, Washburn, Taylor, and Superfine,
"Surface Modification Tools in a Virtual Environment Interface to a Scanning Probe Microscope"

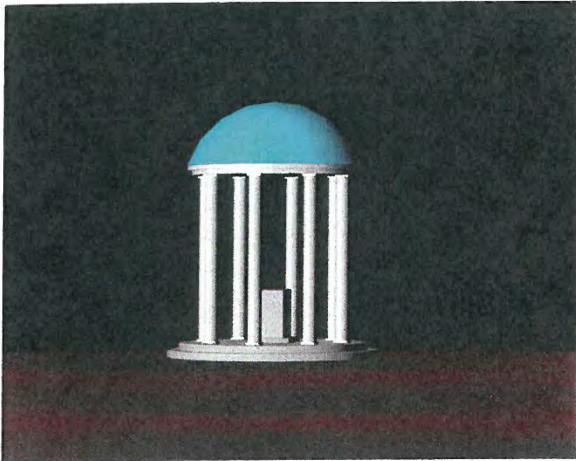


Plate 1: Image from an animation of UNC's Old Well, moving from left to right, rendered with conventional methods. On a scan line display, this appears slanted.

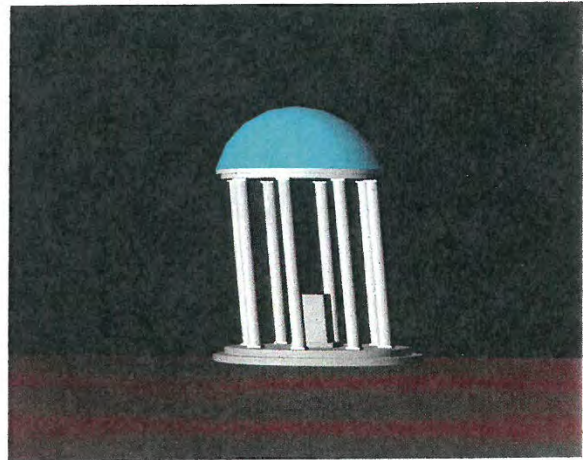
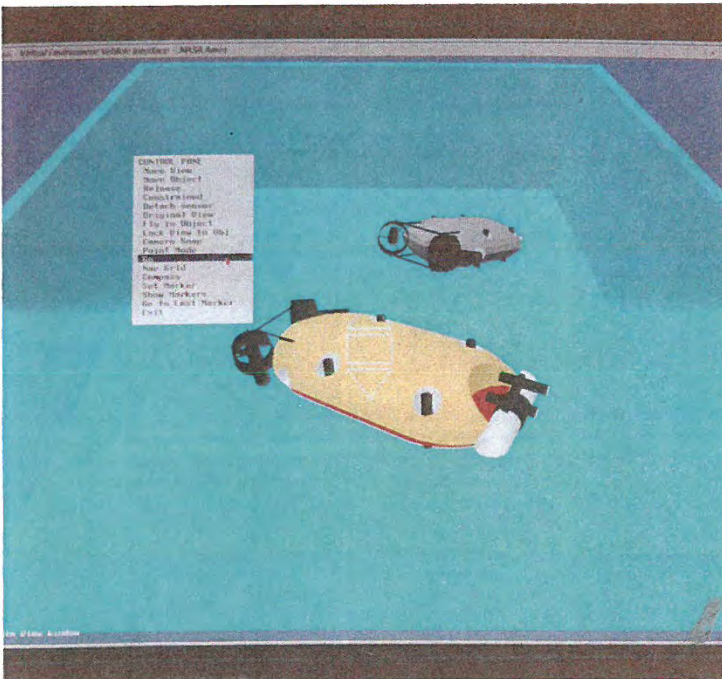


Plate 2: Image from an animation of UNC's Old Well, moving from left to right, rendered with the just-in-time pixels method. On a scan line display, this appears to be straight.

Olano, Cohen, Mine, and Bishop, "Combatting Rendering Latency"



Virtual Environment Vehicle Interface (VEVI)



OTTER Underwater Vehicle

Fleischer, Rock, and Lee, "Underwater Vehicle Control from a Virtual Environment Interface"

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