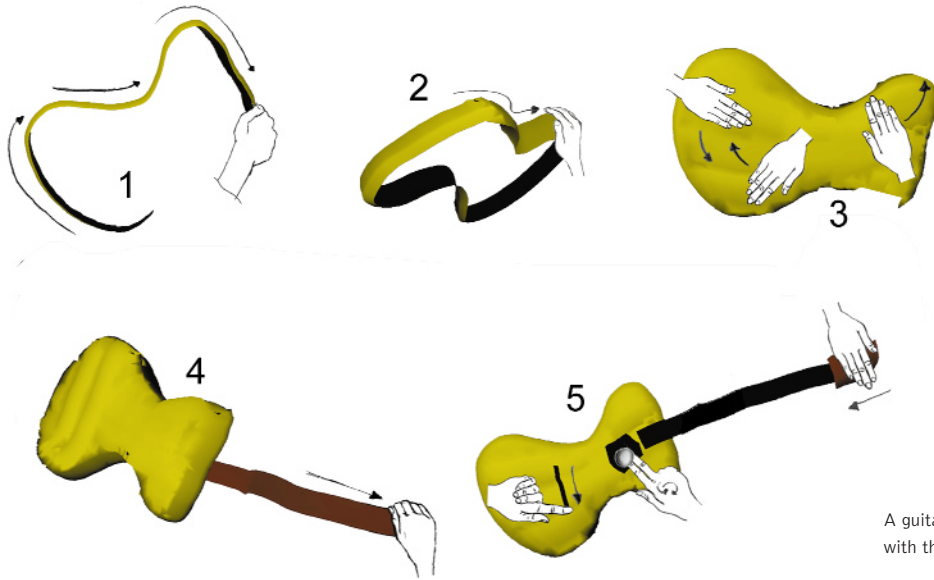


Collaborators
Cici Koenig
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Drawing

Surface Drawing is a medium that enables creation of a wide variety of intricate, organic 3D shapes. Objects are created by moving the hand through space. The path of the hand forms surface pieces that seamlessly merge when they touch. Users can also erase, add details, and manipulate objects with a simple two-handed interface. Freely growing, joining, and erasing surface pieces enables rapid prototyping of freeform shapes.

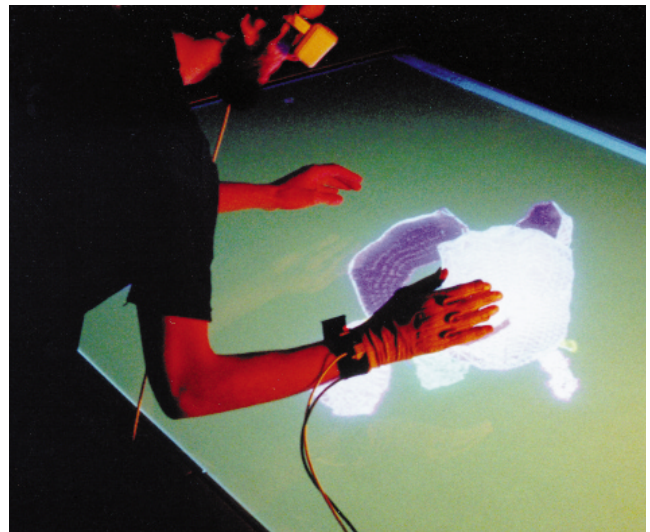
This extension of traditional line drawing to 3D space allows creation of shapes without the creative constraints of a rigid mathematical structure, a large toolset, or a tedious construction process. The system is implemented with the semi-immersive environment of the Responsive Workbench. An 18-sensor CyberGlove measures hand configuration, which controls the shape of surface pieces.



A guitar is drawn in five steps by tracing its shape with the hand.



The Caltech Responsive Workbench.



A Surface Drawing in progress.