

Spatial Correlation is an interactive digital artwork that provides a new window into the process of creating handcrafted virtual sculpture in a CAVE virtual reality (VR) environment. The artwork displays a series of original sculptures that were created using a 3D user interface that turns sweeping physical movements of the artist's hands into 3D virtual forms. The artist's movements are gestural, almost like a dance. Each movement was recorded using 3D motion capture technologies and an array of video cameras.

3D computer graphics lines in space.

Media Used:
Custom software and hardware:
3D computer graphics and
CavePainting software, multi-
perspective video capture
system, optical 3D tracking
and depth sensors.

Spatial Correlation replays the sculptural process for viewers by visualizing the video data side-by-side with the virtual sculptures and synchronously animating these visualizations to show each physical body movement of the artist and the corresponding sculptural result over the several minutes it took to complete each sculpture. The visualizations also respond to the position of viewers within the gallery space.

As viewers walk around Spatial Correlation, the viewing angles for the video and computer graphics displays change dynamically so as to create the effect of looking through two virtual windows: one pointing into the physical world in which the piece was created and the other into the virtual world in which the sculpture now exists as

