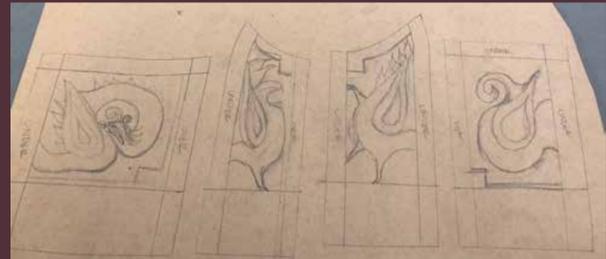


# Dali Kingdom Leather Tooled Armor



Original Artifact from The Metropolitan Museum of Art

The first step included creating a pattern that would flatter a woman's body, rather than the original that was meant for a man. A vinyl fabric was used as a mock-up to try to imitate the leather and was helpful in establishing seam/style lines. The bottom portion of the armor was shortened as well to fit the proportions of the model.



After the pattern was complete, the design was sketched out on the pattern pieces inspired by the original. After transferring the designs to the leather pieces, the tooling began. Using both a razor and rounding tools the outlines of the design were created. All of the scales were done with a 3d printed tool (see other slide).



This hip and torso armor is based on an artifact in the Metropolitan Museum of Art from the Dali Kingdom, now known as Yunnan, China. This lacquered leather armor was meant to be worn with other armor pieces to protect a man. The focus of this project is to use different technologies, both modern and traditional, to create a wearable piece of armor.

As soon as the leather was tooled it was then sprayed with water so that it was malleable and secured on a dress form. Wrapped with muslin and placed in front of a fan it dried for over 15 hours.



The pictures to the left show the progression of the painting process. With a mixture of leather dyes the red layer was applied first, and the dragon was masked before applying the black acrylic paint. The black acrylic paint was applied with a rag to the edges as well once the masking was removed.

Task	Time
Planning and Sampling	9 hrs.
Pattern	8hrs. 45 mins.
Shaping	1 hr.
Washing Tiles	1 hr.
Tooling	7 hrs.
Cutting	2 hrs. 10 mins
Dyeing and Painting	6 hrs. 30 mins
Lacing and Punching Holes	5 hrs. 5 mins.
3D Print	1 hr. 30 mins
Laser Cutting	2 hrs. 30 mins
Total	~45.5 hrs.

## Time and Materials

- Material List:**
- 1.5 hydres of Veg. Tanned Leather
  - ~18 yds. Leather Lacing
  - Scarps of medium weight leather
  - Leather Dye
  - Black Acrylic Paint
  - Tooling Stamps
  - Exacto Knife
  - Roatery Cutter
  - File
  - Tweazers
  - Toothbrush
  - Barge
  - Plumbing Nipple rod
  - Nipple Cap
  - Plumber's tape

