

PORTFOLIO • 2007 - 2026

John Briscella

Product & Architectural Designer • Creative Technologist

Software Development • Computational Design • Fabrication • Emerging Tech

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Product & Architectural Designer · Creative Technologist

Software Development · Computational Design · Fabrication · Emerging Tech

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A maker first. I design architecture, products and interactive experiences, then build them, in the shop or in code (3D scanning, generative design, AR, WebGL). 19+ years in Rhino and Grasshopper, taking big, complex objects from sketch to shop drawings to opening day across public art, retail, brand experiences and treehouses.

EXPERIENCE · 19+ YEARS

●

Mar 2026 – now



The Specialists Ltd (TST) · Brooklyn
Senior Technical Designer

- Runs projects end to end: concept, design, shop drawings, fabrication, install.
- Clients include Disney, JBL, the TV series *Severance* and The Macallan whisky.

See process here: www.amaximal.com/work/core-memories · www.amaximal.com/work/ghost-scanner

●

2026 – now



Apple App Developer · iOS · App Store
App Store developer: John Briscella

- TopMod — 3D Mesh Modeler:** open-source topological mesh modeler (Ergun Akleman, Texas A&M) rebuilt for iOS and web; sculpt in AR with your hands, or with mouse, touch and LiDAR, then export OBJ/DXF/SVG for fabrication.
- AirPianoPro:** play piano in thin air with hand tracking.
- AMAXiMAL 3D Scanner:** LiDAR scans to high-quality meshes on iPhone (launching soon).

[App Store: TopMod](#) · [App Store: AirPianoPro](#) · www.amaximal.com/work/topmod

●

2023 – now



AMAXIMAL · Brooklyn · www.amaximal.com
Founder and Software Developer, computational design studio

- Applies 19+ years of design and fabrication know-how to computational software.
- Tiger+ for Rhino 8:** 235 commands, 600+ downloads, 4.7/5 on Food4Rhino.
- WebGL project viewers like the Redwood Ripple flythrough, 3D-print upscaling and nesting, and the Urban Grid street-map configurator.

www.amaximal.com/work/tiger · www.amaximal.com/work/redwood-flythrough

●

Oct 2010 – 2022



AMINIMAL · Brooklyn
Co-founder, studio for freelance work and original products

- Freelance and contract design for clients including Umbra and Shapeways, plus 3D-printing consulting for Herman Miller (2016).
- Own products on shelves at the MoMA Design Store (featured in *Destinations: NYC*, 2013), Fab.com and Designboom Mart: Urban Gridded notebooks and dog tags.

●

2022 – 2026

Design-Build Designer / Fabricator / Draftsman
· Freelance, Brooklyn and Philadelphia
CoJo Ltd. and other NYC fabrication studios

- CoJo Ltd.: designed and CNC-programmed retail and event builds, including a Primark pop-up (subway-entry set, cash wrap) and a claw-machine display.
- Other studio freelance: shop drawings for custom fabrication, including recording-studio ceiling panels, plus technical design and design direction for fabrication.

●

Oct 2022 – Aug 2024



O2 Treehouse · California, remote from Brooklyn
Architectural Designer / Project Lead (contract)

- Led design and construction documents for the company's largest build: Redwood Ripple, a \$1.5M treehouse in the redwoods.
- Placed every piece against a 3D scan of the grove: a 35 ft spiral stair around a redwood, a 40 ft bridge, a two-level platform across four trees and a net climb.
- One parametric Grasshopper model drove it all: 322 facade panels from a single surface, and CNC files for all 887 plywood parts on 314 sheets.

www.amaximal.com/work/redwood-flythrough · www.amaximal.com/work/redwood-adapt

●

Jan – Jul 2023



Sonic Sphere at The Shed · New York
Architectural Designer (contract)

- Modeled the inside of a 65 ft suspended concert sphere with the design team; solved egress, railings and safety netting and sourced local fabricators.

www.amaximal.com/work/sonic-sphere

●

May – Aug 2021



L-Acoustics · Westlake Village, CA
3D Designer (contract)

- Produced 3D environments, renders and video for the "Island" immersive sound project.

●

Nov 2018 – Mar 2020



Innerscene, Inc. · San Francisco
Designer (contract), ATMOS artificial sunlight

- Designed and built ATMOS, an artificial sunlight system that brings a real-feeling sun and sky indoors; installed it at Apple headquarters with the general contractor, electrician and engineer of record.
- Designed product renders, brochures, brand guidelines and trade-show material for ATMOS.

●

Jan 2019 – Jan 2020

Portal Project
Creative Director, design team

- Design and planning of large-scale public artwork with artist Suzy Somersall, including Wing Portal, a 19.7 m steel portal of 26 feather spars with 828 LED pixels.

www.amaximal.com/work/wing-portal

●

Sep 2018 – Jun 2019



GLGR (Gallagher) · Los Angeles
Experiential Designer (freelance)

- Designed and built launch events and objects for Nike, Air Jordan, NBA x Instagram (All-Star photo booth), ComplexCon and Hennessy, including 3D-printed Air Jordan trophies.

●

Sep 2017 – Jun 2018



Leo Villareal Studio · New York / London
Architectural Lighting Designer, Illuminated River

- 15 bridges, one artwork: rebuilt 15 Thames bridges from LiDAR as 1:1 models and drew the set placing 8,204 LED fixtures, attachments and power on historic structures.

www.amaximal.com/work/illuminated-river

●

Jan – Jun 2015



Autodesk Pier 9 · San Francisco
Artist in Residence

- Designed features for Fusion 360 and Project Dreamcatcher, Autodesk's generative design tool; then made its first real-world object: a recurve bow riser generated from grip and draw-force constraints and CNC-milled in aluminium (Fast Company, 2015).

www.amaximal.com/work/optimal-bow

●

Jan – Nov 2012



MakerBot · Brooklyn
Creative Director of Projects

- Designed the first MakerBot store, in SoHo, and the 3D-scanning photo booth inside it. Patents followed: the 3D photo booth (US9440399B2) and 3D-printable electronics housings (US9707719B2).

●

Nov 2010 – Nov 2011



Clockwork Apple · Brooklyn
Project Manager, Fabrication

- Design-build for Tiffany & Co. windows, Lady Gaga x Barneys, Macy's and Madame Tussauds: architectural models, stage design, props and window displays.

●

Jul 2007 – Mar 2008



Lomography · Vienna
Store and Exhibition Designer

- Designed flagship stores worldwide and a display system rolled out to 400 stores; built the LomoWall, a maze of photo walls in Trafalgar Square, London.

●

Jan 2002 – Jul 2009

Fixture One · Philadelphia
Store Designer, CNC Operator, Fabricator

- Designed stores and fixtures for major U.S. retailers; programmed and ran CNC production.

TEACHING

2017 – 2019 USC, Advanced 3D (2019) · The New School (2018) · Parsons (2017) · UArts, Generative Design (2017)

EDUCATION

2007 – 2009

MS Urban Strategies, University of Applied Arts Vienna (die Angewandte)

2004 – 2007

BS Industrial Design, University of the Arts, Philadelphia

SKILLS

Software	Rhino + Grasshopper, Fusion 360, SolidWorks, AutoCAD, 3ds Max, Unreal, nTopology, Adobe CS, AR and VR
Fabrication	CNC (3- and 5-axis), robotic milling, laser cutting, 3D printing, 3D scanning, metal and wood shop
Delivery	Construction documents, vendor sourcing, project management, install, customization apps, shop drawings
Marketing	Press releases, product launches, marketing and brand content, website and social

About

Design, built.

A maker first. I design architecture, products and interactive experiences, and I build them: in the shop when the project calls for it, and in code when it needs emerging tech like 3D scanning, generative design, AR and WebGL.

Concept to install. 19+ years in Design and Architecture, taking big, complex objects from sketch to shop drawings to opening day across public art, retail, brand experiences and treehouses. Patents from MakerBot. Teaching at USC, The New School and UArts.

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01

Redwood Ripple

02 Treehouse • California •
2022 – 2024

Architectural Designer /
Project Lead



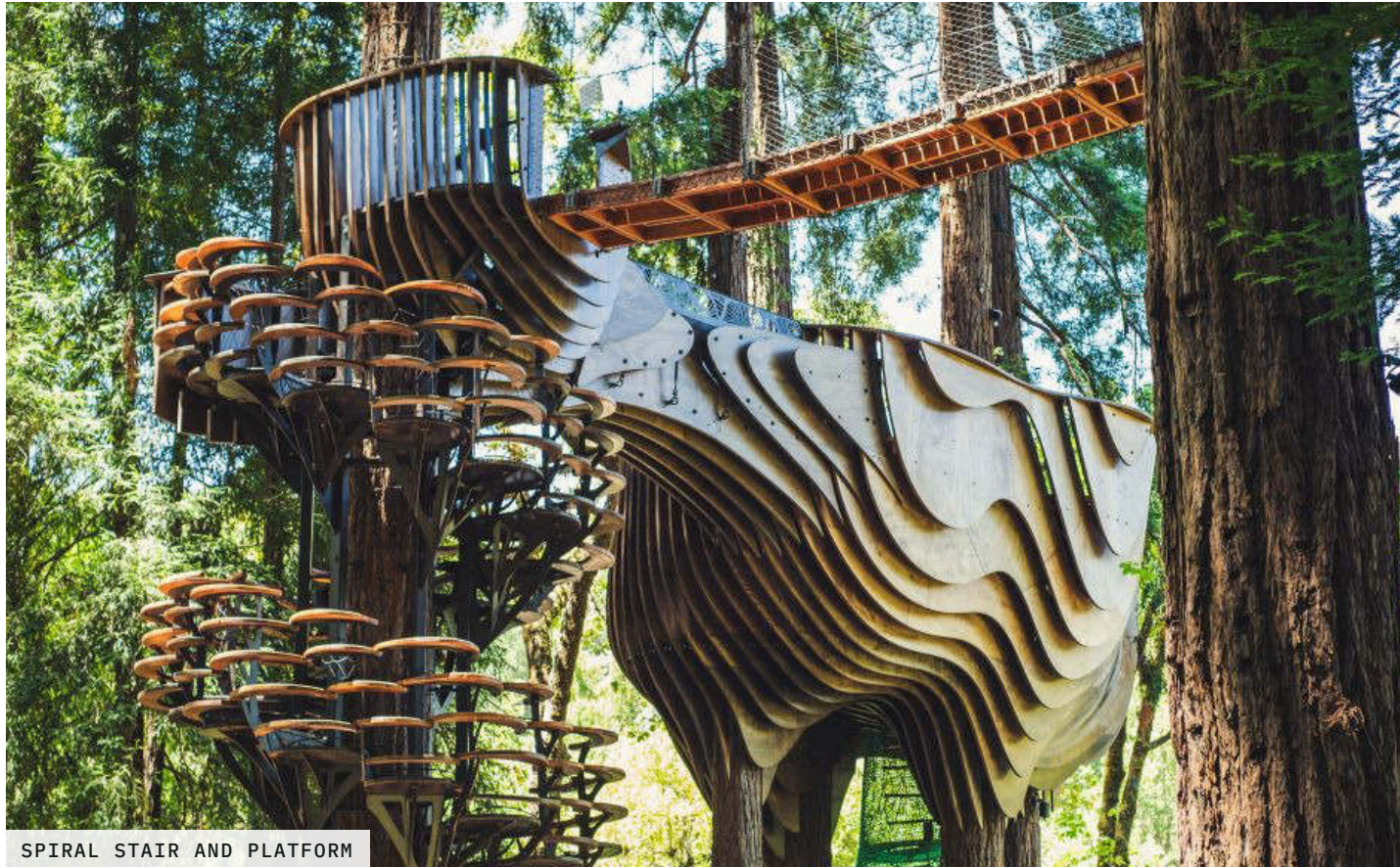
Built in the trees. 02 Treehouse's largest project: a \$1.5M treehouse in the Lagunita redwoods, its deck 35 ft up. I placed every piece against a LiDAR scan of the grove and led design through construction documents. Now it lives online too, as a walkable WebGL flythrough inside the scan.

www.amaximal.com/work/redwood-flythrough

www.amaximal.com/work/redwood-adapt

www.amaximal.com/work/redwood-construction

www.amaximal.com/work/production-process



SPIRAL STAIR AND PLATFORM



HEXAGONAL CANOPY



PLATFORM, BRIDGE AND NET CLIMB

01

Redwood Ripple

Built

Spiral stair • bridge • two-level platform • net climb



Climb it, cross it, stand on it. A 35 ft spiral stair wraps a redwood. A 40 ft bridge crosses to a two-level platform spanning four trees. A net climb ties the levels together.

www.amaximal.com/work/redwood-flythrough
www.amaximal.com/work/redwood-adapt
www.amaximal.com/work/redwood-construction
www.amaximal.com/work/production-process



TWO-LEVEL PLATFORM



STEEL FRAME GOING UP IN THE GROVE

01

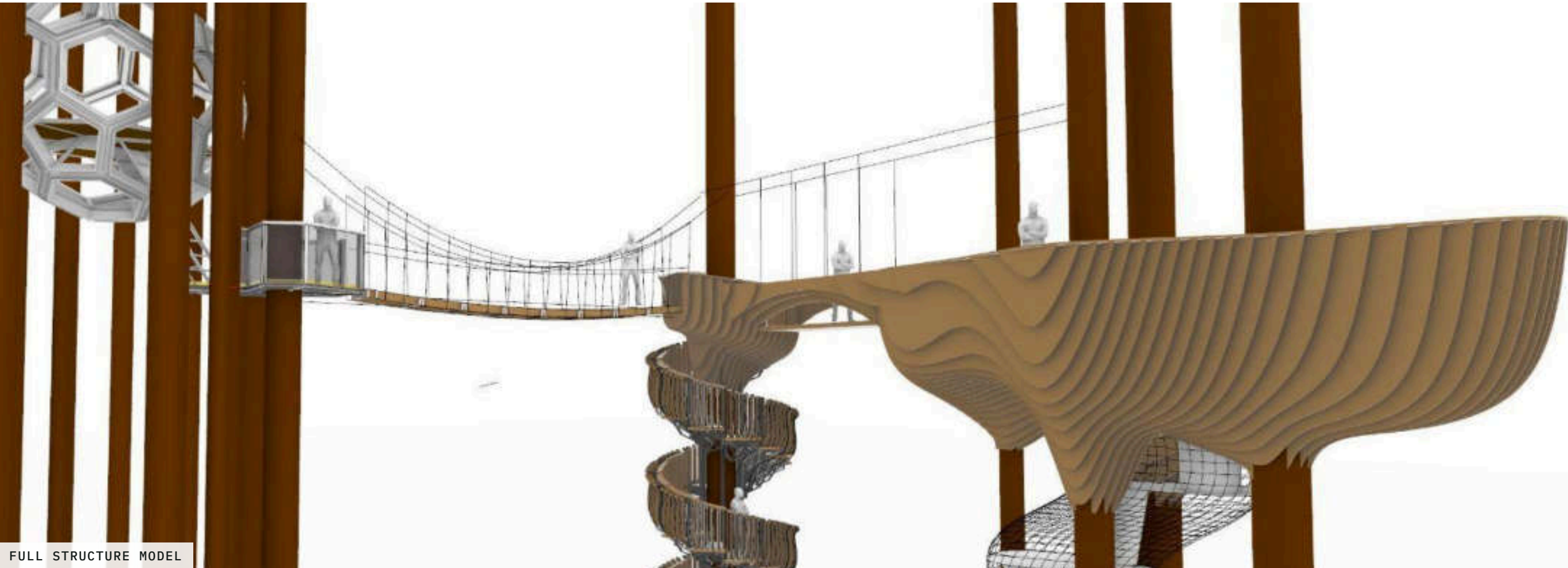
Redwood Ripple

Process

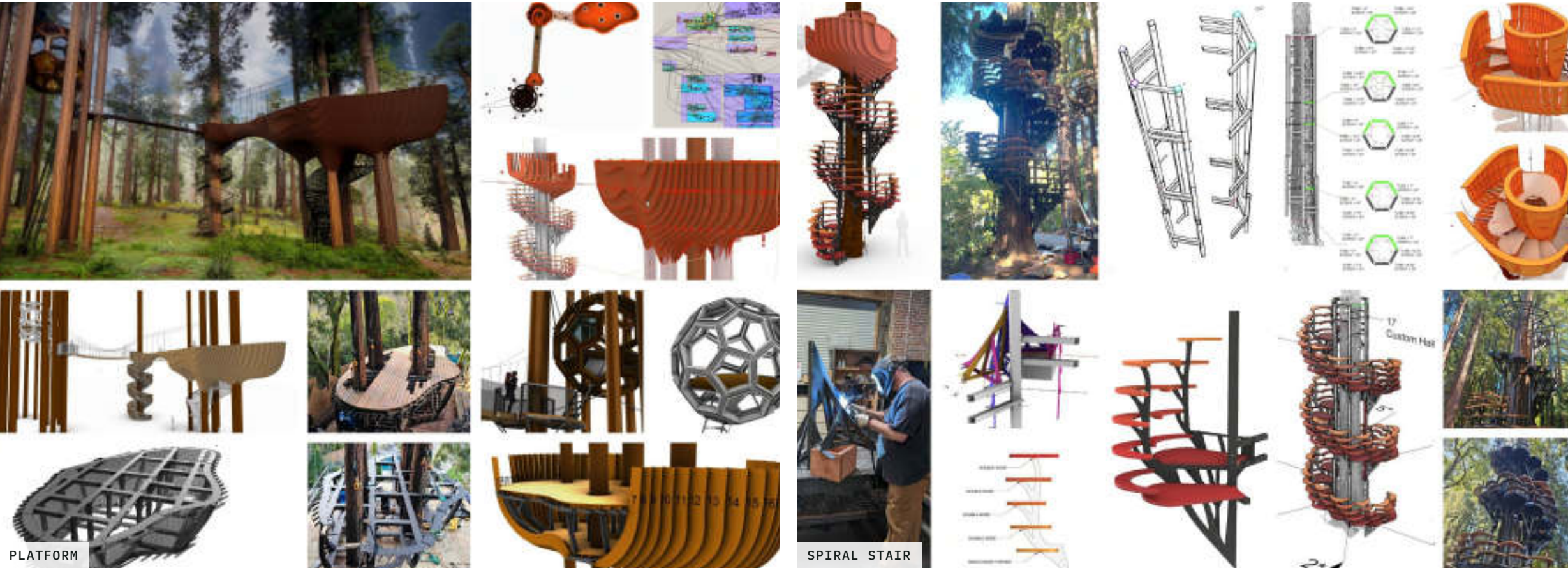
Parametric Grasshopper model to CNC

One model, every part. A single parametric Grasshopper model drove the whole form. Move the design surface and all 322 facade members re-cut live while the deck stays level. Out came CNC files for 887 plywood parts, two layers of 3/4 in ply per member, nested on 314 sheets.

www.amaximal.com/work/redwood-flythrough
www.amaximal.com/work/redwood-adapt
www.amaximal.com/work/redwood-construction
www.amaximal.com/work/production-process



FULL STRUCTURE MODEL



PLATFORM

SPIRAL STAIR

02

TopMod 3D and Tiger+ for Rhino

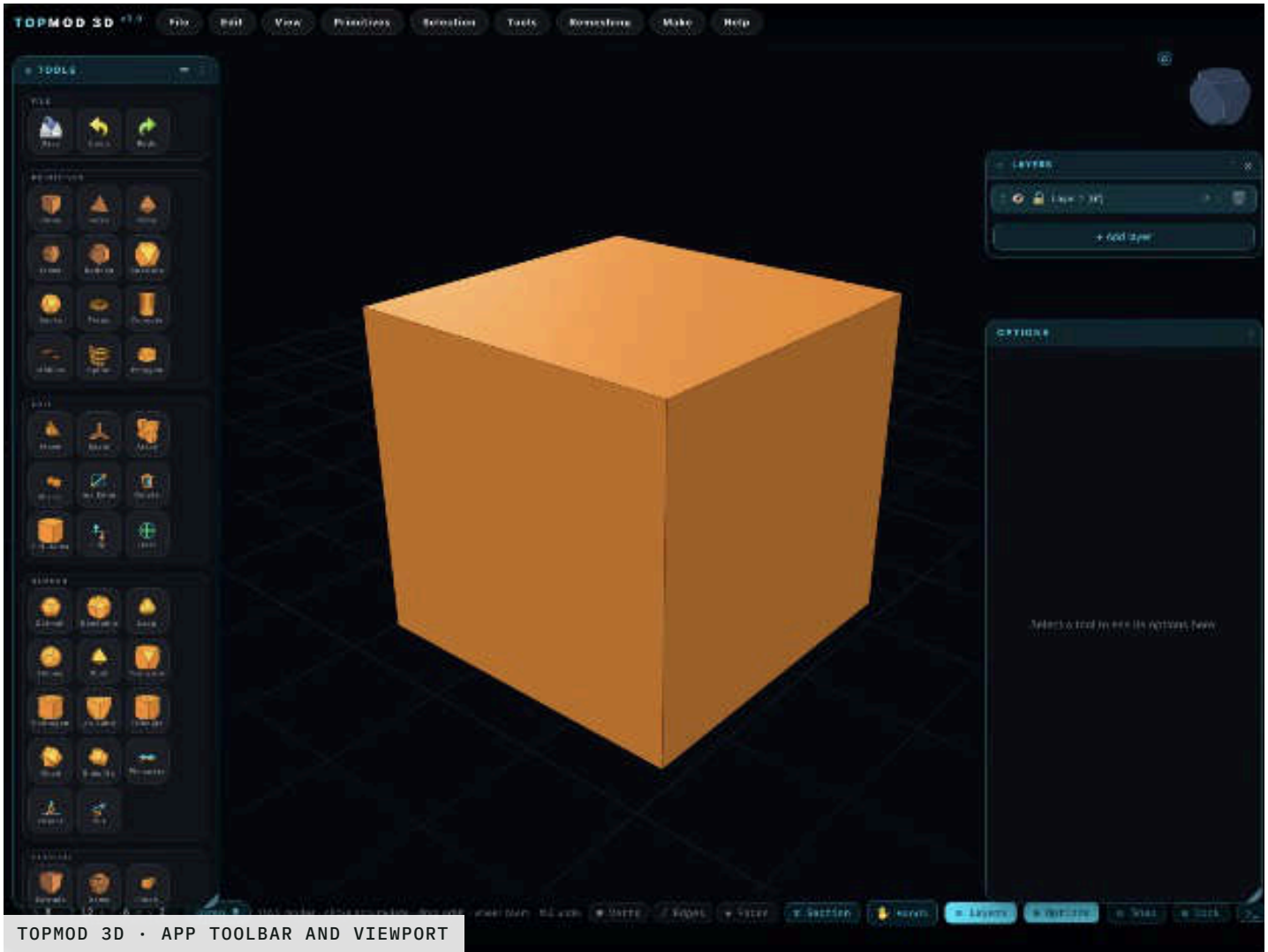
AMAXIMAL • 2023 – now

Creator and Lead Software
Developer

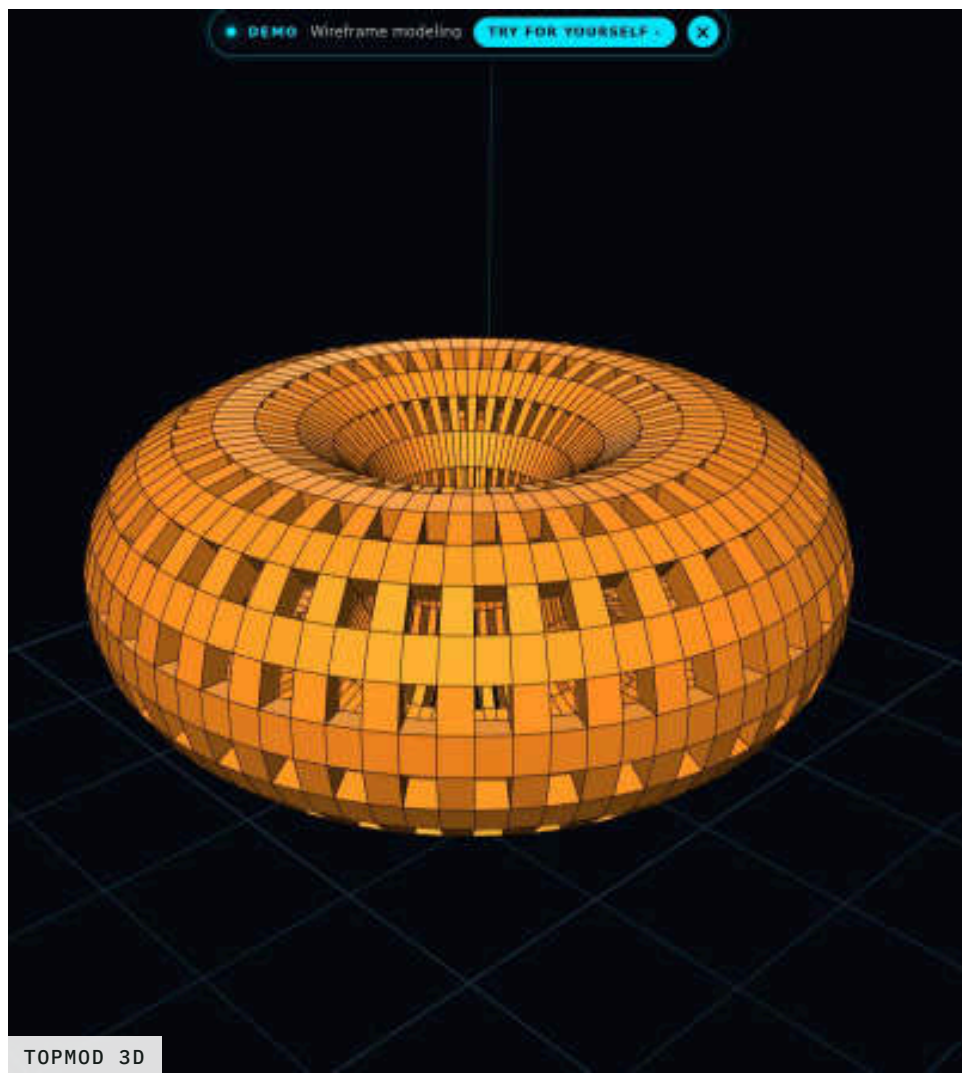


Tools for makers. TopMod 3D rebuilds Ergun Akleman’s topological mesh modeler (Texas A&M) for web and iOS. Its DLFL kernel keeps every shape a valid 2-manifold, and you sculpt with mouse, touch or bare hands. Tiger+ is my free Rhino 8 plugin: 235 commands for modelling and fabrication, 600+ downloads, rated 4.7/5 on Food4Rhino.

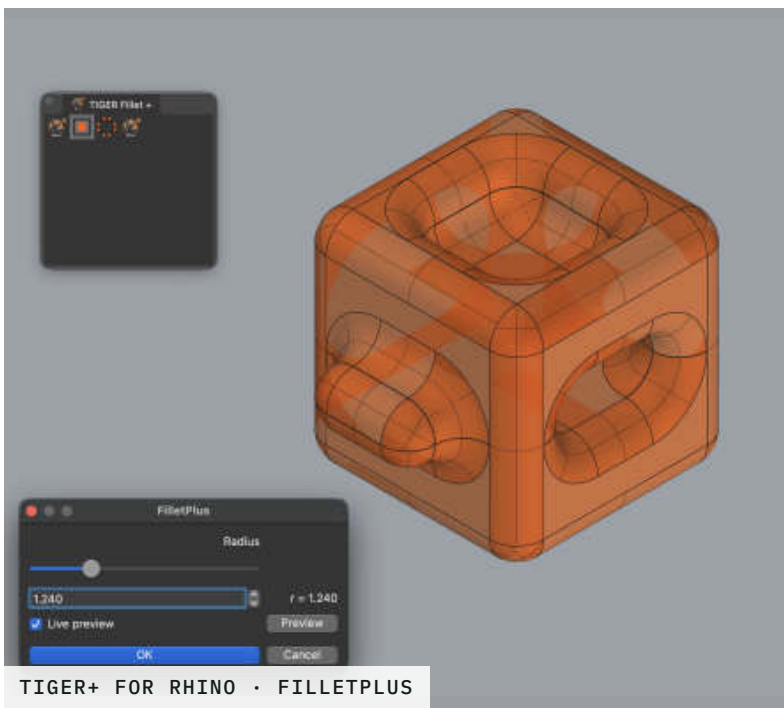
www.amaximal.com/work/topmod
www.amaximal.com/work/tiger



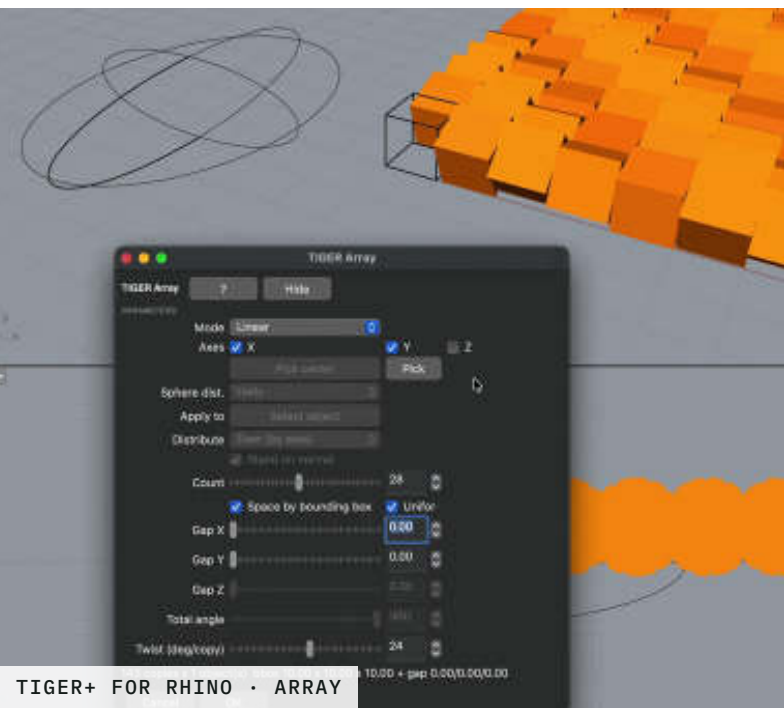
TOPMOD 3D • APP TOOLBAR AND VIEWPORT



TOPMOD 3D



TIGER+ FOR RHINO • FILLETPLUS



TIGER+ FOR RHINO • ARRAY



TIGER+ FOR RHINO • VORONOI TORUS

03

CORE MEMORIES and Digital Fabrication

The Specialists Ltd (TST) • Brooklyn • 2026

Senior Technical Designer



Feelings, fabricated. An Inside Out photo booth for Disneyland: facade, memory-orb cabinets, roof, skirt and trim, modelled as a 2,058-part Rhino assembly ready for the shop floor. Also from the shop: a 10 ft swan carved from stacked 4 in CNC foam slices on a plywood armature.

www.amaximal.com/work/core-memories
www.amaximal.com/work/swan



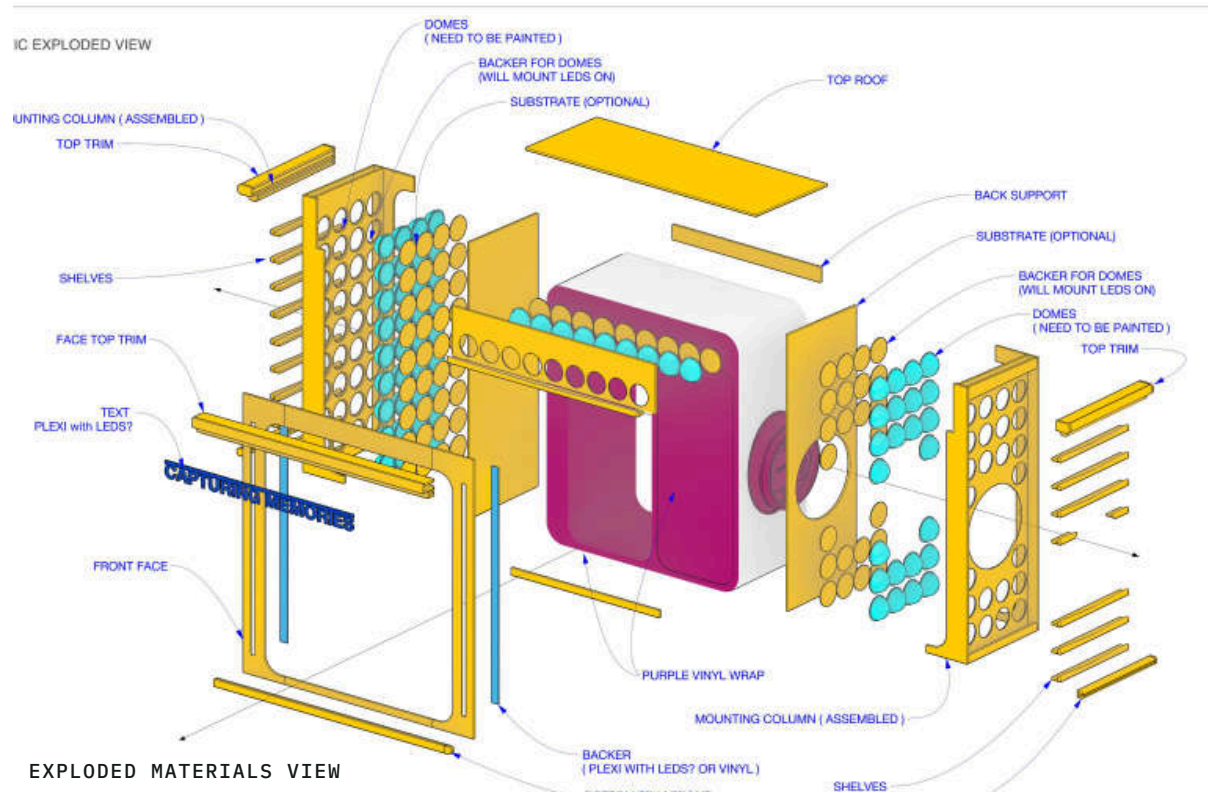
CORE MEMORIES BOOTH, BUILT



BOOTH RENDER



OVERVIEW ASSEMBLY DRAWING



EXPLODED MATERIALS VIEW

04

Illuminated River

Leo Villareal Studio • London •
2017 – 2018

Architectural Lighting
Designer

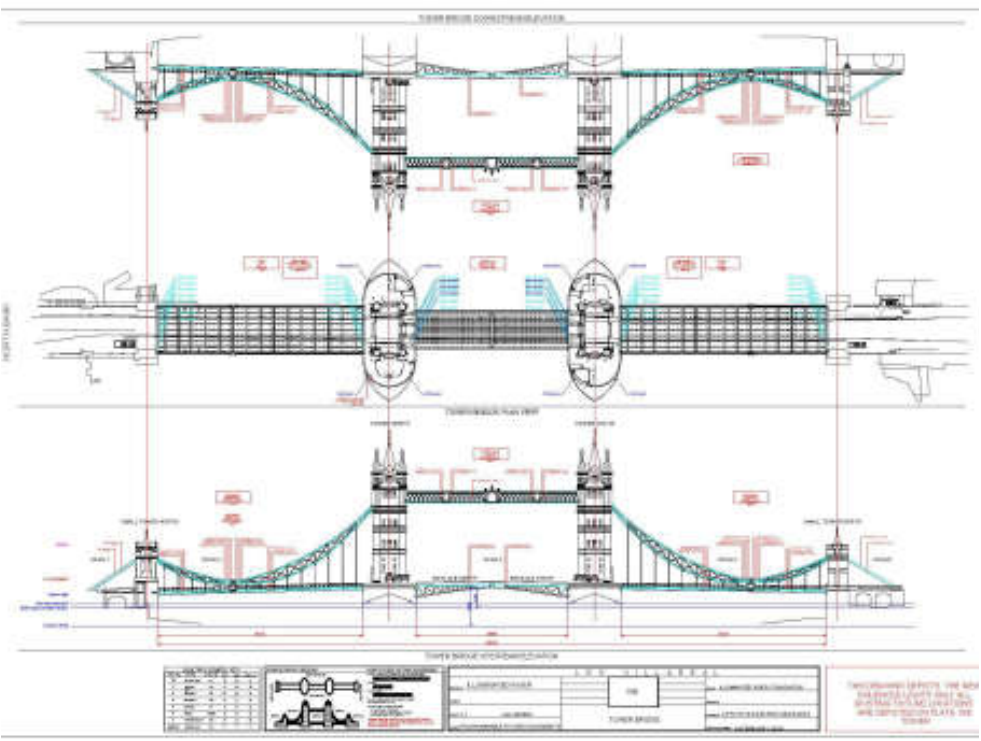


15 bridges, one artwork. The Thames bridges lit as a single piece, the world's longest public art commission. I rebuilt 15 bridges from LiDAR as 1:1 Rhino models and placed all 8,204 LED fixtures, giving the architects an exact location for every light.

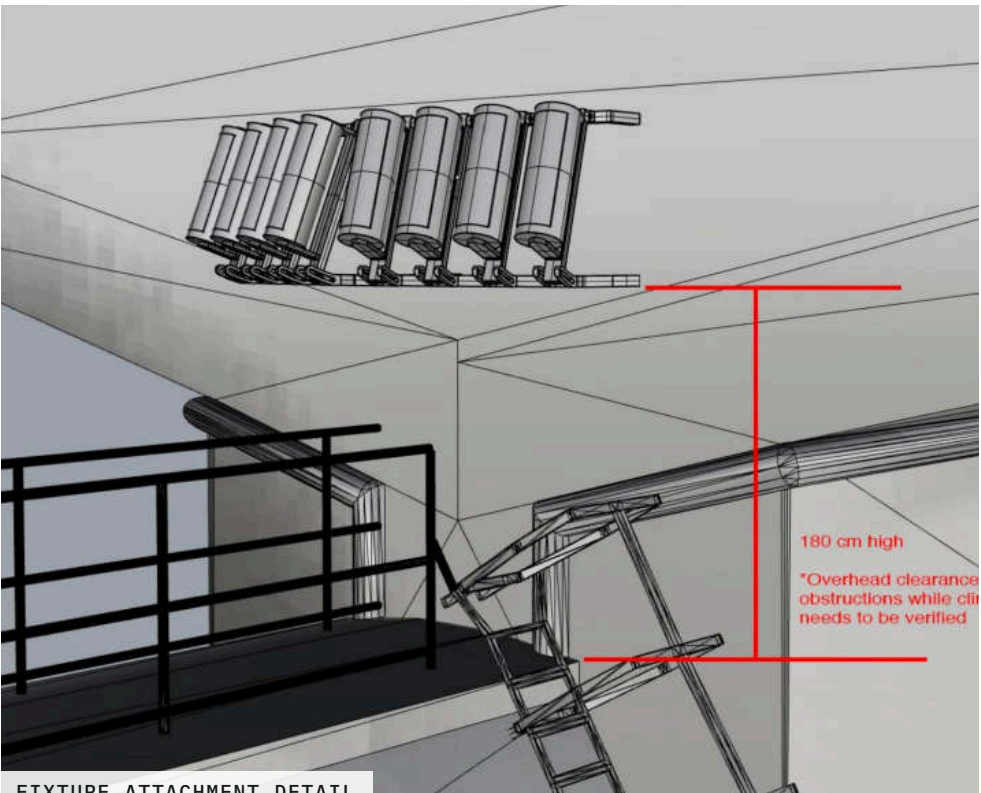
www.amaximal.com/work/illuminated-river



TOWER BRIDGE



TOWER BRIDGE FIXTURE DRAWING



FIXTURE ATTACHMENT DETAIL

05

Experiential for Nike, Air Jordan and NBA

GLGR (Gallagher) • Los Angeles •
2018 – 2019

Experiential Designer
(freelance)



Launch-day objects. Events and objects for Nike, Air Jordan, NBA x Instagram, ComplexCon and Hennessy, from 3D-printed Air Jordan trophies to the NBA All-Star photo booth.



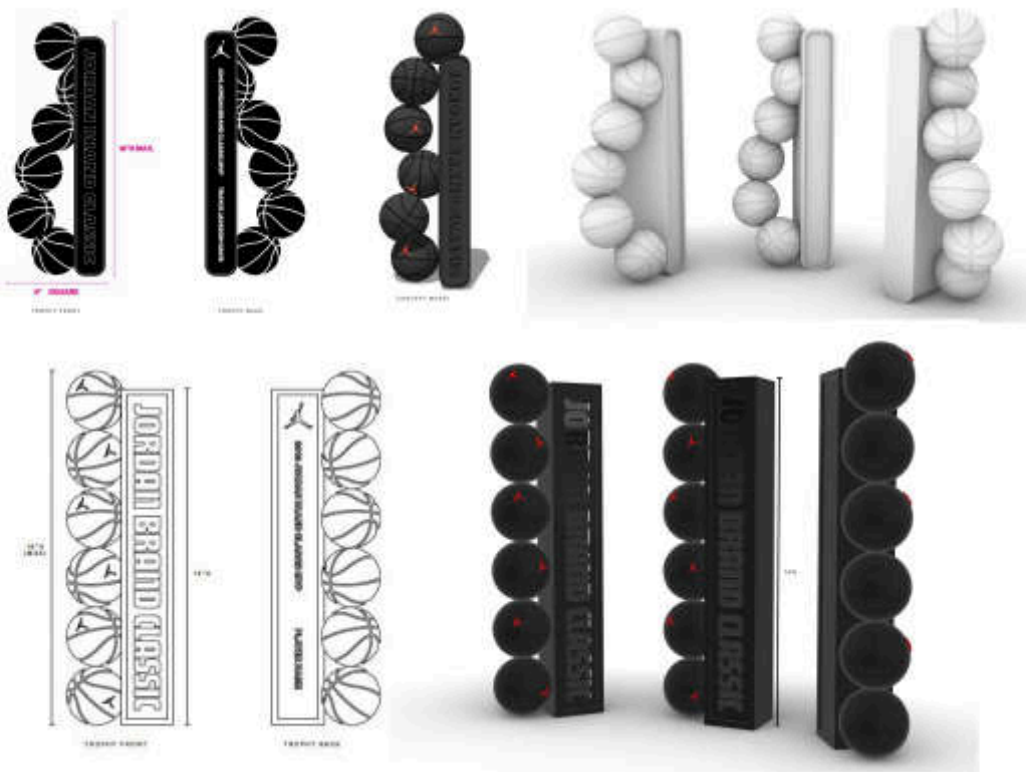
AIR JORDAN TROPHIES



NBA ALL-STAR MINI COURT RENDER



NBA X INSTAGRAM BOOTH



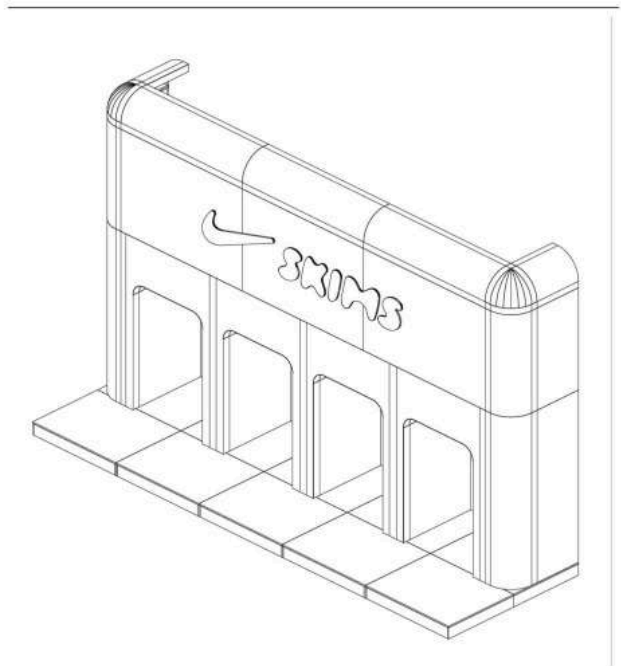
TROPHY DESIGN DRAWINGS

SCENIC WALL REV 07 • 54 CNC SHEETS

STOREFRONT FACADE



CLIENT DEMO
NIKE X SKIMS STOREFRONT FACADE



FRONT ISOMETRIC
20'-0" x 12'-0" wall, four arched doors, 6" deck

06

Portal Project

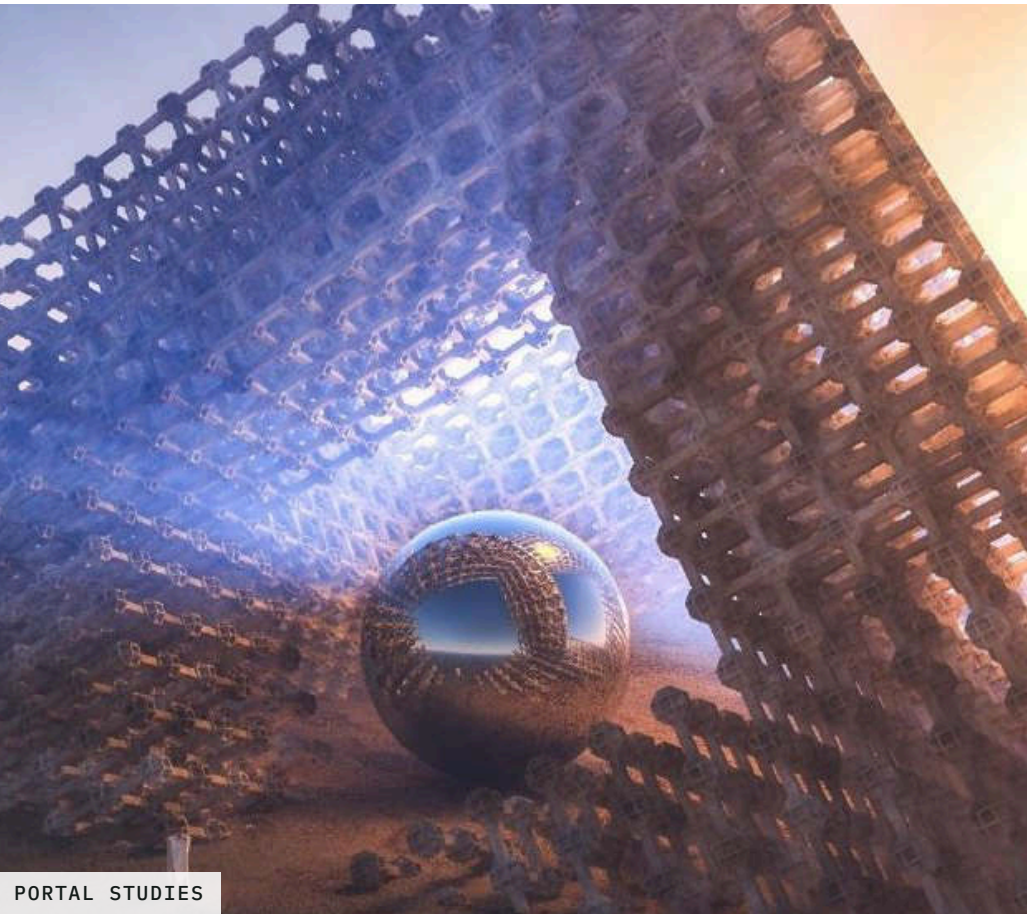
With artist Suzy Somersall • 2019
Creative Director, design team

Big ideas, buildable. Large-scale public art with artist Suzy Somersall, from sculpture and renderings to the engineering and fabrication plans behind them. Wing Portal: 26 steel feather spars, 19.7 m wingtip to wingtip and 10.8 m tall, lit by 828 LED pixels on a plywood stage.

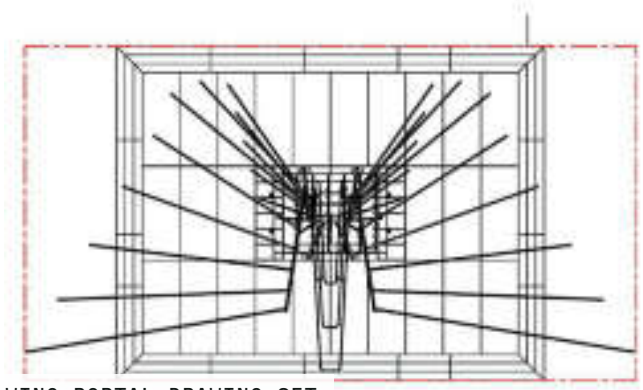
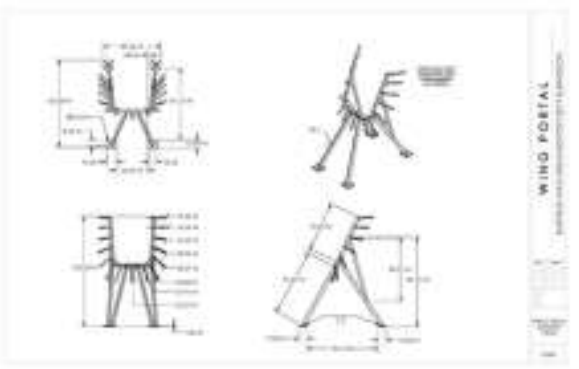
www.amaximal.com/work/wing-portal



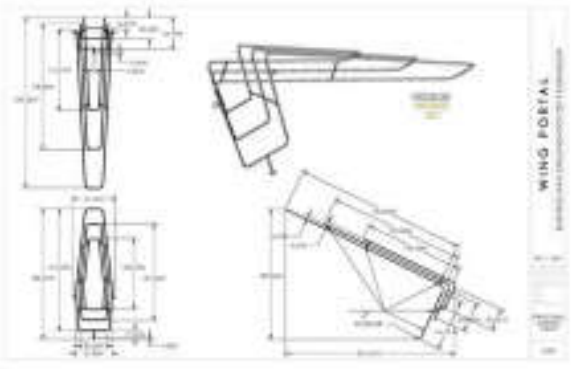
WING PORTAL RENDERING • BUILT 2019



PORTAL STUDIES



WING PORTAL DRAWING SET



CONCH



07

Autodesk AIR: Project Dreamcatcher

Autodesk Pier 9 • San Francisco • 2015
Artist in Residence

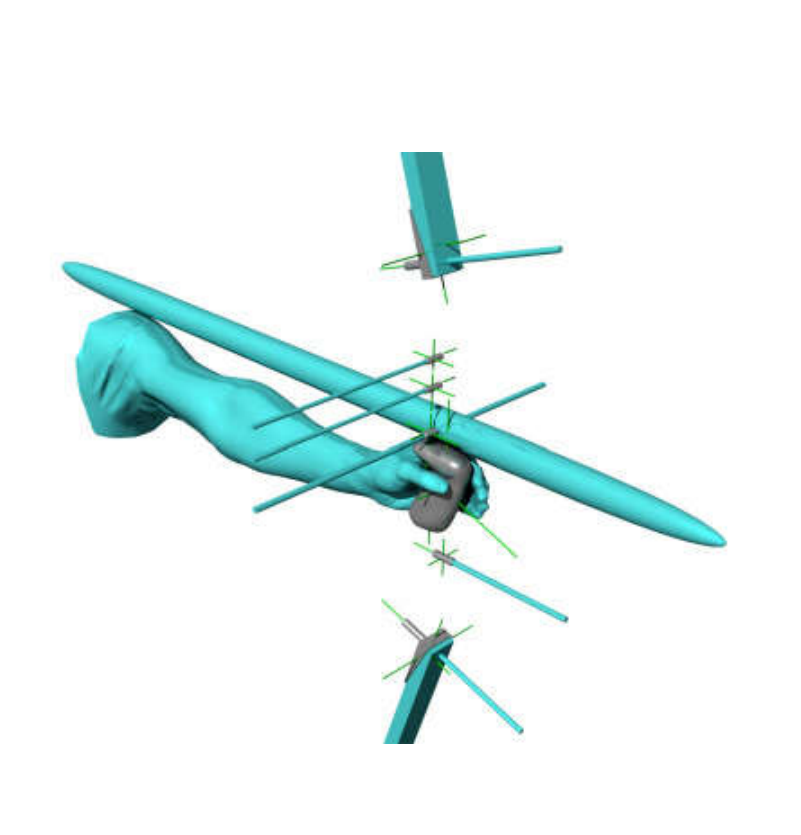


Generative design, made real. As Artist in Residence I designed features for Fusion 360 and Project Dreamcatcher, Autodesk’s generative design prototype, then made its first real-world object: an Olympic recurve bow. Its aluminium riser was generated from grip, limb-pocket and draw-force constraints and CNC-milled on a Haas (Fast Company, 2015).

www.amaximal.com/work/optimal-bow
Fast Company: A Lethal Weapon Designed by a Computer



RISER CNC-MILLED ON A HAAS



ARM SCAN AND GRIP INPUTS



GENERATIVE DESIGN STUDIES



GENERATED RISER



SHOOTING THE OPTIMAL BOW

08

Sonic Sphere

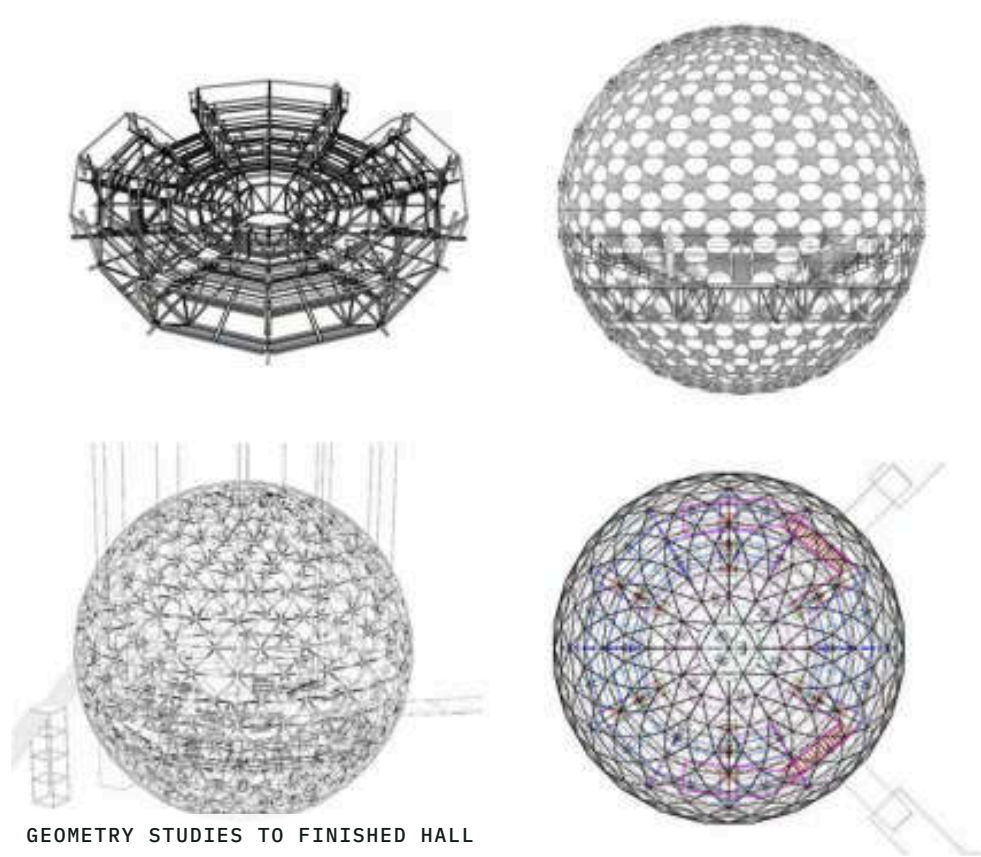
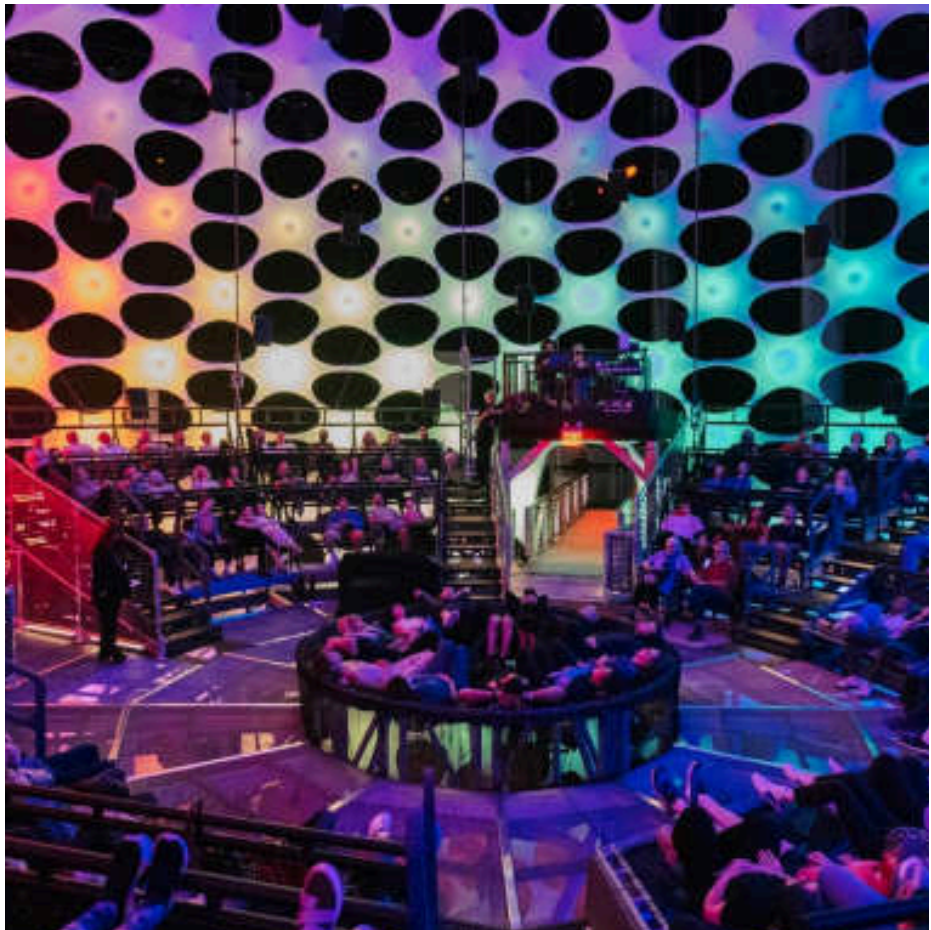
The Shed • New York • 2023

Architectural Designer
(contract)

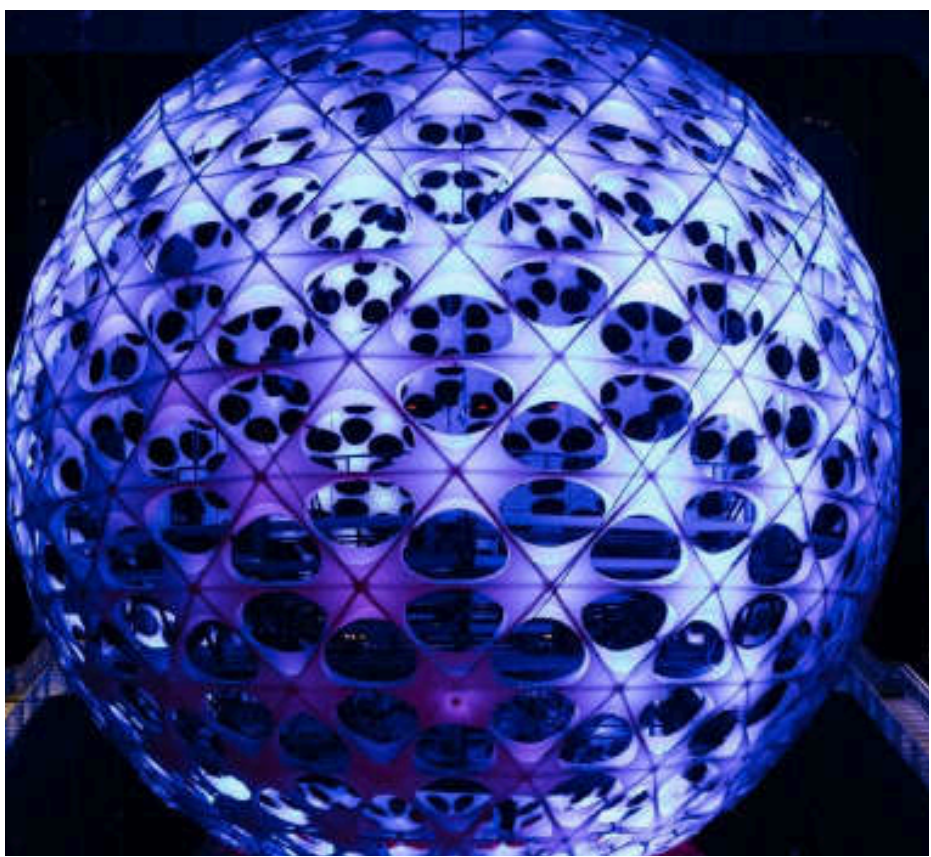


Sound you stand inside. A 65 ft sphere hung 34 ft above The Shed’s McCourt floor, with 100+ JBL speakers moving sound around the audience in step with the light. I designed the listening platform in its lower half (floor plates, net lounges, seating, stairs and gangways) and solved egress, railings and safety netting.

www.amaximal.com/work/sonic-sphere



GEOMETRY STUDIES TO FINISHED HALL



09

Product Design

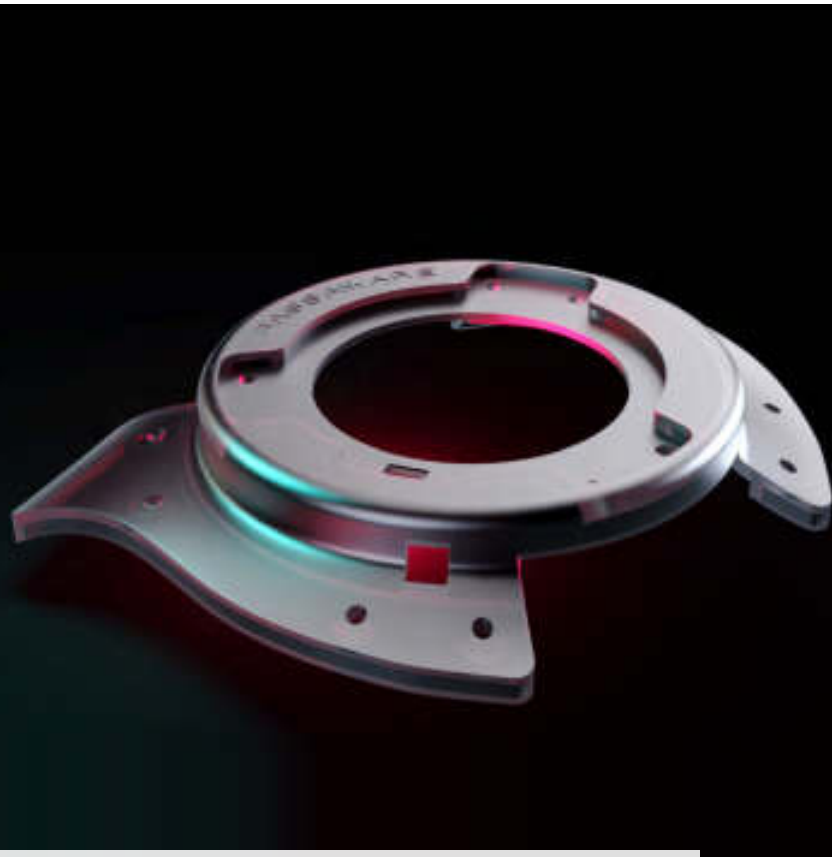
Autodesk Pier 9 and teaching • 2015 – 2018

Generative product design

Sketch to object. Generative product studies from my Autodesk residency and teaching: chairs, sculpture and lattice forms, each grown from a hand sketch and a set of design constraints into a finished, fabricated form.



GENERATIVE DESIGN STUDIES



BASSAWARE WEARABLE BASS, INJECTION-MOLDED HOUSING



DESIGN EVOLUTION



CONNECTED KEYCHAIN DEVICE

10

Urban Grid Collection

AMAXIMAL / AMINIMAL • 2012 – now
Product Designer and Developer



Your streets, made to wear. A street map becomes a single lace of streets: blocks cut away, every strand connected. Pendants and dog tags photo-etched in brass, and Street Clocks laser-cut in maple or aluminium, all designed live in an HTML5 configurator and an iOS app with an AR viewer that exports production-ready cut files. It started as the Urban Gridded notebooks and dog tags sold at the MoMA Design Store and Fab.com.



URBAN GRIDDED DOG TAGS • STEEL, GOLD, BLACK



URBAN GRIDDED DOG TAG, WORN



ROUND PENDANT • LONDON, GOLD



ROUND PENDANT • LONDON, WORN



STREET CLOCK • LASER-CUT WOOD

11

MakerBot Store and 3D Photo Booth

MakerBot • Brooklyn • 2012
Creative Director of Projects



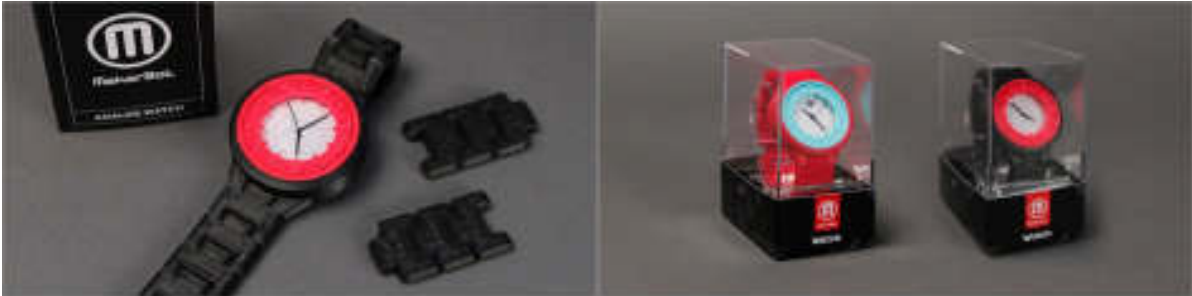
Retail, reinvented. The first MakerBot store, in SoHo, and the 3D-scanning photo booth inside it. Patents followed for the photo booth and for 3D-printable electronics housings.



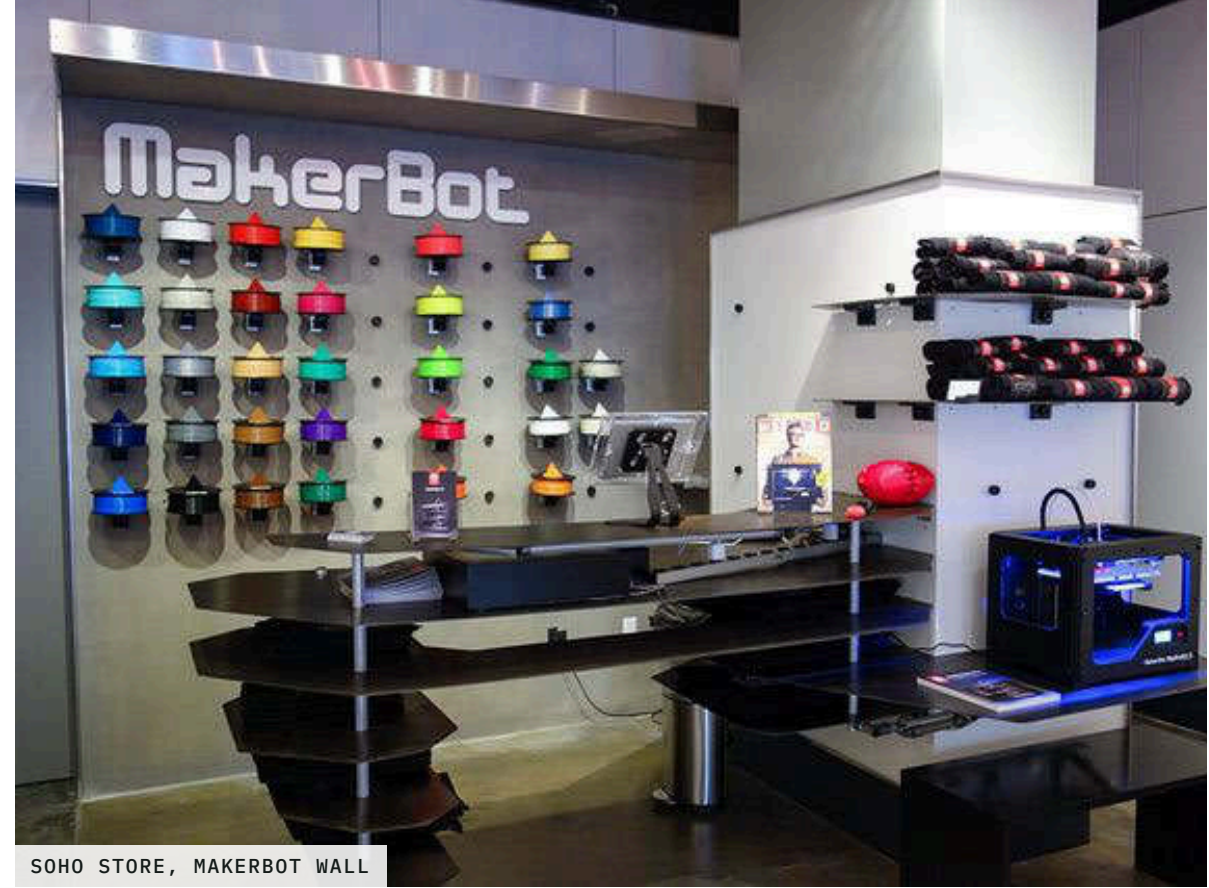
SOHO STORE DESIGN



3D PHOTO BOOTH



PRINTABLE WATCH



SOHO STORE, MAKERBOT WALL

12

Windows and Retail Builds

Clockwork Apple • Brooklyn • 2010 – 2011

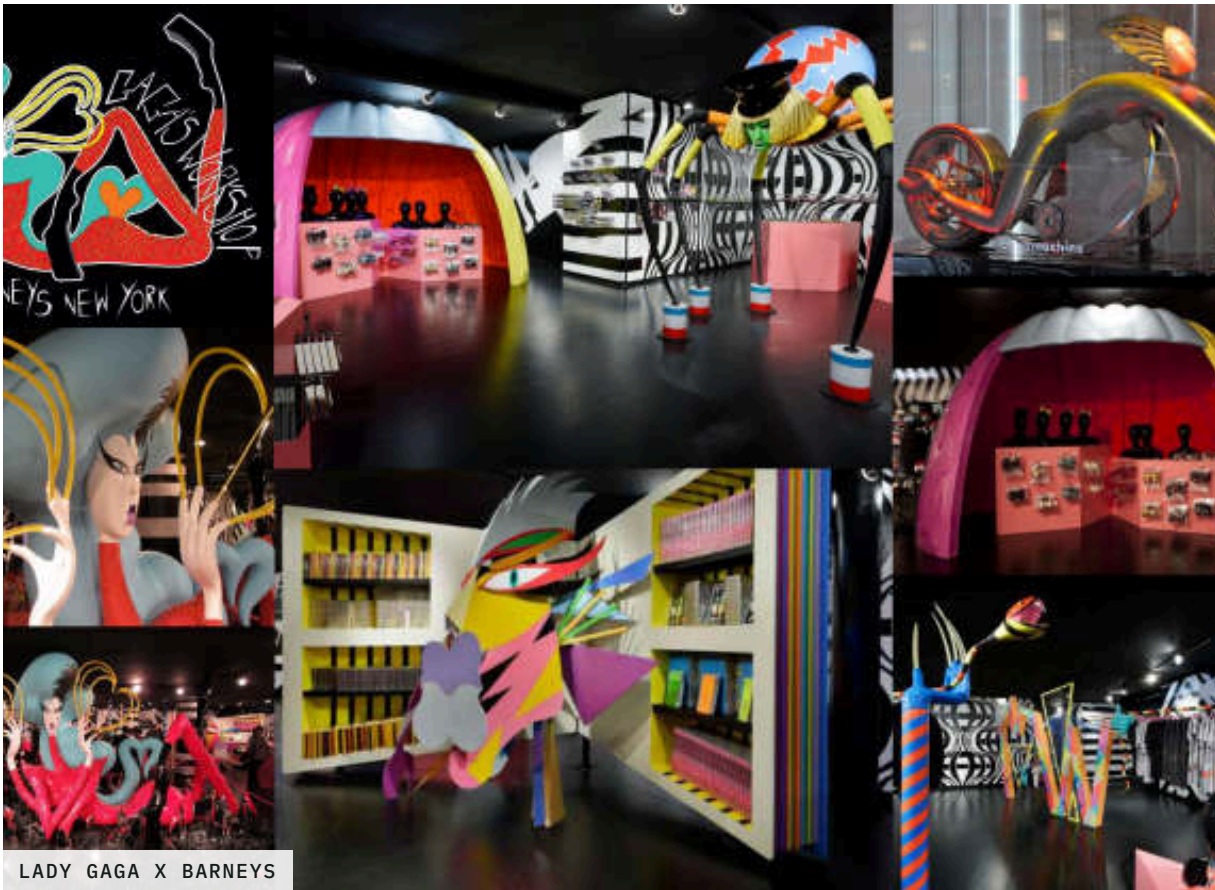
Project Manager, Fabrication



BARNEYS
NEW YORK



Windows that stop traffic.
Design-build for Tiffany & Co. windows, Lady Gaga x Barneys, Macy's and Madame Tussauds: architectural models, stage design, props and window displays.



LADY GAGA X BARNEYS



TIFFANY & CO. WINDOWS



BARNEYS BIKE



TIFFANY & CO. WINDOWS

13

Lomography Stores

Lomography • Vienna • 2007 – 2008
Store and Exhibition Designer



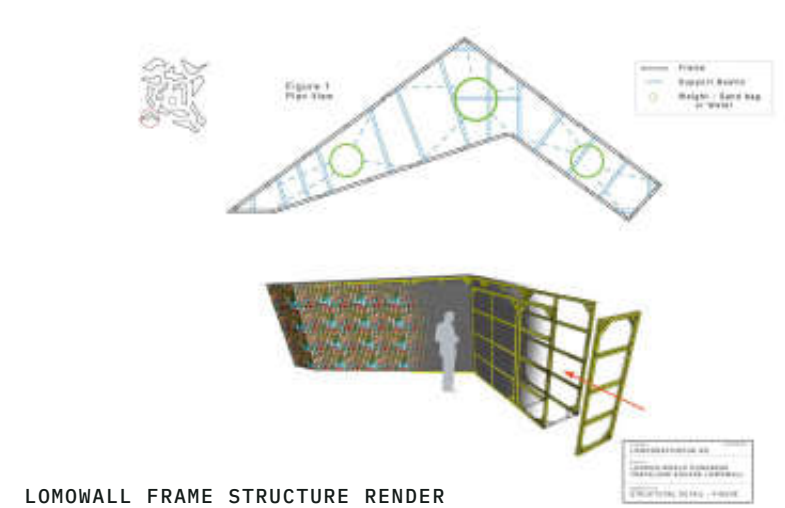
Analog, at scale. Flagship stores worldwide, a display system rolled out to 400 stores, and the LomoWall, a maze of photo walls in Trafalgar Square, London.



FLAGSHIP STORES



TRAFALGAR SQUARE MAZE



LOMOWALL FRAME STRUCTURE RENDER

Let's build it.

John Briscella

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www.amaximal.com · Brooklyn, NY