While this project is more about craft than it is product design, it represented a tremendous opportunity for me to strengthen my understanding of materials and methods - and the important connection between the two in any successful design project.

This is a traditional skin on frame Greenland Kayak with a slight modern twist. Although I followed a mainly traditional design and method, some components were substituted for convenience and sustainability. The skin for instance is polyurethane coated ballistic nylon as opposed to the traditional seal skin.

The kayak frame is constructed mainly of yellow cedar with accents of walnut and mahogany. The primary method of joinery used is lashing using waxed nylon, an artificial sinew. In the case of the ribs, they received a mortise and tenon to complement the lashings and strengthen their connection into the gunwales.

In order to shape the ribs and cockpit, I built a steamer (illustrated) that allowed for the easy manipulation of the yellow cedar into the desired shape.

Once the frame was assembled, the kayak was then skinned with the ballistic nylon. This skinning process is roughly twenty percent of the total build hours. Once the nylon was carefully placed on the overturned boat where it was measured and cut, it was a multi day process of aligning and stretching the skin before the sewing could begin.

The boat has three main seams. The bow deck, stern deck and cockpit seams. The bow and stern seams are the first to be sewn. This makes the skin relatively even and tight. Next the cockpit is attached to the skin and creates the final stretch to even out the fabric tension.

Once all stitching is completed, the kayak is soaked with water and left to dry. This process causes the nylon to permanently shrink and become drum tight before the polyurethane is applied.

At the time of submission, the kayak has had one of eight coats of polyurethane. Upon completion of this stage, deck lines will be added to comply with the Coast Guard regulations for small boats. With consideration for the product re-coat times, the estimated finish date is April 7, 2015.

This has been a fantastic project both as an opportunity for me to improve my woodworking and sewing skills, but also my design skills. The majority of the kayak is defined not by imperial or metric measurements but by sizing it to one’s own body. The overall length for instance is based upon the paddler’s fathom.

I cannot wait to take this kayak for a paddle!
This table and lamp combo I designed for my father’s new office. It was inspired by two chairs that he purchased from Restoration Hardware. They have a refined industrial look which is what I aimed for with this light and table.

The light is made from schedule 40 steel pipe and fittings which was then blackened using a specific acid for a more even look.

The table is made from MDF board for a simple clean look. In the interest of minimalist design the table top is supported by the ledger on the wall and the forward lamp base which continues through the table to the floor. The switch is a simple and clean metal on/off push button mounted on the table surface just in front of the light.

For the light bulbs I used Edison bulbs to accentuate an industrial feel.

Inserted are image exports from my Sketchup model which I used to develop the conceptual design as well as the shop drawings.
I designed and fabricated this table using a combination of cherry, white pine and walnut cleats to support the cantilevered table top at mid span.

This stair I designed using CADWork which is a specific wood joinery CAD programme. This is the primary programme that we use at Spearhead as it is designed to interface directly with CNC machines used in fabrication. This particular model was created for concept vetting as well as pricing.
Night photography has always been a passion of mine. There is something very intriguing about how you can capture far more light than the naked eye. The above photo I took while living in Sydney, Australia. I was always amazed by the stunning views of the Opera House and Harbour Bridge through the city.

Light painting is one of my favorite types of photography. The camera is set for an exposure of thirty minutes or more which allows you to move through the frame with a flashlight and paint light onto the surrounding scenery. While I generally have an idea of what I would like to accomplish, the results are never certain until the images make it onto a screen.

Both the smoking lady and the young boy I met while traveling through Myanmar in 2013. The local people that I met there are some of the friendliest people I have met in any of my travels. These photos are an attempt to capture their curiosity, friendliness and zest for life.
Through my employment at Spearhead Inc. I have had the opportunity to work on some world class buildings and homes. This residence I was fortunate enough to photograph shortly after its completion. My approach was to capture the impeccable attention to detail, materiality and flowing design exhibited through this house.
Inspired by the works of renowned ceramic artist Tam Irving, I set out to make the ultimate lemon squeezer.

To simplify the process and allow for consistently achievable results, the lemon squeezer was separated into two components, the squeezer head and the vessel that it nests within. This separation allowed for the consistent and timely production of the squeezing apparatus.

Broken into steps, the production is as follows:

1. A cone shape is thrown on the wheel and set aside until it is at the leather hard stage. It is then given its peaks and valleys that define it as the squeezer head.

2. This squeezer head is then cast into plaster to create a mould. For my mould I used the bottom of an empty bleach bottle. Once the plaster has set the clay can be removed.

3. Once the mould is established and has had time to cure it can be centered on a potter’s wheel where clay is packed in. The wheel is then spun and the clay worked in further. This allows for a thrown appearance on the bottom of the squeezer.

4. As the squeezer head sets, a bottomless pot can be thrown with the bottom opening the exact size of the squeezer head to allow for attachment later on.

5. Once both components are leather hard they can be joined together.

Lemon squeezers are a great thing to make and are relatively quick. Having the mould made from plaster helps speed things up, as the plaster quickly absorbs moisture from the clay.
I have always really enjoyed Ceramics. It is a fantastic medium to experiment with form and design, while also having motives driven by functionality. All of the ceramics in this portfolio have been trimmed using trimming tools that I make myself. I construct these out of hack-saw blades which allow for a more customizable result as well as unique textures such as the chattering on the upper right tea bowl.