Spatial Monoliths: From NURBS Data to Hand-Cast Sculptures

Spatial Monoliths explores the transformation of NURBS-based digital models into hand-cast sculptures, combining parametric design, laser-cut molds, and rotational casting techniques. The project bridges computational workflows with material craftsmanship, resulting in precise yet expressive physical artifacts.

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.

Squama: Technique as a Generative System in Body

Jewelry

Squama explores how fabrication technique can operate as a generative design system, transforming flat silver into a responsive body landscape through parametric kerf bending.

Precision Through Surface Logic: A Class-A Surfacing Study in Rhinoceros 3D

This educational study explores Class-A surfacing logic in Rhinoceros 3D through a focused investigation of surface continuity, reflection flow, and control-vertex discipline. Using a faucet geometry as a neutral formal framework, the project examines how analytical feedback can actively guide high-quality NURBS surface construction.

Parametric Sculptures for PUMA: Digital Precision in Antofagasta

A pair of monumental parametric pumas, installed at PUMA’s Antofagasta store, showcases how digital design, CNC fabrication, and meticulous layering can transform feline anatomy into striking sculptural forms.

A Sculptural Table for ETT’s Sala Demo

Architect Valentina Serando designed a sculptural glass and resin table for ETT’s Sala Demo in Genoa, using Rhino SubD to translate fluid, organic forms into a precise, manufacturable object. The result is a centerpiece that fuses technology, craft, and design in a dynamic dialogue with space and light.

Thinking in Code: First-Year Towers from Ain Shams University

First-year architecture students at Ain Shams University utilized Grasshopper to design and fabricate parametric towers, learning to think like system designers from day one. The course emphasized algorithmic logic, data structures, and generative workflows to build not just models, but design intelligence.

Astroid: A Parametric Ergonomic Mouse Built with Rhino

The Astroid 7000 is a parametric, ergonomic 3D mouse that revives the legacy of the original Spaceball using Rhino as a central tool for design, prototyping, and engineering. This case study highlights how digital modeling can transform legacy concepts into responsive tools for today’s designers.

ShaperBay: A Browser-Based Platform for Custom Surfboard Design and Fabrication

ShaperBay is a browser-based platform that empowers users to design and export custom surfboards using parametric tools powered by Rhino and Grasshopper. Its standout Hollow Wood Structure (HWS) feature supports the fabrication of sustainable, high-performance wooden boards through laser-cut templates and intuitive digital workflows.

Bio Corallo: A New

Biomaterial for Digital Craft and Architecture

Bio Corallo is a lightweight, bio-based ceramic composite developed by Ana Bridgewater that merges digital craft with ecological material research. Made from porcelain and tapioca starch, the project explores how computational design and sustainable thinking can reshape the future of lighting, architecture, and modular fabrication.