

LIAM



Liam Davis Portfolio
liammd3@gmail.com
liamdavis.is
541 968 7112

Dresser

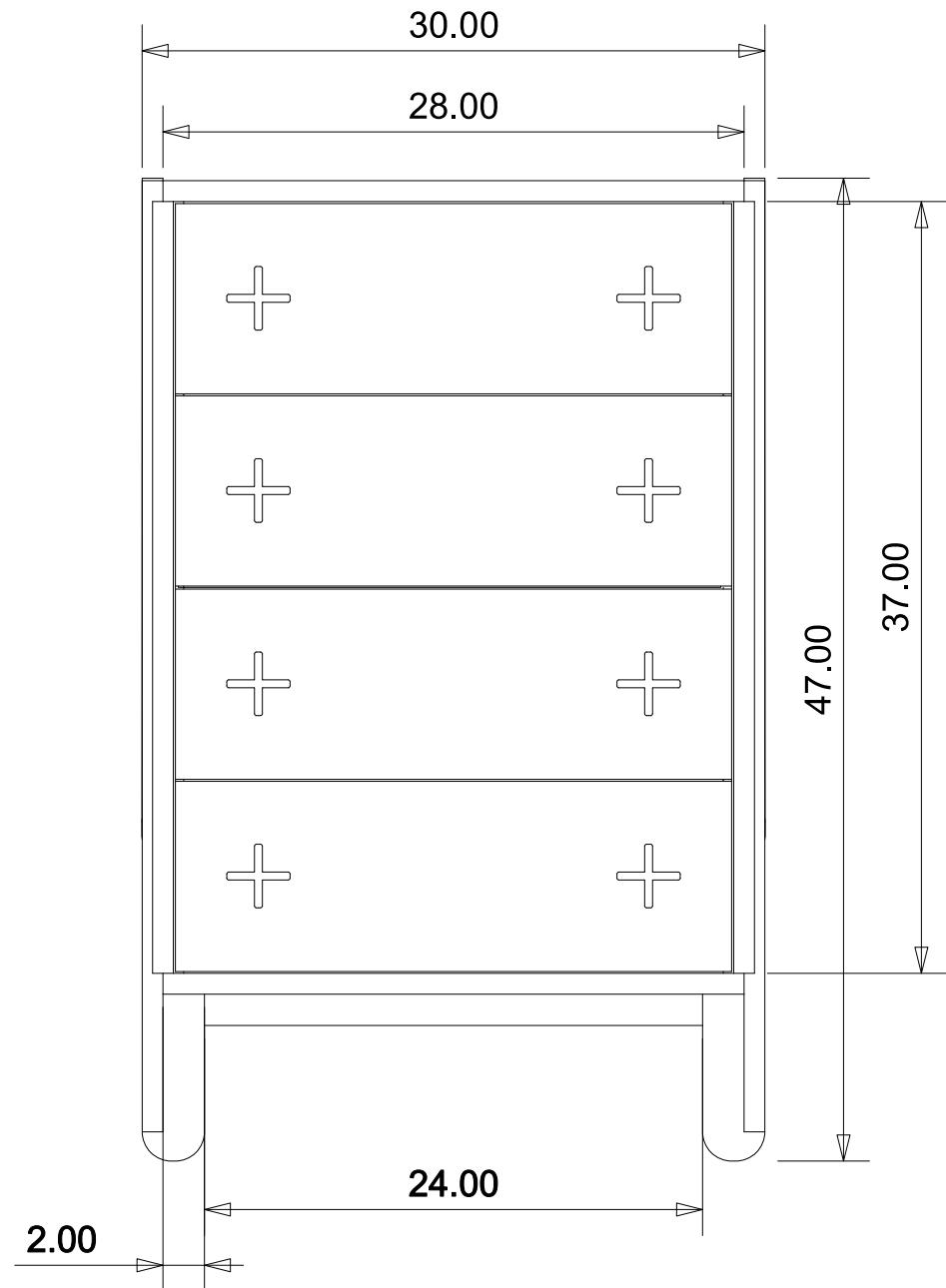
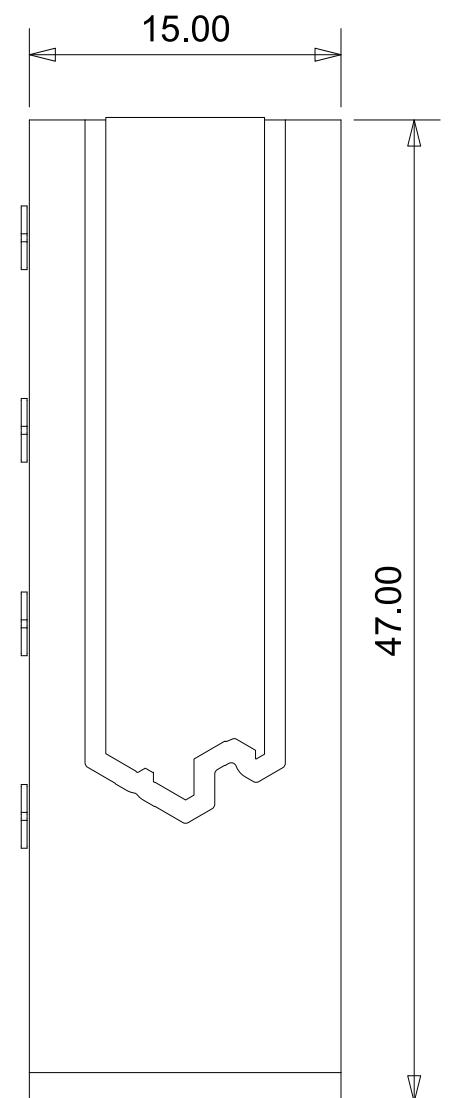
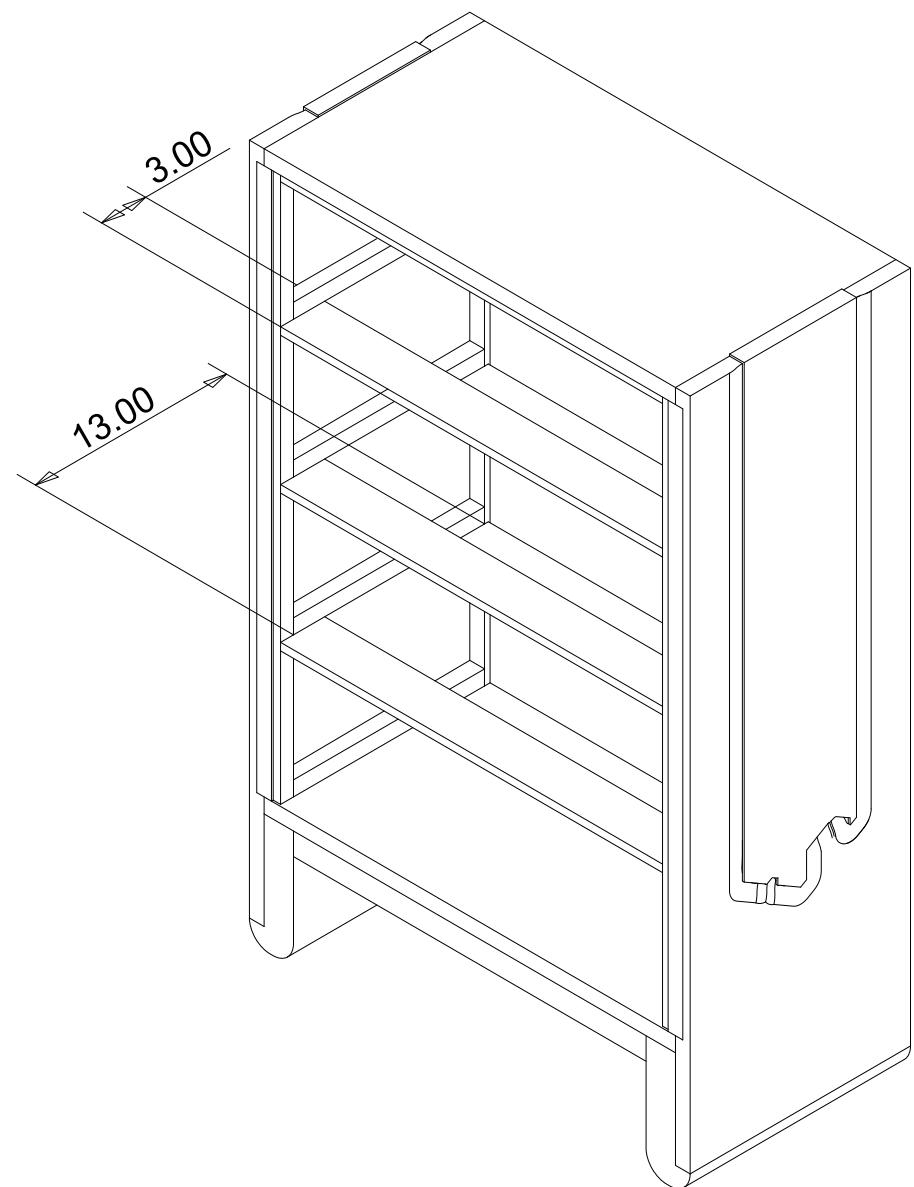
Furniture



Dresser

Furniture

2 @ 15x45.6x1
2 @ 28x15x1
2 @ 15x1.375x1
2 @ 15x8x2
6 @ 1x13x1
6 @ 28.5x3x.5
4 @ 1.5x37x1
2 @ 24x1.5x1
1@ 26x.88x.5



Solid cherry and poplar construction finished in Osmo Polyx. Steel drawer fronts, sides, and back panels all finished in a boiled linseed oil paint. Unfinished steel pulls.

Design work in Rhino/Grasshopper. The model is parametric to make iterations in variable sizes easy. Joinery and side panel pockets cut on a CNC router. Side panel decorations and drawer fronts cut on a CNC plasma. Round over for the feet done at the router table.

Nightstands/Side Tables

Furniture



Solid cherry finished in boiled linseed oil.



Upper surface in solid red oak, ebonized with a steel wool and vinegar solution, lower surface in solid white oak, both finished in Osmo Polyx. Aluminum frame with oxy-acet welded joints.

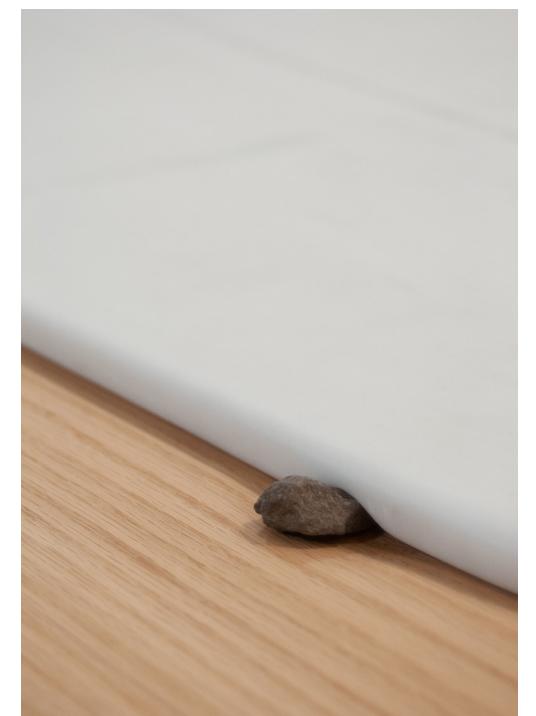
revitalize

Sculpture



Steel, salvaged marble, iron ore,
red oak, hard-wax oil
76 x 39 x 18 inches

2023



sitting

Sculpture



Salvaged marble, powdercoated steel,
red oak, hard-wax oil
18 x 18 x 23 inches approximately

2023



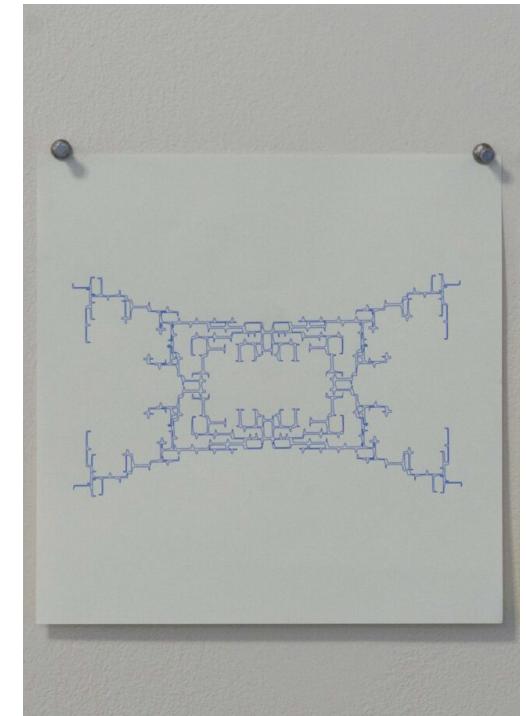
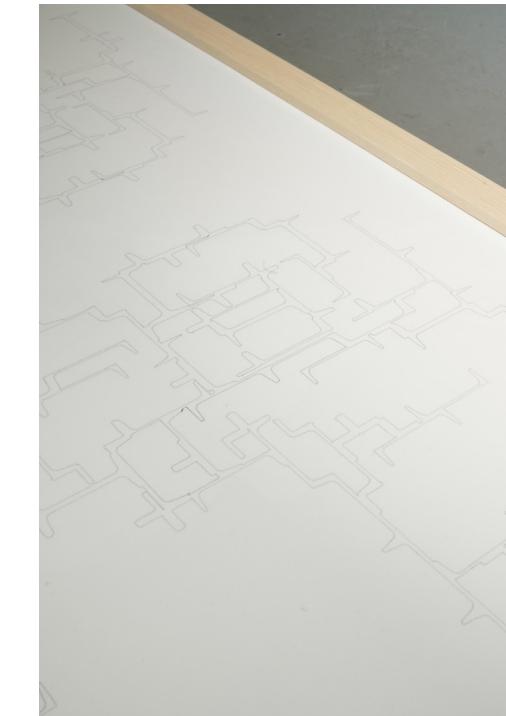
drawing for column speculation

Sculpture



Graphite on paper in an ash frame
49.5 x 61.5 x 8.5 inches

2024



Large scale algorithmically defined drawing made in Rhino/Grasshopper. It depicts of the plan view of theoretical composite columns made by riveting steel angle and C channel together. This was how some of the first skyscrapers were built before monolithic steel columns were strong enough to hold them up. The algorithm expands on this concept of composite columns, outputting a potentially infinite number of increasing complex speculative column amalgamations.

Drawn with a 4x8 cnc router with a plotting attachment.

Bailey Dome Mold



Working on a team under Ryan Hoover (center), to complete one part of the Coral Defense Project. A long term research project funded by the Bailey Wildlife Foundation involving teams across a multitude of disciplines. As a part of the Structural design team, we were tasked with the design and fabrication of the mold to cast a concrete prototype for coral habitat revitalization (pictured above). It is comprised of five identical urethane rubber panels with a central rubber core, each urethane part has a fiberglass mother mold. These layered parts are bolted together with stainless steel bolts and custom fabricated nuts. Upon its completion, the mold was shipped to Reef Innovations in Florida.



Skills

- | | |
|---------------------------|---------------------------------------|
| Rhino CAD/CAM | Custom tooling design and fabrication |
| CNC machine operation | Urethane rubber casting |
| Material research/testing | Fiberglass layup and cleanup |
| Mold assembly | Custom hardware |
| Mold finishing | Concrete casting |

Bailey Dome Mold



CAM and machine operation by me to mill the "tray" of the prototype mold for the rubber panels. One part of a two part mold. To create the mold at the scale we needed, and in order for the machine to reach all of the details, the model had to be milled in many pieces, then assembled. Polystyrene insulation foam glued together with urethane adhesive. Design by Ryan Hoover.



Bailey Dome Mold



CAD/CAM, and machine operation by me. The "lid" part of a two part mold, designed to fit the "tray" shown previously. On the following page is the Urethane cast made with the prototype mold. This model required similar slicing and post machine assembly. Polystyrene insulation foam glued together with urethane adhesive and plywood glued and screwed together.



Bailey Dome Mold



Custom made tool for cutting coral frag plug sockets into an HDU foam mold. Essentially pockets where coral fragments can be glued in to give the artificial reef a headstart. Geometry that wasn't possible to cut with the CNC router because it was an undercut. Made from heat treated tooling epoxy, cast in a rubber urethane mold.



Crump and Kwash



Mae nightstand set and highboy dresser for Crump and Kwash. Solid white oak, finished with Osmo Polyx. Taken from rough lumber to finished pieces, including lumber selection, milling, cutting joinery, assembly, sanding, finishing, and installation of drawers/hardware. Joinery cut manually at the table saw, router table, and with a domino.



All photography by me

Typeface - Sofia Pro

Made with Adobe Indesign