

Continuous Curves, Rotating Forms: A New Approach to Ceramic Printing

What if clay 3D printing could move beyond stacked layers? Mark Meier's experimental rotary-axis process combines Rhino, Grasshopper, Python, and robotic fabrication to draw continuous ceramic patterns directly onto rotating 3D forms, creating remarkably light and intricate structures.

Helical Timber Staircase: Parametric Design and Fabrication of a Non-Standard Geometry

This project explores the design and fabrication of a non-repetitive helical staircase, where parametric workflows and NURBS modeling enable precise control over complex geometry.

Casa Fratelli: Generative

Growth within a Historic Ruin

A parametric liana composed of 1,000 3D-printed elements reclaims a historic ruin in Bucharest, using generative design and custom fabrication workflows to merge light, material, and growth logic.

Live LLM Data to SubD Geometry: A Biomimetic Workflow in Rhino 8

By integrating a live LLM API directly into Grasshopper, Malvina Stamatiadi transforms AI-generated coordinate data into a biomimetic SubD lattice inspired by dragonfly wing venation, resulting in a 3D-printed lamp that bridges artificial intelligence and physical craft.

Epicycloid Blossom: A Parametric Lighting Piece Shaped by Geometry, Python, and AI-Assisted Design

Epicycloid Blossom is a digitally developed sculptural lighting piece generated from the mathematical behavior of the

epicycloid curve. Although the piece was not physically fabricated, the project reached full production-ready documentation and stands as a refined example of AI-assisted parametric design.

The Peanut Bench: Free-Form Coopering on a CNC Robot

The Peanut Bench reimagines the traditional coopering technique through computational design. Using Rhino, Grasshopper, and CNC machining, Stephen Thrasher crafted a free-form wooden bench that bridges craftsmanship and digital fabrication.

Optimizing with Grasshopper and DefinitionLibrary: Arup's Solar-Efficient Community

Arup's sustainability team utilized digital tools like Grasshopper and DefinitionLibrary to optimize house placements for a gated community, enhancing passive solar performance and creating a data-driven master plan that balances design preferences with energy efficiency.

The White Snake Bridge Model

The White Snake Bridge is inspired by the sinuous form of a snake. The design process involved careful planning and strategic decisions, blending innovative parametric modeling techniques with traditional craftsmanship.