

# **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.

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# **Christmas Sparks in Envigado: City-Scale Lighting Through**

# Digital Design

A city-scale Christmas lighting project in Envigado, Colombia, where Rhino was used as the central platform for 3D modeling, dimensional control, structural coordination, and fabrication documentation of complex illuminated elements inspired by Art Nouveau.

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## When Performance Becomes Visible: Refining Running Trim with Orca3D

At Bayliss Boatworks, performance is evaluated not only through data, but through how a yacht looks and feels at speed. By leveraging Orca3D's Marine CFD tools inside Rhino, the design team is refining running trim and stagnation lines, elevating both hydrodynamic behavior and visual clarity on the water.

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## Designing Dignity: Modular Shelter Systems Informed by Lived Experience

How can modular systems support dignity, privacy, and adaptability in shelter environments? This project uses Rhino

to translate lived experience into a flexible, fabrication-ready design that rethinks how transitional housing spaces can evolve.

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## **Digikala Flagship Store: A Physical Prototype for the Future of Online Retail**

Digikala's first flagship store reimagines online retail as a physical and immersive spatial experience: a 400 m<sup>2</sup> prototype where portals, interactive environments, and a continuous spiral transforms passive browsing into active participation.

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## **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.

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# **Silverback Grizzly 21 LE: Data-Driven Design for Law Enforcement on the Water**

A high-performance patrol vessel designed with Petestep's Spray Deflector Technology and refined through Rhino and Orca3D Marine CFD. The Silverback Grizzly 21 LE sets a new benchmark for speed, efficiency, and crew comfort in law enforcement marine craft.

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# **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.

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# **The Brick Screen: A**

# Parametric Reinterpretation of the Traditional Jali

The Brick Screen, designed by Muhammad Talha Muftee and Shaikh Abdul Basit for the Arts Council of Pakistan Karachi, reimagines the traditional jali through parametric design. Using Grasshopper, the architects combined local masonry craft and digital precision to create an environmentally responsive brick façade that has set a new precedent for computational design in Pakistan.