# nTopology

Surface Texturing for Industrial Design

# Surface Texturing in nTop Platform - An Overview

nTop Platform allows for rapid design exploration of multiple different types of surface texturing for industrial design applications. Easily and reliably create complex forms and textures that are impossible to make in other tools. Additionally, each workflow can be automated to make unique designs with only minor changes in parameters.
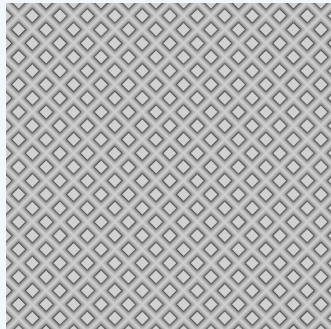
Texturing Techniques

- *Lattice Based Texturing*
- *Field Driven Texturing*
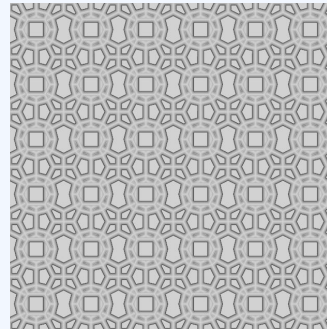- *Procedural Texturing*
- *Automation of Texturing*
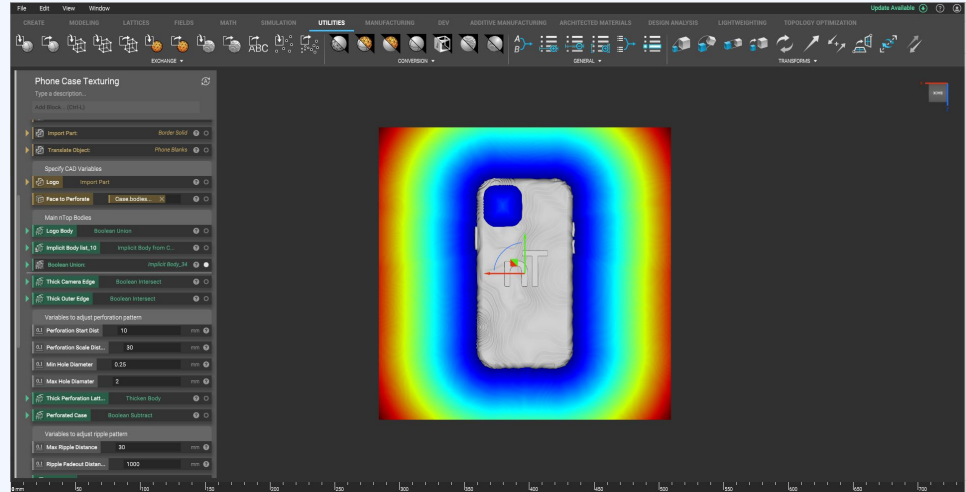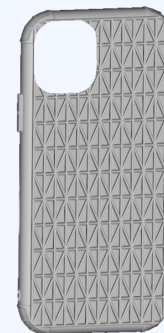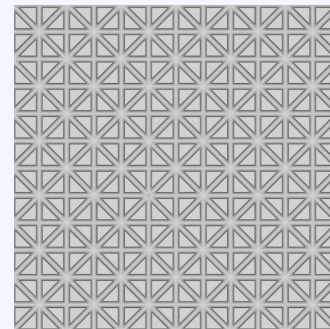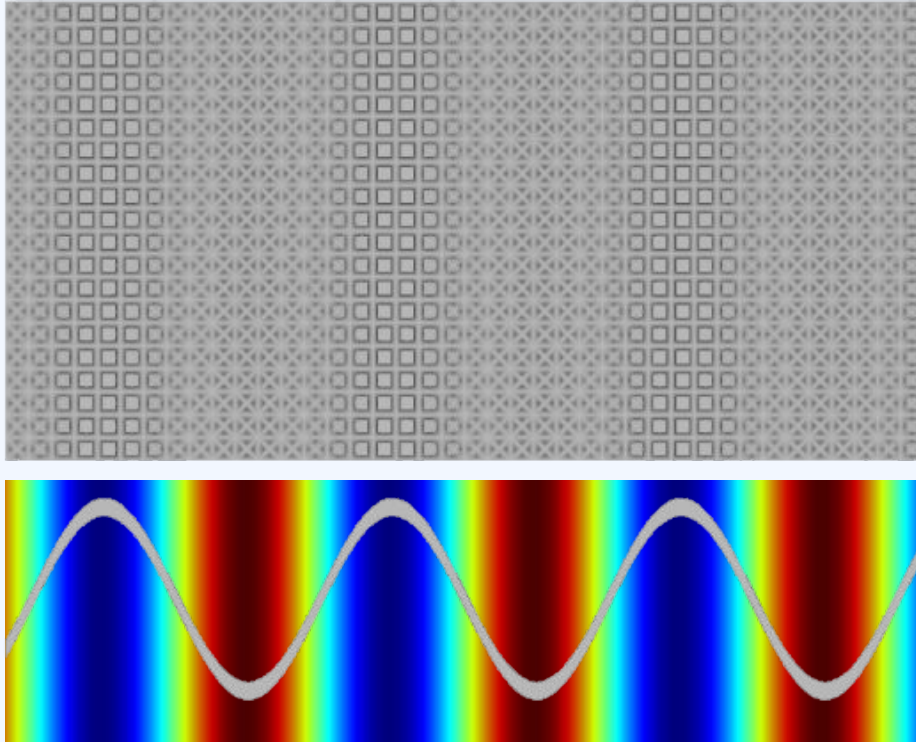
Lattice Based Texturing
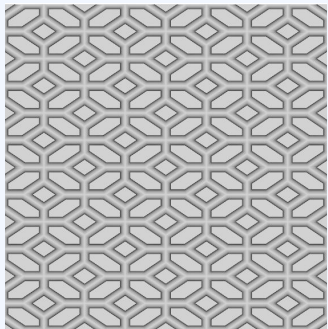
Kelvin unit cell

Diamond unit cell
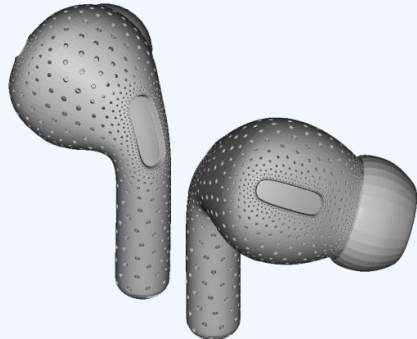
Weaire-Phelan unit cell
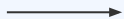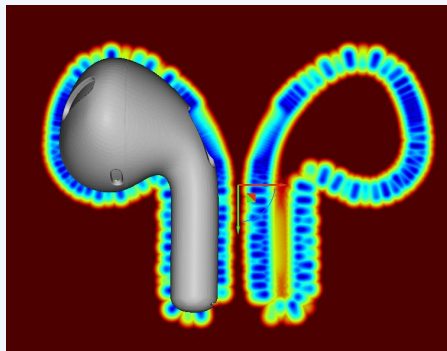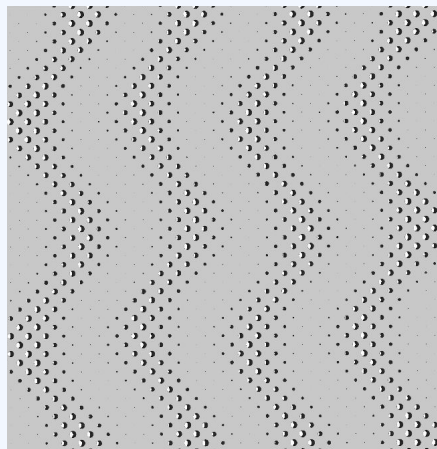
Isotruss unit cell

Lattice Texturing - Blending

Easily Transition from one texture to another using any of the following
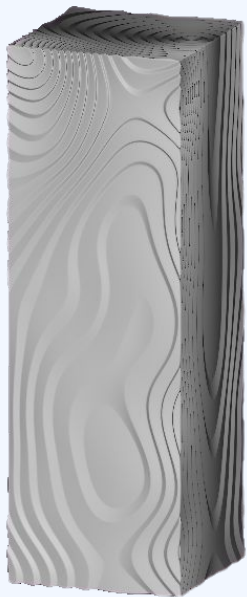
- ○ *Simulation Data*
- ○ *Mathematical expressions*
- ○ *Distance from objects*
- ○ *Randomized functions*

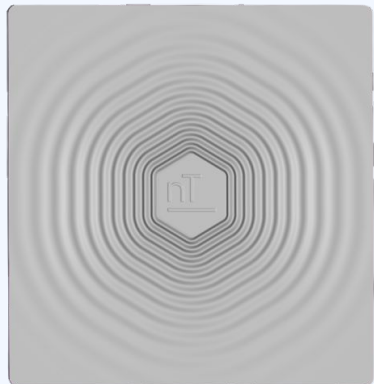# Field Driven Texturing
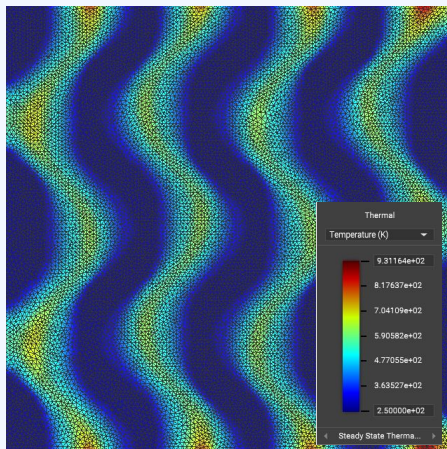
Texturing can be driven by field data such as pressure maps, geometry, simulation results and more.
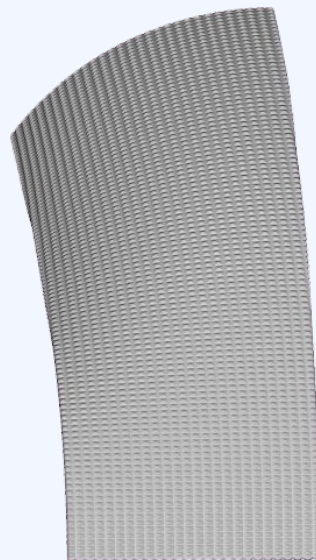
Aesthetic Applications of Texturing

Wood Texturing

Wave/Logo Texturing

Knurling
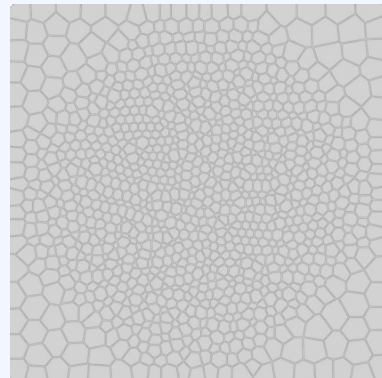
Leathering

Combining Texturing Techniques

Design Automation of Texturing

Make unique textures with minor changes in parameters in a single workflow, which is easily automatable to explore multiple design variations.

Start Point : (43,-32,3)

Frequency : 5

Start Point : (0,-32,3)

Frequency : 5

Start Point : (-57,-31,3)

Frequency : 5

Start Point : (-33,-31,3)

Frequency : 10

Surface Texturing Overview

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Lattice Based Texturing

Field Driven Texturing
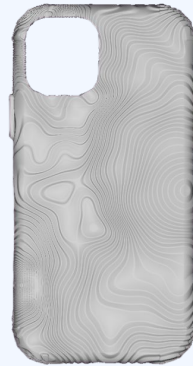
Procedural Texturing

Design Automation of Texturing

Additional Texturing Resources

Parametric Modeling of Hyper-Realistic 3D Textures for Industrial Design

Advanced Texturing for Industrial Design Applications

Gear Shift Knob – Advanced Texturing for Industrial Design Pt.2

Panels & Covers for Car Interior | 3D Texturing for Industrial Design Pt.3

How to Easily Design Common Lattice Structures for Orthopedic Implants