## Sophie Kahn: Seeking the Perfect Imperfections of a Contemporary Maker's Tool

By Lucy Johnston

"I am interested in using technology critically, working at the limits of what it was designed to do. Every artistic material and medium resists our attempts to perfect it, leaving the marks of the maker. I try to find those marks in digital media."



Torso of a Woman (Degraded Fragment) 2013-16, laser-sintered nylon, gesso coating, watercolour tinting

Artist Sophie Kahn has been exploring the possibilities of 3D-scanning and 3D-printing for more than ten years. Where many artists took to contrast technology with historical art influences, her explorations of the nude female body—and heightened emotional content, such as madness, illness and death—present a powerful contrast with the detached processes of contemporary fabrication.

Each sculpture begins with the creation of a digital model, using a Polhemus 3D laser-scanner to capture the model's pose. Kahn deliberately misuses this precisely engineered device, resulting in fragmented, incomplete scans that capture the motion blur of a body in constant flux. The image files are then edited, rearranged, layered and prepared for printing, a painstaking process that involves assembling and repairing the tiniest digital details, which can take several weeks.



Période de Délire, K, II, 2016, 3D-printed (plaster, epoxy, cyanoacrylate), gesso coating, watercolor tinting

Once the digital model is complete, each seemingly fragile construction of fragments is 3D-printed in polyamide, ceramic plaster or sintered metal, often as one piece. Each sculpture is then hand-finished, by sanding or painting, before being assembled on a metal framework to present the final work. For some sculptures, Kahn will make a silicone mould around the original 3D-printed form, from which she creates a wax cast. This is used to create a cast in bronze, using the lost-wax method.

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