

Tiny Sculpture, Big Vision

Background

When local artist Shelby Davis came to us with a special request capture all of the detail of his tiny sculpture, we couldn't refuse. Less than 4" wide, he had carved a complete bias relief in firm clay, and wanted to enlarge the sculpture to make a bronze casting. Without digital scanning, the process would have been painstakingly difficult.

Our Process



In order to capture the tiny details, we used a special scanner set up designed specifically for smaller parts. The firm clay material was perfect for scanning, and we were able to capture it without any special preparation.

We made a series of scans from different angles, in order to capture the small undercuts, shadow areas, and intricate details. We digitally repositioned the scans, and merged them into a continuous mesh. The backside, which was carved by hand, but intended to be flat was digitally filled, and the entire sculpture was merged into a water-tight shape, suitable for 3D printing.

The Results

With a detailed 3D scan, the Shelby was then able to digitally double the size of the entire sculpture, and then send the print to a 3D printer. Within days, his original clay sculpture had been reproduced in full scale of a rapid prototype printer, in plastic resin suitable for casting.

