

# **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.

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# **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.

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# **Itaca: Parametric Design and Large-Scale 3D Printing for a Self-Sufficient Farm**

A 3D-printed building developed with Rhino and Grasshopper explores how parametric design and large-scale additive manufacturing can support self-sufficient living systems and

circular construction models.

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## **Parametric Craftsmanship: Digital Workflows and Jewelry Fabrication at IXU Design**

At IXU Design, computational design meets traditional jewelry craftsmanship. Using Rhino and Grasshopper, complex parametric geometries are translated into precise physical pieces through casting, advanced materials, and meticulous hand finishing.

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## **Drawn in Code, Cast in Concrete: The MCIC Monumental Stair**

At the Madera Cyber Innovation Center, a monumental stair became the centerpiece of both design ambition and collaborative execution, a sculptural concrete and glass feature shaped by computational design and realized through a fully coordinated digital workflow. This project showcases how advanced modeling tools can turn complex architectural visions into buildable, precise outcomes.

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# **Oberhauser's Balloon: Parametric Control and Large- Scale Concrete 3D Printing**

A 3D printed concrete lamp that embraces its own layered logic, the Oberhauser's Balloon demonstrates how parametric modeling and Selective Paste Intrusion can redefine scale, precision, and expression in outdoor lighting.

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# **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.

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# **Recreating 1950s Medellín: Scenic Design Powered by Rhino**

Blending music, memory, and digital design, La Sociedad de la Cumbia recreates the spirit of 1950s Medellín through a carefully crafted scenic production built with Rhino 3D.

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# **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.

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# **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.