

# DESIGN PORTFOLIO

MAGEN KRONES

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# Magen Krones

## ABOUT ME

Born and raised in Iowa, I recently settled in Philadelphia to pursue a career in design. I began college as a computer science major but found that it was not fulfilling my need to create. I found my calling in while having my analytical and creative abilities challenged in a course called "Problems in Design." I graduated from the University of Iowa with my BFA in 3D design.

I am passionate about creating unique solutions to design dilemmas and strive to create pieces that are both highly functional and aesthetically attractive. I design with the fabrication process in mind, and research new materials and fabrication processes, because the small details of assembling a project are crucial to the overall product. Design is a powerful tool and should be used not only for its beauty, but also for its utility.

**FURNITURE**

# PARACHAIR

The cabling on bridges inspires the Parachair. I also wanted to create a chair that would simulate curling up in a cozy corner, which is why it has a narrow back. It can be used as a dining table chair or an accent chair. Complex joinery allows this chair to be assembled and disassembled with no hardware.

## Technology

- ◆Autodesk Inventor
- ◆AutoCAD
- ◆CNC Router

## Materials

- ◆Baltic birch plywood
- ◆Paracord
- ◆Tung oil and wax finish

## Features

- ◆Woven paracord seat and back
- ◆Packs flat
- ◆Hardware free assembly



# SPECIAL SPOT COAT RACK



This coat rack gathers all of your belongings into one spot. The center console has predefined spaces to catch all of one's important necessities. It makes getting out of the door easier in the morning and keeps the clutter tucked away when returning from a hard days work.

## Technology

- ◆ Autodesk Inventor
- ◆ AutoCAD
- ◆ CNC Router

## Materials

- ◆ Baltic birch plywood
- ◆ Felt made from 100% recycled bottles
- ◆ Wax finish

## Features

- ◆ Four hooks are covered in felt as to not snag jacket linings or scarves
- ◆ The center console has defined areas for a bag and other smaller belongings
- ◆ Shelving below has space for large bags or other objects that need to be kept near the door
- ◆ The bottom self has enough room for two pairs of shoes
- ◆ Packs flat
- ◆ Hardware free dowel assembly

# PUFFER STOOL



Playing with a piece of scrap felt led to the inspiration for these stools. They are to be used for additional seating at gatherings or as an ottoman, and can easily be stacked and stored away courtesy of faux tufts that align with the stool legs.

## Technology

- ◆Autodesk Inventor
- ◆AutoCAD
- ◆CNC Router

## Materials

- ◆Baltic birch plywood
- ◆Felt made 100% from recycled bottles
- ◆Foam
- ◆Batting
- ◆Square dowels
- ◆Leg plates
- ◆Hanger bolts

## Features

- ◆4 inch thick foam cushion
- ◆Faux tufts that allow for stacking
- ◆Adjustable legs for leveling



# TURNT TABLE

As a child the kitchen table was an important piece of furniture. It was a place homework, family dinner, and game nights. My apartments have not had dining rooms or adequate space while living alone. The coffee table became the designated place for these activities and more. The large size and illusion of twisting encourages guests to gather around just as they would a kitchen table. The Puffer stools provide additional seating around this coffee table.

## Technology

- ◆ Autodesk Inventor
- ◆ AutoCAD
- ◆ CNC Router

## Materials

- ◆ Baltic birch plywood
- ◆ Tung oil finish

## Features

- ◆ Packs flat
- ◆ Hardware free assembly





PRODUCTS

# GILBERT LAMP



The Gilbert Lamp is inspired by art deco sconces and a piece of quartz I found at Lake Superior. The shades are gathered through a central ring that houses the lighting units, and are held in place by small prongs. In my original design I had planned to create the shades out of a foggy acrylic. Due to time constraints I had to find a material that was easier to form. After researching several different materials yupo was the best option. This lamp is named for my neighbors who lost just as much sleep as me over the creation of this lamp.

## Technology

- ◆ Autodesk Inventor
- ◆ AutoCAD
- ◆ Laser Cutter

## Features

- ◆ Dual light sockets
- ◆ Centrally located switch
- ◆ 360° Rotation

## Materials

- ◆ Oak
- ◆ Yupo (synthetic waterproof heat resistant paper)
- ◆ Lighting kit and wiring
- ◆ Tung oil and wax finish

# CREATURE TRAY

The forms of different insects such as beetles and millipedes inspired the Creature Tray. Its large size and raised tray allows it to act as a trivet for hot dishes. The V shapes atop the legs allow for foods, such as bread or grapes, to be served along with the main dish.

## Technology

- ◆ Autodesk Inventor
- ◆ AutoCAD
- ◆ CNC Router

## Materials

- ◆ Pine
- ◆ All natural stain
- ◆ Organic Coconut Oil

## Features

- ◆ Legs to elevate the tray for hot dishes
- ◆ Tray area can fit a 9 X 13 pan
- ◆ Indents near the handles are to rest servingware



# CREATURE CANDLE HOLDER



The forms of different insects such as beetles and millipedes, that inspired the creature tray, also inspired the creature candle holders. The legs of the two candle holders are the same CNC file; only assembled in a different way to allow for the heights of the candle sticks to be staggered.

## Technology

- ◆ Autodesk Inventor
- ◆ AutoCAD
- ◆ CNC Router

## Materials

- ◆ Pine
- ◆ All Natural Stain
- ◆ Organic Coconut Oil



# BUD VASE

Plant bulbs inspire the vessel's form. It was created using the lost wax casting technique.

## Materials

- ◆ Cast bronze
- ◆ Brass rods
- ◆ Oak
- ◆ All natural stain
- ◆ Tung oil finish

## Features

- ◆ Flush wall mounting
- ◆ Watertight bronze vessel for flowers



# TRISPICE SHAKER

This spherical form, supported in a cradle, houses three chambers. One for salt, one for pepper, and one for sugar or a spice/seasoning of choice. Three twist and lock mechanisms are hidden internally, as to not interfere with the outer design, yet function to prevent cross contamination. They are easily accessed by a fourth twist and lock mechanism that is also designed to orient the holes of the shaker in the proper direction for the sphere's cradle to control the access to the contents of the chambers. I am currently reworking this piece to scale it down from five parts to only two parts.

## Technology

- ◆ 3DS Max
- ◆ 3D Printer



SPACES

# MORNING DEWMUTE BUS STOP



This bus stop is inspired by dew covered grass, and how the water droplets collect and bend on blades of grass. The main seating area is mostly enclosed to protect from the weather elements. There is an additional seating area located on the outside that is protected by the main overhang. The concrete floor is composed of interlocking circles to mimic dew dripping off the blades of grass.

## Technology

◆ 3DS Max



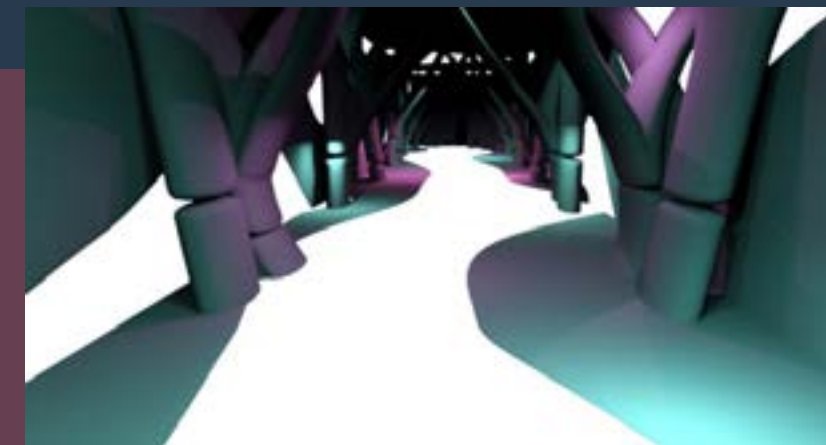
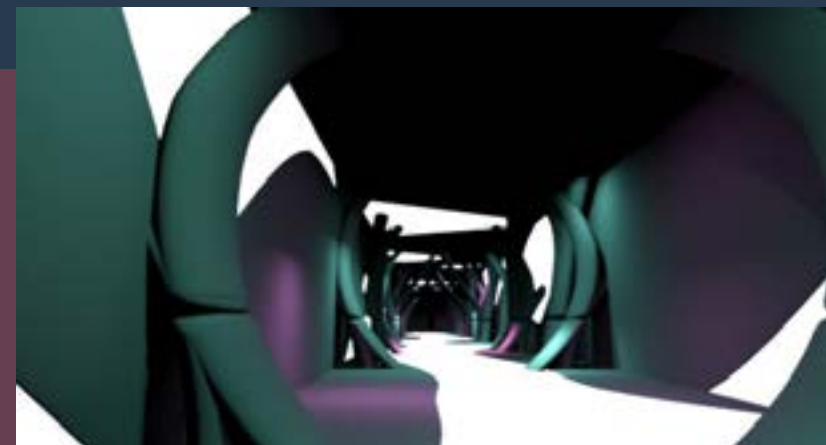
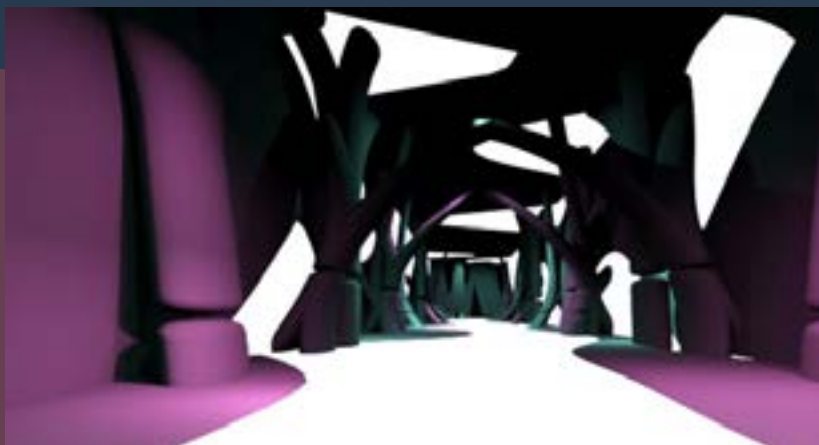
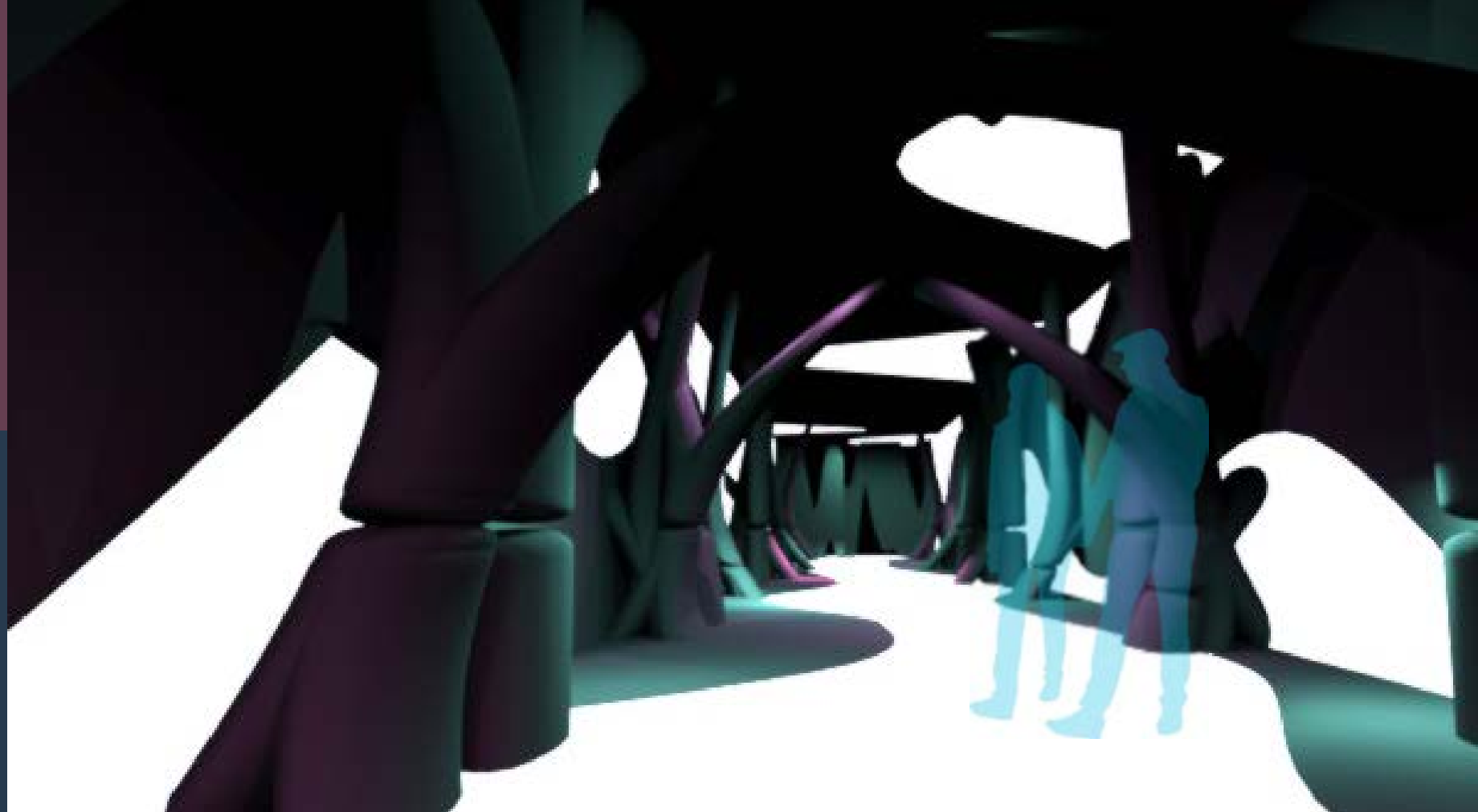


# GLOW TUNNEL

This is a 200 foot tunnel inspired by glow worm caves. It was designed to be an underground walkway to join the University of Iowa's Art Building West with the Visual Arts Building. The floor and walls are back-lit with white LED lights creating a bright path to follow. Different hues of pink and blue lighting cast an intermixing glow on the stalactite and stalagmite formations. Walls, formed by a stalactite and stalagmite inspiration, camouflage the entrance and exits but still allow people coming from around the corner to be visible.

## Technology

◆ 3DS Max



# LUMEN + LINES

Sculpture Objects Functional Art and Design Fair at Navy Pier in Chicago hosts 80 dealers, 35,000 visitors, and CONNECT, which is a student design competition. The University of Iowa participated through the direction of Monica Correia. A team of graduate and undergraduate students from the 3D design program worked in collaboration with graduate students from the Department of Theatre Arts to design and fabricate an exhibition booth that contained displays of student work, seating, and a canopy that was enhanced by a lighting design concept to simulate different times of day through different seasons. The University of Iowa tied for first place with Pratt Institute. Other Universities that competed were Illinois Institute of Technology, San Diego State University, University of Cincinnati, and University of Massachusetts-Dartmouth.





# STATE FAIR BOOTH

The University of Iowa commissioned the 3D Design program to create a booth for the Iowa State Fair which is attended by one million people each year. Monica Correia and Chuck Romans directed a team of graduate and undergraduate students in the design and fabrication. The booth was designed to showcase the academic and sports programs and create interest through innovative and interactive design. Furniture, flooring, and canopy structure were custom designed for each of the four areas. A large main area had video displays, trophy cases, seating, temporary tattoo application stations, poster bins, and an information desk. A storage space for merchandise also housed the four video displays. The Hawk Shop had custom shelving and displays for merchandise as well as a point of sale area. The final area was designed for photo opportunities with Herky, the school mascot.

