

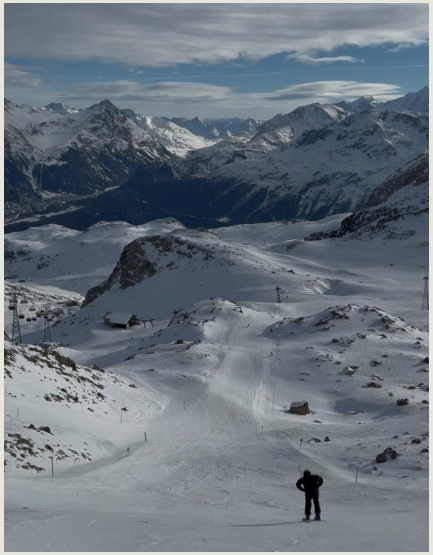
# Lancillotto e Bradamante

**Mari Zampa | ME103 | Sprint 2026**

# Introduction

- Grew up skiing in Switzerland
- Inspired by traditional decorative wooden ski poles







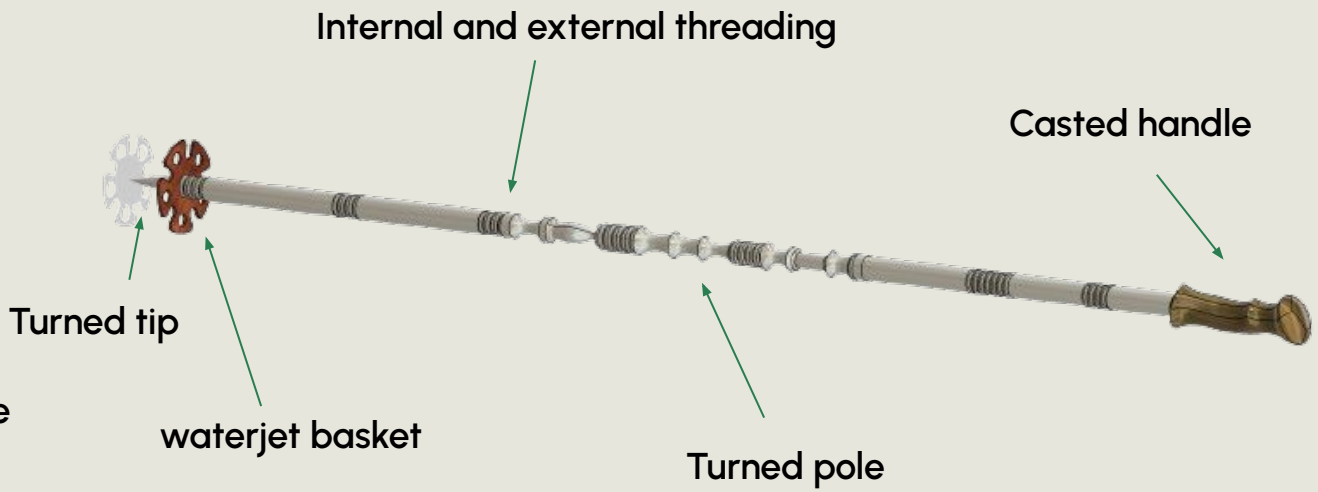
## Design Intent and function

- Designed for the outdoor spaces of a mountain home
- Focused on simple, beautiful design
- Brushed aluminum finish to reflect use and memory



# CAD Ideation

- Started with general sketches
- Measured existing ski pole geometry
- Prototyped to validate the concept

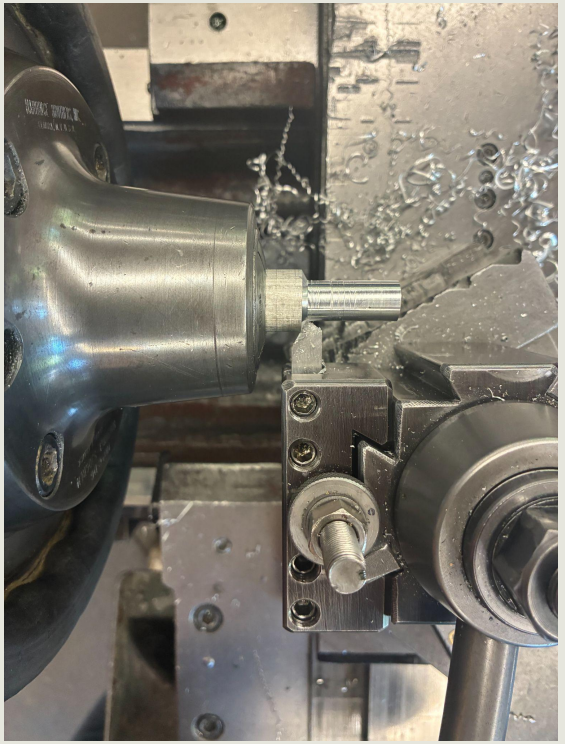


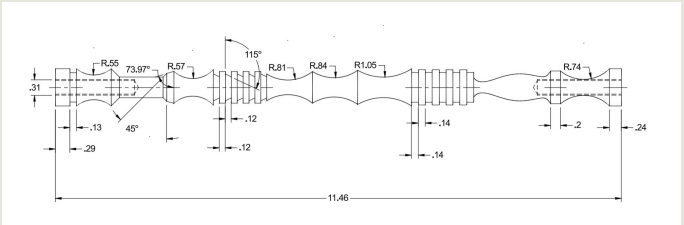
# Fabrication

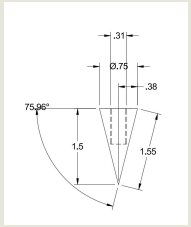


## Turning








dimensioned drawings

# Casting





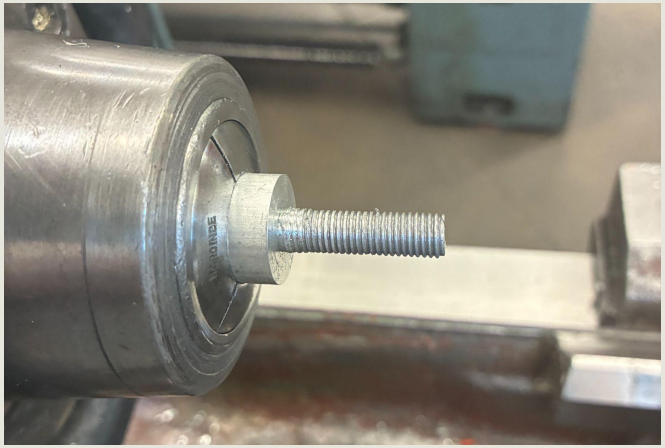




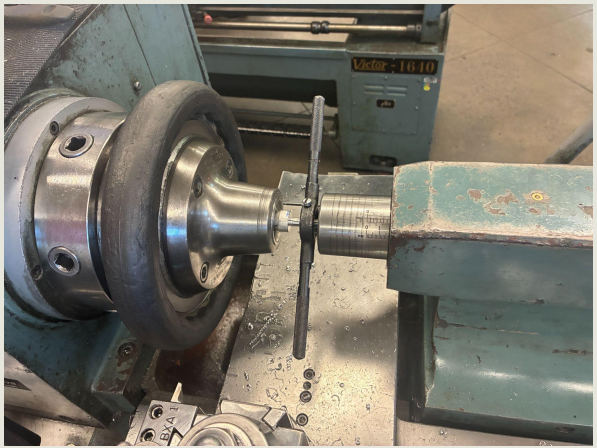




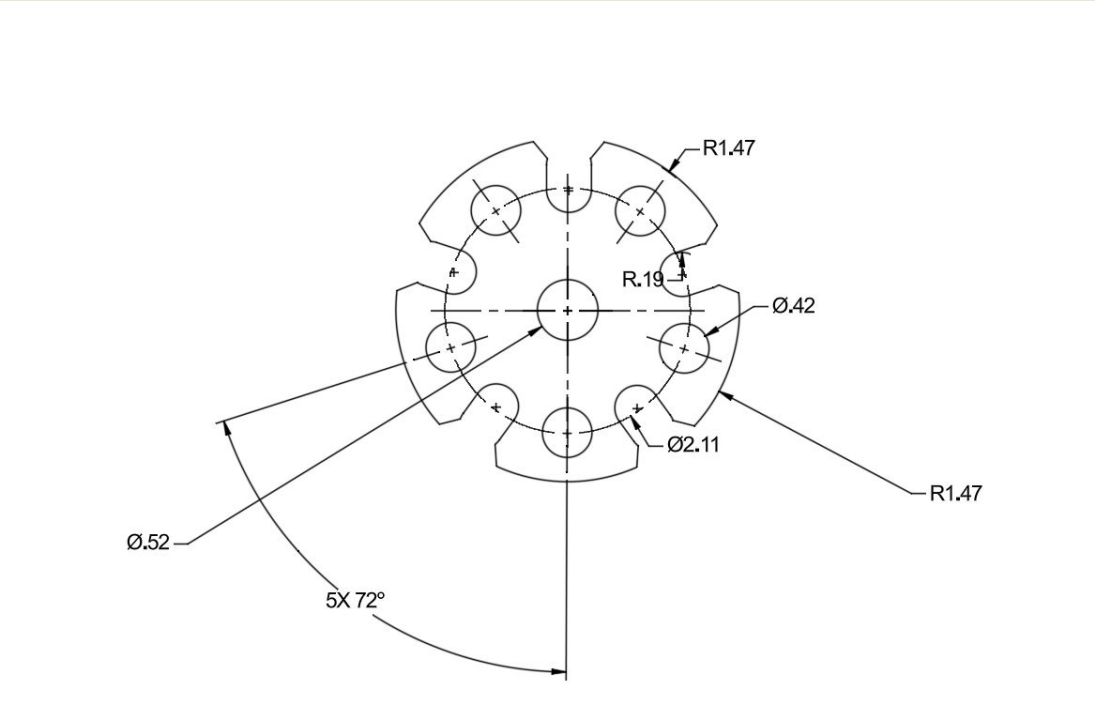
# Milling and threading





# lasercut






# Finishing



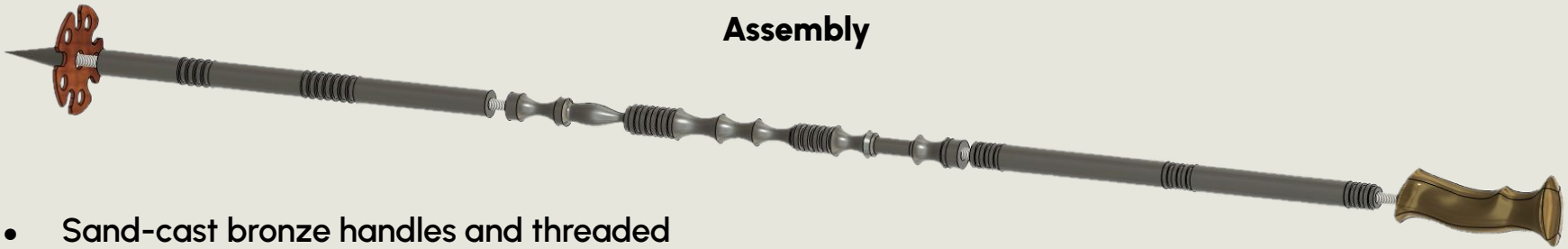



Bead blasted vs 120-grit sanded



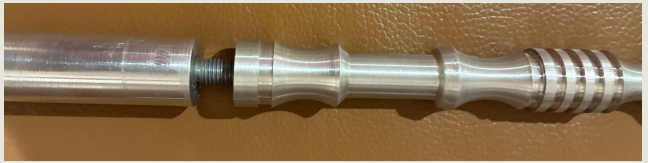


Brushed bronze finish



## Assembly

- Sand-cast bronze handles and threaded them onto the pole.



- Turned three pole sections with decorative features and threaded connections.



- Machined a tapered ski pole tip.

- Laser-cut a wooden basket and clamped it between the pole tip and shaft.

# Reflection

- Learnings:
  - Ask questions early
  - Mistakes taught me the most
  - Sequence of operations matters
- Overall:
  Very happy with the result and enjoyed the process. This class strengthened my interest in hands-on engineering.




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