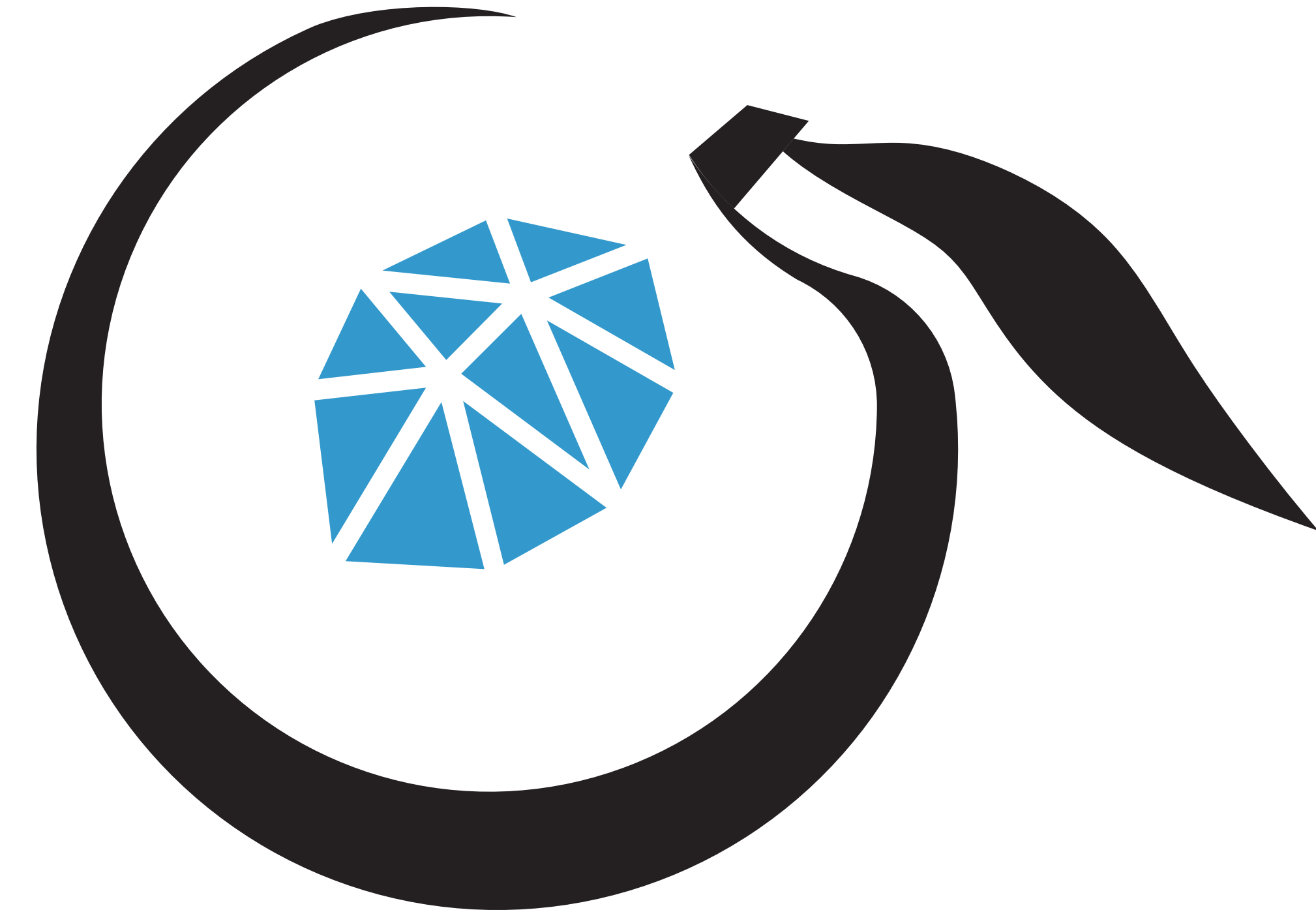


Teddy Peacher

Industrial Design Portfolio



Peachsmith

Market Research

MARKET PLACEMENT

- Range of prices from \$5 to \$1000+ including mass produced and custom pieces
- Tactical = Function over form using quality materials
- Artisan = Form embellished with secondary textures/unique materials
- PEACHSMITH priced in higher end with focus on an artisan look

Artisan



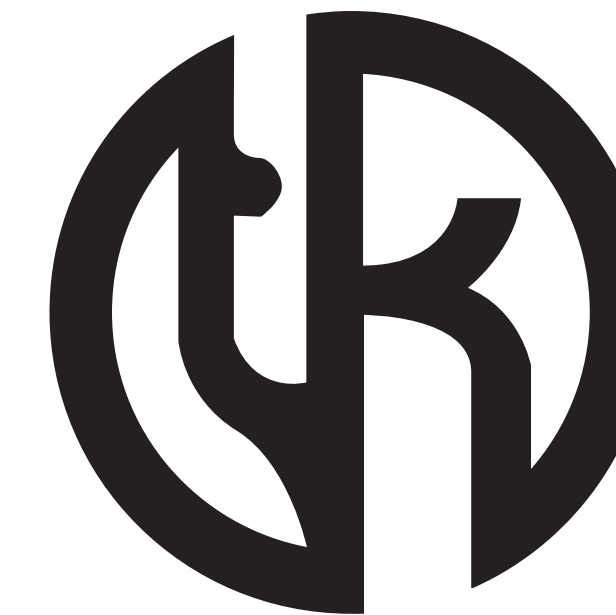
Production

- Slowly decreasing market
- High Volume Production
- Interchangeable parts
- \$10 billion industry
- Some hand-tuned
- Sold by retail

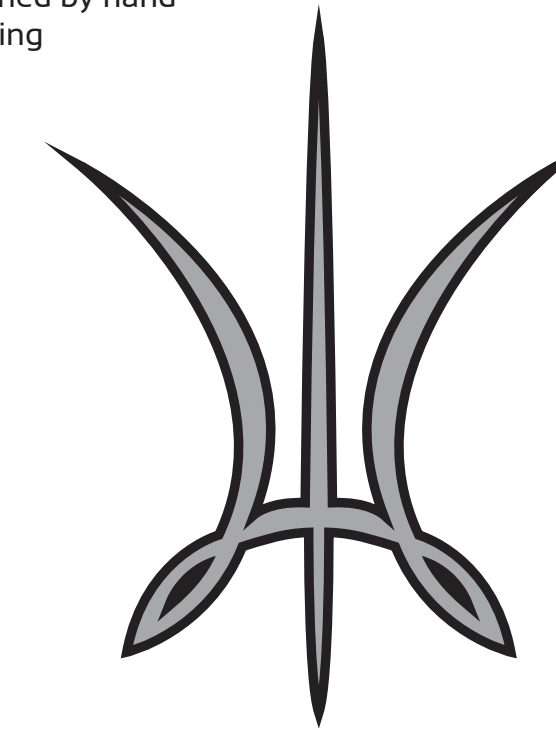


Custom Maded

- Growing industry
- Low Volume Production
- Individualized finish
- Each piece with its own story
- Made and tuned by hand
- Heavy branding



Tuff Knives



Tuff Knives

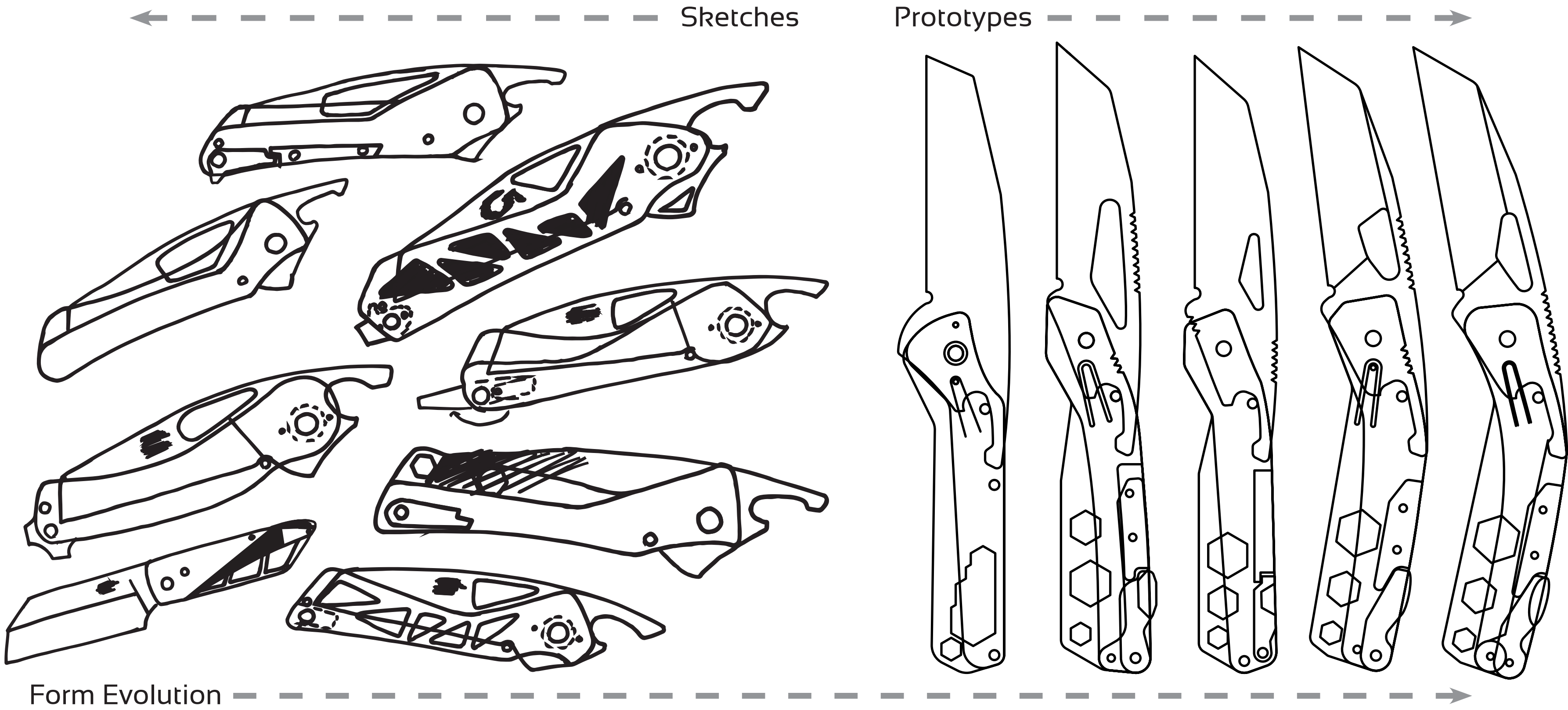
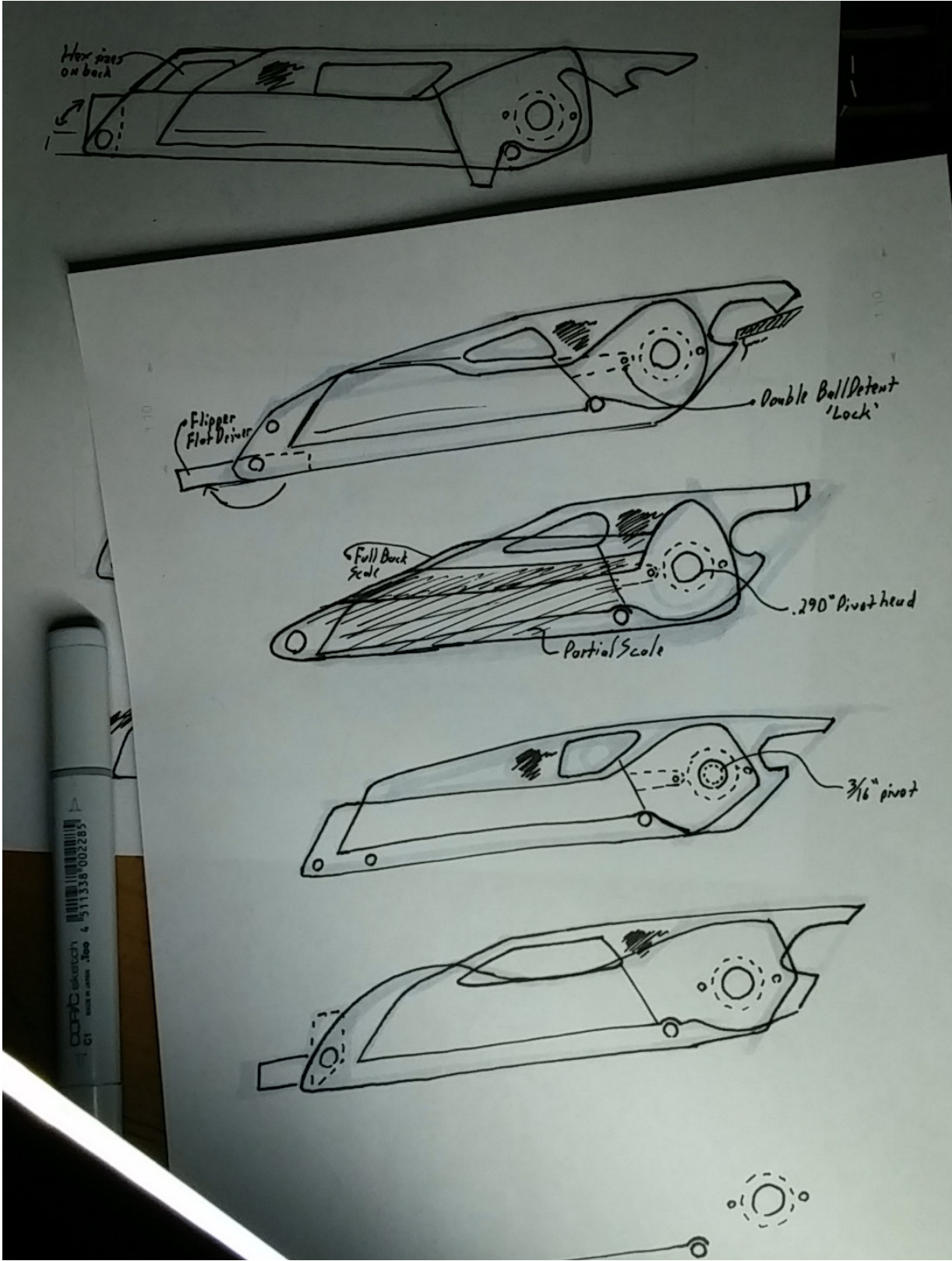


Woods Bladeworks

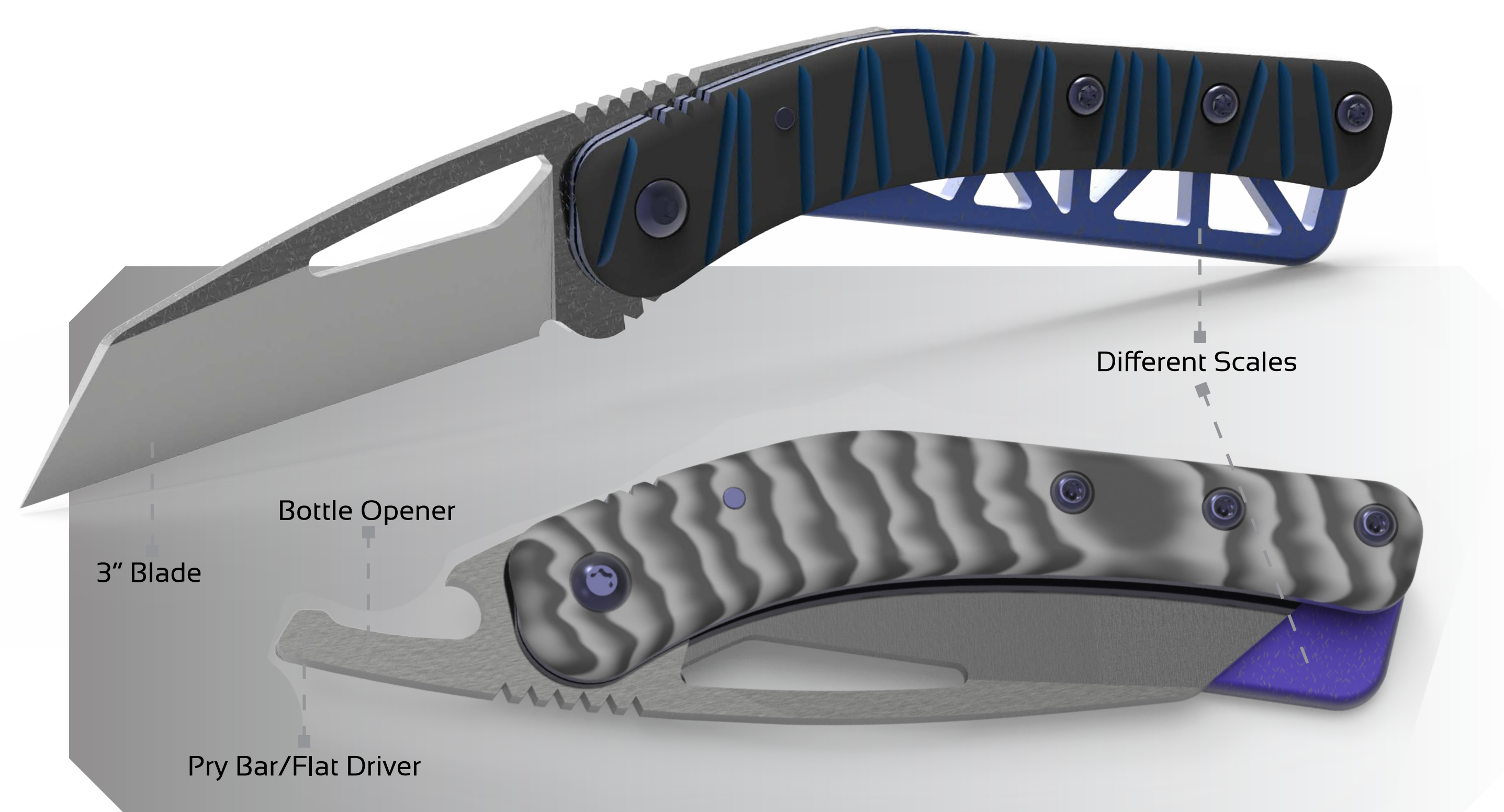


Serge Knives

Ideation



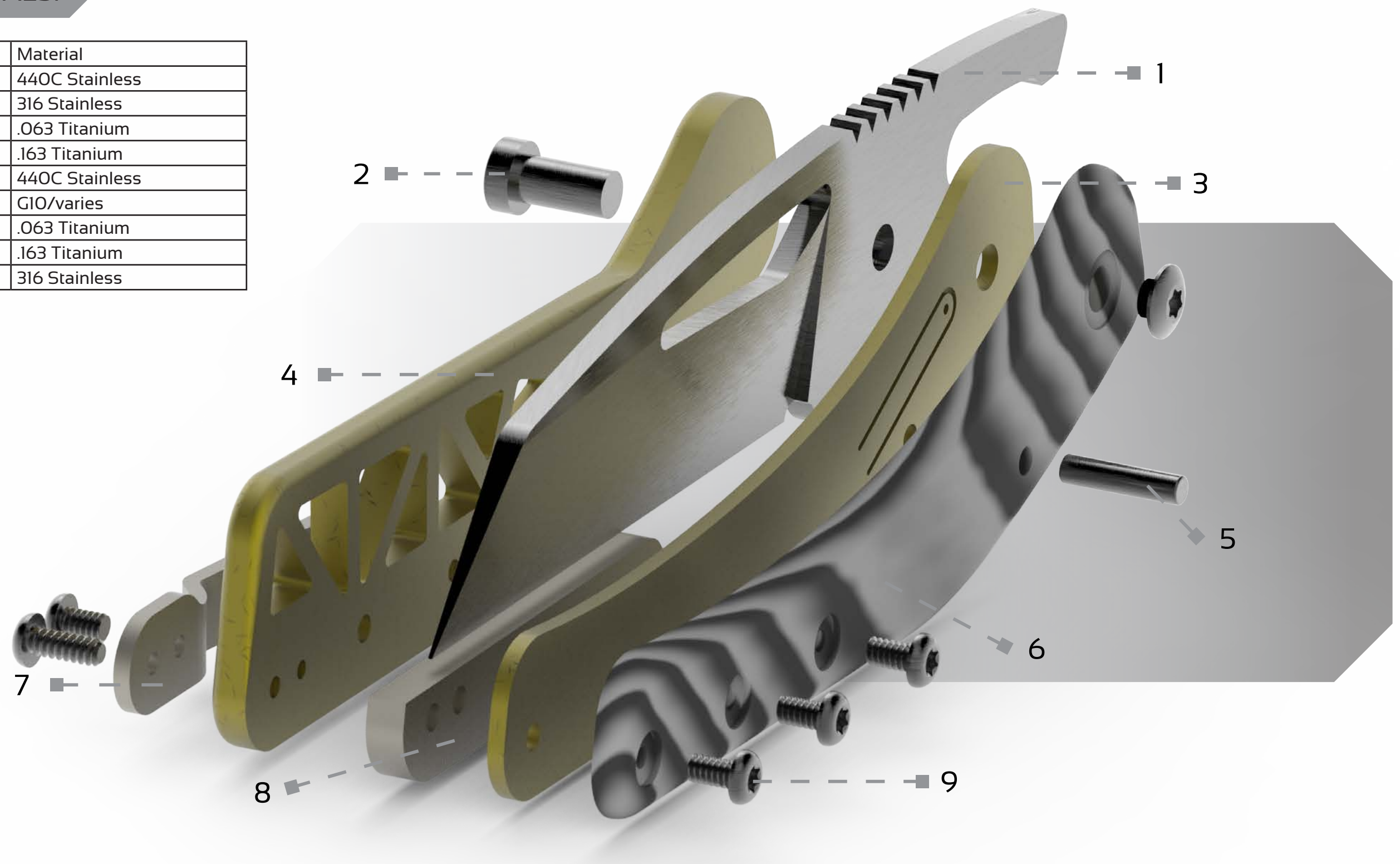
The Chimera



Knife Break-down

BILL OF MATERIALS:

#	Part	Material
1	Blade	440C Stainless
2	3/16" Pivot	316 Stainless
3	Front Liner	.063 Titanium
4	Back Scale	.163 Titanium
5	Stop Pin	440C Stainless
6	Front Scale	G10/varies
7	Pocket Clip	.063 Titanium
8	Backspacer	.163 Titanium
9	4-40 Screws	316 Stainless



Prototype(s)



Parts cut with water jet



Blades profiled and filed



Primary bevel done on grinder



Blades shipped out for treating



Machining of counterbores



Scales profiled and filed



Fronts in G10 profiled



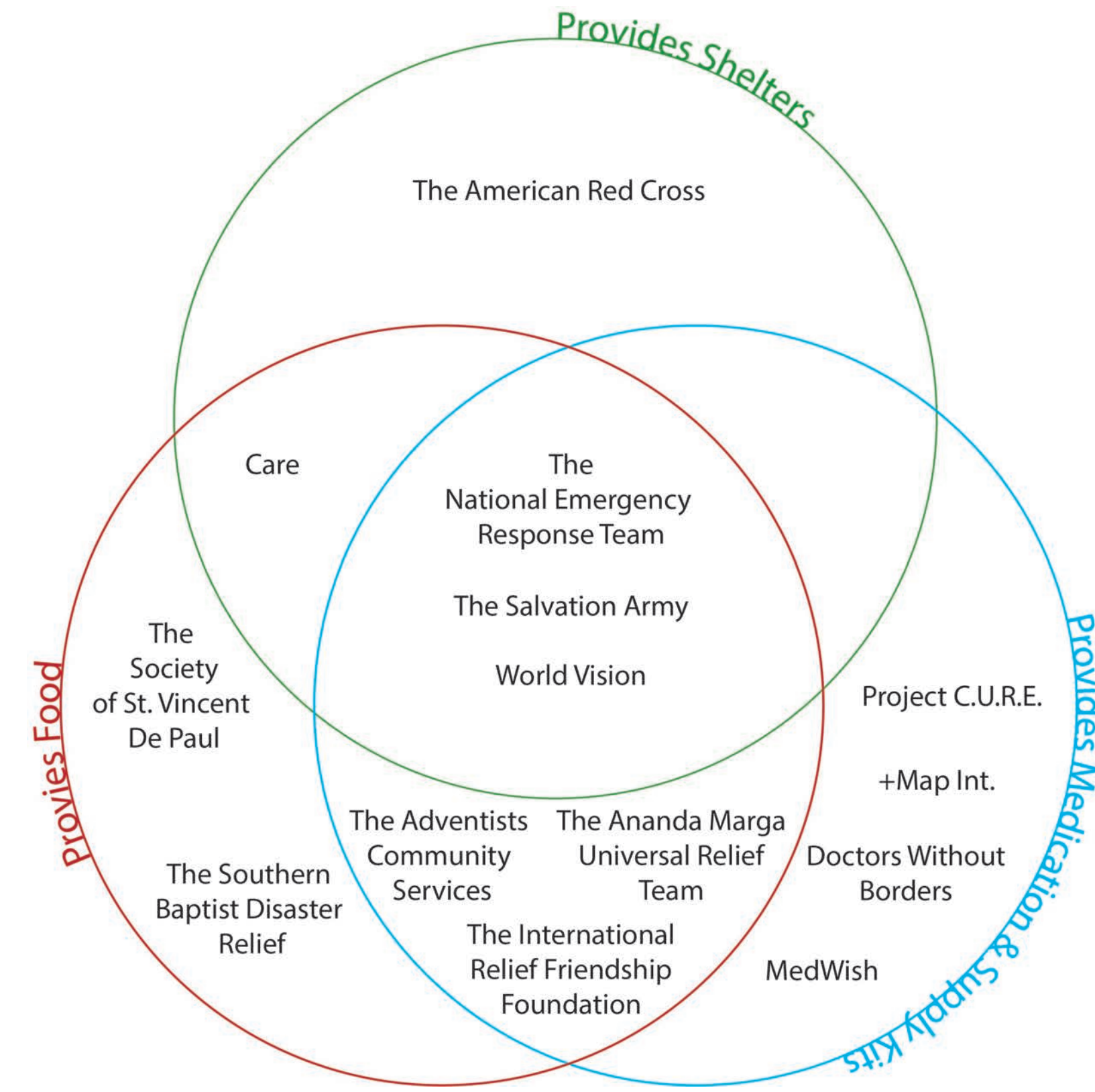
Heat anodizing with torch





Carapace Shelter Systems

Relief Organizations



Case Studies

■ **Sumatra Tsunami**
December 26, 2004
Sumatra, Indonesia

Overview:

- 9.1 magnitude earthquake = 1300 km long tsunami
- 50 meters tall wave
- Reached 5 km inland
- Affected 18 countries around the Indian Ocean

Devastation:

- \$10 billion damaged
- 230,000 reported deaths
- Thousands homeless



■ **Hurricane Katrina**
August 23-30, 2005
US Gulf Coast: New Orleans

Overview:

- Organized relief prepared
- Evacuation problem:
 - Lack of transportation
 - Refusal to leave

Devastation:

- \$460 million damaged
- 14 dead
- Refugees still displaced

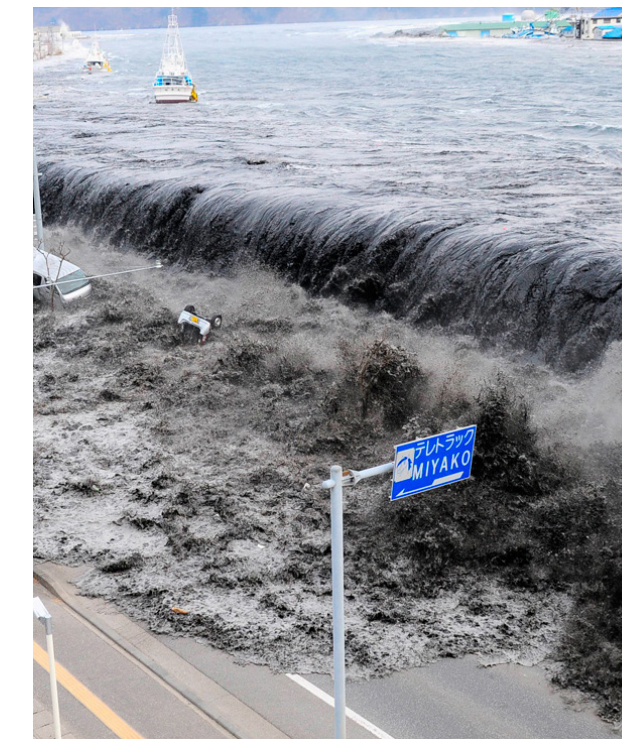
■ **Typhoon Fengshen**
June 17-26, 2008
Hong Kong, China, Philippines

Overview:

- Affected Philippines, South China, & Hong Kong
- Maximum sustained winds were near 140 km/hr

Devastation:

- Philippines
 - 229 killed.
 - 143 houses damaged.
 - Thousands homeless
 - \$12.6 million in agricultural losses
 - Cruise ship capsized, 800 missing
- South China
 - 17 killed & 7 missing
- Hong Kong
 - Few injuries, no casualties



■ **Japan Tsunami**
March 11, 2011
North Pacific Coast, Japan

Overview:

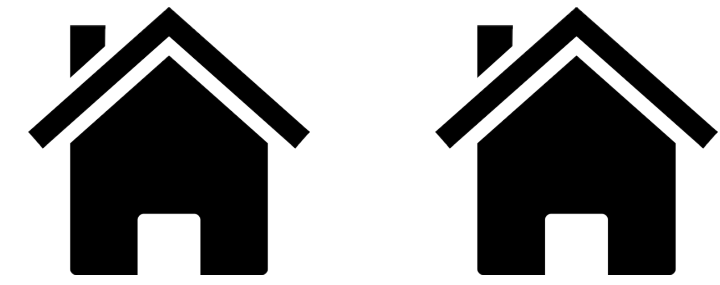
- 9.0 magnitude earthquake off northeastern coast of Honshu, Japan
- Reached 800 km/hr
- 33 feet tall wave

Devastation:

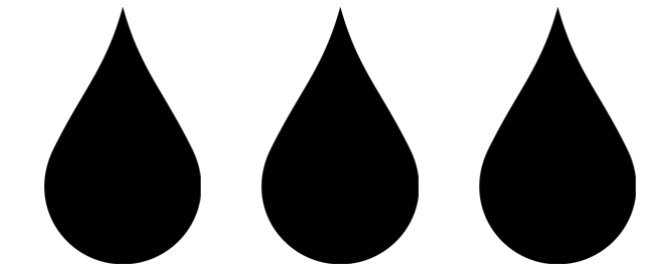
- \$235 billion damaged
- More than 18,000 people dead
- Thousands of people were missing

Findings

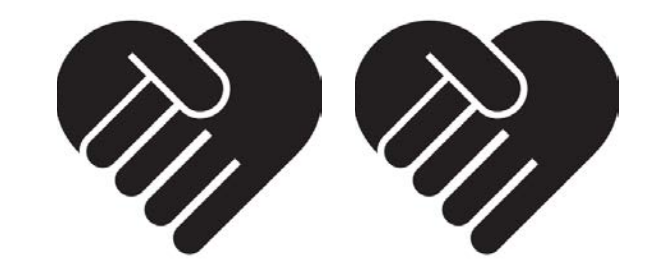
Focus on:



Need for Housing



Safe Water



Ability to Rebuild



Fast Deployment

Existing Shelters



Ex-Container Project



Ablenook



Quick Hab



Shelter in a Day



Shelter Box

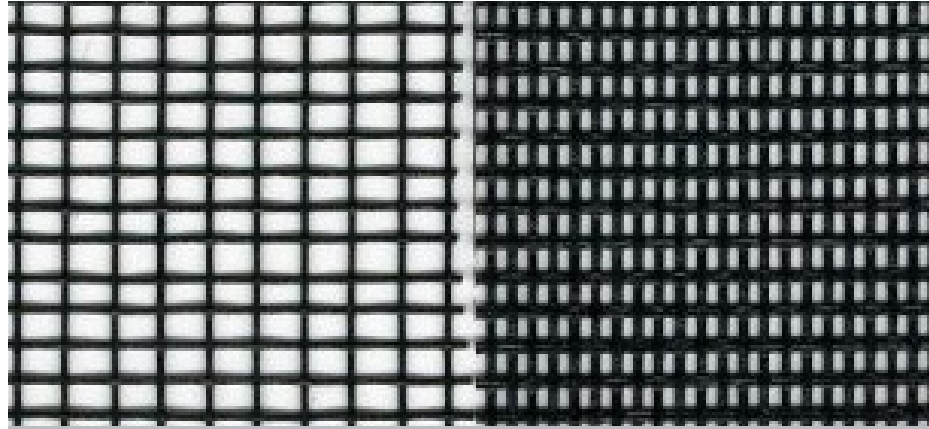


Shelter Systems

Material Research



Upcycled Polyester Sailcloth



No-See-Um Mosquito Mesh



7075-T9 Aluminum Alloy



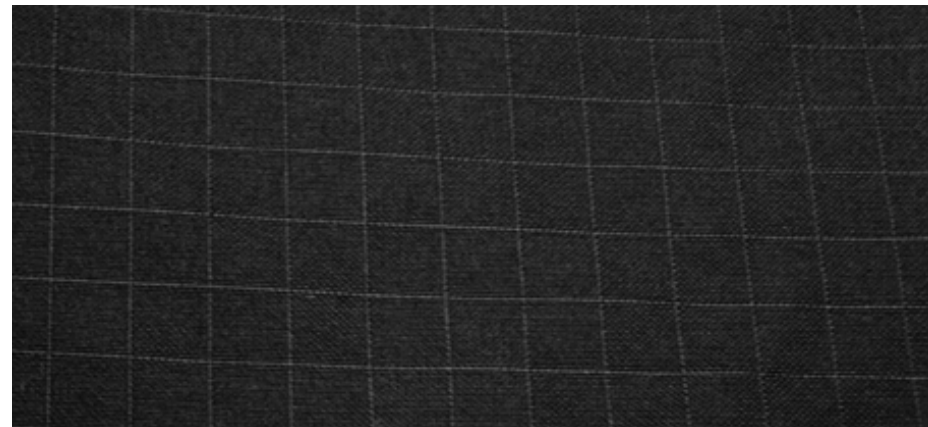
Upcycled Polyurethane Truck Tarp



Clear Vinyl



Composite Carbon Fiber



Ripstop Nylon

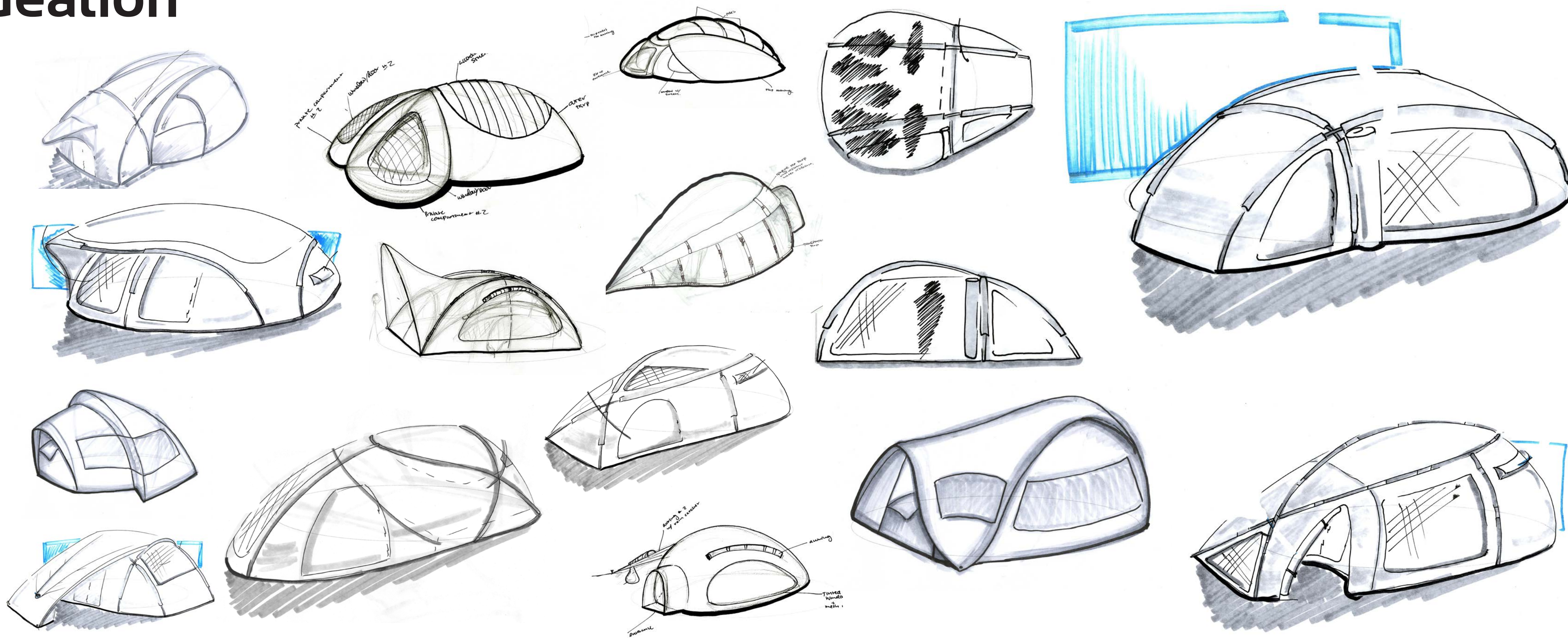


Reflective Vinyl Highlights



Elastic Shock Cord

Ideation



Small Scale Volume Study

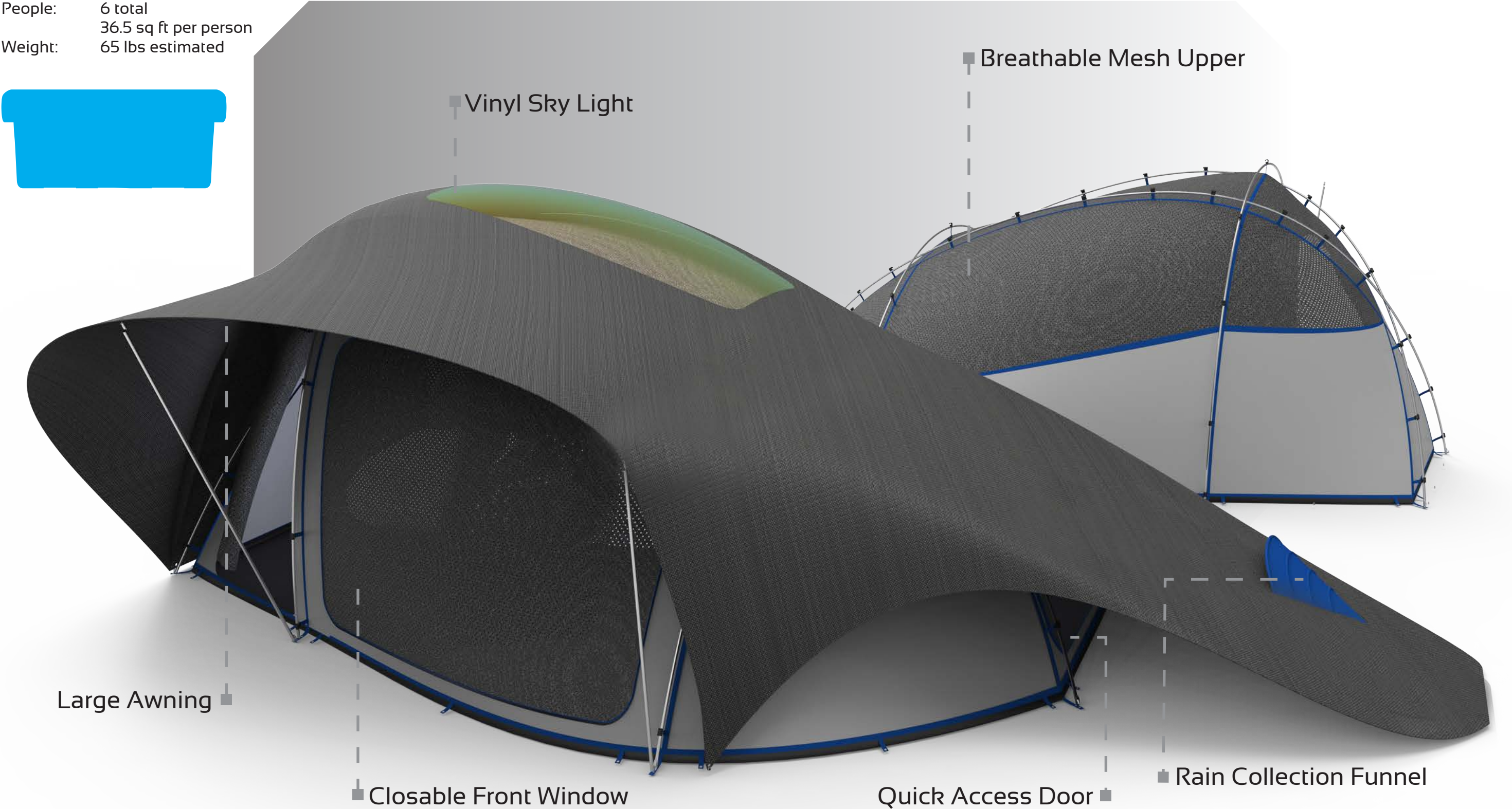


Full Scale User Testing



Carapace Shelter

Size: 20' x 16' at widest
People: 6 total
Weight: 36.5 sq ft per person
65 lbs estimated



Extra Configurations

MEDICAL TENT



GREEN HOUSE



The System

INSIDE THE BOX

Basic Needs:

- Thermal Blankets
- Space Blankets
- LifeStraw Water Filter
- Dual Fuel Stove
- Cookware set of 3
- Compact Utensils
- Compact Tableware
- Water Containers
- Dry Sack
- Fire Starter

Tools:

- Pocket Multi-tool
- Axe
- Saw
- Hammer
- Shovel
- Plier Set
- Wire Cutter
- Hoe Head

Extras:

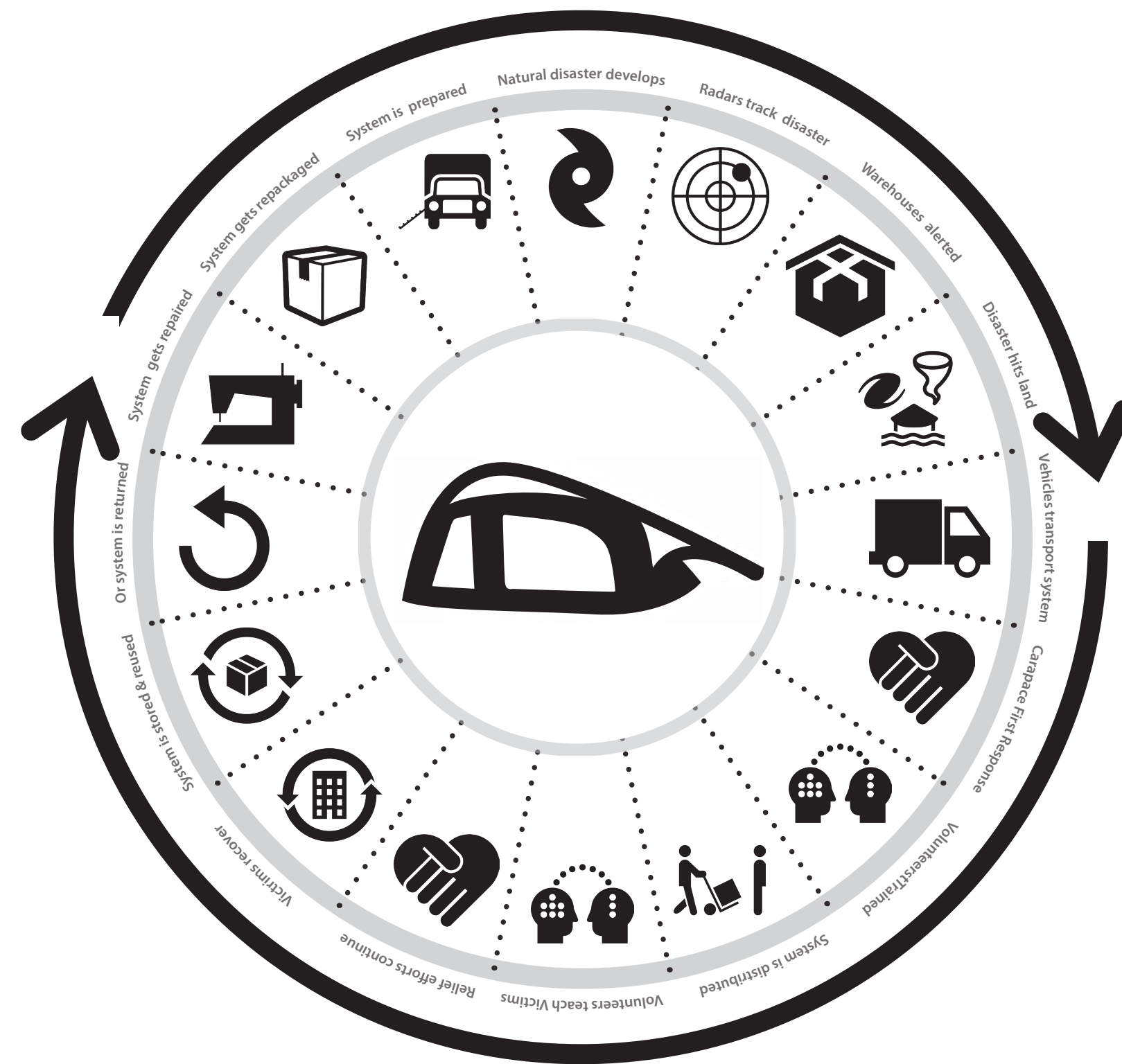
- Emergency Poncho
- Solar Flashlight
- Paracord
- Ziploc Bags
- Puzzle/color Books
- Crayons

Total Cost:
\$600 Estimate

Cost Per Box:
\$1400 with shelter



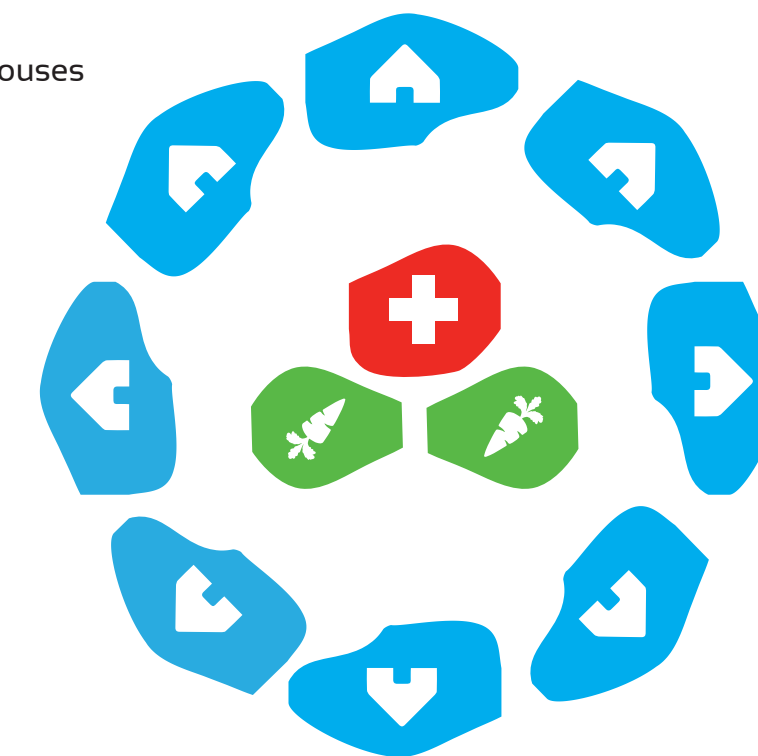
LIFE CYCLE



CAMP LAYOUTS

Community Layout

- 8 Shelters
- 1 Medical
- 1-2 Green Houses



Grid Layout

- 8-12 Shelters
- 1 Medical
- 1-2 Green Houses



TRANSPORTATION

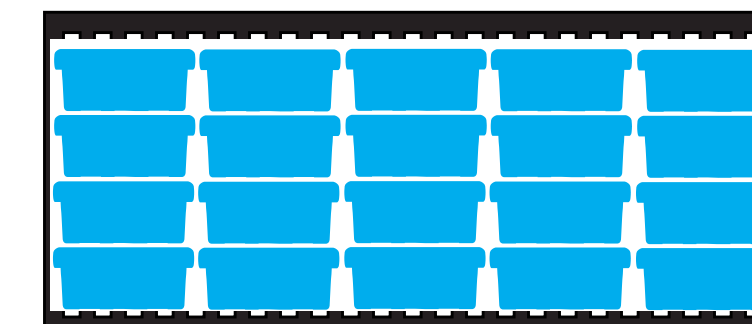
By Land:

- 17' Truck = 24 boxes
- 20 shelter + 4 other
- Houses 160 People



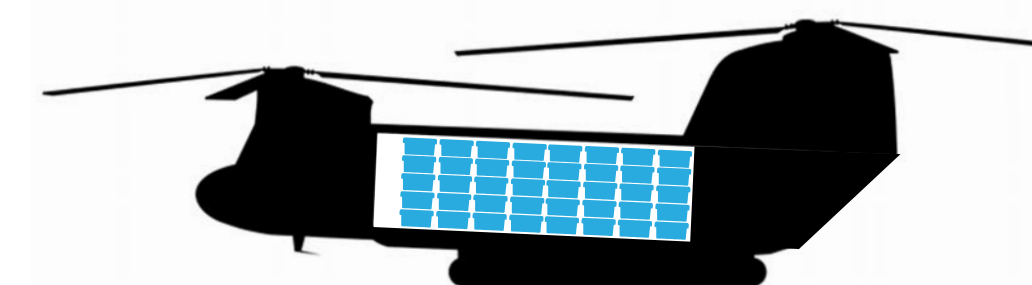
By Sea:

- 20' Container = 40 boxes
- 32 shelter + 8 other
- Houses 256 People

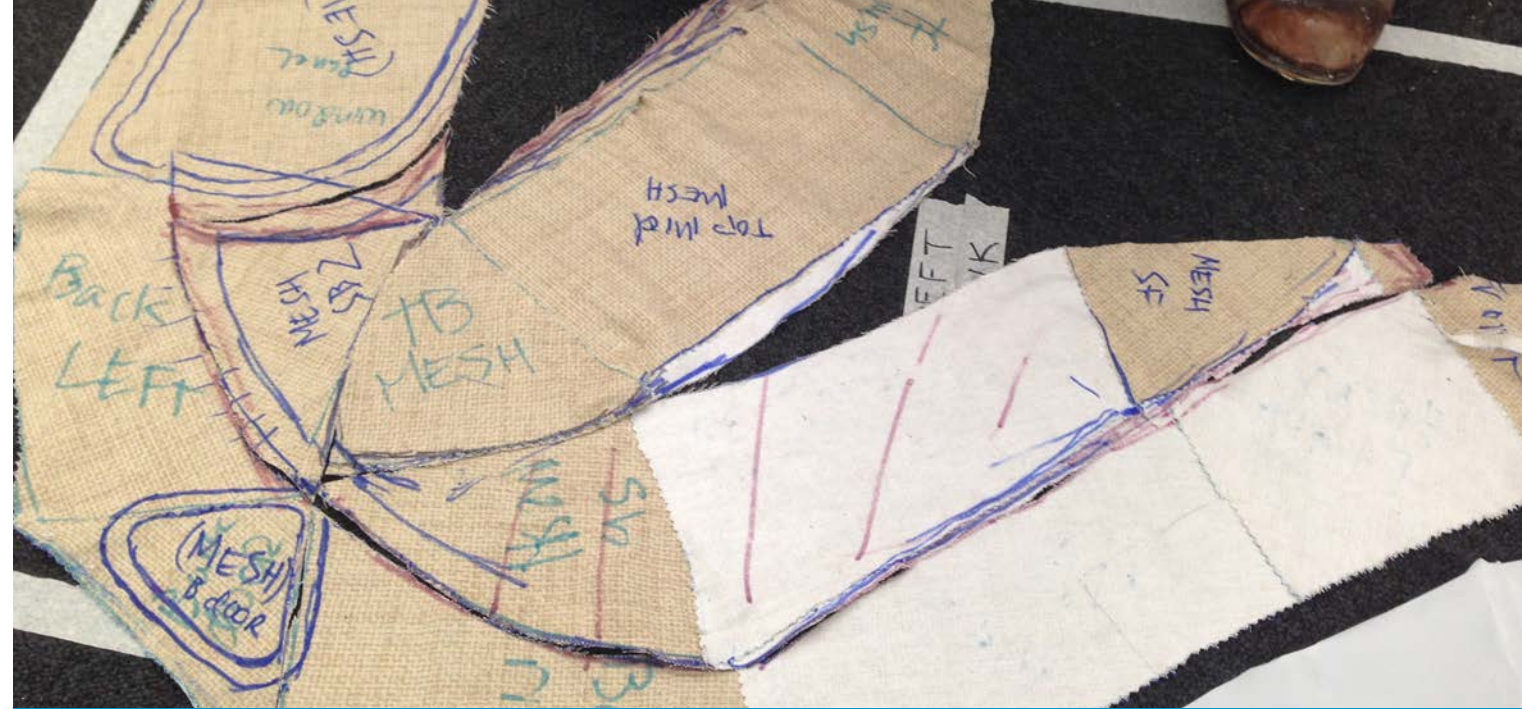


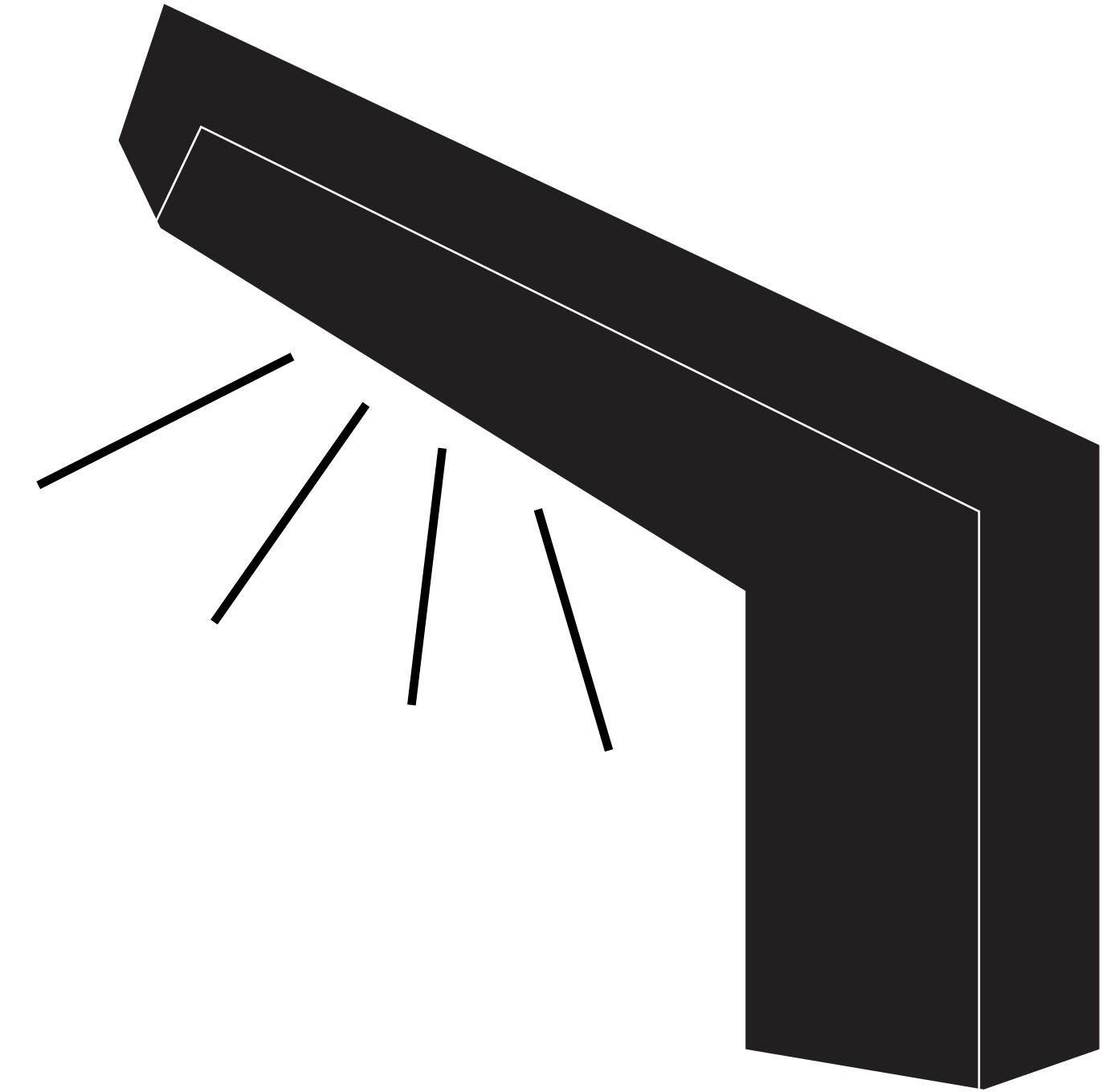
By Air:

- 20' Helicopter = 80 boxes
- 40 Inside + 40 Carry
- 64 shelter + 16 other
- Houses 512 People



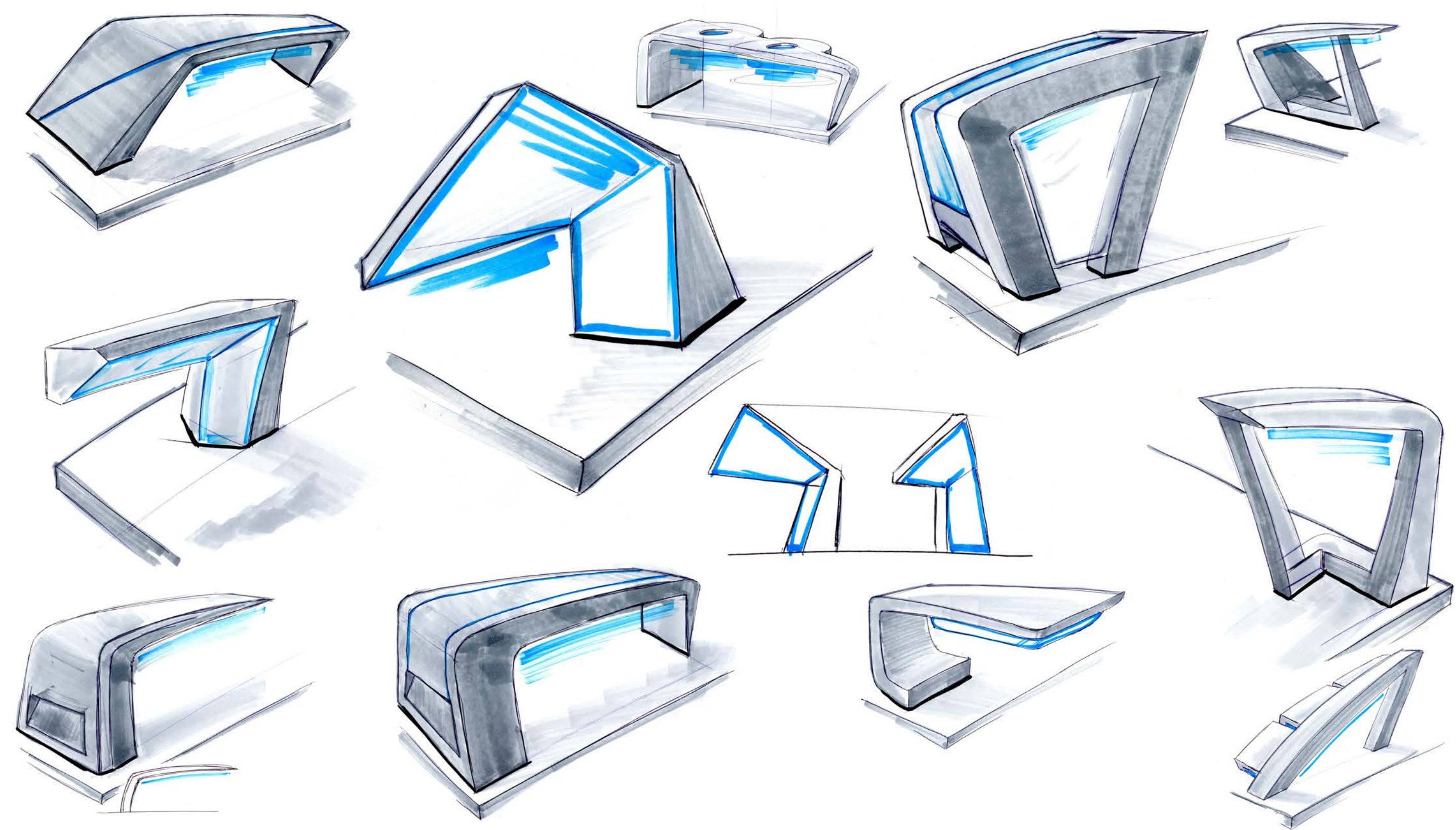
A tortoiseshell cat is peeking out from inside a white paper shopping bag. The bag is sealed with blue tape. The word "Front" is printed on the bag, and "SF" is visible on a flap. The cat has a red collar with a tag.





EDGE-Line Touch Lamp

Ideation



Sketch Models



Prototype



.0625 in. bent aluminum sheet



Foam added to base



Added counter-weight



Preparing for paint



Components wired under PETG cover



Masked off and painted with automotive grade gloss



Full Aluminum Side/Switch



Relief Accent



LED Lighted

